Measure M Taxpayer Oversight Committee
550 S. Main Street, Orange CA, Room 07
October 10, 2017 @ 5:00 p.m.

AGENDA

1. **Welcome**

2. **Pledge of Allegiance**

3. **Approval of Minutes/Attendance Report for August 8, 2017**

4. **Action Items**
   A. Annual Eligibility Review (AER) Subcommittee Eligibility Report FY 17-18
      Presentation – Eugene Fields, AER Member

5. **Presentation Items**
   A. I-405 Improvement Project Background
      Presentation – Jeff Mills, Program Manager, Highway Programs

   B. Measure M2 Sales Tax Forecast
      Presentation – Sean Murdock, Director, Finance and Administration

   C. Measure M Next 10: Market Conditions Forecast and Risk Analysis
      Presentation – Tamara Warren, Measure M Program Manager

6. **OCTA Staff Updates (5 minutes each)**
   - Measure M Identity – Alice Rogan, Director, Marketing and Public Outreach
   - Other

7. **Environmental Oversight Committee Report**

8. **Committee Member Reports**

9. **Public Comments***

10. **Adjournment**
    The next meeting will be held on December 12, 2017

*Public Comments: At this time, members of the public may address the Taxpayer Oversight Committee (TOC) regarding any items within the subject matter jurisdiction of the TOC, provided that no action may be taken on off-agenda items unless authorized by law. Comments shall be limited to three (3) minutes per person, unless different time limits are set by the Chairman, subject to the approval of the TOC.

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 business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

Measure M Taxpayer Oversight Committee
INFORMATION ITEMS

Staff Report Title	Board Meeting Date
1. Capital Programs Division - Fourth Quarter Fiscal Year 2016-17 and Planned Fiscal Year 2017-18 Capital Action Plan Performance Metrics	August 14, 2017
2. Measure M2 Environmental Mitigation Program Update	
3. Measure M2 Comprehensive Transportation Funding Programs - 2018 Annual Call for Projects	
4. Measure M2 Environmental Cleanup Program - 2017 Tier 1 Water Quality Grant Funding Allocations	
5. Regional Rail and Facilities Engineering Quarterly Report	August 28, 2017
6. Environmental Mitigation Program Endowment Fund Investment Report For June 30, 2017	September 11, 2017
7. Measure M2 Performance Assessment Report Update	
8. Measure M2 Quarterly Progress Report for the Period of April 2017 Through June 2017	

*Public Comments: At this time, members of the public may address the Taxpayers Oversight Committee (TOC) regarding any items within the subject matter jurisdiction of the TOC, provided that no action may be taken on off-agenda items unless authorized by law. Comments shall be limited to five (5) minutes per person and 20 minutes for all comments, unless different time limits are set by the Chairman, subject to the approval of the TOC.

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 business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

Measure M Taxpayer Oversight Committee
Orange County Transportation Authority
550 S. Main Street, Orange CA, Room 07
August 8, 2017 @ 5:00 p.m.

MEETING MINUTES

Committee Members Present:
Richie Kerwin Lim, First District Representative
Anthony Villa, First District Representative
Larry Tekler, Second District Representative
Alan P. Dubin, Second District Representative
Eugene Fields, Third District Representative
Andrew Lesko, Third District Representative, Co-Chairman
Stanley F. Counts, Fourth District Representative
Matt McGuinness, Fifth District Representative
Guita Sharifi, Fifth District Representative

Committee Member(s) Absent:
Eric Woolery, Orange County Auditor-Controller, Co-Chairman
Sony Soegiarto, Fourth District Representative

Orange County Transportation Authority Staff Present:
Jim Biel, Executive Director, Capital Programs
Julianne Brazeau, Public Reporter Specialist
Marissa Espino, Community Relations Officer
Emily Mason, Community Relations Specialist
Jeff Mills, Program Manager, Highway Programs
Kia Mortazavi, Executive Director, Planning
Sean, Murdock, Director, Finance & Administration
Andrew Oftelie, Executive Director, Finance & Administration
Dan Phu, Program Manager, Strategic Planning
Alice Rogan, Director, Marketing & Public Outreach
Dave Simpson, Manager, Regional Initiatives
Tamara Warren, Program Manager, M Program Management Office

1. **Welcome**
   Alice Rogan welcomed everyone to the Orange County Transportation Authority (OCTA) Taxpayer Oversight Committee (TOC) meeting at 5:13 p.m. Alice asked committee members to introduce themselves.

2. **Pledge of Allegiance**
   Alice Rogan led the Pledge of Allegiance to the Flag.

3. Approval of the Minutes/Attendance Report for June 13, 2017

A motion was made by Richie Lim, seconded by Alan Dubin, and carried unanimously to approve the June 13, 2017 TOC Minutes/Attendance report as presented.

4. Action Items

A. Co-Chair Election

A motion was made by Guita Sharifi, seconded by Matt McGuinness, and carried unanimously to elect Anthony Villa as Co-Chair of the TOC.

5. Presentation Items

A. I-405 Improvement Project Update

Jeff Mills presented an update on the I-405 Improvement Project.

Guita Sharifi asked about the connection from the I-405 to SR-73. Jeff Mills explained OCTA will build a connector between the medians of I-405 and SR-73 to connect the 405 Express Lanes with SR-73. He said the existing non-toll connections between SR-73 and I-405 will remain.

Stanley Counts asked what kind of turbulence is anticipated while traveling through the construction site. Jeff Mills said on the I-405 freeway there is a threshold of delays being no longer than 30 minutes over today's drive times. He said generally no mainline freeway lanes can be closed during the day. He said a Traffic Management Plan (TMP) is being developed for travel both on local streets and the freeway. This plan is being developed with Caltrans and the local jurisdictions. He said generally this plan says two off-ramps in a row cannot be closed at the same time.

Richie Lim asked about the TIFIA loan. Jeff Mills said OCTA spends money, then gets reimbursed by TIFIA up to the agreed upon amount of the loan. Richie asked if $629 million is the maximum amount of the loan. Jeff said yes, it is capped at $629 million. Alan Dubin asked if the TIFIA loan applies to the whole project. Jeff said the loan applies to the entire project, but will paid back solely by toll revenue. Richie said Measure M revenues will pay for the general purpose lanes. Jeff said he is correct. Andrew Oftelie said Measure M revenue can only pay for the general purpose lanes, but the TIFIA loan can be used for both.

Matt McGuinness asked if there will be free carpool lanes. Jeff Mills said for the first 3.5 years of operations on the 405 Express Lanes, from 2023-2026, drivers of two or more will drive for free in the express lanes during non-peak hours. He said drivers with three or more will be free any time of day. After 3.5 years, in 2026, the policy will change and drivers will need to have three or more in a vehicle to drive for free any time of day.

Eugene Fields asked if there are any anticipated eminent domain issues. Jeff Mills said there are 305 parcels that require either temporary or permanent acquisitions. He said the majority of the acquisitions are temporary construction easements and many times this is to build a soundwall. To date there have been no eminent domain proceedings; however, it is typically expected on a project of this magnitude.

Eugene Fields asked what the anticipated revenue projected to be from the express lanes. Andrew Oftelie said during the first five years of the loan OCTA does not pay anything. He said in years 6-10 OCTA pays on the interest only. OCTA will build up a reserve during that time and is required to have operational, maintenance, and debt service reserves. The reserves will come directly from the express lanes revenue. Projections indicate there will be excess revenues within the first 10 years of operation. However, OCTA is not allowed to touch the revenue. TIFIA requires those funds to be kept in a distribution lock-up fund. After 10 years, OCTA has to pay back half of the excess revenue toward the principle. The other half of excess revenue OCTA would retain and it can be used for projects within the corridor.

Matt McGuinness asked how the tolls are determined. Andrew Oftelie said there was a traffic and revenue study. This determines how to keep the maximum flow through the corridor – this is not a revenue maximization model. He said the toll rates are based on the traffic flow and this is the same with the 91 Express Lanes. Matt asked if it is fair to say the toll is the lowest it can be to accomplish the goal of maximum traffic flow. Andrew said it assumes the toll will allow for the traffic flow in the express lanes at 55-60 mph.

Guita Sharifi asked if the money in the reserves will be invested. Andrew Oftelie said reserves will be invested, but TIFIA allows for very limited investments. He said it is very similar to OCTA's investment policy which is very restrictive.

Richie Lim asked how the 91 Express Lanes are financed. Andrew Oftelie said OCTA has municipal debt that is issued using toll revenue bonds. He said those bonds have to be paid back using express lane revenue.

Anthony Villa asked if there are bonuses or disincentives on the I-405 project for the contractors. Jeff Mills said there are no incentives to finish early, but there is something called liquidated damages assessed for every day late. He said there are 2,049 days in the contract to achieve substantial completion and every day past that they owe OCTA $140,000 and it is capped at a year. Alan Dubin asked when the 2,049 days starts. Jeff Mills said it started on May 31, 2017. The completion day will be January 9, 2023.

Andrew Lesko asked why the work on bridges is scattered on the timeline. Jeff Mills said this is to help with the local traffic. If one bridge is closed to traffic, the traffic will need to detour onto the next major arterial.

Public Comment
Thomas Jatich said originally the cost of this project was $1.7 billion and now the cost is $1.9 billion. He asked why the dollar amount has gone up by $.2 billion.

Jeff Mills said there are generally three reasons for the increase: the cost of real estate, the cost to relocate utilities, and the escalation of costs associated with the delay in the project.

B. Environmental Mitigation Program Permits
Dan Phu presented an overview of the Measure M2 Freeway Environmental Mitigation Program.

Alan Dubin asked if there are any more acquisitions to be made. Dan Phu said OCTA has just about met its obligations to mitigate impacts of the freeway projects. Therefore, OCTA will not require more acquisitions. He said about one half of the expected revenues have already been spoken for. Dan said in 2014 the OCTA Board set-up the framework for the rest of the expected revenues. Richie Lim asked if $145 million is not committed. Dan said the Measure M2 revenue numbers keep changing and the EOC is hesitant to over commit. Richie asked if the $290 million over 30 years accounts for the drop in sales tax. Dan said yes, and $130-$140 million has already been spent. He said OCTA's primary obligation is to fund the endowment.

Matt McGuinness asked for an example, in terms of dollars, of ongoing maintenance. Dan Phu said the properties are generally exempted from many fees, but there are still fire control fees and maintenance, minimal fencing costs, and repairs.

Matt McGuinness asked who accepts these types of properties. Dan Phu said the likes of OC Parks, Irvine Ranch Conservancy and Laguna Canyon Conservancy, to name a few. He said none of these agencies have committed, but OCTA land comes with strict deed restrictions. Dan said these lands can never have new roads or be converted to recreation space.

Guita Sharifi asked if the lands use recycled water. Dan Phu said these properties have no infrastructure type hook ups.

Richie Lim asked about the appraisals. Dan Phu said the appraisals are not necessarily done on the biological value, it is based on the highest and best use. This decision is upon the professional assessment of the appraiser. Matt McGuinness said the developers are getting credit for donating land. Dan said

the wildlife agencies make sure there is no double dipping in terms of mitigation credits.

Anthony Villa said since one of the properties permit was signed off, does that trigger the endowment to go into effect. Dan Phu said the restoration projects do not need an endowment by the Wildlife Agencies.

6. OCTA Staff Updates

- Measure M Next 10 Plan Review – Tamara Warren gave a brief review of the Measure M Next 10 Plan.

- Other – Alice Rogan said existing members will need to sign the declaration of understanding annually.

7. Environmental Oversight Committee (EOC) Report

Anthony Villa there was nothing new to report.

8. Committee Member Reports

There were no committee member reports.

9. Public Comments

Thomas Jatich, resident of the City of Fountain Valley, passed out some information and talked about the I-405 alternatives, his perception of the decision-making process, and his understanding of the project funding.

10. Adjournment

The Measure M Taxpayer Oversight Committee meeting adjourned at 6:24 p.m. The next meeting will be held on October 10, 2017

Taxpayer Oversight Committee
Fiscal Year 2017-2018
Attendance Record

X = Present E = Excused Absence * = Absence Pending Approval U = Unexcused Absence -- = Resigned

Meeting Date	11-Jul	8-Aug	12-Sep	10-Oct	14-Nov	12-Dec	9-Jan	13-Feb	13-Mar	10-Apr	8-May	12-Jun
Stanley F. Counts		X										
Alan Dubin		X										
Eugene Fields		X										
Andrew Lesko		X										
Richie Kerwin Lim		X										
Matt McGuinness		X										
Guita Sharifi		X										
Sony Soegiarto		*										
Larry Tekler		X										
Anthony Villa		X										

Absences Pending Approval

Meeting Date	Name	Reason
8/8/17	Sony Soegiarto	Personal

Action Items

October 10, 2017

To: Taxpayer Oversight Committee

From: Orange County Transportation Authority Staff

Subject: Fiscal Year 2017-18 Measure M2 Annual Eligibility Review Subcommittee Recommendations

Overview

The Measure M2 Ordinance requires all local jurisdictions in Orange County to annually satisfy eligibility requirements in order to receive Measure M2 net revenues. The Annual Eligibility Review Subcommittee's review for fiscal year 2017-18 has been completed.

Recommendations

A. Affirm Ordinance compliance regarding Pavement Management Plans for applicable jurisdictions, Congestion Management Programs, Local Signal Synchronization Plans, and Mitigation Fee Programs for all local jurisdictions in Orange County, and find 35 local jurisdictions conditionally eligible to receive Measure M2 net revenues for fiscal year 2017-18.

B. Direct Orange County Transportation Authority staff to communicate concerns regarding deteriorating pavement conditions to the cities of Anaheim and Los Alamitos.

Background

The Taxpayer Oversight Committee (TOC) is responsible for reviewing local jurisdictions' Local Signal Synchronization Plan (LSSP), Mitigation Fee Program, Expenditure Report, Congestion Management Plan (CMP), and Pavement Management Plan (PMP) for compliance with the M2 Ordinance. The Annual Eligibility Review (AER) Subcommittee has been designated by the TOC to review the eligibility submittals with support from Orange County Transportation Authority (OCTA) staff to ensure all required documents have been submitted.

The eligibility components due this cycle are the CMP, LSSP, Mitigation Fee Program, and PMP. After the review, the findings of the TOC are presented to the OCTA Board of Directors for final eligibility determination.

Discussion

Local jurisdictions are required to annually submit eligibility packages by June 30. For this cycle, OCTA staff reviewed the CMP, LSSP, Mitigation Fee Programs, and 14 PMP submittals to ensure accuracy, and worked closely with the local jurisdictions to obtain additional information and/or back up materials as needed. The PMP submittal schedule has been included in Attachment A.

The AER Subcommittee convened on September 12, 2017 to review and discuss four eligibility components. The AER Subcommittee found these submittals to be in compliance with the Measure M2 Ordinance and recommend approval to the TOC. Summary compliance tables are provided for CMP (Attachment B), LSSP (Attachment C), Mitigation Fee Programs (Attachment D), and PMP (Attachment E).

Upon TOC approval, OCTA staff will present the eligibility findings to the Regional Planning and Highways Committee and to the OCTA Board of Directors in December 2017. Eligibility determination is conditional upon review of the expenditure reports due December 31, 2017, with the exception of City of Huntington Beach that has an expenditure report due by March 31, 2018.

AER Subcommittee members expressed concerns about the downward trend in pavement conditions based on the seven-year projections provided in the current PMPs for the cities of Anaheim and Los Alamitos (Attachment E). While the AER Subcommittee members affirmed that the PMP submittals were in compliance with ordinance requirements, the AER Subcommittee members noted that it is important to continue to address the condition of pavement on an ongoing basis to avoid further deterioration and asked staff to communicate their seven-year projection concerns. OCTA staff will be sending out letters to the cities of Anaheim and Los Alamitos to express concerns raised by the committee members.

Summary

All local jurisdictions in Orange County have submitted FY 2017-18 Measure M2 eligibility packages. The AER subcommittee reviewed the necessary CMP, LSSP, Mitigation Fee Program, and PMP documentation, and found that all local jurisdictions conditionally meet the eligibility requirements for FY 2017-18, pending review of expenditure reports for FY 2016-17. The AER Subcommittee also directed staff to communicate their concerns regarding pavement deterioration for the Cities of Anaheim and Los Alamitos.

Attachments

A. Local Jurisdiction Pavement Management Plan Submittal Schedule
B. 2017 Congestion Management Program Summary of Compliance
C. 2017 M2 Eligibility Local Signal Synchronization Plan Update Summary
D. 2017 M2 Eligibility Mitigation Fee Program Compliance Summary
E. 2017 M2 Eligibility Summary Table of Pavement Management Plan (PMP) Elements

ATTACHMENT A

Local Jurisdiction Pavement Management Plan (PMP)
Submittal Schedule

Local Jurisdiction	Updated PMP
Aliso Viejo	June Even Year
Anaheim	June Odd Year
Brea	June Odd Year
Buena Park	June Even Year
Costa Mesa	June Even Year
County of Orange	June Odd Year
Cypress	June Odd Year
Dana Point	June Odd Year
Fountain Valley	June Even Year
Fullerton	June Even Year
Garden Grove	June Even Year
Huntington Beach	June Even Year
Irvine	June Odd Year
Laguna Beach	June Even Year
Laguna Hills	June Even Year
Laguna Niguel	June Even Year
Laguna Woods	June Even Year
Lake Forest	June Odd Year
La Habra	June Odd Year
La Palma	June Even Year
Los Alamitos	June Odd Year
Mission Viejo	June Even Year
Newport Beach	June Odd Year
Orange	June Even Year
Placentia	June Even Year
Rancho Santa Margarita	June Even Year
San Clemente	June Odd Year
San Juan Capistrano	June Odd Year
Santa Ana	June Even Year
Seal Beach	June Even Year
Stanton	June Odd Year
Tustin	June Odd Year
Villa Park	June Even Year
Westminster	June Even Year
Yorba Linda	June Even Year

Shaded local agencies submitted a PMP update during this eligibility review cycle.

ATTACHMENT B

2017 Congestion Management Program
Summary of Compliance

Jurisdiction	Capital Improvement Program	Deficiency Plan	Land Use	Level of Service	2017 Compliance
Aliso Viejo *	Yes	N/A	Yes	N/A	Yes
Anaheim	Yes	N/A	Yes	Yes	Yes
Brea	Yes	N/A	Yes	Yes	Yes
Buena Park	Yes	N/A	Yes	Yes	Yes
Costa Mesa	Yes	N/A	Yes	Yes	Yes
Cypress	Yes	N/A	Yes	Yes	Yes
Dana Point	Yes	N/A	Yes	Yes	Yes
Fountain Valley *	Yes	N/A	Yes	N/A	Yes
Fullerton	Yes	N/A	Yes	Yes	Yes
Garden Grove	Yes	N/A	Yes	Yes	Yes
Huntington Beach	Yes	N/A	Yes	Yes	Yes
Irvine	Yes	N/A	Yes	Yes	Yes
La Habra	Yes	N/A	Yes	Yes	Yes
La Palma*	Yes	N/A	Yes	N/A	Yes
Laguna Beach	Yes	N/A	Yes	Yes	Yes
Laguna Hills	Yes	N/A	Yes	Yes	Yes
Laguna Niguel	Yes	N/A	Yes	Yes	Yes
Laguna Woods	Yes	N/A	Yes	Yes	Yes
Lake Forest	Yes	N/A	Yes	Yes	Yes
Los Alamitos	Yes	N/A	Yes	Yes	Yes
Mission Viejo	Yes	N/A	Yes	Yes	Yes
Newport Beach	Yes	N/A	Yes	Yes	Yes
Orange	Yes	N/A	Yes	Yes	Yes
Placentia	Yes	N/A	Yes	Yes	Yes
Rancho Santa Margarita *	Yes	N/A	Yes	N/A	Yes
San Clemente *	Yes	N/A	Yes	N/A	Yes
San Juan Capistrano	Yes	N/A	Yes	Yes	Yes
Santa Ana	Yes	N/A	Yes	Yes	Yes
Seal Beach *	Yes	N/A	Yes	N/A	Yes
Stanton	Yes	N/A	Yes	Yes	Yes
Tustin	Yes	N/A	Yes	Yes	Yes
Villa Park *	Yes	N/A	Yes	N/A	Yes
Westminster	Yes	N/A	Yes	Yes	Yes
Yorba Linda *	Yes	N/A	Yes	N/A	Yes
County *	Yes	N/A	Yes	Yes	Yes

*No CMP intersections within jurisdiction

I certify that the information contained in this table is accurate representation of materials submitted to OCTA for purposes of meeting requirements related to the Congestion Management Program.

Sam Sharvini, OCTA

ATTACHMENT C

2017/18 Measure M2 Eligibility
Local Signal Synchronization Plan Update Summary

Agency	Annual	Every Three Years			
	Traffic Forum	Regional Plan Consistency	3-Year Capital Plan	Status/ Performance	Timing Updates
Aliso Viejo	2 meetings	Compliant	Compliant	Compliant	Compliant
Anaheim	2 meetings	Compliant	Compliant	Compliant	Compliant
Brea	2 meetings	Compliant	Compliant	Compliant	Compliant
Buena Park	2 meetings	Compliant	Compliant	Compliant	Compliant
Costa Mesa	2 meetings	Compliant	Compliant	Compliant	Compliant
County of Orange	1 meeting	Compliant	Compliant	Compliant	Compliant
Cypress	2 meetings	Compliant	Compliant	Compliant	Compliant
Dana Point	2 meetings	Compliant	Compliant	Compliant	Compliant
Fountain Valley	2 meetings	Compliant	Compliant	Compliant	Compliant
Fullerton	2 meetings	Compliant	Compliant	Compliant	Compliant
Garden Grove	2 meetings	Compliant	Compliant	Compliant	Compliant
Huntington Beach	2 meetings	Compliant	Compliant	Compliant	Compliant
Irvine	2 meetings	Compliant	Compliant	Compliant	Compliant
La Habra	2 meetings	Compliant	Compliant	Compliant	Compliant
La Palma	2 meetings	Compliant	Compliant	Compliant	Compliant
Laguna Beach	2 meetings	Compliant	Compliant	Compliant	Compliant
Laguna Hills	2 meetings	Compliant	Compliant	Compliant	Compliant
Laguna Niguel	2 meetings	Compliant	Compliant	Compliant	Compliant
Laguna Woods	2 meetings	Compliant	Compliant	Compliant	Compliant
Lake Forest	2 meetings	Compliant	Compliant	Compliant	Compliant
Los Alamitos	2 meetings	Compliant	Compliant	Compliant	Compliant
Mission Viejo	2 meetings	Compliant	Compliant	Compliant	Compliant
Newport Beach	2 meetings	Compliant	Compliant	Compliant	Compliant
Orange	2 meetings	Compliant	Compliant	Compliant	Compliant
Placentia	2 meetings	Compliant	Compliant	Compliant	Compliant
Rancho Santa Margarita	2 meetings	Compliant	Compliant	Compliant	Compliant
San Clemente	2 meetings	Compliant	Compliant	Compliant	Compliant
San Juan Capistrano	2 meetings	Compliant	Compliant	Compliant	Compliant
Santa Ana	2 meetings	Compliant	Compliant	Compliant	Compliant
Seal Beach	2 meetings	Compliant	Compliant	Compliant	Compliant
Stanton	2 meetings	Compliant	Compliant	Compliant	Compliant
Tustin	2 meetings	Compliant	Compliant	Compliant	Compliant
Villa Park	2 meetings	Compliant	Compliant	Compliant	Compliant
Westminster	2 meetings	Compliant	Compliant	Compliant	Compliant
Yorba Linda	2 meetings	Compliant	Compliant	Compliant	Compliant

I certify that the information contained in this table is an accurate representation of materials submitted to OCTA for the purposes of meeting Renewed Measure M eligibility requirements related to the Signal Synchronization. (Ordinance No. 3, Attachment B, Section III.A.5 & A.6)

Paul Rodriguez, Principal
Rodriguez Consulting Group

Archie Tan, Project Manager
Orange County Transportation Authority

ATTACHMENT D

2017 Measure M2 Eligibility
Mitigation Fee Program Compliance Summary

Agency	Study	Fee Schedule	Policy	Letter	Status Recommendation
Aliso Viejo		Fee schedule provided	Development Agreements	Brief summary provided	Meets requirement
Anaheim		Fee schedule provided			Meets requirement
Brea	Fee study provided	Fee schedule provided	Resolution provided		Meets requirement
Buena Park		Fee schedule provided	Resolution provided		Meets requirement
Costa Mesa		Fee schedule provided	Resolution provided		Meets requirement
County of Orange		Fee schedule provided			Meets requirement
Cypress		Fee schedule provided	Resolution provided		Meets requirement
Dana Point			Resolution provided		Meets requirement
Fountain Valley			Council policy provided		Meets requirement
Fullerton		Fee schedule provided	Policy and Reso		Meets requirement
Garden Grove	Fee study provided	Fee schedule provided	Resolution provided		Meets requirement
Huntington Beach	Fee study provided	Fee schedule provided	Resolution provided		Meets requirement
Irvine		Fee schedule provided	Municipal Code provided		Meets requirement
La Habra		Fee schedule provided	Ordinance provided		Meets requirement
La Palma	Fee study provided		Resolution provided		Meets requirement
Laguna Beach				Municipal Code letter	Meets requirement
Laguna Hills	Fee study provided		Municipal Code w/fee		Meets requirement
Laguna Niguel		Fee schedule provided			Meets requirement
Laguna Woods		Fee schedule provided			Meets requirement
Lake Forest	Fee study provided		Ordinance w/Fee		Meets requirement
Los Alamitos		Fee schedule provided	Program Provided		Meets requirement
Mission Viejo		Fee schedule provided			Meets requirement
Newport Beach		Fee schedule provided			Meets requirement
Orange		Fee schedule provided			Meets requirement
Placentia			Resolution provided		Meets requirement
Rancho Santa Margarita	Fee study provided	Fee schedule provided	Resolution provided		Meets requirement
San Clemente	Fee study provided		Resolution provided		Meets requirement
San Juan Capistrano		Fee schedule provided	Resolution provided		Meets requirement
Santa Ana		Fee schedule provided			Meets requirement
Seal Beach		Fee schedule provided			Meets requirement
Stanton	Fee study provided		Ordinance provided		Meets requirement
Tustin		Fee schedule provided			Meets requirement
Villa Park				Municipal Code letter	Meets requirement
Westminster	Fee study provided	Fee schedule provided	Resolution provided		Meets requirement
Yorba Linda	Fee study provided		Resolution provided		Meets requirement

I certify that the information contained in this table is an accurate representation of materials submitted to OCTA for the purposes of meeting Renewed Measure M eligibility requirements related to the Mitigation Fee Program. (Ordinance No. 3, Attachment B, Section III.A.2)

Paul Rodriguez, Principal
Rodriguez Consulting Group

2017 Measure M2 Eligibility
Summary Table of Pavement Management Plan (PMP) Elements

Local Agency	Current Network PCI	Current MPAH PCI	Current Local PCI	Projected Network PCI	Projected MPAH PCI	Projected Local PCI	7 Year R&R Plan Limits	7 Year R&R Plan Areas	7 Year R&R Plan Class	7 Year R&R Plan PCI	7 Year R&R Plan Inspection Dates	7 Year R&R Plan Treatment Type	7 Year R&R Plan Treatment Cost	7 Year R&R Plan Treatment Year	QA/QC	7 Years Current Budget $ x 10^6	7 Years Maintain Network PCI $ x 10^6	7 Years Improve Network PCI $ x 10^6	Software	Certification Form	Compliant PMP (Y/N)
Anaheim	F	F	F	F	F	P	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
Brea	G	G	G	G	G	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
County of Orange	G	G	G	G	G	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	SS	✓	Y
Cypress	VG	VG	VG	F	G	F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
Dana Point	G	G	VG	VG	VG	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	SS	✓	Y
Irvine	VG	VG	VG	VG	VG	VG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
La Habra	VG	G	VG	VG	VG	VG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
Lake Forest	G	G	G	G	G	F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	SS	✓	Y
Los Alamitos	F	G	F	P	VP	F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
Newport Beach	G	G	G	G	G	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
San Clemente	VG	VG	VG	G	G	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
San Juan Capistrano	F	F	F	F	F	F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	SS	✓	Y
Stanton	G	G	VG	G	G	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y
Tustin	VG	VG	VG	G	VG	G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Micro	✓	Y

Legend		
Pavement Quality	Abbreviation	PCI
Very Good	VG	85-100
Good	G	75-84
Fair	F	60-74
Poor	P	41-59
Very Poor	VP	0-40

Acronyms	
Micro	MicroPaver Pavement Management Program
MPAH	Master Plan of Arterial Highways
PCI	Pavement Condition Index
QA/QC	Quality Assurance/Quality Control Plan
R&R	Road Maintenance & Rehabilitation Plan
SS	StreetSaver Pavement Management Program

I certify that the information contained in this table is an accurate representation of materials submitted to OCTA for purposes of meeting requirements related to the Pavement Management Plan.

Harry W. Thomas, OCTA

ATTACHMENT E

Presentation Items

COMMITTEE TRANSMITTAL

September 11, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Next 10: Market Conditions Forecast and Risk Analysis

Executive Committee Meeting of September 7, 2017

Present: Chairman Hennessey, Vice Chair Bartlett, and Directors Do, Donchak, and Shaw
Absent: Directors Murray and Nelson

Committee Vote

This item was passed by the Members present.

Committee Recommendations

A. Receive and file the Next 10 Market Conditions Forecast and Risk Analysis.

B. Continue to monitor the changing environment and its effects on the advancement of the Next 10 Delivery Plan.

C. Continue to prioritize Measure M2 projects for external funding consistent with the Orange County Transportation Authority's adopted programming policies.

Committee Discussion

At the September 7, 2017 Executive Committee meeting, Committee members requested that in addition to monitoring the changing economic environment, as included in Committee Recommendation B, that staff develop a plan (and appropriate interval) to report to the Board of Directors the results of the monitoring effort, identifying trends, and risks associated with project delivery.

September 7, 2017

To: Executive Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Next 10: Market Conditions Forecast and Risk Analysis

Overview

A Market Conditions Forecast and Risk Analysis has been prepared to inform the Orange County Transportation Authority's Next 10 Plan. The Next 10 Plan provides the framework to accelerate the delivery of Measure M2 freeway, streets and roads, transit, and environmental projects through the year 2026. In response to lower actual sales tax revenue, new forecasting methodology, and increased competition for available resources due to capital work underway in the Southern California Region, a Market Conditions Forecast and Risk Analysis was conducted. The report and findings are presented to the Board of Directors for review.

Recommendations

A. Receive and file the Next 10 Market Conditions Forecast and Risk Analysis.

B. Continue to monitor the changing environment and its effects on the advancement of the Next 10 Delivery Plan.

C. Continue to prioritize Measure M2 projects for external funding consistent with the Orange County Transportation Authority's adopted programming policies.

Background

On November 7, 2006, Orange County voters approved the renewal of Measure M, the one-half cent sales tax for transportation improvements. Work on expedited delivery of Measure M2 (M2) began in 2007, with emphasis on organizational, procedural, and technical efforts to prepare for early realization of M2 benefits beginning in 2011. Subsequent to early startup efforts,

the 2008 Great Recession resulted in a significant reduction in the M2 sales tax revenue forecast. In response, the Orange County Transportation Authority (OCTA) developed the M2020 Plan that established program delivery priorities through 2020. In response to continued lower actual sales tax revenue, a new forecasting methodology was adopted in March 2016 and prompted the need to develop a revised delivery plan focusing on the next ten years. On November 14, 2016, the Board of Directors (Board) approved the M2020 Plans successor, the Next 10 Plan (Next 10), which provides a framework to accelerate the delivery of M2 freeway, streets and roads, transit, and environmental projects through the year 2026.

To ensure success of the Next 10, a market conditions forecast and risk analysis was conducted to review OCTA's ability to deliver the breadth of programs and projects. The review was sought to forecast and analyze market conditions for public infrastructure development in the state, surrounding counties, and specifically Orange County, over the next five to ten years, to help develop strategies to anticipate and manage competitive cost pressures and the availability of materials, equipment, labor, and qualified professional staff and services that would affect delivery of the Next 10 in the next decade.

Discussion

Consulting services were sought to conduct OCTA's Market Conditions Forecast and Risk Analysis. Following OCTA's procurement policies, the contract was awarded to the Orange County Business Council. The consultant reviewed the prior market conditions forecast and risk analysis, completed in 2008, as a basis for this analysis. In addition, the consultant conducted a risk analysis to identify risk factors that could affect OCTA's construction costs. A copy of the consultant's report is attached for Board review (Attachment A), which includes findings and recommendations resulting from the analysis.

Seven risk factors were identified, analyzed, and discussed:

1. Sustained low unemployment
2. Increases in residential construction
3. Consolidation in the public works construction industry
4. Increases in interest rates
5. Neighboring county transportation construction programs
6. Construction wage pressure
7. Future recession

Of these, the consultant's analysis identified four near-term cost risks that are expected to be particularly influencing: neighboring county transportation construction programs, construction wage pressures, sustained low statewide unemployment, and residential construction demand and the effect on the public works construction market.

A summary of the consultant's near-term costs risks are included below.

Neighboring County Transportation Construction Programs

With local transportation measures in place in neighboring counties, the Southern California region is in the midst of a large transportation construction program. The analysis showed substantial transportation construction spending from neighboring counties, with Los Angeles County programming approximately four to six times as much construction as Orange County in the five and ten-year time periods. Riverside and San Bernardino counties programs are also substantial and are pursuing construction programs that are larger than Orange County's Next 10 Program.

This is expected to create cost pressures as contractors will have more opportunities to bid on projects and will be less likely to reduce bid prices and potentially fewer bids. This was noted by the consultant as one of the primary cost risks for OCTA in the near term.

Construction Wage Pressure

The review identified that construction wage growth in Los Angeles, Orange, Riverside, and San Bernardino has accelerated since 2014. This likely reflects labor demand pressures in these sectors and indicates stronger wage growth than the national economy.

Historical data suggests that construction employment can expand or contract substantially with economic cycles, but periods of high construction employment have coincided with periods of high public sector infrastructure costs when measured by the California Department of Transportation Construction Cost Index (CCI). The analysis concludes, if private sector economy continues to grow, coupled with large public sector construction programs in Southern California, pressure on construction wages and public sector construction costs will likely increase.

Sustained Low Unemployment

The unemployment levels in California are approaching levels that in the past have been considered full employment. While wage growth has, until recently, been slow, the possibility of sustained and prolonged low unemployment raises the potential for continued construction cost pressures.

Wages have not shown much upward pressure during the recovery from the Great Recession, generally increasing from 2 percent to 2.5 percent per year during the recovery, suggesting that the economy may still have some slack. If so, the unemployment rate might remain at or near current levels for the next few years. The consultant concludes, overall, sustained near-full employment will likely exert more cost pressure than their model predicts, and could place OCTA in a structurally high-cost and increasing-cost environment for capital projects.

Increases in Residential Construction

A key change from the past is how building permits correlated with the CCI in the approximate dozen or so years before 2012. However, building permitting activity has not recovered as the state's economy has rebounded from the Great Recession. Statewide, building permitting activity is at relatively low levels, considering the low unemployment rate. The California Legislative Analyst Office (LAO) has demonstrated that construction in Los Angeles County, in particular, has lagged what is necessary to accommodate population growth. A 2015 LAO analysis found that between 1980 and 2010, California's major metropolitan areas added approximately 120,000 new housing units each year, while the LAO estimated that 210,000 new units per year would have been needed to meet demand.

Several bills have been introduced in the state legislature to address housing needs. Some of the policy proposals may substantially streamline the approval process for new housing. If such proposals dramatically increase new housing construction, which the consultant's analysis finds possible but not likely, that will increase demand for construction labor and materials.

In light of the near-term risk factors, the consultant's analysis suggests the following four recommendations to mitigate cost risks:

1) Developing early warning indicators that track data that can provide information about risk factors. This would include, but not be limited to, data on building permits, construction employment and wages, executive opinion about the local economy, and construction commodity costs.

2) Explore apprenticeship programs that can increase the pipeline of skilled construction labor.

3) Explore ways to continue to be a preferred client for public works construction companies to maintain bid competition.

4) Explore further accelerating the Next 10 Program, to the extent possible, as the near-term risks mostly suggest increased rather than decreased public works construction costs.

A summary of the consultant's identified risk factors, impact on costs, likelihood, comments, and possible OCTA mitigation is found in Attachment B.

Next Steps

Overall, the consultant's analysis identifies a strong potential that during the Next 10 delivery years, OCTA will experience an increasing-cost environment. This, coupled with a reduction in revenue, presents the potential for significant challenges in the delivery of M2 and the Next 10 as envisioned. The consultant's recommendations include a consistent message that OCTA should accelerate projects to the extent possible.

Next 10, along with successor plans (Early Action Plan and M2020 Plan), was developed to accelerate projects where possible which has proven successful. Delivering early has allowed OCTA to capture significant external funding and deliver projects in a lower cost environment. During the Next 10 time period, more than $6 billion in transportation improvements promised to the voters in M2 are slated to be completed or underway by 2026. While final sales tax receipts for fiscal year 2016-17 have not been received, the forecasting agencies' economic outlook provided to date indicate further decline in sales tax collections. Staff is currently reviewing the Next 10 and preparing an update. The update will review and revise project costs with the latest information, take into account the revised revenue projections, and incorporate information provided in this Market Conditions Forecast and Risk Analysis. The Next 10 update is scheduled to go to the Board in the fall 2017.

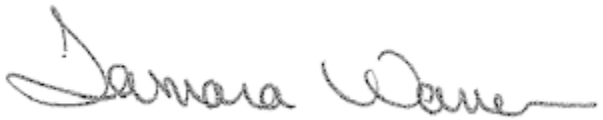
Summary

Overall, the final report of the Market Conditions Forecast and Risk Analysis that assessed OCTA's readiness to deliver the Next 10 indicates a potential increasing-cost environment. Staff will incorporate the recommendations from this analysis into the Next 10 update, scheduled to go to the Board in the October/November timeframe.

Attachments

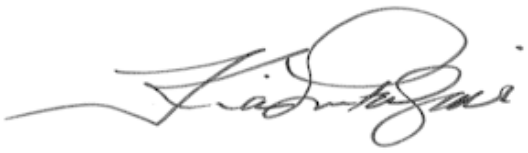
A. Orange County Business Council, OCTA Next 10: Market Conditions Forecast and Risk Analysis, August 2017
B. Risk Factors, Effect on Public Works Costs, and Some Possible OCTA Mitigations

Prepared by:



Tamara Warren
Manager, Program Management Office
(714) 560-5590

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741

ATTACHMENT A

ORANGE COUNTY BUSINESS COUNCIL

ORANGE COUNTY BUSINESS COUNCIL

OCTA Next 10: Market Conditions Forecast and Risk Analysis

August 2017

Marlon G. Boarnet, Ph.D. and Wallace Walrod, Ph.D.
with assistance from Benjamin Palmer and Debapriya Chakraborty

PREPARED FOR:

THE ORANGE COUNTY TRANSPORTATION AUTHORITY

Executive Summary

This research develops cost forecasts for the public works construction environment, as a tool to help guide implementation of the Orange County Transportation Authority's (OCTA's) Next 10 Delivery Plan. Following the Great Recession of 2008, cost pressures in transportation construction in Southern California were muted. The level of the California Department of Transportation (Caltrans) construction cost index (CCI) dropped by 26.6 percent from 2006 to 2010. Yet from 2012 to 2016, the Caltrans CCI rose 78 percent. Certainly some of that was a correction following the substantial drop in the CCI from 2006 to 2010, but several factors indicate that public works construction in Southern California has shifted from a low-demand/low-cost environment to one of high-demand and cost pressure.

OCBC modeled the relationship between the Caltrans CCI and several economic indicators, to forecast growth in public works construction costs five years and ten years into the future. The OCBC team found that the time trends in the Caltrans CCI are most associated with building permits and the unemployment rate. Regression-based models forecast a two percent increase in the level of the CCI in 2017 (from 2016), and then relatively stable levels going forward after 2017.

There are several reasons to believe that the forecasting model cannot capture all of the cost risk that will be present in the next five to ten years. One of the best predictors of the recent change in the CCI was changes in the state's unemployment rate. With the California unemployment rate at 5.35 percent for 2016, further declines are unlikely, and forecasting models will not be able to capture the full effect of sustained cost pressures from a full employment economy. For that reason, OCBC conducted a risk analysis to identify risk factors that could affect OCTA's construction costs.

Seven risk factors were analyzed and discussed:

1. Sustained low unemployment
2. Increases in residential construction
3. Consolidation in the public works construction industry
4. Increases in interest rates
5. Neighboring county transportation construction programs
6. Construction wage pressure
7. Future recession

Of these, the OCBC team believes that near term cost risks will be particularly influenced by sustained low statewide unemployment, residential construction demand and the effect on the public works construction market, neighboring county transportation construction programs, and construction wage pressures.

- **Sustained low unemployment:** The California economy is approaching unemployment levels that, in the past, have been considered full employment. While wage growth has, until recently, been slow, the possibility of sustained and prolonged low unemployment raises the potential for continued construction cost pressures.

- **Increased residential construction:** California has underbuilt new housing, relative to demand, for years. A 2015 state Legislative Analyst Office (LAO) analysis found that between 1980 and 2010, California's major metropolitan areas added approximately 120,000 new housing units each year, while the LAO estimated that 210,000 new units per year would have been needed to meet demand. Several bills have been introduced in the state legislature to address housing needs, and some policy proposals might substantially streamline the approval process for new housing. If such proposals dramatically increase new housing construction, which OCBC analysis finds possible but not likely, that will increase demand for construction labor and materials.

- **Neighboring county transportation construction programs:** The passage of Los Angeles' County's Measure M in 2016 was a highly visible indicator that neighboring counties are proceeding with ambitious construction programs. OCBC examined 1,388 projects reported in the Southern California Association of Governments financially constrained regional transportation plan. Our analysis shows that Los Angeles county is currently in the midst of a construction program that, in dollar value in five-year windows to 2030, will be from four to six times the size of OCTA's Next 10 plan, and Riverside and San Bernardino are both pursuing construction programs that are at least as large as OCTA's Next 10 plan.

- **Construction wage pressure:** In Orange, Los Angeles, Riverside, and San Bernardino Counties, construction wage growth ranged from 0.49 to 2.36 percent annually from 2012 to 2014, increasing to 4.39 to 5.3 percent annually from 2014 to 2016 (the most recent year for which data are available.)

In light of these factors, OCBC analysis suggests that OCTA can mitigate cost risk through the following policies:

- **Develop early warning indicators** that track data that can provide information about risk factors. This would include, but not be limited to, data on building permits, construction employment and wages, executive opinion about the local economy, and construction commodity costs.

- **Explore apprenticeship programs** that can increase the pipeline of skilled construction labor.

- **Explore ways to continue to be a preferred client** for public works construction companies, to maintain bid competition.

- **Explore further accelerating the Next 10 program**, to the extent possible, as the near-term risks mostly suggest increased rather than decreased public works construction costs.

I. Market Forecast, Quantitative Analysis

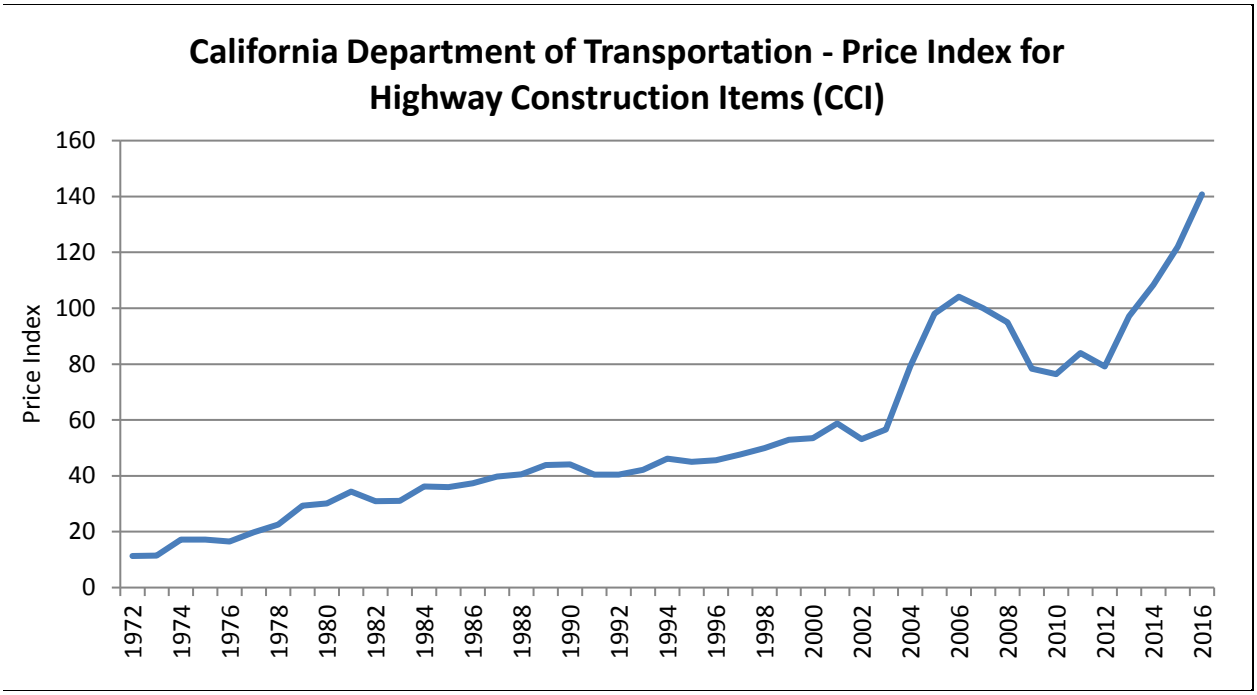
In 2008, the Orange County Business Council (OCBC) conducted the market conditions forecast for the Orange County Transportation Authority's (OCTA) M2 Early Action Plan (EAP). That forecast was done at the onset of the Great Recession, and OCBC predicted that construction costs would fall in the years immediately after 2008. The forecast predicted a falling or stable California Department of Transportation (Caltrans) construction cost index (CCI) to approximately the year 2012, which proved accurate. The Caltrans construction cost index fell from 100 in 2007 to 76.4 in 2010, and the Caltrans CCI did not rise to exceed its 2007 value until 2014 (See Table 1 and Figure 1). Yet the Caltrans CCI has risen rapidly in recent years, reaching 140.75 in 2016, suggesting that the after-effect of the Great Recession has ended.

Table 1: California Department of Transportation (Caltrans) Construction Cost Index (CC) by year, 1972-2016

California Department of Transportation - Price Index for Highway Construction Items (CCI)					
1972	11.3	1987	39.7	2002	53.1
1973	11.4	1988	40.5	2003	56.6
1974	17.2	1989	43.9	2004	79.1
1975	17.2	1990	44.1	2005	98.1
1976	16.5	1991	40.4	2006	104.1
1977	19.8	1992	40.4	2007	100
1978	22.6	1993	42.2	2008	95
1979	29.3	1994	46.2	2009	78.4
1980	30.1	1995	45	2010	76.4
1981	34.4	1996	45.6	2011	84
1982	30.9	1997	47.6	2012	79.2
1983	31	1998	49.9	2013	97.09
1984	36.2	1999	52.9	2014	108.32
1985	36	2000	53.5	2015	122.02
1986	37.3	2001	58.7	2016	140.75

Source: California Department of Transportation, Price Index for Selected Highway Construction Items

Figure 1: Time Trend of Caltrans Construction Cost Index (CCI), 1972 to 2016



Source: California Department of Transportation, Price Index for Selected Highway Construction Items

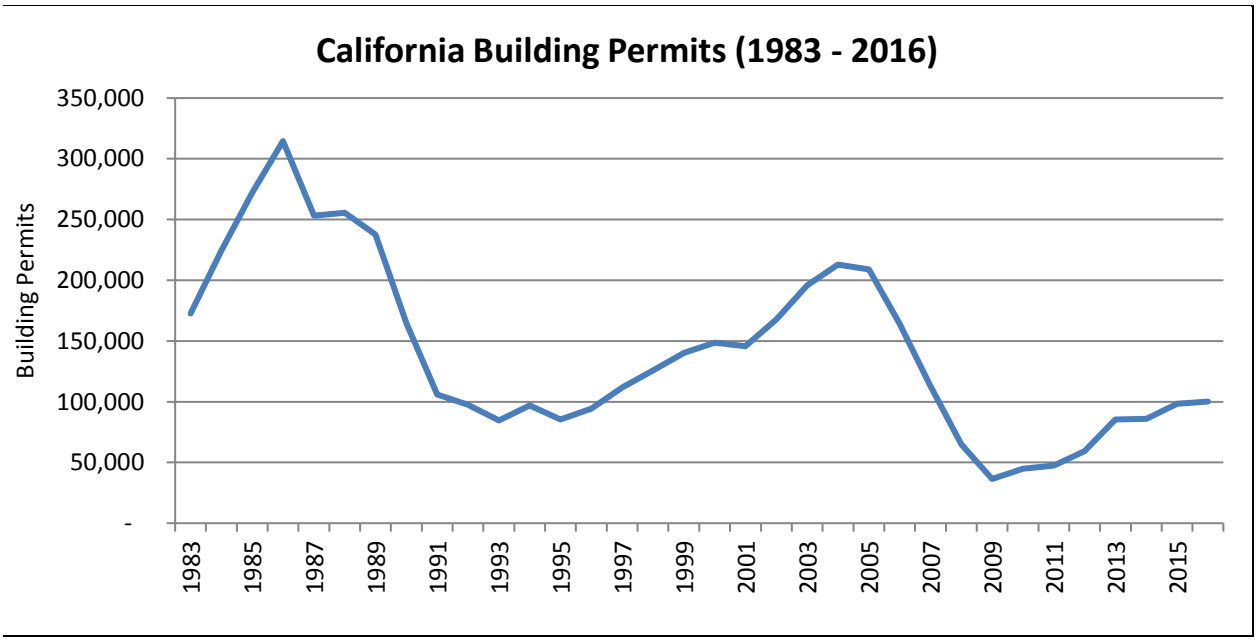
The 2008 M2 EAP market conditions forecast was based on a regression analysis that examined how four variables – building permits, population, employment, and income – are associated with the Caltrans CCI and other cost factors. In the 2008 analysis, building permitting activity was the best predictor of the Caltrans CCI (and of cost factors generally), and the large drop in building permitting activity that preceded the Great Recession predicted a period of slack markets for construction materials and labor. Table 2 and Figure 2 show the time trend of building permits in California from 1983 through 2016. Note that building permits in the state dropped from 208,972 in 2005 to 36,421 in 2009 and stayed below 100,000 every year until 2016, which saw 100,265 building permits issued in California – slightly less than half the "housing bubble" year values of 2004 and 2005.

Table 2: California Building Permits by Year

California Total Building Permits (1983-2016)					
1983	*172,569*	1995	*85,293*	2007	*113,034*
1984	*224,845*	1996	*94,283*	2008	*64,962*
1985	*272,317*	1997	*111,716*	2009	*36,421*
1986	*314,569*	1998	*125,707*	2010	*44,762*
1987	*253,171*	1999	*140,137*	2011	*47,343*
1988	*255,559*	2000	*148,540*	2012	*59,225*
1989	*237,747*	2001	*145,757*	2013	*85,472*
1990	*164,313*	2002	*167,761*	2014	*85,844*
1991	*105,919*	2003	*195,682*	2015	*98,233*
1992	*97,407*	2004	*212,960*	2016	*100,265*
1993	*84,656*	2005	*208,972*		
1994	*97,047*	2006	*164,280*		

Source: U.S. Census Bureau, Building Permit Survey

Figure 2: Time Trend of California Building Permits



Source: U.S. Census Bureau, Building Permit Survey

The forecast from 2008 was influenced by the housing bubble's coincident rise in building permits, the increasing level of the Caltrans CCI, and the substantial decline in permitting. This led to a prediction of a slack construction materials and labor market for the years following 2008.

Looking forward toward developing a forecast for the next five and ten years, the earlier M2 EAP forecast provides context, but what is striking is how conditions have changed. The economy has recovered, cost factors (including the Caltrans CCI) are rising, suggesting tightening demand, but building permitting activity has seen at best a slow and still incomplete recovery. The following observations and questions help set the stage for the analysis.

1. Building permitting activity may have been, at least in part, a proxy for broader factors (such as coincident increases and then contractions in world demand, from 2000 to 2012) in the 2008 forecast. Certainly, to some extent, building activity is a structural factor that affects the cost of public works construction. The question is to what extent materials and labor are substitutable over public- and private-sector markets, and to what extent the relationship observed in the 2008 analysis continues to be a useful forecasting tool today.
2. Will price and supply factors, going forward, be most strongly influenced by the national and world economy or by local conditions, including the public works construction program in Orange and other southern California counties?
3. Around 2012, the Caltrans CCI began to increase rapidly while state building permitting activity, while also increasing, remained well below peaks from previous time periods. Does this signal a weakening of the relationship between building permits and public sector construction costs going forward?

To foreshadow our results by briefly summarizing the answers to the above questions, the OCBC team believes that a market forecast going forward should rely less exclusively on building permits than did the M2 EAP forecast. The relationship between permits and, for example, the Caltrans CCI shows signs of change, and there is discussion later in this report how supply-side factors, including consolidation in the construction and engineering services industry in the years after 2008, might importantly affect cost pressures. Before going into that in detail, our analysis starts with descriptive analytics.

Descriptive Analysis

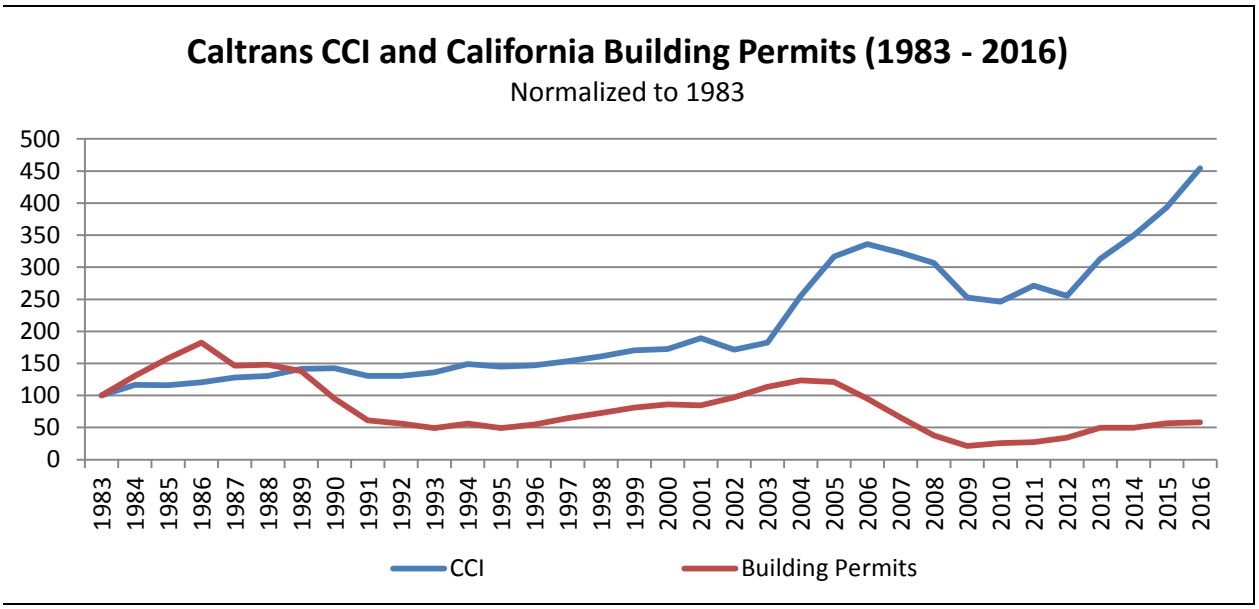
The graph of the Caltrans CCI in Figure 1 shows clear time trends that follow the business cycle. The rapid increase in the CCI during the housing bubble years following 2002 is followed by a decline after 2008, and then an increase in the past four years. The long-term trend, judging by Figure 1, suggests an increase in the growth rate of the Caltrans CCI following 2003. The average annual growth rate of the Caltrans CCI was 5.3 percent from 1972 to 2003 and 7.3 percent from 2003 to 2016.

Figure 3 graphs both the Caltrans CCI and statewide building permits, from 1983 to 2016. Both series, the CCI and building permits, are normalized to a value of 100 in 1983. The value in each year is divided by the 1983 value, such that the values of both series in any year show the

percentage change from 1983 to that year. For example, the normalized Caltrans CCI value in 2006 is 335.8, indicating that the CCI had increased 235.8% (335.8 minus 100) from 1983 to 2006. Normalizing values allows both series to be represented with the same y-axis, despite dramatically different values in the underlying data, and allows readers to easily see percent change from the 1983 base year.

In Figure 3, starting in 2000, building permits increased in California, while the Caltrans CCI showed an increase that was more dramatic, in percentage growth terms, than building permits. Both series fall following 2006, but the increase in the Caltrans CCI beginning in 2012 is not accompanied by much of an increase in building permits.

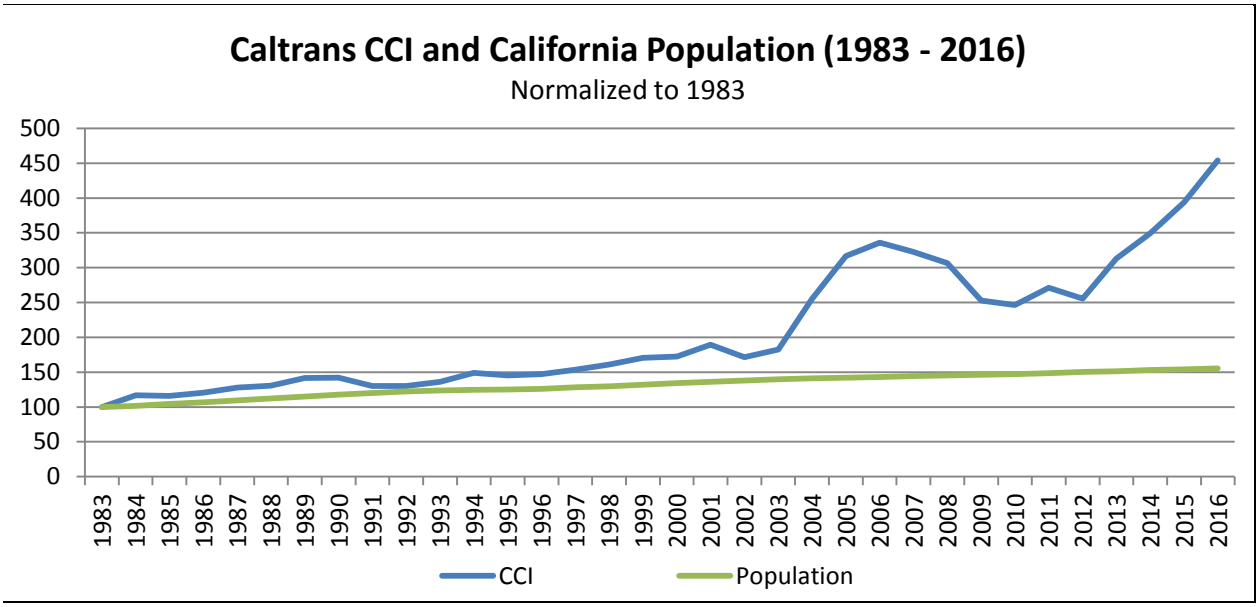
Figure 3: Normalized Caltrans Construction Cost Index (CC) and California Building Permits, 1983 to 2016



Source: California Department of Transportation, U.S. Census Bureau, Building Permit Survey

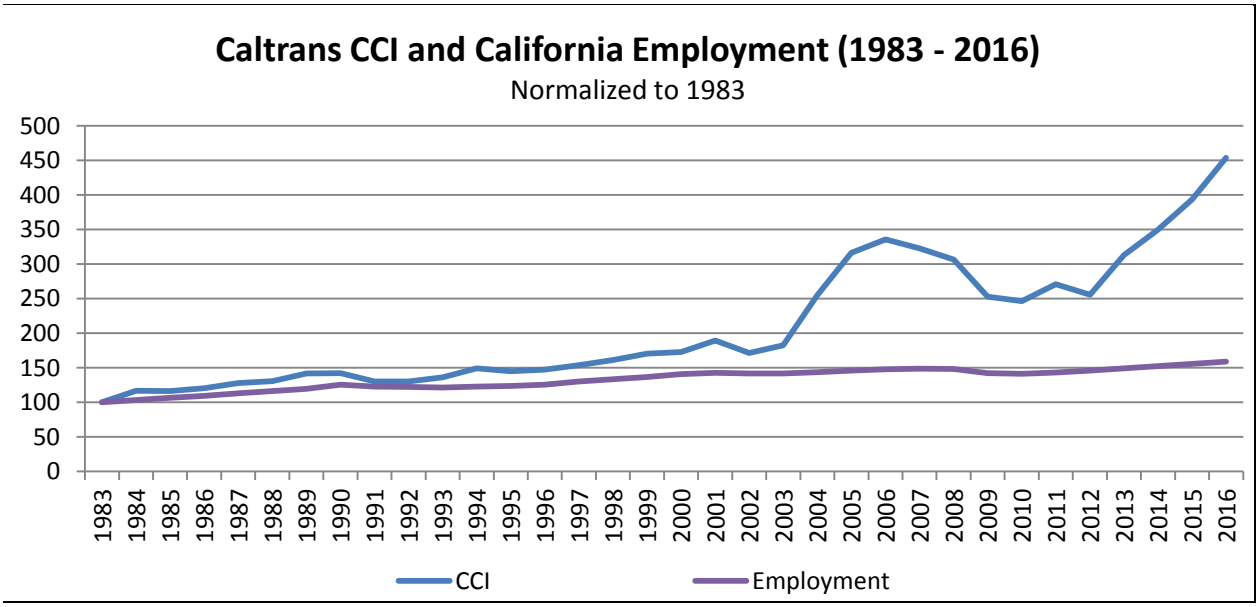
Figures 4, 5, 6, and 7 show the same normalized time trend for the Caltrans CCI compared to population (Figure 4), employment (Figure 5), total wages (Figure 6), and per capita personal income (Figure 7). Wages and income are in nominal dollars, not adjusted for inflation. All values are for California. Data sources and raw data are shown in appendix table A1.

Figure 4: Normalized Caltrans Construction Cost Index (CCI) and California Population, 1983 to 2016



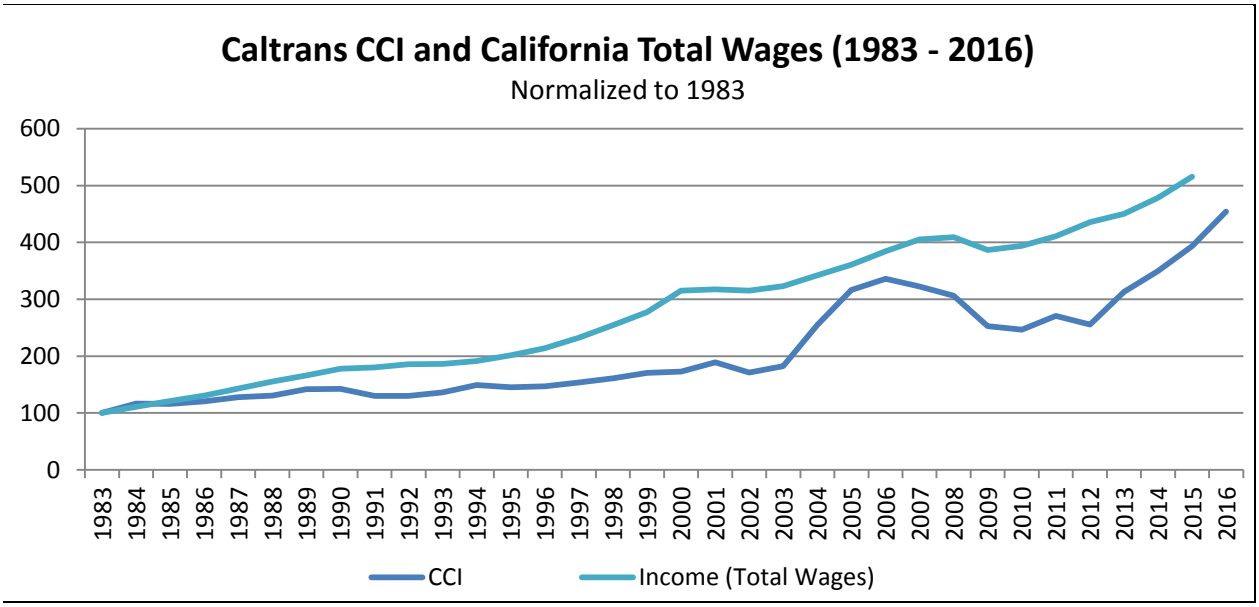
Source: California Department of Transportation, U.S. Census Bureau

Figure 5: Normalized Caltrans Construction Cost Index (CCI) and California Employment, 1983 to 2016



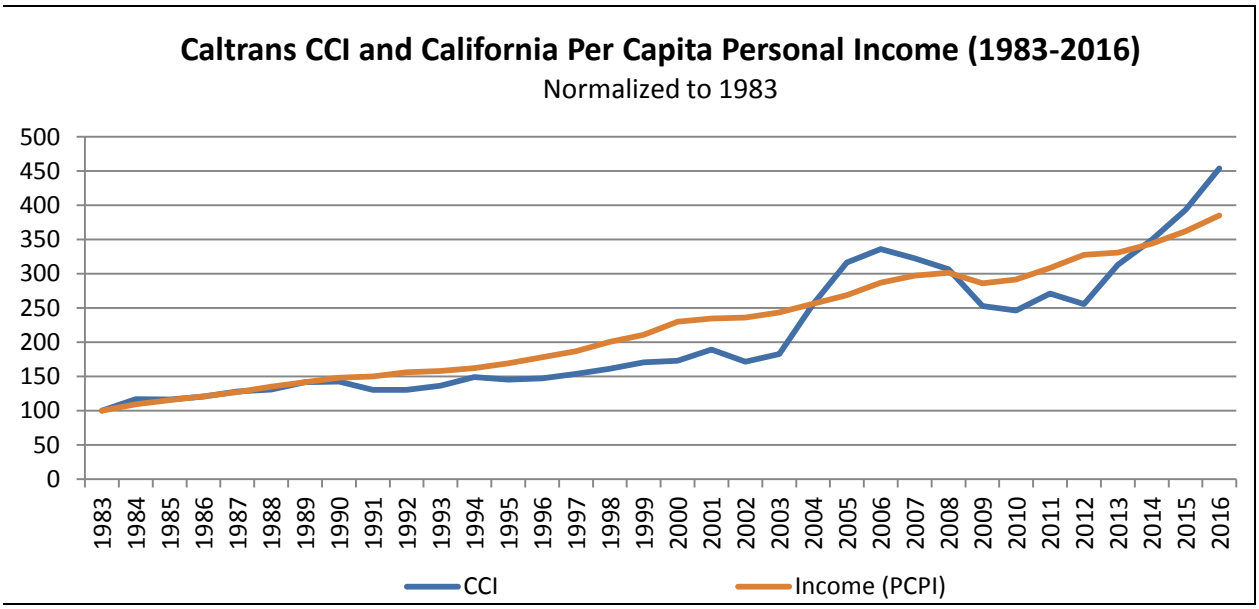
Source: California Department of Transportation, California Employment Development Department

Figure 6: Normalized Caltrans Construction Cost Index (CCI) and California Total Wages, 1983 to 2016



Source: California Department of Transportation, California Employment Development Department

Figure 7: Normalized Caltrans Construction Cost Index (CCI) and California Per Capita Personal Income (PCPI), 1983 to 2016



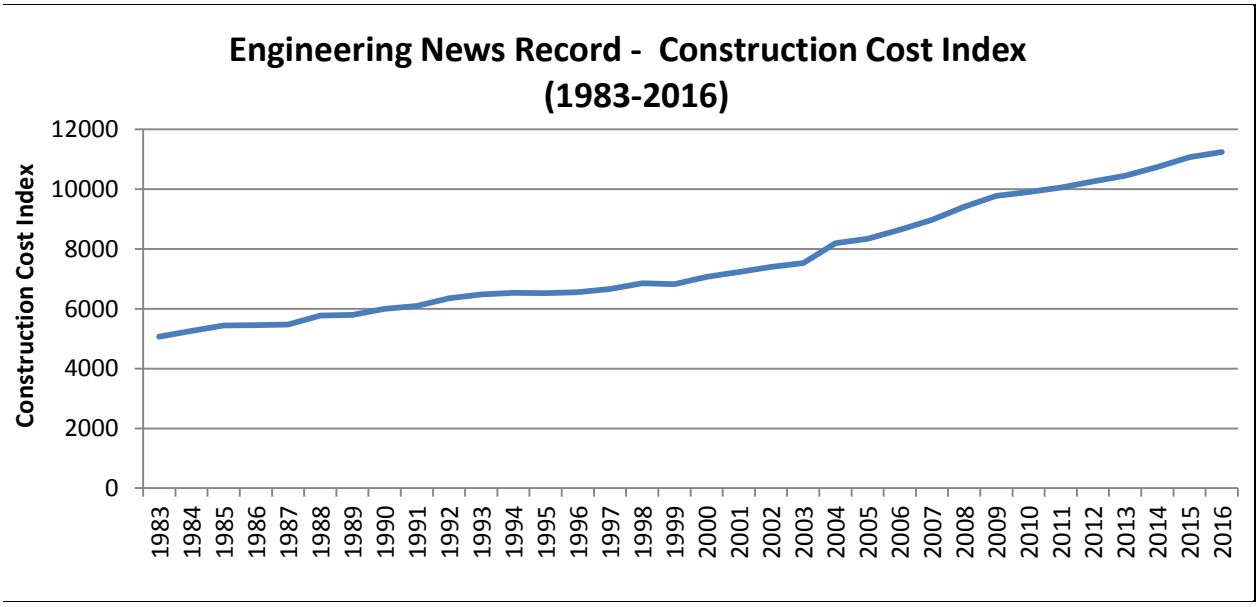
Source: California Department of Transportation, U.S. Bureau of Economic Analysis

In addition to the CCI, Caltrans reports cost factors for materials, which will be discussed later in this report. The OCBC team also analyzed data from Engineering News Record, which reports a construction cost index (ENR CCI) and a building cost index (ENR BCI) for the Los Angeles metropolitan area.

The ENR Cost Index formula contains four pricing components including: steel, lumber, cement and labor costs. This price data for the three building materials are gathered from a single supplier of each building material in each city. Therefore, the suppliers may be located within Los Angeles city limits, or they may not, but instead may be somewhere within the greater metropolitan area. Considering that these building material prices are collected from a single source for each material in each city/metropolitan area, the price is a spot price; it is not a comprehensive price based on multiple sources. ENR has no way of knowing if their sources are charging the average price for their large metropolitan area for a given material, or a higher or lower than average price. For that reason, the ENR data and indices are not capable of determining average prices but rather are better suited to tracking the change (fluctuation) of the commodity price in a specific city over time.

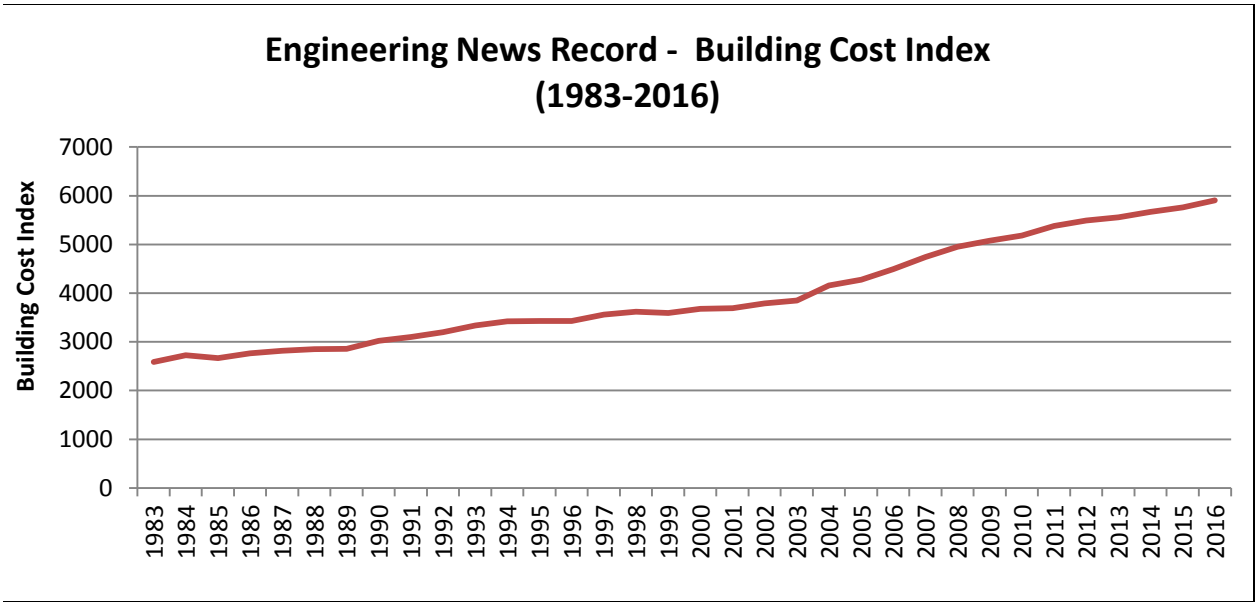
The ENR indices measure construction and building costs that can apply to both the private and public sectors, whereas the Caltrans CCI is designed to measure public sector transportation infrastructure costs. Figures 8 and 9 show the time trend of the ENR CCI and BCI respectively, and the data are in Appendix Table A-2.

Figure 8: Engineering News Record Construction Cost Index (CCI), 1983 – 2016



Source: Engineering News Record Monthly Release

Figure 9: Engineering News Record Building Cost Index (BCI), 1983 – 2016



Source: Engineering News Record Monthly Release

The trends for the ENR CCI and BCI are smoother than for the Caltrans CCI, suggesting that it will be difficult to associate those variables with changes in structural variables such as building permits, population, employment, or wages. The M2 EAP analysis did not find the ENR CCI and BCI as useful as the Caltrans CCI, and our analysis similarly finds those less useful for the Next 10 forecast. Appendix Figures A-1 through A-5 show the normalized values of the ENR CCI and ENR BCI versus, respectively by appendix figure, Los Angeles metropolitan (five-county) area building permits, Los Angeles metropolitan area population, Los Angeles metropolitan area employment, Los Angeles metropolitan area wages, and Los Angeles metropolitan area per capita personal income. None show visual relationships to the ENR CCI or BCI. For that reason, our analysis does not use the ENR indices in the forecast model.

Regression Models

1. Models from 2008 Market Conditions Report

The OCBC team reran models that reproduced, as closely as possible with available data, the regression models in the 2008 market conditions report. Those models were classified into two types – levels models (regressing the level of the Caltrans CCI on the levels of the four key independent variables – building permits, population, employment, and total wages – all for California), and change models, regressing the level of the Caltrans CCI on the changes of the

same four key independent variables. Both the levels and change models include first and second lags of Caltrans CCI on the right hand side. The regression equations are shown below.

Levels Model

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \beta_3 BP_t + \beta_4 BP_{t-1} + \beta_5 BP_{t-2} + \beta_6 INC_t + \beta_7 INC_{t-1} + \beta_8 INC_{t-2} + \beta_9 EMP_t + \beta_{10} EMP_{t-1} + \beta_{11} EMP_{t-2} + \beta_{12} POP_t + \beta_{13} POP_{t-1} + \beta_{14} POP_{t-2} + u$$

where Y = cost or price index

BP = building permits

INC = total wages

EMP = total employment

POP = population

u = the regression error term

and the subscripts "t", "t-1" and "t-2" indicate years ("t" being the current year, "t-1" is a one year lag, and "t-2" is a two year lag)
β's are regression coefficients

Changes Model

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \beta_3 BP\_CH_t + \beta_4 BP\_CH_{t-1} + \beta_5 BP\_CH_{t-2} + \beta_6 INC\_CH_t + \beta_7 INC\_CH_{t-1} + \beta_8 INC\_CH_{t-2} + \beta_9 EMP\_CH_t + \beta_{10} EMP\_CH_{t-1} + \beta_{11} EMP\_CH_{t-2} + \beta_{12} POP\_CH_t + \beta_{13} POP\_CH_{t-1} + \beta_{14} POP\_CH_{t-2} + u$$

where the term "CH" behind a variable indicates the year-to-year change

(e.g. $BP\_CH_t = BP_t - BP_{t-1}$)

The results are shown in Appendix Tables A3 and A4. Table A3 shows the two regressions, levels and changes models, for the Caltrans CCI. Table A4 shows the same models fit on data for the Los Angeles Metropolitan Area, with the Engineering News Record (ENR) construction cost index (ENR CCI) as the dependent variable in the first two columns of Table A4. The ENR building cost index (BCI) is the dependent variable in the second two columns of Table A4. The dependent variables in Tables A4 are the same variables in Table A3, but measured for the Los Angeles metropolitan statistical area.

The variables for building permits are only significant, at the ten percent level, for the two lags in the changes model for the Caltrans CCI. That pattern of insignificance or marginal (10% significance level), coupled with the graphical analysis in the previous section, led us to conclude that building permits, by themselves, are not a good predictor of cost pressures for the OCTA Next 10 delivery timeframe, to the year 2027. Our analysis developed additional regression models, described below.

2. Regressing Caltrans CCI on Building Permits and Unemployment Rate

Given that the descriptive analysis suggests a relationship between the Caltrans CCI and the state's unemployment rate, in year-on-year percent changes, and until recent years suggests a similar relationship with building permits, our analysis fit simple regression models, shown in Tables 3 and 4 below. The models regressed the year-on-year percent change in the Caltrans CCI on (1) the year-on-year percent change in building permits in the state, (2) the year-on-year percent change in the state's unemployment rate, and (3) the year-on-year percent change in both building permits and the unemployment rate. Results are shown in Table 3. Table 4 repeats the same model with all variables as three-year moving averages of annual percent changes, which smooths the data.

Table 3: Caltrans CCI Year-on-Year Percent Change Regressed on Percent Change of Building Permits and Unemployment Rate

	Building Permits only		Unemployment. Rate only		Both	
	coefficient	t-statistic	coefficient	t-statistic	coefficient	t-statistic
Building permits, year-on-year % change	**0.2141**	**2.62**			0.0066	0.06
Unemployment rate, year-on-year % change			**-0.4218**	**-4.33**	**-0.4164**	**-3.1**
sample size	33		27		27	
Years	1984-2016		1990-2016		1990-2016	
R-squared	0.1809		0.4284		0.4285	
Note: All data are for California						
Coefficients statistically significant at 5% level shown in bold						

Table 4: Caltrans CCI Year-on-Year Percent Change, 3-year Moving Average Regressed on Percent Change of Building Permits and Unemployment Rate, 3-year Moving Average

	Building Permits only		Unemployment. Rate only		Both	
	coefficient	t-statistic	coefficient	t-statistic	coefficient	t-statistic
Building permits, year-on-year % change	**0.2186**	**3.12**			-0.0334	-0.32
Unemployment rate, year-on-year % change			**-0.405**	**-5.03**	**-0.4344**	**-3.54**
sample size	31		25		25	
Years	1986-2016		1992-2016		1992-2016	
R-squared	0.251		0.5241		0.5263	
Note: All data are for California						
Coefficients statistically significant at 5% level shown in bold						

The coefficient on the unemployment rate is always statistically significant and highly stable in magnitude across all models in Tables 3 and 4. The coefficient on building permits is similarly stable in magnitude when it is statistically significant, which is only in the bivariate regression shown in the first column of Tables 3 and 4. When both building permits and the unemployment rate are included in the percent changes and three-year moving average percent change models, only the unemployment rate is statistically significant. For that reason, the OCBC team used the unemployment rate to develop a simple forecasting model for Caltrans CCI, shown in the next sub-section. The ENR data are too smooth and likely not sufficiently focused on public works costs to provide a reliable cost forecast. The forecast of the Caltrans CCI is the best available numerical forecast that can be applied to OCTA's conditions.

3. Forecasting Model for Caltrans CCI

The estimated regression coefficients from the second column of Table 3 (the bivariate regression of the percent annual change in the Caltrans CCI on the percent annual change in the California unemployment rate) were used to develop a forecast of the Caltrans CCI, to the year 2027. The results are shown in Table 5, below.

Table 5: Five-Year Forecast (to 2022) and Ten-Year Forecast (2027) for Caltrans CCI, from Unemployment Rate Year-on-Year Percent Change Model

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2027
CA Unemp. Rate	7.50	6.20	5.35	5.10	5.05	5.00	5.05	5.00	5.00	4.60
% YOY change, CA Unemp		-17.33%	-13.71%	-4.67%	-0.98%	-0.99%	1.00%	-0.99%	0.00%	-1.65%*
Caltrans CCI level, actual	108.32	122.02	140.85							
Predicted CCI % YOY change			5.78%	1.97%	0.41%	0.42%	-0.42%	0.42%	0	0.70%
Predicted CCI Level				149.00	151.93	152.56	153.20	152.55	153.19	158.61

* Total percent change in forecast unemployment rate from 2022 value is -8%, which is -1.65% annually over five years.
Note: California unemployment rates are forecast values after 2016.

Note that the predicted unemployment rate values, after 2016, are averages of the forecasted values from the California Legislative Analyst Office, the California Department of Finance, the Los Angeles Economic Development Corporation, and the California Department of Transportation (Caltrans). Only Caltrans has forecasted state unemployment rates for years beyond 2020, and so the 2021 and 2022 and later values for the state unemployment rates are Caltrans forecasts. The forecasted unemployment rate data to 2022 that are used to obtain the average forecast unemployment rates in Table 5 are shown in Appendix Table A5.

The forecast in Table 5 shows a leveling of the Caltrans CCI at levels not much higher than the current level. With the 2016 California unemployment rate at 5.35 percent, close to full traditional "full employment" levels, the model will imply that the increase in the Caltrans CCI will slow and level off.

While changes in the state unemployment rate are an excellent correlate of changes in the Caltrans CCI, particularly in approximately the past fifteen years, a forecasting model based on changes in the unemployment rate cannot capture sustained public works cost pressure from an economy operating at or near full employment. The OCBC team experimented with models that relate the levels of the Caltrans CCI to the level of the state unemployment rate, but those predicted the same leveling of the Caltrans CCI. Any forecasting model will be limited when the future is unlike the past, and California may be entering a period of relatively full employment – very different from the past few years. OCBC does not believe that a simple forecasting model based only on demand-side proxies such as the unemployment rate or building permits can capture cost pressures that might arise during sustained periods of full or near-full employment. While our analysis finds the slowing of the increase in the Caltrans CCI after 2017 to be credible, the OCBC team believes that the five-year forecast might understate – possibly importantly so – cost pressures and hence increases in the Caltrans CCI going forward. This report discusses reasons for that possible understatement in the context of a risk analysis, in the next sub-section.

Ten-Year Forecast: The only available unemployment rate forecasts beyond 2022 are from Caltrans who project that the California unemployment rate will decrease from 5.0 percent in

2022 to 4.6 percent in 2027.[1] Given that unemployment rate forecast, the model predicts an increase in the Caltrans CCI to 158.36 in 2027. The OCBC team believes that the unemployment rate estimate and the model relationship at the ten-year window is too uncertain to be useful, and while the ten-year forecast is shown in Table 5, our analysis cautions against reading much into the 2027 forecast. At the ten-year timeframe, the OCBC team believes that a risk analysis will be more useful, and the key risks are described below. A risk analysis will be important even for near-term years, and the OCBC team encourages OCTA to view the risk analysis described in Section II as an integral part of their cost forecasting exercises.

II. Discussion and Risk Analysis

There are several factors which could modify the forecast shown in Table 5. Potential risk factors are summarized and listed below, along with possible OCTA mitigation strategies for each risk factor, in Table 6, at the end of this sub-section.

A. Sustained Low Unemployment

In May of 2017, the national unemployment rate was 4.3 percent, a 16-year low compared to when the unemployment rate registered a reading of 4.2 percent in February 2001, according to the U.S. Bureau of Labor Statistics. The unemployment rate will likely not fall much lower. Wages have not shown much upward pressure during the recovery from the Great Recession, generally increasing from 2 percent to 2.5 percent per year during the recovery, suggesting that the economy may still have some slack, and if so the unemployment rate might remain at or near current levels for the next few years.[2]

Models based on historical data may not be able to represent the cost pressures endemic in a state economy that is near full employment and that remains so for at least a few years. In the past, full employment prompted the Federal Reserve Bank to raise interest rates, inducing recessions, and hence limiting the time that the national economy remained at full employment. Given slack wage pressure, the Federal Reserve Bank may be less likely to rapidly raise interest rates, and a global savings glut (discussed below) will exert downward pressure on interest rates. On net, it is possible that unemployment could remain low for the foreseeable next several years, and possibly within the timeframe of at least the five-year Table 5 prediction.

[1] See http://www.dot.ca.gov/hq/tpp/offices/eab/index_files/2016/FullReport2016.pdf.
[2] For information on wage growth, see the Economic Policy Institute's nominal wage tracker, at http://www.epi.org/nominal-wage-tracker/.

The pressures on infrastructure costs will be difficult to predict, and would depend in part on supply response. Briefly, it is unlikely that raw materials supplies would expand to meet demand. (In Section III our analysis discusses cost pressures on raw materials.) Overall, sustained near-full employment will likely exert more cost pressure than the Table 5 model predicts, and could place OCTA in a structurally high-cost and increasing-cost environment for transportation projects.

B. Residential Construction Accelerates

Building permits were correlated with the Caltrans CCI in the approximately dozen or so years before 2012, but building permitting activity has not recovered as the state's economy has rebounded from the Great Recession. Statewide, building permitting activity is at relatively low levels, particularly so for an economy with low unemployment. The problem is in part political – local governments are reluctant to approve large or even medium-size residential construction projects due to "not in my backyard" (NIMBY) pressures from neighbors. The California Legislative Analyst Office (LAO) has demonstrated that construction in Los Angeles County, in particular, has lagged well behind what would be needed to accommodate population growth. A 2015 LAO analysis found that between 1980 and 2010, California's major metropolitan areas added approximately 120,000 new housing units each year, while the LAO estimated that 210,000 new units per year would have been needed to meet demand.[3]

The housing shortage and underbuilding is, in part, a characteristic of California's politics, and the risks to OCTA related to building permitting and construction are as much political as economic. The state's housing crisis has sparked political attention. There were over 100 bills dealing with housing in the California legislature as of early May, and while many if not most will not pass, for the second year in a row Sacramento is debating policies that might structurally change the incentives for localities to approve or deny building projects.[4] In 2016, Governor Brown suggested a "by-right" zoning legislation that would have provided presumptive (by right) approval for any residential construction project that was consistent with the local zoning code and that provided affordable units that met 20% (far from transit) or 10% (near transit) targets. That proposal met with opposition in the legislature, and the governor's 2016 proposal was not introduced in the assembly or state senate.[5] Yet the large amount of legislative activity related to housing in this session indicates that the debate has, if anything, intensified. If the state enacts changes that require localities to approve residential construction projects that would have

[3] California Legislative Analysts Office, "California's High Housing Costs: Causes and Consequences," 2015, available at http://www.lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.aspx, accessed June 10, 2017.

[4] Libby, Sara, "California's Legal Assault on NIMBY's begins," Citylab, May 9, 2017, available at https://www.citylab.com/equity/2017/05/californias-legal-assault-on-nimbys-begins/525840/, accessed June 10, 2017.

[5] Barmann, Jay, "Governor Brown's 'By-Right' Housing Fast-Track Proposal Dead in the Water," SFist, Aug. 22, 2016, http://sfist.com/2016/08/22/governor_browns_by_right_housing_fa.php.

otherwise been blocked, or if reforms to the California Environmental Quality Act reduce the ability of citizens to oppose projects or that expedites challenges, California might see a substantial increase in construction. Already the Inland Empire – a location of relatively more affordable housing in Southern California – is seeing large increases in residential construction. The Inland Empire saw the fastest growth in construction jobs among any U.S. metropolitan area in March versus a year earlier.[6]

If California's political environment changes in ways that reduce the power of NIMBY opposition, the state might see a rapid and large increase in building permits, as many of the state's urban and coastal counties have backlogs of residential building that has lagged population growth. That could create substantial cost pressure as materials and skilled labor could be diverted from public works to private residential construction. Even absent such policy changes, the residential construction industry is growing rapidly in the Inland Empire. If policies change to allow more rapid residential permitting and construction, the resulting "burst" of residential construction might be temporary, if supply eventually meets pent-up demand, but that could take a few years and the result would be a large cost pressure on OCTA projects if residential building accelerates. Such a dramatic change in California's residential construction regulatory framework should be regarded as unlikely, but the pent-up pressure for more homes is structural. Despite the increasing political attention to the state's housing affordability crisis, the trend of the past four decades has been toward a more rigid and delay-prone residential construction environment. Overall, a change that allows more building in California would be an unlikely outcome, albeit an outcome that is growing more likely and an outcome that could exert substantial cost pressure on OCTA projects. Without policy change, there is still likely to be increasing residential construction, but likely concentrated in inland counties where permitting is politically easier.

C. The Public Works Construction and the Associated Professional Support Industries Continue to Consolidate

Supply-side factors, such as market structure and competition in the public works construction and associated architecture-engineering support services industries, are likely an important factor in current cost pressures. During and immediately following the Great Recession, the public works construction industry saw several consolidations, particularly among architecture, engineering, and design firms. Smaller firms merged with larger, often multi-national practices. At the same time, our earlier 2008 market conditions analysis suggested that firms during the 2008 time period may have been reducing their bid price to win enough business to cover variable costs. During the depths of the recession, there is anecdotal evidence that firms might have bid below their typical profit margin, and public works agencies reported bids coming in below estimated costs during the recession years. Those days have passed. The recent

[6] Lansner, Jonathan, "California, Inland Empire in Building Booms, 6 Things to Know," Orange County Register, May 2, 2017, available at http://www.ocregister.com/2017/05/02/california-inland-empire-in-building-booms-6-things-to-know/, accessed June 10, 2017.

consolidations pruned marginal firms and, when combined with growth in the economy, have likely allowed firms to return to pre-recession bid practices.

Going forward, the question is whether the public works construction market will see further consolidation. If so, competition for bids might decrease. Our analysis suggests this as a risk factor that OCTA should monitor, continuing their tracking of the number of bidders. Following the 2008 market conditions analysis, OCTA successfully implemented several of OCBC's recommendations and measures to facilitate the bid process. In response to risk from consolidation of bidders, OCTA can continue and, where possible, enhance those efforts that make the agency a preferred client. Additionally, look to do what can be done to increase competition in the public works infrastructure market, acknowledging that OCTA has worked hard to be a client of choice.

D. Increasing Interest Rates

The Federal Reserve Bank began what most observers expect to be a program of sustained, moderate interest rate increases in December of 2015.[7] Interest rates are still near the lowest levels seen in the past several decades, and the U.S. is likely to be in a low but increasing interest rate environment going forward. The aging of the Baby Boom population in all developed countries, and rapid aging in middle income countries, has created a global savings glut in the form of Baby Boomer retirement savings. That will exert downward pressure on interest rates. While rates will likely increase in future years due to Federal Reserve Bank policy activity, the OCBC team expects the increases to be more moderate but possibly sustained over a longer period of time than following the peak of the business cycles in the 1970s through the 1990s. A return to the high interest rate environment of the 1980s is unlikely, even though interest rates will rise. This will increase OCTA's borrowing costs and, to the extent that rising interest rates reduce the demand for residential construction, exert a downward cost pressure on public works projects.

E. Growth in Public Works Demand from Neighboring Counties

With the passage of Measure R in 2008 and Measure M in 2016, Los Angeles County is in the midst of a large transportation construction program. That program, and similar half-cent sales tax infrastructure programs in other Southern California counties, will create cost pressures as private firms have more opportunities to bid on projects and hence those firms may be less

[7] See, e.g., the discussion in Tankersley, Jim, "Federal Reserve Raises Interest Rates for Second Time in a Decade," Washington Post Wonkblog, Dec. 14, 2016, available at https://www.washingtonpost.com/news/wonk/wp/2016/12/14/federal-reserve-expected-to-announce-higher-interest-rates-today/?utm_term=.f811c5091e1f, accessed June 10, 2017.

willing to reduce bid prices. Our analysis sees and highlights this as one of the primary cost risks for OCTA in the next few years. The construction activity from neighboring counties is programmed by self-help sales tax increases that have been approved by voters. Those neighboring county construction programs are part of the structural landscape for public works projects. Public sector demand for public works construction will increase as Los Angeles' Measure M funds become available, creating increasing demand for materials and skilled labor.

To better understand pressure from building programs in neighboring counties the OCBC team examined the construction program reported in the 2016 SCAG Regional Transportation Plan (RTP). Our analysis examined 1,388 projects in Los Angeles, Riverside, and San Bernardino Counties, that are part of the financially constrained RTP, with completion years from 2016 to 2030.[8] Tables 6 and 7 list the estimated cost (in current year dollars) for these projects, by county, with Orange County Next 10 projects removed, which explains the lack of cost estimates for Orange County during the 2021-2025 time period. In other words, if a project is part of Next 10 and part of the SCAG financially constrained RTP, those project cost estimates will not be in Table 6 or Table 7, but rather in Table 8. Projects are grouped by highway (Table 6) and transit (Table 7), and listed in five-year bands based on project end date. All data are from the 2016 RTP Transportation System project list, appendix, adopted April, 2016.[9]

The 2016 RTP project list is divided into three parts: the 2015 Federal Transportation Improvement Program (FTIP), the financially constrained plan, and the strategic plan. The 2015 FTIP contains six years of projects that use federal funds or that require federal approval; the financially constrained plan includes projects for which revenues have been reasonably identified; the strategic plan is additional projects that the RTP proposes to program if additional revenues become available. The financially constrained plan is the most reasonable starting point, and unlike the FTIP the financially constrained plan includes projects with completion dates throughout the life of the RTP (2016 through 2040) and lists clear classifications that categorize each project as either transit or highway. Hence Tables 6 and 7 are based on summaries of the financially constrained plan.

[8] Our analysis excluded projects for which OCTA is listed as the lead agency, to capture work in counties that neighbor Orange County. Ventura and Imperial Counties were also excluded, again to focus on counties that neighbor Orange County. Hence the project list studied is a subset of the complete RTP project list.

[9] See http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_ProjectList.pdf.

Table 6: Freeway Construction Cost Estimates, by County, 2016-2030, SCAG RTP/SCS

Freeway Construction Cost Estimates (SCAG RTP/SCS)				
Counties	***2016-2020***	***2021-2025***	***2026-2030***	***Total 2016-2030 Costs***
Los Angeles	$16,037,920,000	$14,051,669,000	$5,347,696,000	$35,437,285,000
Orange	4,561,804,000	-	2,419,044,000	6,980,848,000
San Bernardino	8,271,850,000	3,409,228,952	5,547,552,000	17,228,630,952
Riverside	3,131,576,000	5,476,784,000	2,784,322,000	11,392,682,000
Total Regional Costs	**$32,003,150,000**	**$22,937,681,952**	**$16,098,614,000**	**$71,039,445,952**

Source: Authors analysis of SCAG 2016 RTP/SCS project list, available at http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_ProjectList.pdf.

Table 7: Transit Construction Cost Estimates, by County, 2016-2030, SCAG RTP/SCS

Transit Construction Cost Estimates (SCAG RTP/SCS)				
Counties	***2016-2020***	***2021-2025***	***2026-2030***	***Total 2016-2030 Costs***
Los Angeles	$8,790,582,000	$8,782,094,000	$4,072,768,000	$21,645,444,000
Orange	543,164,000	-	-	543,164,000
San Bernardino	44,080,000	185,452,000	149,265,000	378,797,000
Riverside	647,540,000	756,335,000	611,915,000	2,015,790,000
Total Regional Costs	**$10,025,366,000**	**9,723,881,000**	**4,833,948,000**	**$24,583,195,000**

Source: Authors analysis of SCAG 2016 RTP/SCS project list, available at http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_ProjectList.pdf.

Tables 6 and 7 show neighboring counties (Los Angeles, Riverside, San Bernardino), and any project with OCTA as a lead agency was subtracted from totals in the above tables. OCTA's Next 10 plan is shown in Table 8. The OCBC team cautions against a direct comparison of Table 8 to Tables 6 and 7. The Next 10 plan includes projects with OCTA Measure M funding, but would exclude projects that do not receive such funding, and hence Table 8 is not a complete accounting of projects in Orange County. Table 9 shows OCTA costs from the 2016 RTP, for projects with OCTA as the lead agency (which are excluded from Tables 6 and 7.) Differences in project end dates, differences in the timing of the data, and differences in fund source create differences in the tables, particularly so when placing project spending into five-year windows. While the five-year summary is useful, it also assumes that all spending falls within the five-year window that contains the project completion date, which can be misleading (more discussion of this follows below) but was the best approach possible given the available data.

Table 8: OCTA Next 10 Delivery Plan Cost Phasing, 2016-2030 (based on project end dates)

Next 10 Project Construction Cost Estimates from Next 10 Plan				
Sector	***2016-2020***	***2021-2025***	***2026-2030***	***Total 2016-2030 Costs***
Freeways	$1,731,440,801	$1,751,074,028	$761,976,213	$4,244,491,043
Transit	747,864,728	557,208,964	624,258,500	1,929,332.192
Streets and Roads	687,083,897	574,777,031	597,036,839	1,858,897,767
Water / Environmental	27,459,164	40,775,606	49,345,968	117,580,738
Total Costs	**$3,193,848,589**	**$2,923,835,629**	**$2,032,617,521**	**$8,150,301,739**

Source: Authors analysis of OCTA Next 10 delivery plan, available at http://www.octa.net/pdf/M2_Next10DeliveryPlan.pdf.

Table 9: OCTA Freeway and Transit Project Costs from 2016 SCAG RTP/SCS, 2016-2030

OCTA Specific Costs from SCAG RTP/SCS				
	2016-2020	***2021-2025***	***2026-2030***	***Total***
Freeways	$90,469,000	S1,854,552,000	S1,133,266,000	$3,278,287,000
Transit	2,770,999,000	300,879,000	-	3,071,878,000
Total Costs	**$3,061,468,000**	**$2,155,431,000**	**$1,133,266,000**	**$6,350,165,000**

Source: Authors analysis of SCAG 2016 RTP/SCS project list, available at http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_ProjectList.pdf.

Tables 6 and 7 illuminate overall patterns, even with the shortcomings inherent in comparing data based on project end date and different time periods. First, note that transportation construction spending from neighboring counties is substantial, with Los Angeles County programming approximately four to six times as much construction as Orange County in the 2016-2020 and 2021-2025 time periods (highlighted in Table 10 below). Riverside and San Bernardino Counties are pursuing construction programs that are at least as large as Orange County's Next 10 program.

Table 10: Regional Construction Costs for Freeways and Transit, 2016-2025

Overall Southern California Regional Construction Costs for 2016-2025 Period (Freeways and Transit)	
Los Angeles	$47,662,265,000
San Bernardino	$11,910,610,952
Riverside	$10,012,235,000
Orange County Measure M (Next 10 Projects) Total	$4,787,588,521
Orange County Overall Total[10]	**$9,892,556,521**

Source: Authors analysis of SCAG 2016 RTP/SCS Project List available at http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_ProjectList.pdf and Authors analysis of OCTA Next 10 delivery plan, available at http://www.octa.net/pdf/M2_Next10DeliveryPlan.pdf.

[10] Orange County Overall Total may include potential double counting of some costs of certain construction projects from the SCAG RTP/SCS and Next 10 Delivery Plan and, as such, this total should be seen as the upper limit of overall construction costs in Orange County.

Some cautions are necessary. The data in Tables 6 through 10 allocate project costs based on completion dates. For projects in the 2016-2020 time period, contracts may have already been signed, staffing might be in place, and the cost pressure might be present and may have been for some time. The pattern in Tables 6 and 7 shows a higher level of spending in 2016-2020 and a drop-off in 2026-2030, and both are likely artifacts of the necessity of assigning project cost based on end year. For projects ending in 2016-2020 (some are likely now complete), assigning all costs to the current five-year window includes expenditures that were likely from earlier, before 2016, time periods. For 2026-2030, some projects with end dates after 2030 will likely be in progress, but those costs will not be included. Hence there should be caution against interpreting that expenditures in the region will decline during the time trend from 2016 through 2030.

OCBC's analysis reaches the following conclusions:

1. Expenditures in neighboring counties are large, and will be a source of potential price pressure for OCTA now and through the next ten years. While Los Angeles County's program is the largest, Riverside and San Bernardino are also pursuing ambitious transportation programs and will be a source of cost pressure.

2. The region's transportation program, through the next ten years, is more focused on highways than transit. OCTA, with a relatively highway focused program, might view highway programs as the primary competition for materials and labor. That focus may be too narrow – transit infrastructure likely uses some of the same materials and skilled labor as do highways. The analysis in Tables 6 and 7 shows that, regardless of assumptions about how transit construction competes for inputs with highway construction, the programs in neighboring counties provide more funds for highways than for transit.

On net, Tables 6 and 7 show that transit is approximately 26 percent of the projects with end dates between 2016 and 2030 in the three counties that border Orange County. That is a relatively highway-focused construction program. The OCBC team compared that to two other data sources. Los Angeles County's Measure M, passed in 2016, allocates 35 percent of its funds for transit construction, 17 percent for highway construction, and 16 percent to local return.[11] If local return is spent mostly on street and road projects, Measure M, the most recent sales tax measure in Los Angeles, will split roughly 50-50 across transit and highway construction, and other funds (state, federal) are consistent with more total expenditures on highway than on transit construction, even in Los Angeles County. Our analysis also examined the funding split for capital projects in the SCAG RTP, 2016 through 2030. Of those capital projects, 33.3 percent are

[11] Proposed Ordinance #16-01, Measure M, Los Angeles County Traffic Improvement Plan, available at http://theplan.metro.net/wp-content/uploads/2016/09/measurem_ordinance_16-01.pdf.

for transit and passenger rail, again suggesting that the bulk of SCAG region capital projects will be for roads and highways.[12]

Overall the SCAG region is in the midst of an ambitious capital construction program, with neighboring counties commissioning work that, in Riverside and San Bernardino, at least matches and, combined, exceeds the scale of Orange County. Los Angeles County's work program is approximately four to six times larger than Orange County's over the course of the 2016-2025 period. This creates the potential for substantial market pressures from demand for construction materials and skilled labor from neighboring county programs.

[12] Data on capital projects for SCAG region are from SCAG 2016 RTP, Transportation Finance appendix, Table 8, p. 20, available at http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_TransportationFinance.pdf.

F. Increasing Construction Wage Pressure

Table 11 shows construction sector wages from the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages for Los Angeles, Orange, Riverside, and San Bernardino Counties, 2012 to 2016.

Table 11:Construction Wages and Growth Rate, Orange and Neighboring Counties, 2012-2016

County	2012	2013	2014	2015	2016	% annual growth, 2012-2014	% annual growth, 2014-2016
Los Angeles	$ 55,774.83	$ 56,610.48	$ 57,995.30	$ 61,304.54	$ 63,366.75	1.97%	4.53%
Orange	$ 61,830.50	$ 61,441.55	$ 63,494.49	$ 66,898.66	$ 69,195.51	1.34%	4.39%
Riverside	$ 48,063.63	$ 48,520.23	$ 50,358.97	$ 53,819.94	$ 55,834.20	2.36%	5.30%
San Bernardino	$ 51,890.65	$ 52,297.51	$ 52,397.23	$ 55,594.93	$ 57,341.12	0.49%	4.61%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, NAICS codes 2362 (nonresidential building construction), 2361 (residential building construction), 237 (other heavy construction), 2382 (building equipment contractors), 2381 (building foundation and exterior contractors), 2383 (building finishing contractors), 2389 (other specialty trade contractors.)

Construction wage growth in all four counties has accelerated since 2014, likely reflecting labor demand pressures in those sectors. Since 2014, annualized wage growth has ranged from 4.39 percent (Orange) to 5.3 percent (Riverside). This reflects stronger wage growth than the national economy. The Federal Reserve Bank of Atlanta tracks wage growth, and has estimated that since 2014, monthly year-on-year wage growth in the national economy has ranged from 2.3 percent (January, 2014) to 3.9 percent (October, 2016).[13]

This is consistent with recent evidence that building construction, particularly in the Inland Empire, has accelerated.[14] Historical data suggest that construction employment can expand or contract substantially with economic cycles, but periods of high construction employment have coincided with periods of high public sector infrastructure costs when measured by the Caltrans CCI. If the private sector economy continues to grow, coupled with the large public sector construction programs in southern California, pressure on construction wages and hence on public sector construction costs will likely increase.

[13] The Federal Reserve Bank of Atlanta national wage tracker is available at https://www.frbatlanta.org/chcs/wage-growth-tracker.aspx?panel=1.

[14] The Orange County Register reported in May of 2017 that Riverside and San Bernardino Counties added 12,200 construction jobs, year on year, as of March 2017. See Jonathan Lansner, "California, Inland Empire in building booms: 6 things to know," Orange County Register, May 2, 2017, available at http://www.ocregister.com/2017/05/02/california-inland-empire-in-building-booms-6-things-to-know/.

Apprenticeship programs and other education and training programs such as those offered by community colleges can help build the pipeline of skilled construction labor, and hence mitigate construction cost pressures. The construction industry has an extensive internship tradition. Approximately two-thirds of all apprenticeships registered with the U.S. Department of Labor are in the construction industry.[15] Seventy-four percent of all construction apprenticeships are represented by the North America's Building Trades Unions (NABTU), which operates apprenticeship programs through approximately a billion dollars of funding nationally in more than 1,600 teaching centers.[16]

Locally, the Los Angeles and Orange Counties Building and Construction Trades Council is an umbrella association representing 48 local unions and district councils in 48 trades and over 100,000 members.[17] Given that public sector construction is often unionized, the Building and Construction Trades Council could be a possible partner in launching or expanding apprenticeship programs aimed at the public works market. Such apprenticeship programs would be particularly appropriate given the prospects for continued sustained demand for public works construction.

G. Recession

The current economic expansion is eight years old.[18] A recession during the ten-year extended Next 10 forecasting window is likely if historic patterns of economic expansion and contraction are any guide. Yet timing such an economic contraction is highly difficult, and beyond the scope of this research. A recession will slow demand for residential construction, and exert downward cost pressure on public works projects, but that effect will be countervailed by the large public works programs in Los Angeles and neighboring counties. Those programs are not immune from economic contractions – sales tax revenues typically drop during recessions. But the base level of public sector infrastructure spending in Southern California will be high due to county sales tax infrastructure construction programs regardless of the status of the business cycle.

These risk factors, and possible OCTA mitigating actions, are summarized in Table 12 below:
Table 12: Risk Factors, Effect on Public Works Costs, and Some Possible OCTA Mitigations

[15] Case Western Reserve University and U.S. Department of Commerce, *The Benefits and Costs of Apprenticeship: A Business Perspective*, Nov., 2016, p. 65, available at http://www.esa.gov/sites/default/files/the-benefits-and-costs-of-apprenticeships-a-business-perspective.pdf.
[16] Ibid.
[17] See http://laocbuildingtrades.org/about-building-trades/.
[18] According to the National Bureau of Economic Research, which dates business cycles and hence recession start and end dates, the Great Recession ended in June of 2009. See http://www.nber.org/cycles.html.

Risk Factor	Impact on Costs	Likelihood	Comments	Possible OCTA Mitigations
Sustained low unemployment	Increases costs beyond Table 5 model prediction	Likely in the next 2 to 5 years	Wage pressure is still low, suggests that the economy has continued room to expand without necessitating policy efforts (i.e. interest rate increases) that would induce a recession	Accelerate the next 2 to 3 years of the Next 10 plan. Increase the supply of contractors.
Increased Building Permitting (and hence residential construction)	Increases costs	Unlikely given long-term political factors, but regulatory change could be sudden	Increasing permitting depends in part on state or local political changes, but Inland Empire construction has been increasing rapidly	Accelerate next 2 to 3 years of the Next 10 plan. Labor force training to increase supply of skilled construction labor.

Risk Factor	Impact on Costs	Likelihood	Comments	Possible OCTA Mitigations
Continued Consolidation in Construction and Architecture/Engineering Industry	Increases costs in near-term, then pressure for costs to remain high	Likely, given recent consolidation trends	The industry has been consolidating. Unclear whether that trend has played out or will continue.	OCTA becomes a preferred client Reduce barriers to new entrants into OCTA bid process Innovate in ease of doing business with OCTA
Interest Rate Increases	Short-term cost increases as financing costs, for OCTA and contractors, increase – long-term downward cost pressure if recession ensues	Highly likely to have moderate interest rate increases in next 2 to 5 years	U.S. is near historically low interest rates; global savings glut will exert downward pressure on interest rates; on net, rate increases likely to be moderate and sustained	Complete financing agreements in the near-term to avoid higher interest rates

Risk Factor	Impact on Costs	Likelihood	Comments	Possible OCTA Mitigations
Neighboring County Transportation Programs Exert Cost Pressure	Increases Costs	Highly Likely; current work programs in neighboring counties meet or exceed level in Orange County	Recent self-help sales tax increases "lock in" sustained demand for public works contractors in Southern California	OCTA becomes a client of choice Simplify the bid process and process of doing business with OCTA Accelerate Next 10 plan to lock in prices before peak market pressure from neighboring counties
Increasing Construction Wage Pressure	Increases Costs	Likely in foreseeable future, unless residential market reverses course (which would likely coincide with a recession)	Construction wages increases by from 4.39 to 5.3 percent annually, 2014 to 2016, in Orange and neighboring SCAG region counties	Accelerate Next 10 plan in advance of additional increases in construction wages Support efforts to increase the pool of construction labor

Risk Factor	Impact on Costs	Likelihood	Comments	Possible OCTA Mitigations
Recession	Decreases Costs	Likely within the next 10 years, but timing highly uncertain	Recession will reduce demand for private sector residential and commercial construction, but public sector demand will remain although sales tax revenues will drop in a recession	Timing uncertainty makes mitigation measures, beyond those listed above, difficult to implement.

The risk factors above create cost pressures that are in opposing directions, with varying possible timing and certainty, and with varying mitigation measures that may, in some cases, be at odds with each other. Our research judges the most likely risk factors (near-term) to be sustained low unemployment, increases in residential construction, cost pressure from neighboring county public works programs, and increasing construction wage pressure. . All are features of today's environment. The largest risk, in terms of magnitude on public works costs, would be changes in the residential construction regulatory environment – an unlikely outcome but one that has the potential to create large cost pressures if that leads to a residential building boom. Such a regulatory risk hinges on political factors, and our analysis suggests that OCTA monitor the politics surrounding the regulatory approval process for residential permitting and construction. Note that changes that simplify or speed the project approval process could lower OCTA's costs, and the increased cost pressure from residential building if permitting and approvals became easier could be countervailed by lower costs to OCTA from more rapid approval of the agency's projects.

The OCBC analysis predicts cost pressures that will remain high, with the potential for cost increases that exceed model predictions at least in the near-term (next 2 to 5 years). When possible, OCTA might accelerate the first five years of the Next 10 Plan to avoid cost increases. Our analysis notes that significant additional near-term acceleration in the Next 10 Plan may be unrealistic, given that OCTA has worked to accelerate projects to the extent possible. More importantly, the supply of public works contractors and competition for their services promises to be a key cost factor going forward. For that reason, OCTA should do what it can to increase the supply of bidders for projects, doing what it can to remain a preferred client for public works contractors.

III. Cost Factor Analysis

OCBC collected data from 1983 through 2016, annually, for cost factors from two data sources – Caltrans and Engineering News Record (ENR). As with the indices analyzed in the previous section, the Caltrans data are for the entire state, and the ENR data are for the Los Angeles metropolitan area. The Caltrans data are from bids, and reflect data for public works transportation projects from what can be relatively small samples. The ENR data are from a survey of businesses, and represent private sector construction costs better, but each ENR cost factor is from one supplier, limiting the ability of the ENR data to reflect market averages. In many cases, materials costs across public and private sector jobs may be the same, but differences in contracting practices, the size of the job, and the timespan of the project could lead to differences in buying power across public and private entities.

Table 13 lists the Caltrans cost factor data, with units shown in the column headers, and Table 14 lists the ENR cost factor data, also with units in the column headers.

Table 13: Caltrans Cost Factors, 1983 through 2016, State of California

Year	*Roadway Excavation ($/Cu Yd)*	*Aggregate Base ($/Ton)*	*Asphalt Concrete Pavement ($/Ton)*	*PCC Pavement ($/Cu Yd)*	*Class A PCC Structure ($/Cu Yd)*	*Bar Reinforcing Steel ($/Lb)*	*Structural Steel ($/Lb)*
1983	2.1	9.2	27.57	52.04	225.84	0.335	2.155
1984	3.19	13.67	28.38	55.79	238.48	0.375	2.155
1985	2.77	11.55	30.15	64.13	232.39	0.413	2.288
1986	3.01	12.76	28.82	60.49	249.74	0.412	2.388
1987	2.97	17.57	27.54	70.62	280.4	0.418	2.546
1988	4.16	10.13	27.46	58.66	284.55	0.44	3.956
1989	4.19	10.62	29.43	73.78	303.49	0.483	3.103
1990	4.73	12.05	30.77	68.93	295.24	0.469	2.209
1991	3.08	10.07	33.43	62.64	295.21	0.431	2.284
1992	3.62	9.76	32.46	66.78	265.31	0.419	3.073
1993	4.53	9.89	35.41	66.76	243.79	0.464	2.706
1994	4.68	10.39	37.15	66.45	277.92	0.547	2.334
1995	4.1	10.18	35.29	63.85	298.8	0.499	2.266
1996	3.8	9.74	37.66	65.93	321.88	0.512	2.172
1997	5.25	10.29	36.07	78.48	308.54	0.496	2.337
1998	4.95	11.55	38.78	75.91	319.95	0.553	2.595
1999	6.55	12.86	40.14	77.95	321.22	0.521	3.215
2000	6.21	11.14	45.12	78.14	363.59	0.507	2.754
2001	5.83	14.58	43.89	75.74	425.17	0.612	3.906
2002	4.84	12.42	49	74.15	363.5	0.508	3.248
2003	5.05	15.05	48.35	109.96	362.75	0.6	1.71
2004	13.11	16.97	53.55	135.94	399.64	0.947	5.39
2005	14.13	20.61	75.72	171.22	567.31	0.968	2.666
2006	12.8	20.26	86.04	179.67	630.16	1.039	3.734
2007	10.84	20.54	85.48	204.69	566.25	0.935	6.966
2008	11.39	17.9	78.5	177.91	553.62	0.938	5.183
2009	9.37	14.91	80.38	125.41	484.78	0.593	4.492
2010	7.94	14.2	80.25	122.82	483.64	0.716	2.149
2011	11.82	14.12	87.11	135.4	427.76	0.83	2.102
2012	8.24	14.66	89.36	132.52	461.23	0.927	2.497
2013	8.98	18.6	100.11	157.26	538.01	1.01	5.57
2014	17.49	23.1	96.97	206.22	660.64	1.12	10.132
2015	15.87	22.85	105.09	194.14	652.86	1.2	15.54
2016	21.1	25	121.43	210.83	702.98	1.62	19.62

Source: California Department of Transportation, Highway Construction Price Index Reports;
http://www.dot.ca.gov/hq/esc/oe/hist_price_index.html

Table 14: Engineering News Record Cost Factors, 1983 – 2016, Los Angeles Metropolitan Area

Year	Asphalt Average ($/Ton)	Portland Cement ($/Ton)	Gravel (>3/4 Inch; $/Ton)	Gravel (<3/4 inch; $/Ton)	Crushed Stone ($/ Ton)	Sand Concrete ($/Ton)	Std. Structural Shapes ($/CWT)	I-Beams ($/CWT)	Reinforcing Bars ($/CWT)
1983	165.00	66.06	5.40	5.47	3.97	6.18	42.63	44.63	14.00
1984	173.00	62.75	7.67	7.82	8.15	7.88	43.42	45.14	13.66
1985	180.50	63.86	7.93	8.01	8.23	8.04	43.40	44.82	12.97
1986	187.00	63.93	8.05	8.07	8.32	8.13	43.49	44.87	13.02
1987	196.00	63.94	8.20	8.19	8.44	8.30	43.69	45.01	12.25
1988	163.55	65.95	8.23	8.24	7.70	8.33	34.01	35.94	14.81
1989	115.10	66.40	8.20	8.25	6.97	8.35	25.65	28.77	17.80
1990	118.08	66.75	8.38	8.48	7.03	8.40	25.72	28.90	17.93
1991	115.50	64.93	8.65	8.58	6.99	8.35	26.33	28.78	18.15
1992	94.63	63.48	8.78	8.08	6.68	6.68	23.77	24.70	18.90
1993	96.93	63.85	9.15	8.65	6.94	6.10	23.10	23.68	21.43
1994	108.95	63.58	9.20	8.72	7.36	6.25	24.62	25.83	23.90
1995	115.04	65.55	9.28	9.05	7.20	6.33	25.80	25.91	25.90
1996	120.23	70.84	9.70	9.31	7.45	6.56	26.32	24.47	27.00
1997	128.07	74.11	9.86	9.68	7.67	6.63	26.48	25.20	26.86
1998	134.74	76.91	9.92	9.56	7.76	6.97	27.30	27.11	26.79
1999	125.42	77.91	9.83	8.87	7.94	6.90	27.03	26.86	25.60
2000	126.61	79.04	9.42	8.66	8.13	6.94	26.83	26.88	26.57
2001	145.03	79.63	9.35	8.86	7.82	6.97	27.11	27.02	27.33
2002	147.19	81.02	9.93	9.66	7.96	7.10	26.97	27.24	26.08
2003	165.35	81.99	10.94	10.20	8.02	7.48	26.15	25.96	24.91
2004	175.34	82.48	10.81	10.25	8.09	7.52	29.51	29.74	29.57
2005	214.55	86.41	10.26	10.41	8.30	7.63	32.98	34.03	34.40
2006	232.28	88.77	10.50	10.46	8.44	7.94	35.52	37.31	35.52
2007	268.39	94.60	10.52	10.41	8.55	8.05	38.25	39.97	35.99
2008	283.31	98.00	10.50	10.04	8.90	8.29	42.83	44.17	39.16
2009	284.26	98.02	10.50	10.01	8.90	8.30	45.49	46.71	41.41
2010	284.26	98.02	10.50	10.01	8.93	8.30	45.49	46.71	41.41
2011	284.26	98.02	10.50	10.01	8.93	8.30	43.97	42.85	32.78
2012	309.57	101.76	10.65	10.36	8.93	8.68	43.62	42.34	31.99
2013	345.00	107.00	10.87	10.86	8.93	9.20	43.40	42.18	31.97
2014	345.00	107.00	10.87	10.86	8.93	9.20	43.45	42.23	32.03
2015	348.83	112.79			8.95	9.25	44.75	43.18	34.23
2016	358.52	114.90			9.25	9.22	49.74	50.73	45.00

Source: Engineering News Record Construction Economies Archive, http://www.enr.com/economics/current_costs

Graphing these cost factor trends over time is instructive, but because that involves seven graphs for the Caltrans cost factors and nine graphs for the ENR cost factors, those graphs are shown in Figures A6 through A21 of the appendix. Figures A6 through A12 display the Caltrans cost factors over time, and Figures A13 through A21 show the time trend of the ENR cost factors. Each figure shows the cost factors normalized to 100 in the beginning year of 1983, so that later years can be quickly interpreted as a percentage of the 1983 value. Each figure also shows the normalized building permit data, 1983 through 2016, for visual comparison with the cost factor time trend. Building permit data are for California when shown on the Caltrans cost factor graphs and for the Los Angeles metropolitan area when shown for the ENR cost factor graphs.

Some trends are evident from Appendix Figures A6 through A21. First, the cost factors increase after 2012 or 2013 – a trend that is consistent with the Caltrans CCI trend. The Caltrans cost factors show rapid increases after 2012, with the largest percentage increases for roadway excavation costs and structural steel (Figures A6 and A12, respectively.) The ENR cost factors also increase starting around 2012, but the increase is smoother and more modest than for the Caltrans cost factors. For the ENR cost factors, those related to steel (Figures A19 through A21) show the largest percentage increases, qualitatively consistent with the Caltrans information, although the magnitude of increases are generally smaller in the ENR cost factors. The smoother ENR trend is likely due to the fact that ENR samples one supplier of each cost factor, and individual suppliers likely change prices smoothly over time.

The individual cost factors do not display trends that are qualitatively different from the Caltrans CCI, ENR CCI, or BCI indices. Those indices are formed from the cost factors, so this is not surprising. Also, the individual cost factors show little visual relationship to building permitting activity in recent years. For both reasons, there is little reason to believe that forecasting models for individual cost factors will give insights beyond the forecasting model for the indices. For that reason, OCBC believes that an analysis of risk and uncertainties in the overall market is more important, and readers should refer to the risk analysis in Section II.

IV. Recommendations and Indicators

Going forward, risk management will be complex but important for OCTA's Next 10 Plan. OCBC suggests that OCTA develop a set of data indicators that function as an early warning system, alerting the agency to possible changes in risk factors. The following are a list of possible indicators to consider, with suggested frequency shown in parentheses:

- Overall employment/unemployment trends from the California Employment Development Department (EDD) (monthly)
- Federal Research Labor Market Conditions Index (monthly)
- Employment in construction jobs, based on the NAICS codes used in Table 11, Bureau of Labor Statistics' Quarterly Census of Employment and Wages and EDD (quarterly)

- Data on wages in construction jobs, based on the NAICS codes in Table 11, from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (quarterly)
- Building permit data, focused on Los Angeles, Orange, Riverside, San Bernardino Counties (quarterly)
- Number of bidders on County Transportation Commission projects (quarterly)
- Executive opinion from the California State University Fullerton Orange County Business Expectations (OCBX) Survey (quarterly)
- Chapman University Orange County Composite Index (quarterly)
- Chapman University Consumer Sentiment Index
- Commercial and industrial vacancies, CoStar (quarterly)
- Commodity prices, focused on aggregate base, concrete and PCC pavement, and bar and structural steel, from Caltrans (statewide) and from Los Angeles (ENR), (quarterly)

Of these data, the number of bidders would require collaboration between OCTA and agencies in neighboring counties. If appropriate, OCBC suggests exploring such data sharing, to the extent feasible and allowed by law, so that agencies can see trends in the number of bids and hence any effect of industry consolidation.

More generally, the development of a data tracking system will be important in allowing OCTA to identify trends early to assess how risks are changing. In the next several years, increasing cost pressures will likely dominate factors that would tend to reduce costs.

IV. Appendix

Appendix Table A-1: California Department of Transportation Construction Cost Index (CCI), California Building Permits, Population, Employment, Total Annual Payrolls and Per Capita Personal Income Levels and Normalized (1983-2016)

California Department of Transportation Construction Cost Index (CCI), California Building Permits, Population, Employment, Total Annual Payrolls and Per Capita Personal Income Levels (1983-2016)						
	Caltrans CCI	Building Permits	Population	Employment	Total Annual Payroll	PCPI
1983	31	*172,569*	*25,337,000*	*11,372,808*	*195,054,946,160*	*14,538*
1984	36.2	*224,845*	*25,816,000*	*11,765,867*	*216,618,428,420*	*15,864*
1985	36	*272,317*	*26,402,000*	*12,125,483*	*236,522,988,980*	*16,767*
1986	37.3	*314,569*	*27,052,000*	*12,440,467*	*255,170,888,000*	*17,573*
1987	39.7	*253,171*	*27,717,000*	*12,870,917*	*279,366,221,300*	*18,491*
1988	40.5	*255,559*	*28,393,000*	*13,233,408*	*302,871,575,460*	*19,606*
1989	43.9	*237,747*	*29,142,000*	*13,583,867*	324,027,212,800	*20,576*
1990	44.1	*164,313*	*29,828,496*	*14,264,200*	*346,973,875,947*	*21,494*
1991	40.4	*105,919*	*30,458,613*	*13,960,000*	*351,494,177,154*	*21,824*
1992	40.4	*97,407*	*30,987,384*	*13,880,900*	*362,212,067,130*	*22,644*
1993	42.2	*84,656*	*31,314,189*	*13,817,000*	*363,604,887,659*	*22,964*
1994	46.2	*97,047*	*31,523,690*	*13,944,700*	*373,510,553,612*	*23,535*
1995	45	*85,293*	*31,711,849*	*14,048,200*	*392,794,301,814*	*24,595*
1996	45.6	*94,283*	*31,962,949*	*14,300,400*	*417,660,266,084*	*25,885*
1997	47.6	*111,716*	*32,452,789*	*14,784,600*	*453,907,544,517*	*27,147*
1998	49.9	*125,707*	*32,862,965*	*15,184,500*	*496,463,173,957*	*29,133*
1999	52.9	*140,137*	*33,418,578*	*15,555,300*	*541,647,241,978*	*30,663*
2000	53.5	*148,540*	*34,000,835*	*16,033,200*	*615,026,413,391*	*33,391*
2001	58.7	*145,757*	*34,512,742*	*16,197,700*	*619,146,651,267*	*34,091*
2002	53.1	*167,761*	*34,938,290*	*16,108,700*	*614,542,438,304*	*34,306*
2003	56.6	*195,682*	*35,388,928*	*16,102,800*	*630,692,095,035*	*35,381*
2004	79.1	*212,960*	*35,752,765*	*16,304,000*	*667,521,587,162*	*37,244*
2005	98.1	*208,972*	*35,985,582*	*16,582,700*	*703,992,717,929*	*39,046*
2006	104.1	*164,280*	*36,246,822*	*16,789,400*	*749,504,649,781*	*41,693*
2007	100	*113,034*	*36,552,529*	*16,931,600*	*790,444,530,437*	*43,182*
2008	95	*64,962*	*36,856,222*	*16,854,500*	*797,791,743,140*	*43,786*
2009	78.4	*36,421*	*37,077,204*	*16,182,600*	*754,405,951,731*	*41,588*
2010	76.4	*44,762*	*37,253,956*	*16,091,900*	*768,071,900,576*	*42,411*
2011	84	*47,343*	*37,674,954*	*16,258,100*	*801,387,207,989*	*44,852*
2012	79.2	*59,225*	*38,041,489*	*16,602,700*	*849,471,063,227*	*47,614*
2013	97.09	*85,472*	*38,373,434*	*16,958,700*	*878,441,319,278*	*48,125*
2014	108.32	*85,844*	*38,739,410*	*17,348,600*	*933,404,857,793*	*49,985*
2015	122.02	*98,233*	*39,059,809*	*17,723,300*	*1,005,383,368,506*	*52,651*
2016	140.75	*100,265*	*39,354,432*	*18,065,000*	*N/A*	*55,987*

Source: U.S. Census Bureau, California Employment Development Department, U.S. Bureau of Economic Analysis

Appendix Table A-1 Continued

California Department of Transportation Construction Cost Index (CCI), California Building Permits, Population, Employment, Total Annual Payrolls and Per Capita Personal Income Normalized (1983-2016)						
	Caltrans CCI	Building Permits	Population	Employment	Total Annual Payroll	PCPI
1983	100	100	100	100	100	100
1984	116.8	130.3	101.9	103.5	111.1	109.1
1985	116.1	157.8	104.2	106.6	121.3	115.3
1986	120.3	182.3	106.8	109.4	130.8	120.9
1987	128.1	146.7	109.4	113.2	143.2	127.2
1988	130.6	148.1	112.1	116.4	155.3	134.9
1989	141.6	137.8	115.0	119.4	166.1	141.5
1990	142.3	95.2	117.7	125.4	177.9	147.8
1991	130.3	61.4	120.2	122.7	180.2	150.1
1992	130.3	56.4	122.3	122.1	185.7	155.8
1993	136.1	49.1	123.6	121.5	186.4	158.0
1994	149.0	56.2	124.4	122.6	191.5	161.9
1995	145.2	49.4	125.2	123.5	201.4	169.2
1996	147.1	54.6	126.2	125.7	214.1	178.1
1997	153.5	64.7	128.1	130.0	232.7	186.7
1998	161.0	72.8	129.7	133.5	254.5	200.4
1999	170.6	81.2	131.9	136.8	277.7	210.9
2000	172.6	86.1	134.2	141.0	315.3	229.7
2001	189.4	84.5	136.2	142.4	317.4	234.5
2002	171.3	97.2	137.9	141.6	315.1	236.0
2003	182.6	113.4	139.7	141.6	323.3	243.4
2004	255.2	123.4	141.1	143.4	342.2	256.2
2005	316.5	121.1	142.0	145.8	360.9	268.6
2006	335.8	95.2	143.1	147.6	384.3	286.8
2007	322.6	65.5	144.3	148.9	405.2	297.0
2008	306.5	37.6	145.5	148.2	409.0	301.2
2009	252.9	21.1	146.3	142.3	386.8	286.1
2010	246.5	25.9	147.0	141.5	393.8	291.7
2011	271.0	27.4	148.7	143.0	410.9	308.5
2012	255.5	34.3	150.1	146.0	435.5	327.5
2013	313.2	49.5	151.5	149.1	450.4	331.0
2014	349.4	49.7	152.9	152.5	478.5	343.8
2015	393.6	56.9	154.2	155.8	515.4	362.2
2016	454.0	58.1	155.3	158.8	N/A	385.1

Source: U.S. Census Bureau, California Employment Development Department, U.S. Bureau of Economic Analysis

Appendix Table A-2: Engineering News Record Construction Cost Index (CCI) and Building Cost Index (BCI), 1983-2016; Levels and Normalized Data to 1983

Engineering News Record Construction Cost Index (CCI) and Building Cost Index (BCI), 1983-2016; Levels and Normalized Data to 1983				
	CCI	BCI	CCI (Normalized)	BCI (Normalized)
1983	5063.9	2586.6	100.0	100.0
1984	5259.9	2726.4	103.9	105.4
1985	5446.7	2664.6	107.6	103.0
1986	5452.2	2762.6	107.7	106.8
1987	5474.1	2816.5	108.1	108.9
1988	5770.8	2851.7	114.0	110.2
1989	5789.8	2855.3	114.3	110.4
1990	5994.6	3020.5	118.4	116.8
1991	6090.1	3097.8	120.3	119.8
1992	6348.6	3198.7	125.4	123.7
1993	6477.8	3334.4	127.9	128.9
1994	6533.0	3420.4	129.0	132.2
1995	6526.2	3427.3	128.9	132.5
1996	6558.4	3426.7	129.5	132.5
1997	6663.6	3560.5	131.6	137.7
1998	6852.0	3617.0	135.3	139.8
1999	6826.0	3591.0	134.8	138.8
2000	7068.0	3680.3	139.6	142.3
2001	7226.9	3694.2	142.7	142.8
2002	7402.8	3787.8	146.2	146.4
2003	7531.8	3847.3	148.7	148.7
2004	8192.1	4155.2	161.8	160.6
2005	8346.9	4274.2	164.8	165.2
2006	8640.5	4489.9	170.6	173.6
2007	8979.1	4744.4	177.3	183.4
2008	9410.6	4950.4	185.8	191.4
2009	9779.4	5076.3	193.1	196.3
2010	9906.0	5182.7	195.6	200.4
2011	10057.0	5379.8	198.6	208.0
2012	10258.7	5493.8	202.6	212.4
2013	10454.6	5553.8	206.5	214.7
2014	10740.0	5671.1	212.1	219.3
2015	11075.6	5762.0	218.7	222.8
2016	11247.8	5907.1	222.1	228.4

Source: Engineering News Record Monthly Release

Appendix Table A-3: Regression of California Department of Transportation Construction Cost Index (CCI) on California Building Permits, California Employment, California Total Annual Wages and California Population; Levels and Changes Models

Dependent Variable = California Department of Transportation Construction Cost Index (1983-2016)				
	Levels Model		Changes Model	
Caltrans CCI	Coefficient	t-statistic	Coefficient	t-statistic
CCI_{t-1}	0.5790417	1.83	1.112234	5.43
CCI_{t-2}	-0.2159114	-0.72	0.054816	0.27
California Building Permits (BP)	2.28e-06	0.03	7.56E-05	1.75
BP_{t-1}	0.0000436	0.53	0.000079	1.75
BP_{t-2}	0.000063	0.94	-5.29E-06	-0.12
California Employment (EMP)	-3.34e-06	-0.33	0.000012	1.55
EMP_{t-1}	-0.0000108	-0.91	2.26E-06	0.26
EMP_{t-2}	3.66e-06	0.40	6.09E-06	0.75
California Total Annual Wages	1.34e-10	1.20	2.65E-11	0.29
$WAGE_{t-1}$	7.32e-11	0.52	1.08E-10	1.27
$WAGE_{t-2}$	-1.33e-10	-1.27	-2.33E-10	-2.23
California Population (POP)	-0.0000203	-1.08	-2.4E-05	-1.67
POP_{t-1}	0.0000227	0.84	-7.52E-06	-0.50
POP_{t-2}	1.78e-06	0.10	4.38E-05	3.55
_Cons	5.415306	0.04	-14.1453	-1.88

Sample Size:	31	30
R-Squared:	0.9719	0.9795

Appendix Table A-4: Engineering News Record Construction Cost Index (CCI) and Building Cost Index (BCI) Regressed on Building Permits, Employment, Total Annual Wages, and Population, Los Angeles Metropolitan Area; Levels and Changes Models

Dependent Variable = Engineering News Record Construction Cost Index and Building Cost Index (1983-2016)				
	Coefficient			
	ENR CCI Levels	ENR CCI Changes	ENR BCI Levels	ENR BCI Changes
CCI ENR_{t-1} / BCI ENR_{t-1}	0.4785932	0.8609058	0.2031473	0.9382157
CCI ENR_{t-2} / BCI ENR_{t-2}	0.2711119	0.1763995	0.3854375	0.0771721
LAMSA Bldg Permits (BP_LA)	0.0004867	0.0006004	-0.0018291	-0.0002938
BP_LA_{t-1}	-0.0021584	-0.0008503	0.001916	0.0007705
BP_LA_{t-2}	-	0.0021532	-	0.0012561
LA MSA Employment (EMP)	-0.0003014	-0.0004747	-0.0002912	-0.000429
EMP_{t-1}	-0.0001717	-0.0004079	-0.000387	-0.0001544
EMP_{t-2}	0.0002593	-0.0001594	0.0001608	-0.0002407
LA MSA Total Wages	5.76e-09	6.12e-09	4.14e-09	5.75e-09
$WAGE_{t-1}$	7.02e-09	8.87e-09	7.22e-09	3.77e-09
$WAGE_{t-2}$	-4.76e-09	6.85e-09	-3.22e-09	2.95e-09
LA MSA Population (POP)	0.0000273	0.0000507	0.0000499	0.0000524
POP_{t-1}	-0.0000583	-0.0000105	-0.0000185	-6.58e-06
POP_{t-2}	-0.0000624	0.0000247	-0.0000483	0.000013
_Cons	3099.81	-211.7501	3302.414	-25.03666
Sample Size:	31	30	31	30
R-Squared:	0.9974	0.9965	0.9982	0.9967

	t-statistics (corresponding to above coefficients)			
	ENR CCI Levels	ENR CCI Changes	ENR BCI Levels	ENR BCI Changes
CCI ENR_{t-1} / BCI ENR_{t-1}	2.06	3.49	0.73	2.95
CCI ENR_{t-2} / BCI ENR_{t-2}	1.25	0.69	1.89	0.23
LAMSA Bldg Permits (BP_LA)	0.22	0.29	-1.50	-0.22
BP_LA_{t-1}	-0.79	-0.35	1.47	0.61
BP_LA_{t-2}	-	0.91	-	0.94
LA MSA Employment (EMP)	-0.58	-0.94	-1.21	-1.58
EMP_{t-1}	-0.27	-0.69	-1.25	-0.45
EMP_{t-2}	0.73	-0.40	0.95	-1.10
LA MSA Total Wages	0.87	0.84	1.41	1.47
$WAGE_{t-1}$	0.74	1.06	1.52	0.78
$WAGE_{t-2}$	-0.75	0.97	-1.07	0.76
LA MSA Population (POP)	0.43	0.83	1.66	1.57
POP_{t-1}	-0.83	-0.15	-0.54	-0.17
POP_{t-2}	-0.98	0.38	-1.48	0.38
_Cons	1.49	-1.33	2.86	-0.30

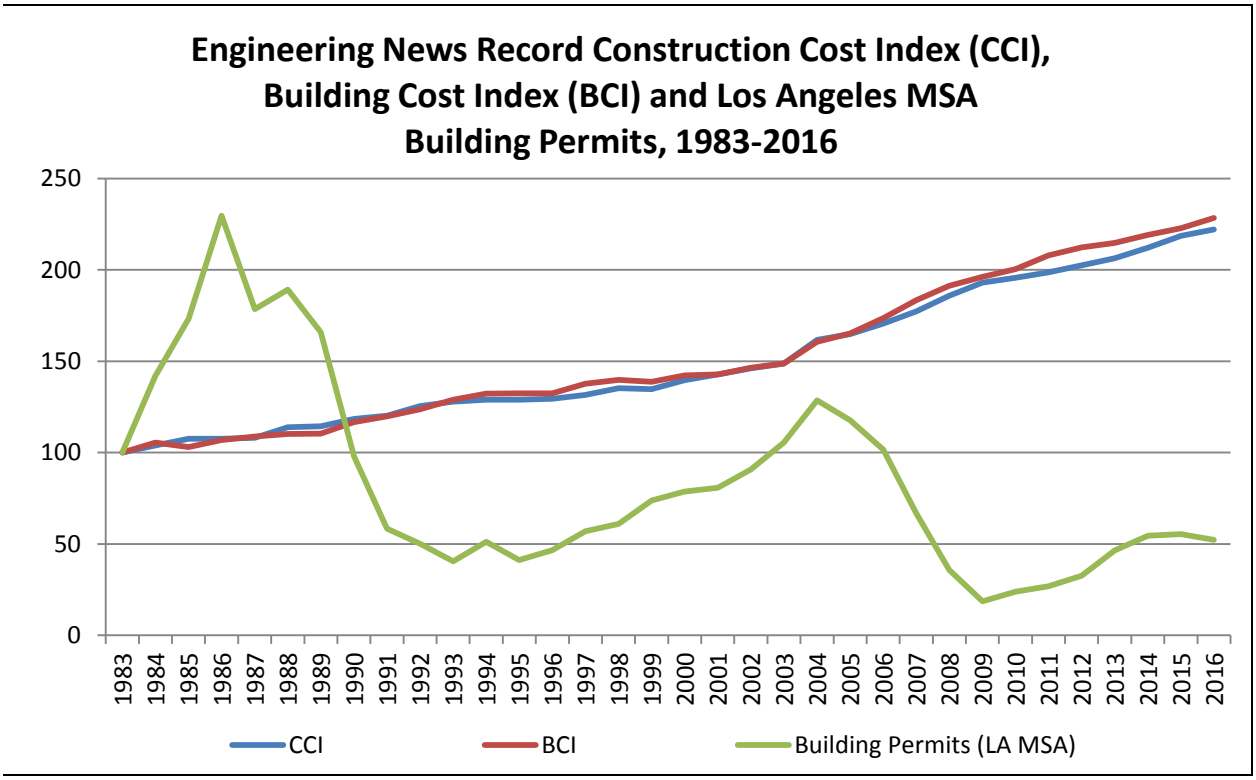
Note: "—" indicates variable dropped due to collinearity

Appendix Table A-5: California Unemployment Rate Forecasts from California Legislative Analyst's Office, California Department of Finance and California Department of Transportation, 2017-2022

California Unemployment Rate Forecasts (2017-2022)						
	2017	2018	2019	2020	2021	2022
California Legislative Analyst's Office[19]	5.3%	5.2%	-	-	-	-
California Department of Finance[20]	5.1%	5.0%	5.0%	5.0%	-	-
California Department of Transportation[21]	4.9%	5.0%	5.0%	5.1%	5.0%	5.0%

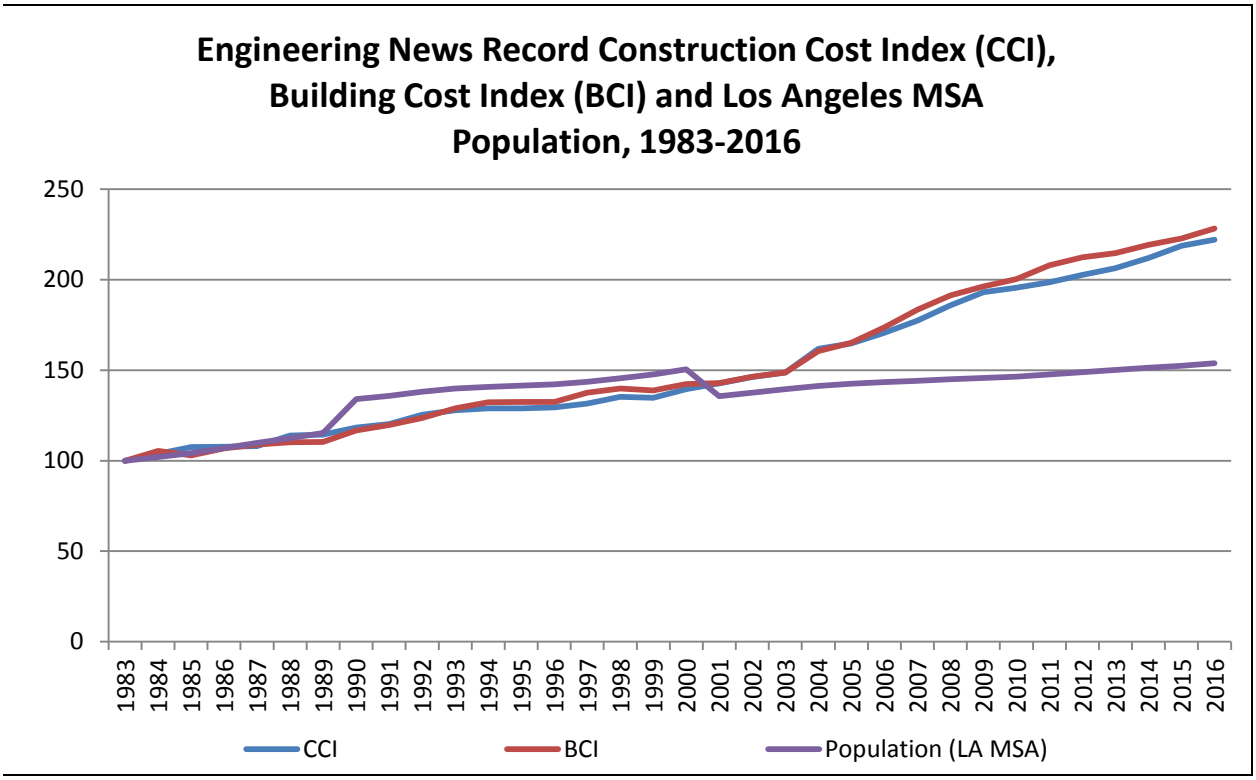
[19] http://www.lao.ca.gov/reports/2016/3507/Fiscal-outlook-111616.pdf
[20] http://www.dof.ca.gov/Forecasting/Economics/Eco_Forecasts_Us_Ca/index.html
[21] http://www.dot.ca.gov/hq/tpp/offices/eab/index_files/2016/FullReport2016.pdf

Appendix Figure A-1: Engineering News Record Construction Cost Index (CCI), Building Cost Index (BCI) and Los Angeles Metropolitan Statistical Area Building Permits (1983-2016); Normalized to 1983



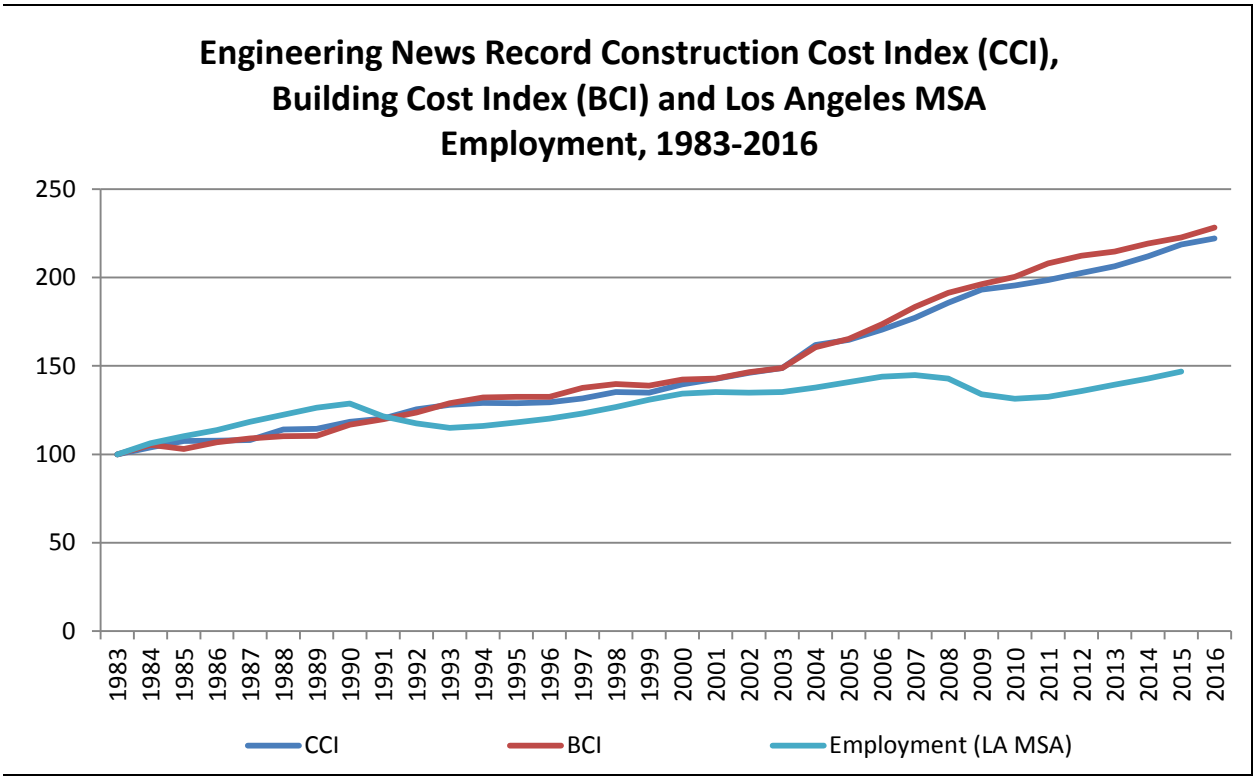
Source: Engineering News Record Monthly Release, U.S. Census Bureau Building Permit Survey

Appendix Figure A-2: Engineering News Record Construction Cost Index (CCI), Building Cost Index (BCI) and Los Angeles Metropolitan Statistical Area Population (1983-2016); Normalized to 1983



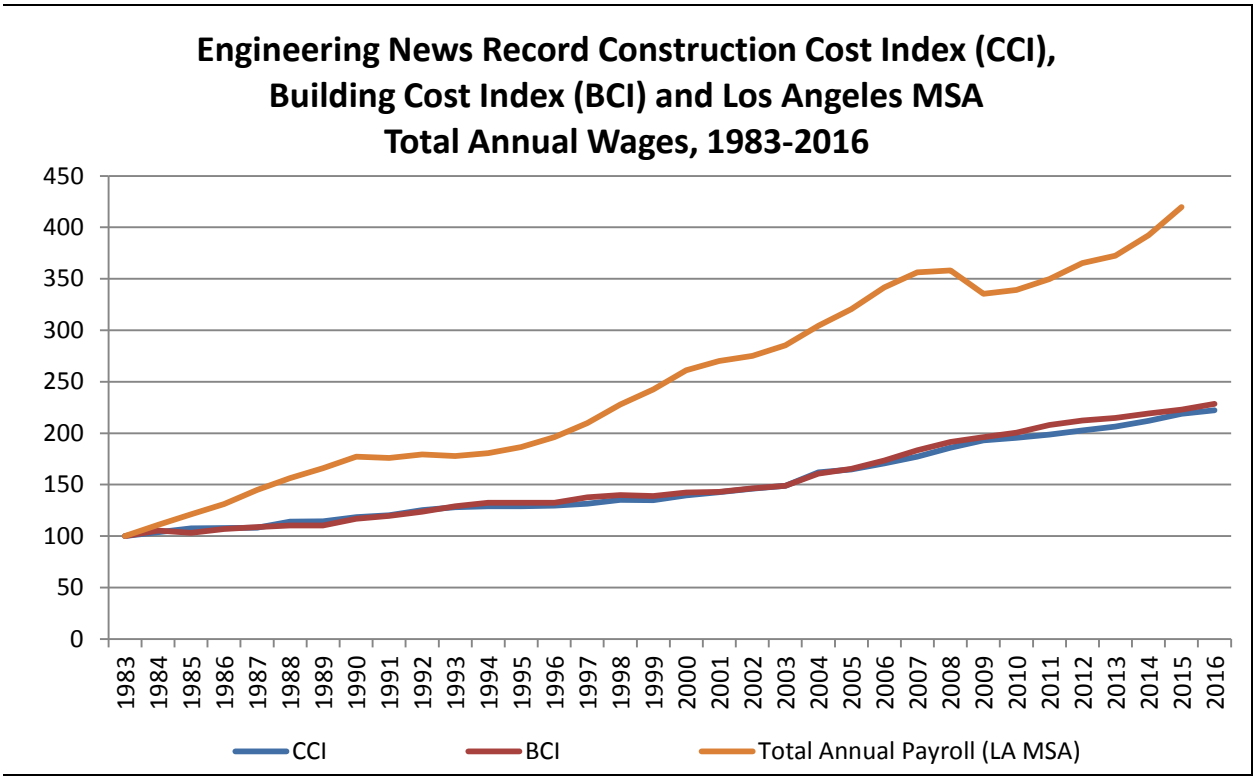
Source: Engineering News Record Monthly Release, U.S. Census Bureau

Appendix Figure A-3: Engineering News Record Construction Cost Index (CCI), Building Cost Index (BCI) and Los Angeles Metropolitan Statistical Area Employment (1983-2016); Normalized to 1983



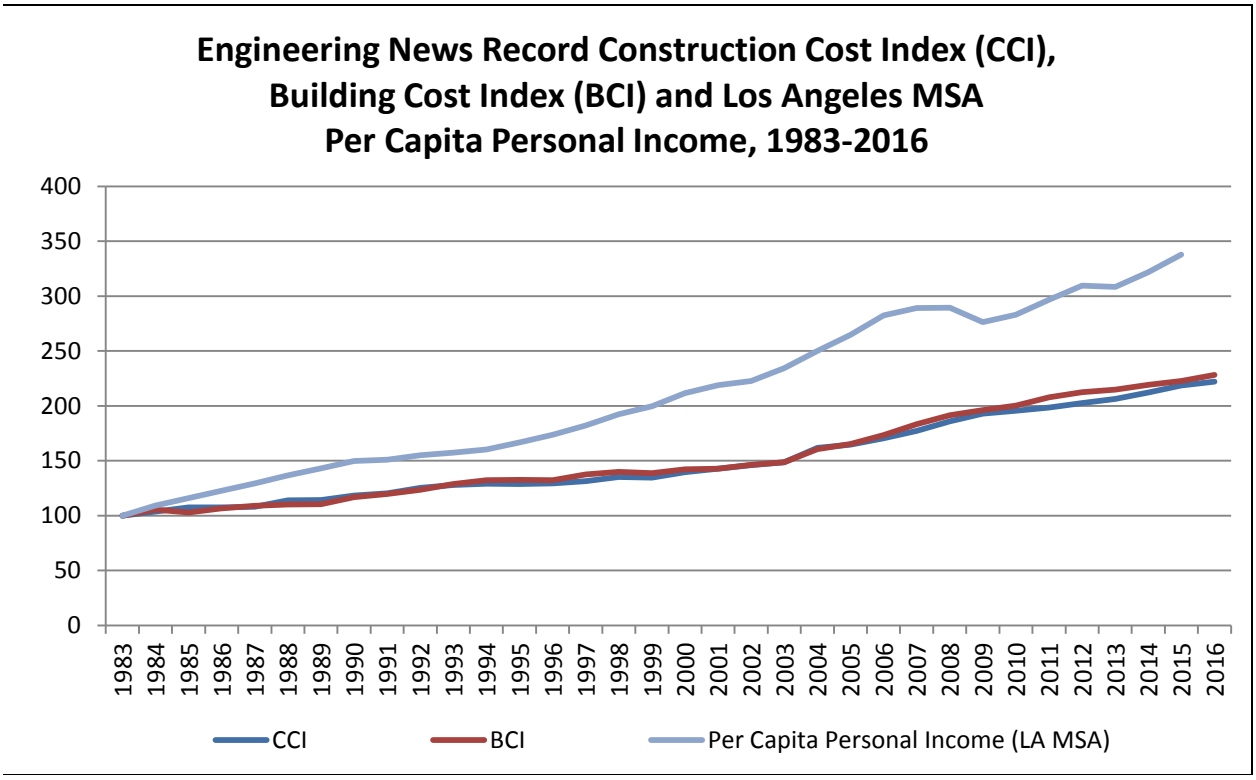
Source: Engineering News Record Monthly Release, California Employment Development Department

Appendix Figure A-4: Engineering News Record Construction Cost Index (CCI), Building Cost Index (BCI) and Los Angeles Metropolitan Statistical Area Total Annual Wages (1983-2016); Normalized to 1983



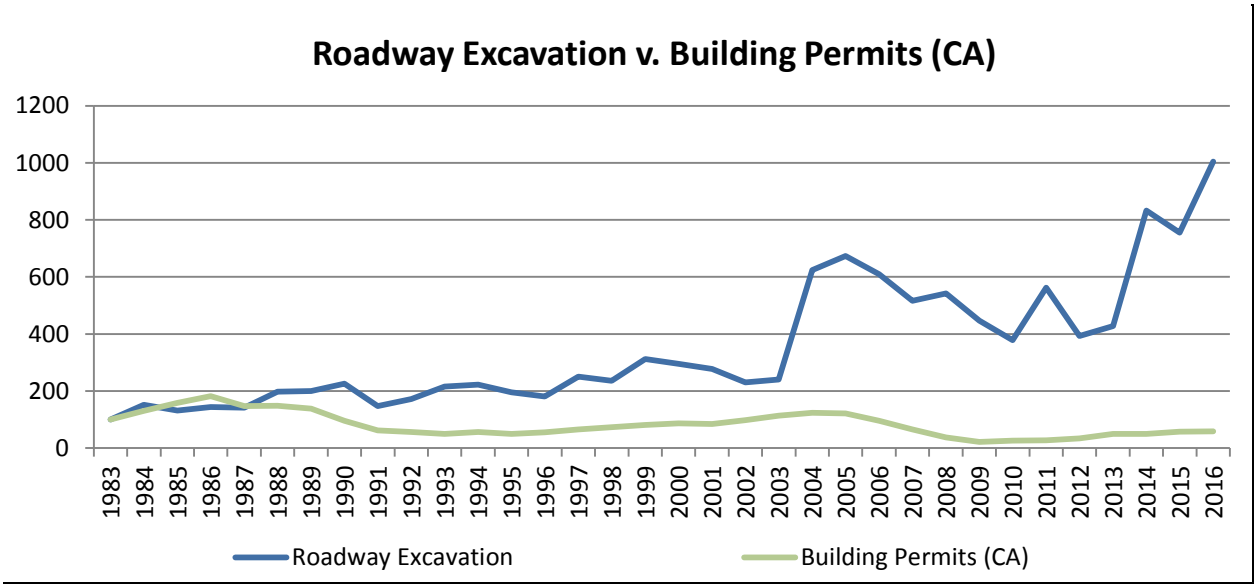
Source: Engineering News Record Monthly Release, California Employment Development Department

Appendix Figure A-5: Engineering News Record Construction Cost Index (CCI), Building Cost Index (BCI) and Los Angeles Metropolitan Statistical Area Per Capita Personal Income (1983-2016); Normalized to 1983



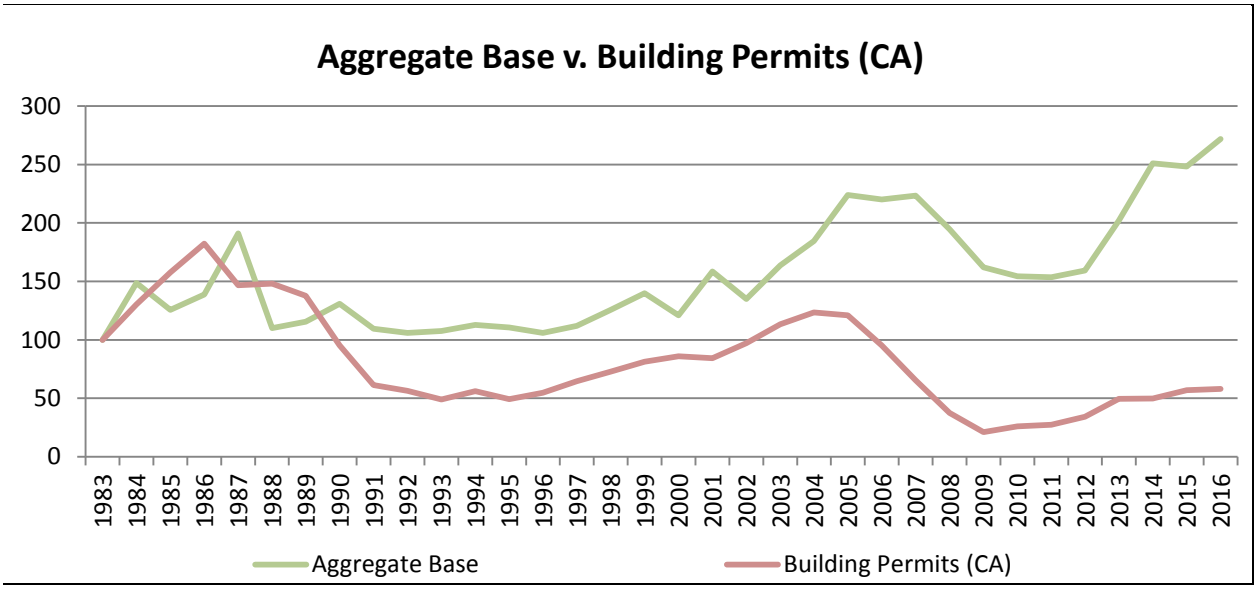
Source: Engineering News Record Monthly Release, U.S. Bureau of Economic Analysis

Appendix Figure A6: Roadway Excavation Costs versus California Building Permits, Normalized to 1983 = 100



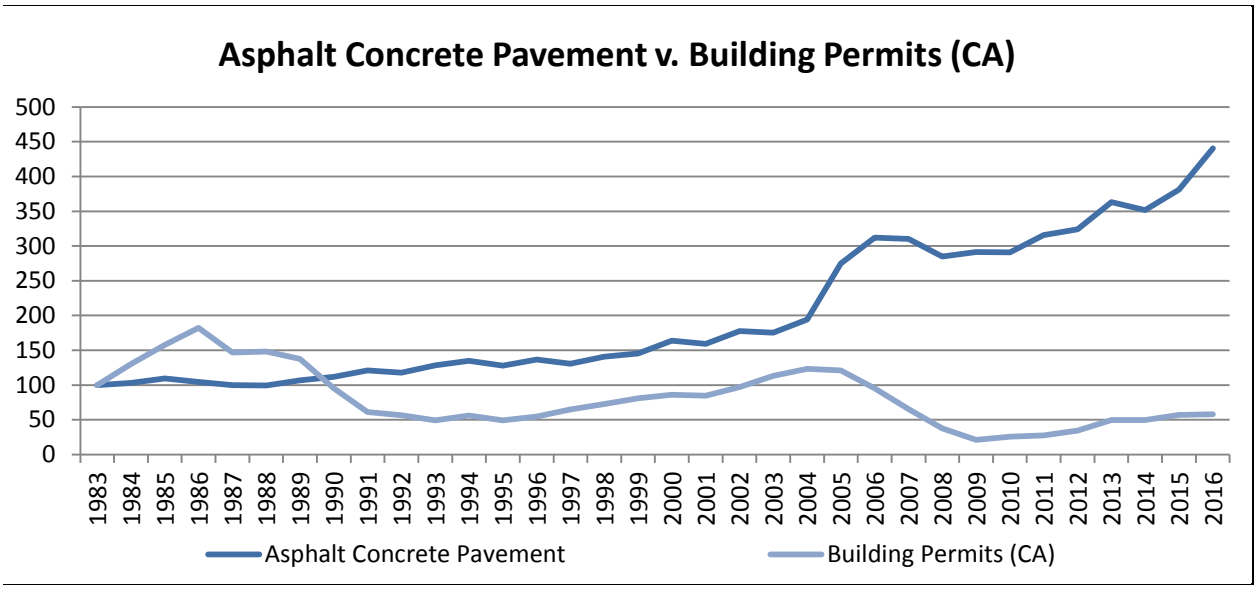
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A7: Aggregate Base Cost versus California Building Permits, Normalized to 1983 = 100



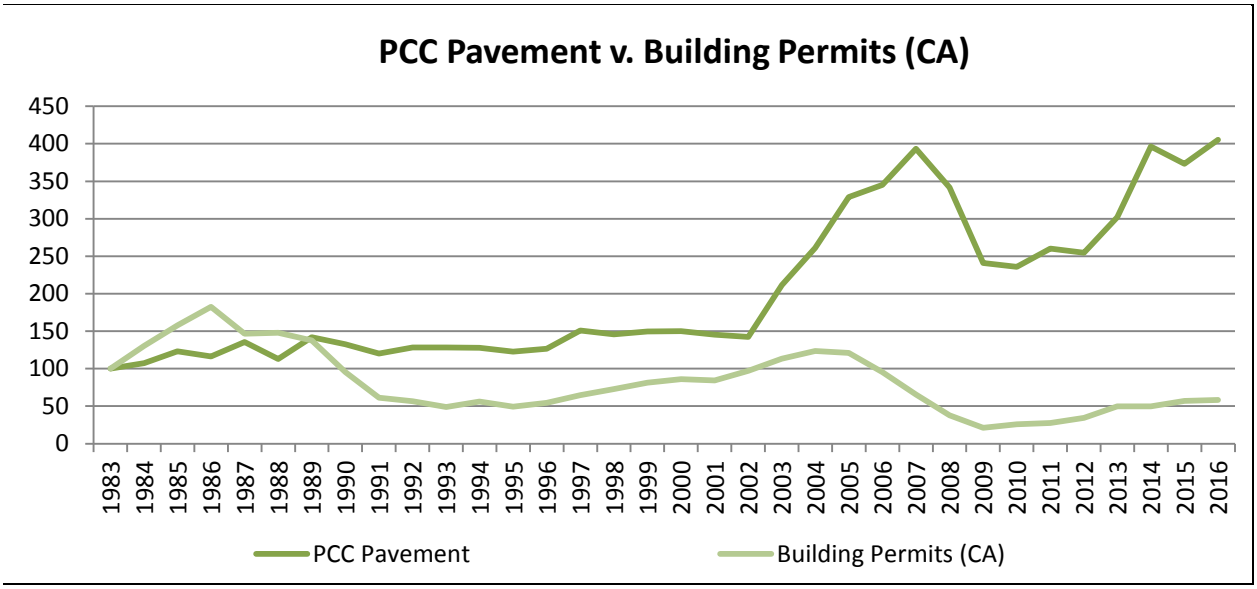
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A8: Asphalt Concrete Cost versus California Building Permits, Normalized to 1983 = 100



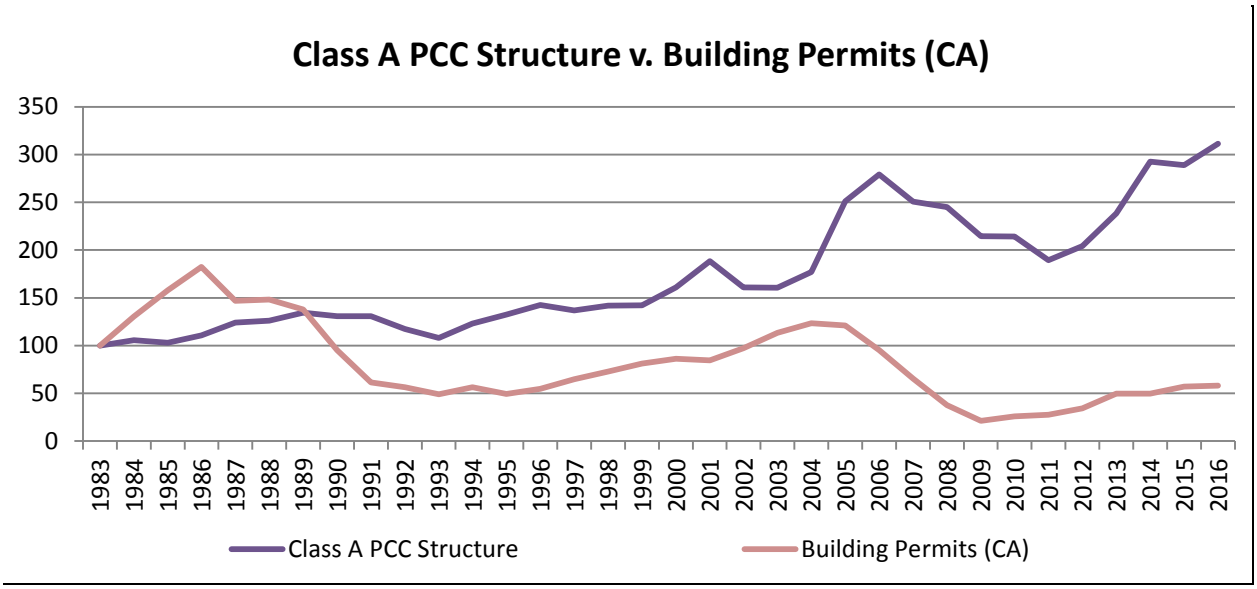
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A9: PCC Pavement Cost versus California Building Permits, Normalized to 1983 = 100



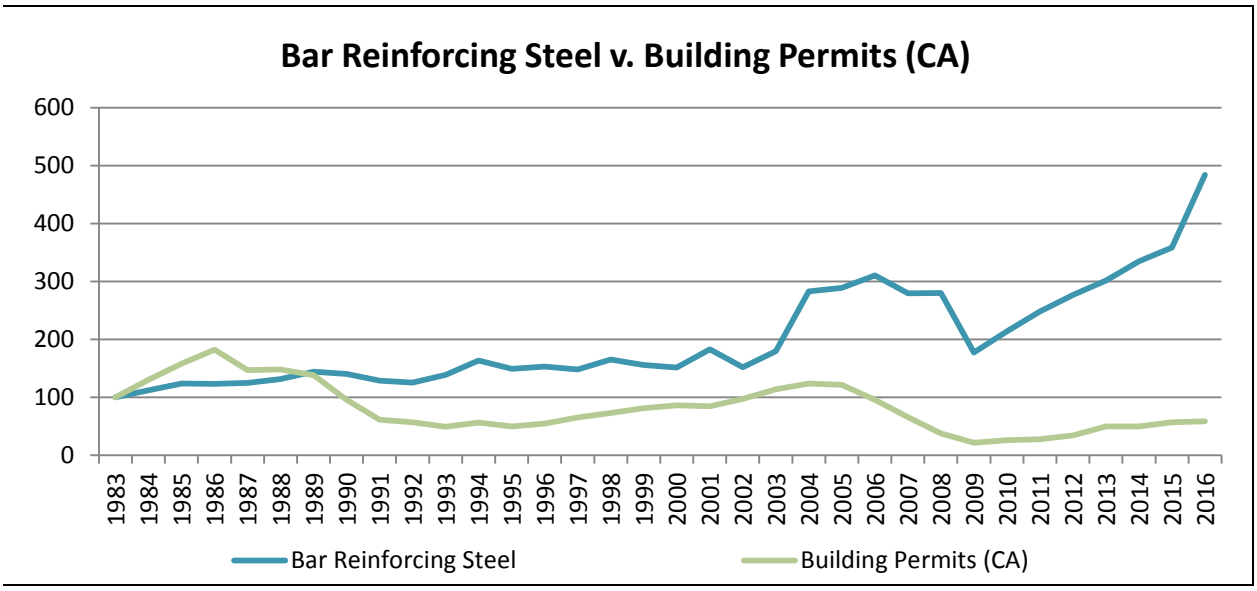
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A10: Class A PCC Structure Cost versus California Building Permits, Normalized to 1983 = 100



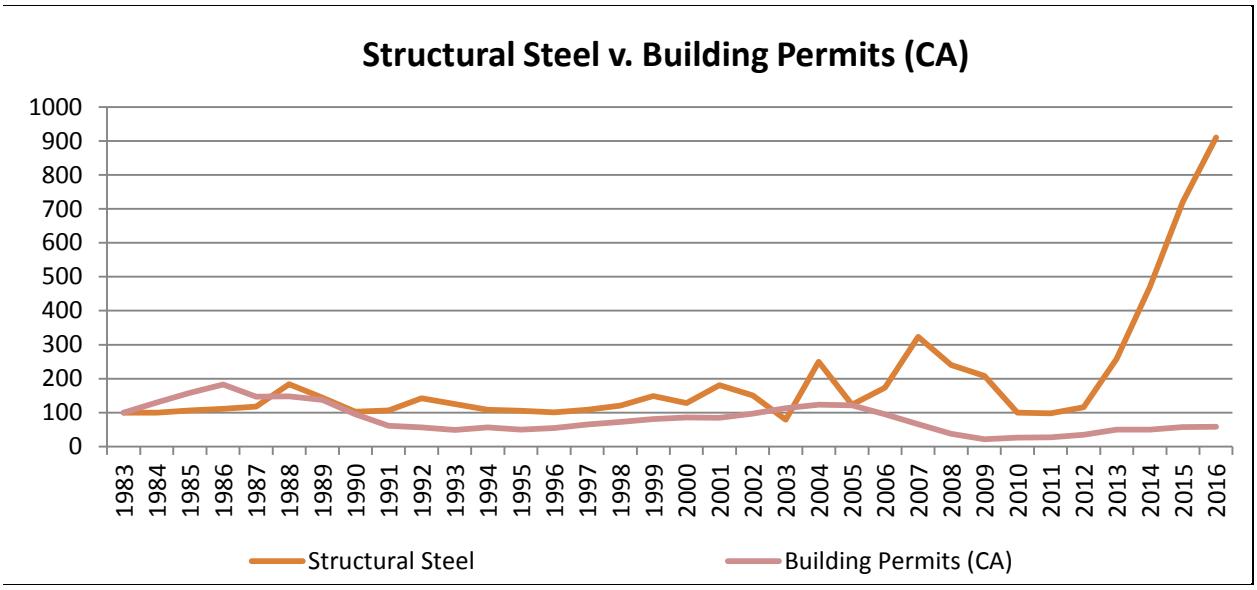
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A11: Bar Reinforcing Steel Cost versus California Building Permits, Normalized to 1983 = 100



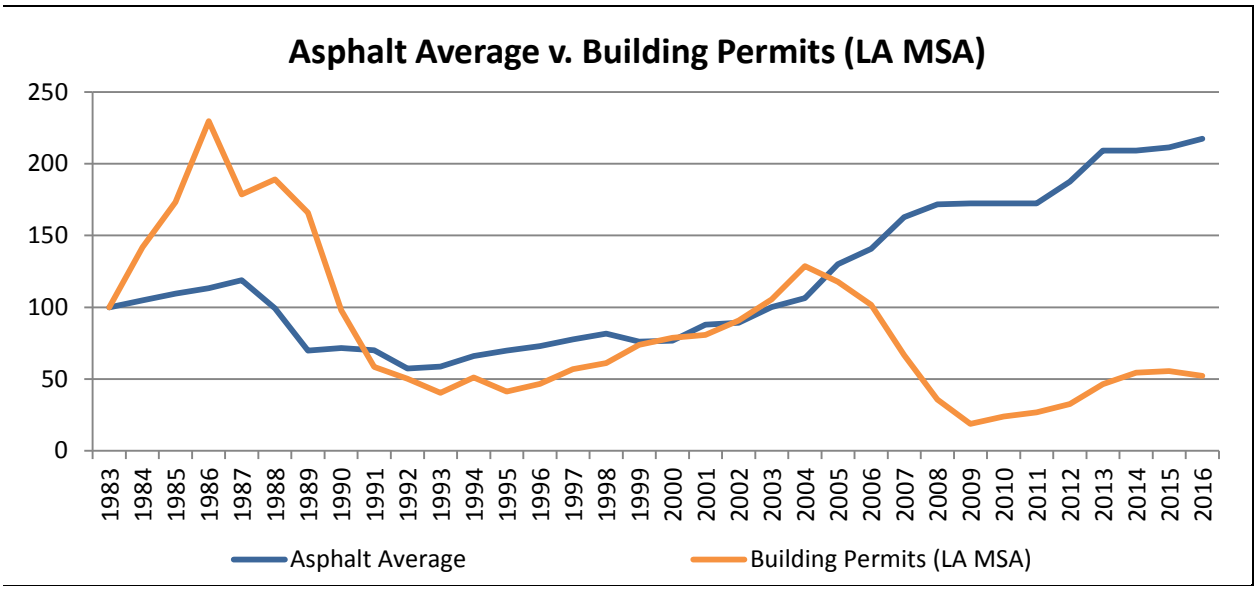
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A12: Structural Steel Cost versus California Building Permits, Normalized to 1983 = 100



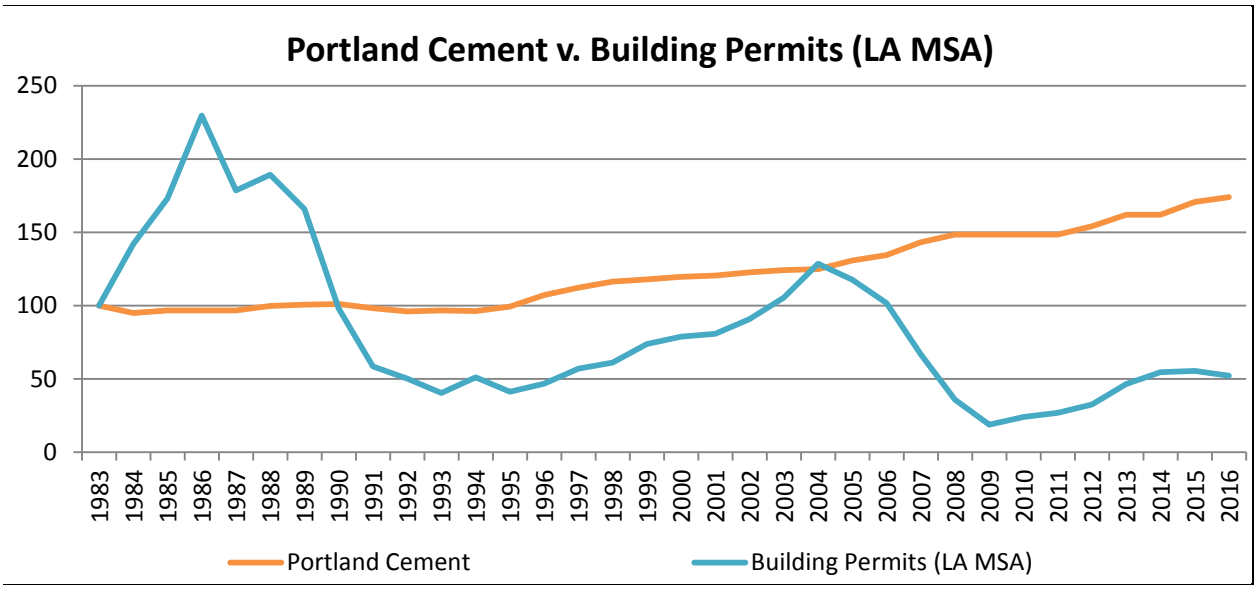
Source: California Department of Transportation, U.S. Census Bureau Building Permit Survey

Appendix Figure A13: Asphalt Cost (average) versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



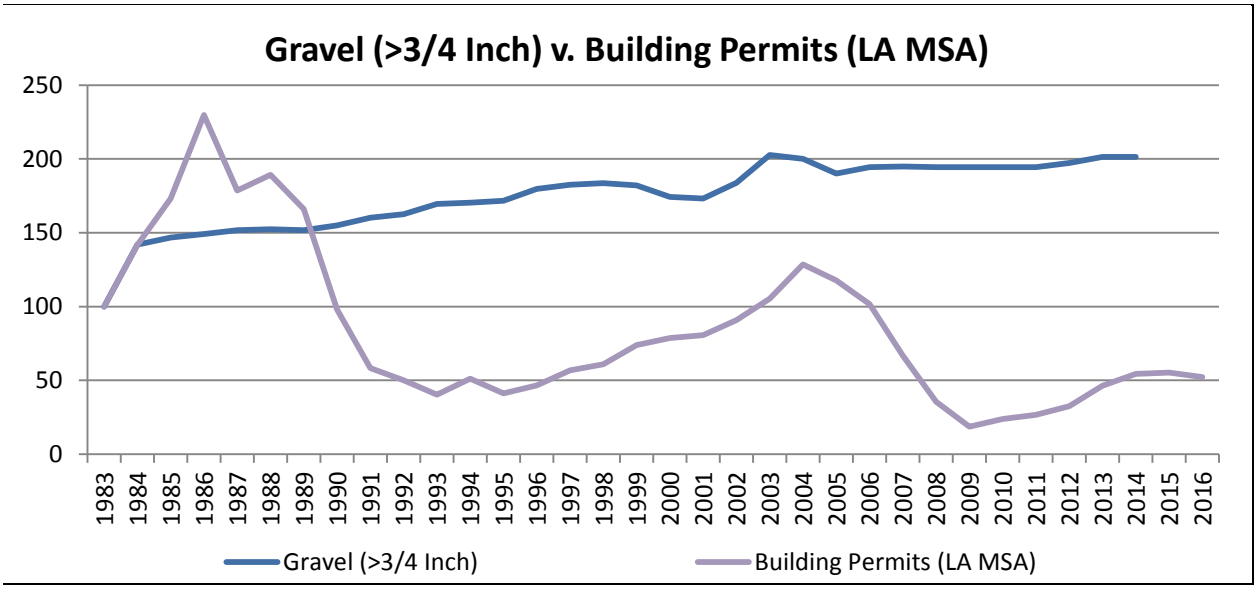
Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A14: Portland Cement Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



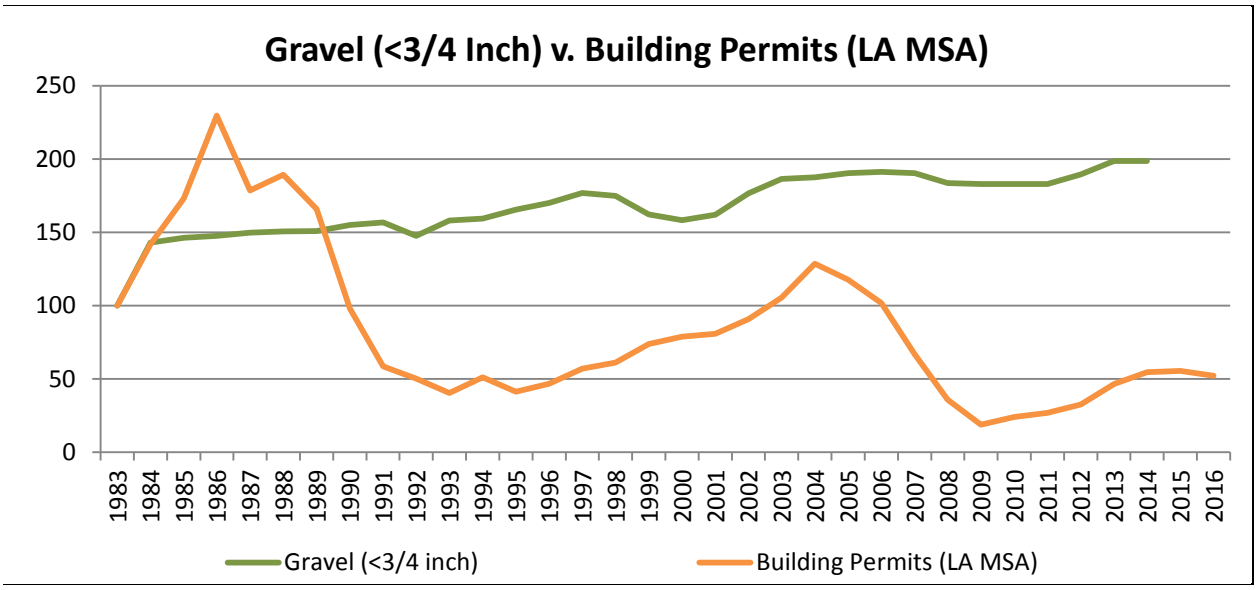
Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A15: Gravel (>3/4 inch) Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



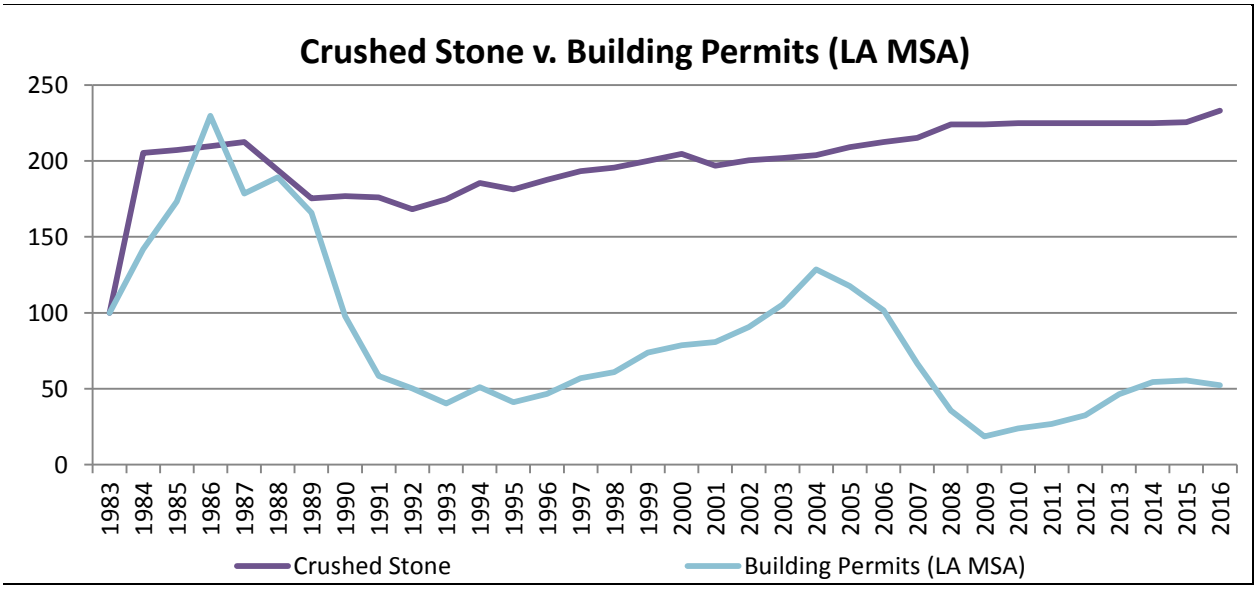
Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A16: Gravel (<3/4 inch) Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



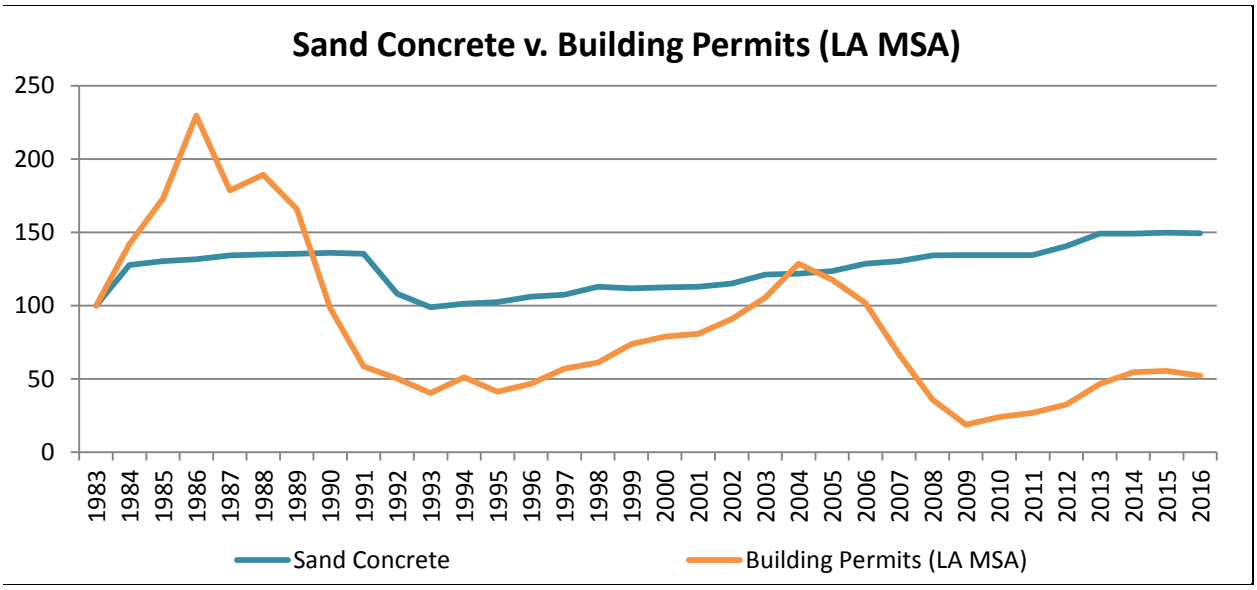
Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A17: Crushed Stone Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



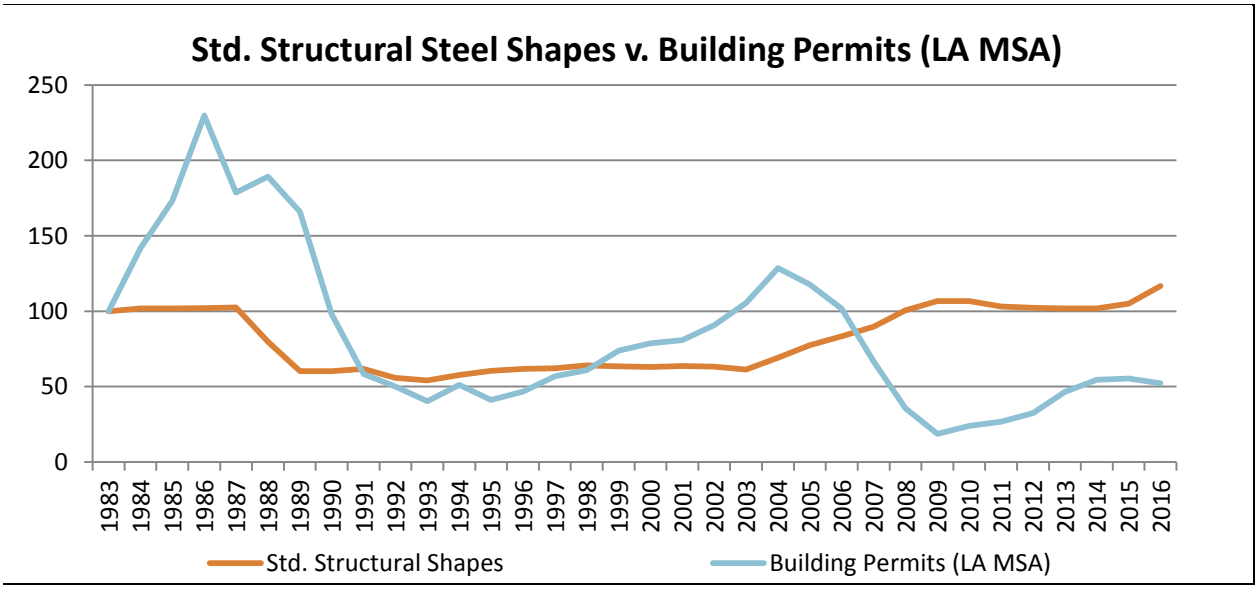
Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A18: Sand Concrete Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



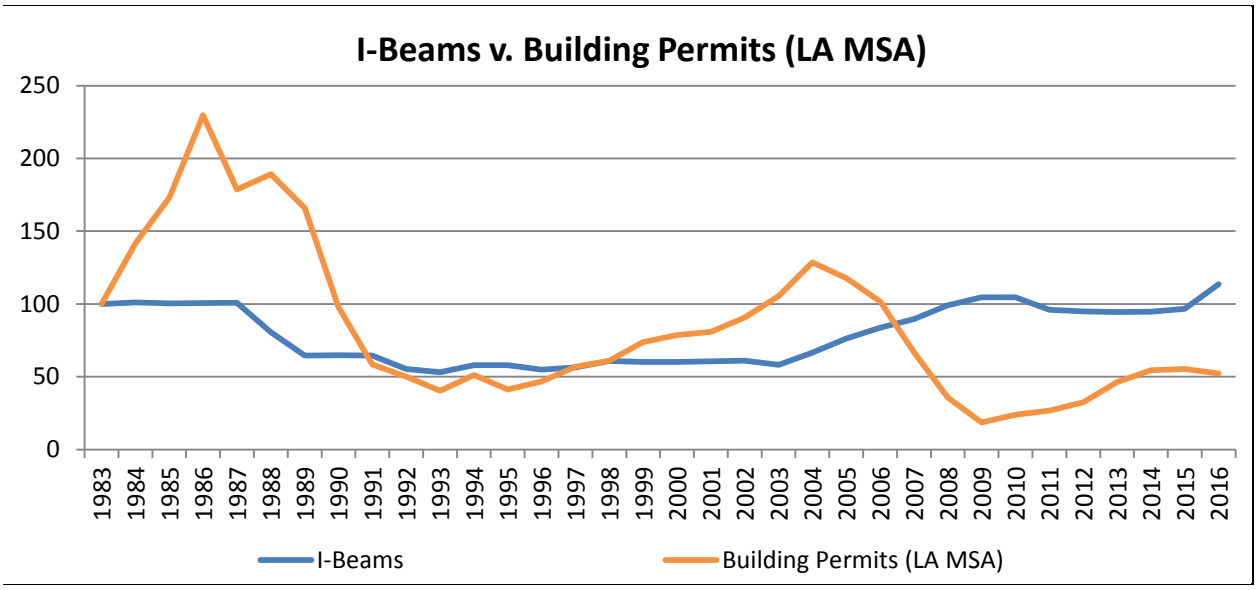
Source: Engineering News Record, U.S. Census Bureau

Appendix Figure A19: Std. Structural Steel Shapes Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



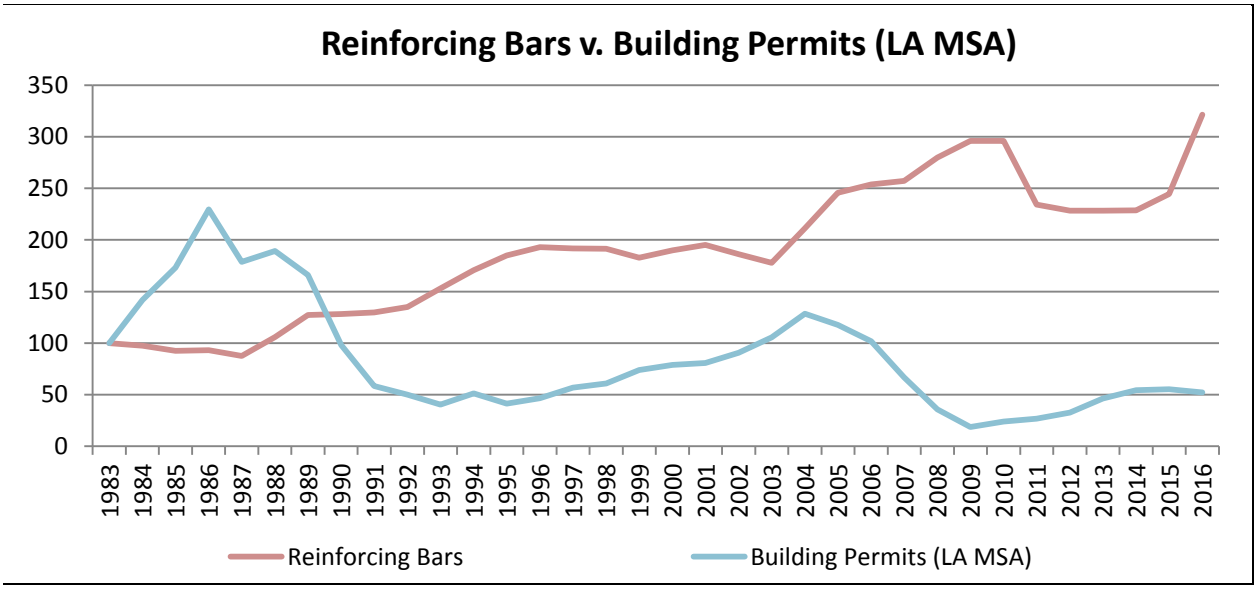
Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A20: I-Beam Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

Appendix Figure A21: Reinforcing Bars Cost versus Los Angeles Metropolitan Area Building Permits, Normalized to 1983 = 100



Source: Engineering News Record, U.S. Census Bureau Building Permit Survey

ATTACHMENT B

Risk Factors, Effect on Public Works Costs, and Some Possible OCTA Mitigations

Risk Factor	Impact on Costs	Likelihood	Comments	Possible OCTA Mitigations
Sustained low unemployment	Increases costs beyond Table 5 model prediction	Likely in the next 2 to 5 years	Wage pressure is still low, suggests that the economy has continued room to expand without necessitating policy efforts (i.e. interest rate increases) that would induce a recession	Accelerate the next 2 to 3 years of the Next 10 Plan Increase the supply of contractors
Increased Building Permitting (and hence residential construction)	Increases costs	Unlikely given long-term political factors, but regulatory change could be sudden	Increasing permitting depends in part on state or local political changes, but Inland Empire construction has been increasing rapidly	Accelerate next 2 to 3 years of the Next 10 Plan Labor force training to increase supply of skilled construction labor
Continued Consolidation in Construction and Architecture/Engineering Industry	Increases costs in near-term, then pressure for costs to remain high	Likely, given recent consolidation trends	The industry has been consolidating. Unclear whether that trend has played out or will continue.	OCTA becomes a preferred client Reduce barriers to new entrants into OCTA bid process Innovate in ease of doing business with OCTA
Interest Rate Increases	Short-term cost increases as financing costs, for OCTA and contractors, increase – long-term downward cost pressure if recession ensues	Highly likely to have moderate interest rate increases in next 2 to 5 years	U.S. is near historically low interest rates; global savings glut will exert downward pressure on interest rates; on net, rate increases likely to be moderate and sustained	Complete financing agreements in the near-term to avoid higher interest rates

Risk Factor	Impact on Costs	Likelihood	Comments	Possible OCTA Mitigations
Neighboring County Transportation Programs Exert Cost Pressure	Increases Costs	Highly Likely; current work programs in neighboring counties meet or exceed level in Orange County	Recent self-help sales tax increases "lock in" sustained demand for public works contractors in Southern California	OCTA becomes a client of choice Simplify the bid process and process of doing business with OCTA Accelerate Next 10 Plan to lock in prices before peak market pressure from neighboring counties
Increasing Construction Wage Pressure	Increases Costs	Likely in foreseeable future, unless residential market reverses course (which would likely coincide with a recession)	Construction wages increases by from 4.39 to 5.3 percent annually, 2014 to 2016, in Orange and neighboring SCAG region counties	Accelerate Next 10 Plan in advance of additional increases in construction wages Support efforts to increase the pool of construction labor
Recession	Decreases Costs	Likely within the next 10 years, but timing highly uncertain	Recession will reduce demand for private sector residential and commercial construction, but public sector demand will remain although sales tax revenues will drop in a recession	Timing uncertainty makes mitigation measures, beyond those listed above, difficult to implement

OCTA – Orange County Transportation Authority
SCAG – Southern California Association of Governments

Staff Update Items

COMMITTEE TRANSMITTAL

September 25, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Consideration of Measure M Identity Enhancements

Legislative and Communications Meeting of September 21, 2017

Present: Directors Davies, Delgleize, Murray, Nelson, Shaw, and Winterbottom
Absent: Directors Bartlett and Hennessey

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Approve renaming Measure M and incorporate the OC Go logo into updated signage and communications materials.

OCTA

September 21, 2017

To: Legislative and Communications Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Consideration of Measure M Identity Enhancements

Overview

In an effort to increase awareness of Orange County's local transportation sales tax measure and avoid confusion with Los Angeles County's Measure M, it is recommended to enhance the Measure M identity by incorporating a new name and logo into signage and communications materials. The Legislative and Communications Committee reviewed the proposed identity modification to OC Go and offered suggestions on the signage design, which since has been updated for review.

Recommendation

Approve renaming Measure M and incorporate the OC Go logo into updated signage and communications materials.

Background

In November 2006, nearly 70 percent of Orange County affirmatively voted on Measure M, the half-cent local sales tax for transportation improvements. Measure M, administered by the Orange County Transportation Authority (OCTA), will provide nearly $14 billion to improve transportation in Orange County over a 30-year period that began in spring 2011.

Research indicates a low public awareness of Measure M. According to the OCTA 2015 Attitudinal & Awareness Survey, nearly three-quarters of those surveyed (72 percent) had never heard of Measure M. Focus groups conducted in the summer of 2016 also indicated low awareness of Measure M and the specific types of projects and programs it funds. After being informed about Measure M, the majority of focus group participants indicated that they valued knowing that their local tax funds help deliver Orange County transportation projects. With this in mind, staff began looking at ways to better communicate the projects and programs that are funded with Measure M.

Within the Measure M program, as projects are implemented, signs are posted to inform the public that Measure M funding is responsible for the improvement or service. For example, funding signs with the OCTA and Measure M logos are posted during construction for freeway, street and road, and transit station projects. Services funded by Measure M, such as community and senior transit circulators, include logos on the vehicles. Currently, each funding sign has a different look and color scheme.

To address the lack of Measure M awareness, staff began creating a consistent look across all of the signage to visually demonstrate a connection to the funding from Measure M for all of the different services and improvements. Future funding signs will all have a consistent and recognizable visual identity, color scheme, and message.

Discussion

In November 2016, Los Angeles County voters approved Los Angeles Metropolitan Transportation Authority's (LA Metro) transportation sales tax, also called Measure M. LA Metro's Measure M became widely known following significant print and television media coverage.

In order to avoid confusion, to differentiate between the two counties, and to increase public awareness of Orange County's taxpayer-funded transportation investments, staff has recommended the renaming of Orange County's Measure M for public communication purposes and developing a new visual logo identity.

The 2016 focus group participants indicated that the name should clearly communicate transportation. Since the current identity does not presently do so, a new name and look have been developed that fit within the existing OCTA Board of Directors (Board)-approved family of OCTA logos - OC Bus, OC Streetcar, OC Vanpool, and OC Bike. The recommended name is OC Go. The new identity incorporates a local focus, fits within the OCTA family of logos, and clearly communicates transportation in an appealing manner.

Funding signs posted on the state highway system must adhere to specific standards and rules as per the State Highway Manual. Prior to finalizing a new look for the program, OCTA submitted the proposed highway improvement funding sign to the California State Department of Transportation (Caltrans) for review. Caltrans reviewed the sign and gave preliminary approval with the understanding that it would be brought to the OCTA Board for review before being finalized.

At the July 20, 2017 Legislative and Communications Committee, Committee members reviewed the proposed OC Go identity and provided suggestions to simplify the freeway signage design. Based on this feedback, staff made revisions to the sign to include an updated tagline that emphasizes "local" tax dollars and condensed messaging to enhance readability.

Caltrans reviewed the revised sign mockup and gave preliminary approval, with one exception. The exception is that, based on the Caltrans State Highway Manual, the wording must say "Highway Improvements" rather than simply "Improvements," which is what the Legislative and Communications Committee had suggested. If the Board chooses to move forward with the new name and logo for OC Go, as well as the new project signage, staff will work with Caltrans to seek an exception to the highway manual to reduce the wording. If it is not possible, the sign will be redesigned with the full "Highway Improvements" wording incorporated into the design.

After final approval, staff will begin installing signs to enhance awareness in the proximity of local sales tax funded projects as they begin the construction phase. The production and installation of signage is included in construction contracts as part of the normal process, and the proposed design would be used only for new projects going forward. In addition, the application of a style guide to signage across transportation modes will ensure a consistent and recognizable visual identity, color scheme, and message for projects and services funded by the local sales tax.

Summary

To enhance awareness of Orange County's local sales tax measure and avoid confusion with Los Angeles County, staff developed a new identity for Measure M, called OC Go. The proposed logo fits within the family of OCTA logos, clearly communicates transportation, and incorporates the preferred tagline supported by market research. If approved, the new identity would be rolled out in a public awareness campaign and in new signage for projects that go into construction.

Attachment

None.

Prepared by:

Ryan J. Armstrong
Manager, Digital and Creative Services
(714) 560-5834

Approved by:

Lance M. Larson
Executive Director,
External Affairs
(714) 560-5908

CONSIDERATION OF MEASURE M

IDENTITY ENHANCEMENTS

September 21, 2017

Your tax dollars at work.

RESEARCH

Market research that guided the renaming effort.

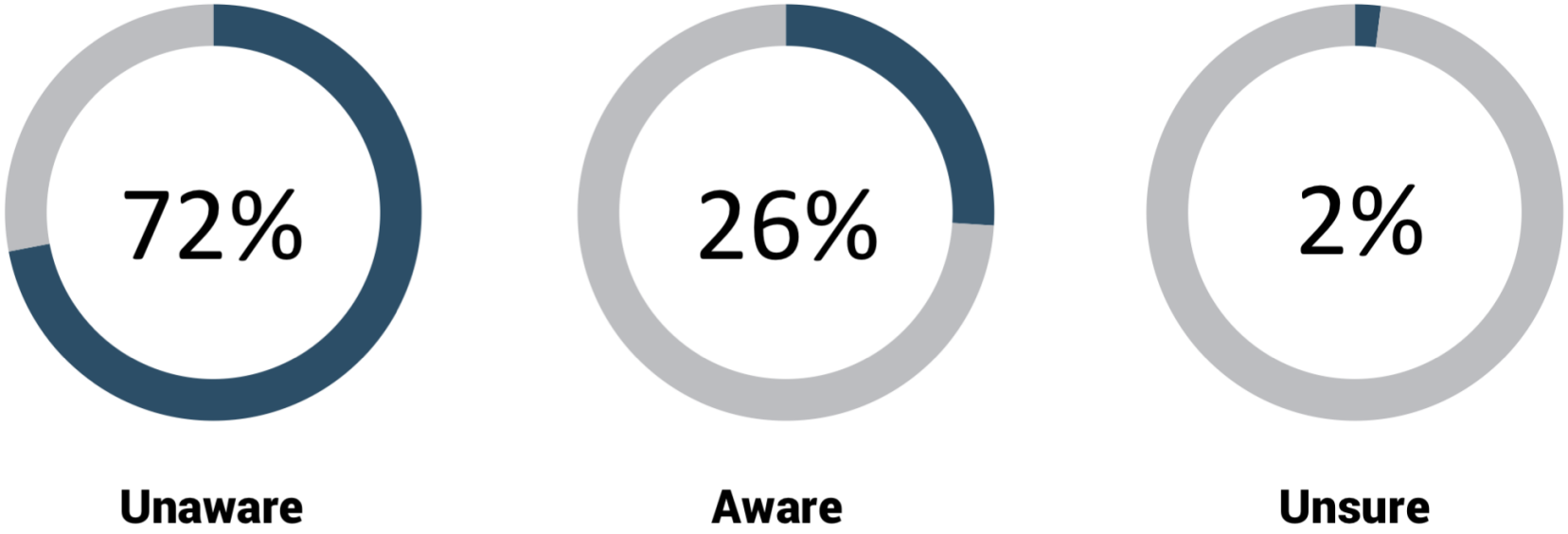
REASONS

What are the benefits and opportunities?

RESULTS

Unveiling the new name.

MARKET RESEARCH | AWARENESS



INSIGHT: In an effort to increase awareness of Orange County's Measure M and avoid confusion with LA Metro's local sales tax measure of the same name, it is recommended to rename Measure M and incorporate the new name into signage and communications materials.

Source: Attitudinal & Awareness Survey 2015

MARKET RESEARCH | FOCUS GROUPS

Awareness:

Focus groups indicated low awareness of Measure M and of the specific types of projects it funds.

Orange County:

After being informed about Measure M, the majority of participants indicated they valued knowing local funds help deliver Orange County projects.

Transportation:

Focus group participants indicated that the name should clearly communicate transportation.

WHY RENAME?

Differentiation

Avoid confusion and differentiate between Orange County's and LA Metro's Measure M

Visibility

Incorporate a local focus and clearly communicate transportation in a catchy manner

Consistency

Fit within the existing family of OCTA logos and maintain a consistent tone and personality

A FAMILY AFFAIR

OC BUS

OC BIKE

OC VANPOOL

OC STREETCAR

OC METROLINK

introducing a new family member

Your Tax Dollars at Work

Local Focus / Family Element

Transportation

Tagline, preferred by focus groups, integrated into the logo

Initial Observations

- OC Go and OCTA logos should be larger
- Year is too dominant
- Swoosh distracting (adds visual noise)

Committee Observations

- Emphasize “local” tax dollars
- Don’t state the obvious
- Use Caltrans’s “Be Work Zone Alert”


OCGO
Local Tax Dollars at Work
OCTA
IMPROVEMENTS
COMPLETE 2017
Caltrans
BE WORK ZONE ALERT


THIS PROJECT IS FUNDED BY
Orange County
Transportation Authority
OCTA
Caltrans
ORANGE COUNTY
MEASURE M2 FUNDS
M
ROADSIDE WORK
YEAR OF COMPLETION: 2018
BE WORK ZONE ALERT

Freeway Sign

Street Sign

RESEARCH

Market research that guided the renaming effort.

REASONS

What are the benefits and opportunities?

RESULTS

Unveiling the new name.

NEXT STEPS

- Work with Caltrans on final approval
- Launch public awareness campaign

THANK YOU

Information Items

COMMITTEE TRANSMITTAL

August 14, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Capital Programs Division – Fourth Quarter Fiscal Year 2016-17 and Planned Fiscal Year 2017-18 Capital Action Plan Performance Metrics

Executive Committee Meeting of August 7, 2017

Present: Chairman Hennessey, Vice Chair Bartlett, and Directors Do, Nelson, and Shaw
Absent: Directors Donchak and Murray

Committee Vote

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

Staff Recommendation

Receive and file as an information item.

OCTA

August 7, 2017

To: Executive Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Capital Programs Division - Fourth Quarter Fiscal Year 2016-17 and Planned Fiscal Year 2017-18 Capital Action Plan Performance Metrics

Overview

The Orange County Transportation Authority's Strategic Plan key strategies and objectives to achieve the goals for Mobility and Stewardship include delivery of all Capital Action Plan projects on time and within budget. The Capital Action Plan is used to create a performance metric to assess capital project delivery progress on highway, grade separation, rail, and facility projects. This report provides an update on the Capital Action Plan delivery and performance metrics.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) Capital Programs Division is responsible for project development and delivery of highway, grade separation, rail, and facility projects from the beginning of the environmental approval phase through construction completion. Project delivery commitments reflect defined project scope, costs, and schedules. Project delivery commitments shown in the Capital Action Plan (CAP) are key strategies and objectives to achieve the Strategic Plan goals for Mobility and Stewardship.

This report provides an update on the CAP performance metrics, which are the fiscal year (FY) snapshot of the planned CAP project delivery milestones in the budgeted FY. The Capital Programs Division also provides Metrolink commuter rail ridership, revenue, and on-time performance reports and metrics as part of rail program updates.

Discussion

The Capital Programs Division objective is to deliver projects on schedule and within the approved project budget. Key project cost and schedule commitments are captured in the CAP, which is regularly updated with new projects and project status (Attachment A). The CAP is categorized into four key groupings of projects; freeway projects, grade separation projects, rail and station projects, and key facility projects. Simple milestones are used as performance indicators of progress in project delivery. The CAP performance metrics provides a FY snapshot of the milestones targeted for delivery in the budgeted FY, and provide both transparency and measurement of annual capital project delivery performance.

The CAP project cost represents the total cost of the project across all phases of project delivery, including support costs, and right-of-way (ROW) and construction capital costs. The established baseline cost is shown in comparison to either the actual or forecast cost. The baseline costs may be shown as to-be-determined (TBD) if project scoping studies or other project scoping documents have not been approved, and may be updated as project delivery progresses and milestones are achieved. Projects identified in the Orange County local transportation sales tax measure (M2) are identified with the M2 logo and corresponding project letter. The CAP update is also included in the M2 Quarterly Report.

The CAP summarizes the very complex capital project critical path delivery schedules into eight key milestones.

Begin Environmental	The date work on the environmental clearance, project report, or preliminary engineering phase begins.
Complete Environmental	The date environmental clearance and project approval is achieved.
Begin Design	The date final design work begins, or the date when a design-build contract begins.
Complete Design	The date final design work is 100 percent complete and approved.

Construction Ready	The date contract bid documents are ready for advertisement, including certification of ROW, all agreements executed, and contract constraints cleared.
Advertise for Construction	The date a construction contract is advertised for bids.
Award Contract	The date the construction contract is awarded.
Construction Complete	The date all construction work is completed, and the project is open to public use.

These delivery milestones reflect progression across the project delivery phases shown below.

Project schedules reflect the approved milestone dates in comparison to the forecast or actual milestone dates. Milestone dates may be shown as TBD if project scoping or approval documents have not been finalized and approved, or if the delivery schedule has not been negotiated with the agency or consultant implementing the specific phase of a project. Planned milestone dates can be revised to reflect new dates from approved baseline schedule changes. Actual dates will be updated when milestones are achieved, and forecast dates will be updated to reflect project delivery status.

CAP fourth quarter FY 2016-17 milestones achieved include:

Freeway and OC Bridges Railroad Grade Separation Projects

- The begin environmental milestone for the Interstate 5 (I-5) El Toro Road interchange improvement was achieved.

- The complete design milestone for the addition of a second high-occupancy vehicle (HOV) lane on I-5 between State Route 55 (SR-55) and State Route 57 (SR-57) was achieved.

- The construction ready milestone for the southbound Interstate 405 (I-405) auxiliary lane between University Drive and State Route 133 has been achieved. However, funding for construction has not been identified since the project was dropped from the 2016 State Transportation Improvement Program (STIP).

- The construction ready milestone for the SR-57 widening landscape replacement planting project from Katella Avenue to Lincoln Avenue was achieved. This milestone was originally planned for the second quarter, but was delayed due to extensive design comments.

- The Lakeview Avenue railroad grade separation achieved completion of construction with conditional construction acceptance by the cities of Anaheim and Placentia in June 2017. This milestone was not originally anticipated to be completed in the current FY.

Rail and Station Projects

- The environmental clearance milestone for the Anaheim Canyon Metrolink Station expansion was achieved with Federal Transit Administration approval of a categorical exclusion determination on June 30, 2017.

- In June 2017, the OCTA Board of Directors (Board) awarded the construction contract for the Orange Metrolink Station parking expansion project. The construction contract award was originally planned in the second quarter, but was delayed due to the cancelation and reissuance of the invitation for construction bids.

The following CAP milestones missed the planned delivery through the fourth quarter of FY 2016-17.

Freeway Projects

- The complete design milestone for the I-5 widening from Oso Parkway to Alicia Parkway was missed. The I-5 widening project between State Route 73 (SR-73) and El Toro Road is being delivered in three logical construction segments based upon traffic management impacts and anticipated construction contract size. The complete design milestone for the Oso Parkway to Alicia Parkway segment has been rescheduled to align with the delivery schedule for the adjacent southerly widening segment from SR-73 to Oso Parkway. As previously reported to the OCTA Board, the

2016 STIP adopted by the California Transportation Commission in May 2016 delayed construction funding for the SR-73 to Oso Parkway segment from FY 2018-19 to FY 2020-21. All three segments have interrelated construction schedules to accommodate maintenance of traffic. Any significant delay to one segment may impact the construction schedule of the remaining two segments.

- The advertise construction and award contract milestones for the SR-57 widening landscape replacement planting from Katella Avenue to Lincoln Avenue were missed because of delays in resolving final California Department of Transportation (Caltrans) design comments. However, Caltrans is scheduled to advertise for construction bids on July 31, 2017, and open construction bids on August 24, 2017.

- The complete design, construction ready, advertise construction, and award contract milestones for the SR-57 widening landscape replacement planting from Orangethorpe Avenue to Lambert Avenue were missed. OCTA's consultant continues to address Caltrans design and quality assurance comments. The forecast schedule reflects completion of reviews, approvals, and packaging of the final landscape construction contract for Caltrans to advertise for construction bids in January 2018.

- The complete construction milestone for the I-5 widening to add an HOV lane from Vista Hermosa to Pacific Coast Highway was missed. However, construction acceptance is anticipated in late July or early August 2017. The opening of the HOV lane to traffic will be coordinated with completion of the two remaining northerly and southerly adjacent segments in early 2018.

Rail and Station Projects

- The complete environmental milestone for the 17th Street railroad grade separation project was missed. The California Office of Historic Preservation (OHP) did not concur with Caltrans determination of a Finding of No Adverse Effects on historical property adjacent to the project. The Finding of Effect document is being revised to address OHP comments, and the environmental clearance will not be achieved until October 2017, at the earliest. If OHP comments cannot be satisfactorily addressed, the environmental document may need to be upgraded from a categorical exemption to an environmental impact report/environmental impact statement, which will create significant delays to the environmental clearance. The current cost estimate for ROW and construction is approximately

$95 million, and funding for the future delivery phases of this project has not been identified.

- The complete design and construction ready milestones for the San Juan Capistrano railroad passing siding project were missed. California Public Utilities Commission (CPUC) reviews of proposed modifications to the private at-grade railroad crossing serving as the entrance to Saddleback Church property have contributed to delays. In late July 2017, the CPUC concurred with the modifications so that the design can be completed. Design is forecast to be complete and the project construction ready in December 2017.

- The construction completion milestone was missed on the Fullerton Transportation Center Elevator upgrade contract. The construction contract is administered by the City of Fullerton, and construction completion is anticipated in mid-2018.

Recap of FY 2016-17 Performance Metrics

The performance metrics snapshot provided at the beginning of FY 2016-17 reflected 33 planned major project delivery milestones to accomplish. One additional milestone not originally planned for delivery in the FY was delivered early. The CAP and performance metrics have been updated to reflect both milestones achieved and missed throughout FY 2016-17 (Attachment B). There were 22 milestones completed (66.7 percent) in FY 2016-17, including the one milestone not in the original plan.

Of the 12 missed milestones through FY 2016-17, six are attributable to delays in design completion of freeway landscape replacement planting projects, four are railroad-related projects, and two are delays in freeway project phases.

New FY 2017-18 Performance Metrics

New forecast project delivery milestones are included in the CAP and the FY 2017-18 performance metrics (Attachment C). There are 34 major project milestones planned to be accomplished in FY 2017-18.

FY 2017-18 Cost and Performance Metrics Risks

The SR-55 widening between I-405 and I-5 carries significant risk for increased construction, ROW, and utility costs as Caltrans prepares 35 percent design and the required design exception studies/approvals to accommodate the addition of

a second HOV lane, generally within the same ROW limits as the M2 widening scope.

The final construction cost estimate for the SR-57 widening landscape replacement planting from Orangethorpe Avenue to Lambert Avenue may exceed available construction funding. Final design approvals from Caltrans have required addition of scope to accommodate maintenance worker safety not originally contemplated to be a part of the replacement planting project.

Early reviews of cost estimates to construct the I-5 widening from SR-73 to El Toro Road indicate the costs will exceed funding availability. Staff will continue to work with Caltrans and the consultant designers to assess costs and value engineer the design where possible as final design progresses toward completion.

As discussed earlier in this report, there is risk of delay and cost increases to complete environmental approval for the 17th Street railroad grade separation project due to OHP historical comments.

Summary

Significant capital project delivery progress has been achieved and reflected in the CAP. The planned FY 2017-18 performance metrics created from forecast project schedules will be used as a general project delivery performance indicator. Staff will continue to manage project costs and schedules across all project phases to meet project delivery commitments and report quarterly.

Attachments

A. Capital Action Plan, Status Through June 2017
B. Capital Programs Division, Fiscal Year 2016-17 Performance Metrics Status Through June 2017
C. Capital Programs Division, Fiscal Year 2017-18 Performance Metrics

Prepared by:

James G. Beil, P.E.
Executive Director, Capital Programs
(714) 560-5646

Capital Action Plan

Status Through June 2017

Updated: July 25, 2017

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast: Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
Freeway Projects:									
I-5, Pico to Vista Hermosa	$113.0	Jun-09	Dec-11	Jun-11	Oct-13	Feb-14	Oct-14	Dec-14	Aug-18
Project C	$89.5	**Jun-09**	**Oct-11**	**Jun-11**	**Oct-13**	**May-14**	**Sep-14**	**Dec-14**	May-18
I-5, Vista Hermosa to Pacific Coast Highway	$75.6	Jun-09	Dec-11	Jun-11	Feb-13	Jun-13	Oct-13	Dec-13	Mar-17
Project C	$71.4	**Jun-09**	**Oct-11**	**Jun-11**	**May-13**	**Aug-13**	**Feb-14**	**Jun-14**	Jul-17
I-5, Pacific Coast Highway to San Juan Creek Road	$70.7	Jun-09	Dec-11	Jun-11	Jan-13	May-13	Aug-13	Oct-13	Sep-16
Project C **Cost/Schedule Risk**	$71.2	**Jun-09**	**Oct-11**	**Jun-11**	**Jan-13**	**Apr-13**	**Aug-13**	**Dec-13**	Apr-18
I-5, I-5/Ortega Interchange	$90.9	Sep-05	Jun-09	Jan-09	Nov-11	Mar-12	Jun-12	Aug-12	Sep-15
Project D	$75.1	**Sep-05**	**Jun-09**	**Jan-09**	**Dec-11**	**Apr-12**	**Jun-12**	**Aug-12**	**Jan-16**
I-5, I-5/Ortega Interchange (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project D	N/A	N/A	N/A	**Jan-14**	**Oct-14**	**Feb-15**	**Aug-15**	**Sep-15**	**Sep-16**
I-5, SR-73 to Oso Parkway	$151.9	Sep-11	Jun-14	TBD	Jan-18	May-18	Aug-18	Dec-18	Jan-24
Project C & D **Cost/Schedule Risk**	$190.5	**Oct-11**	**May-14**	**Mar-15**	Mar-18	Jan-19	May-19	Sep-19	Sep-24
I-5, Oso Parkway to Alicia Parkway	$196.2	Sep-11	Jun-14	Nov-14	Jun-17	Dec-17	Feb-18	Jun-18	Feb-23
Project C & D **Cost/Schedule Risk**	$191.0	**Oct-11**	**May-14**	**Nov-14**	Nov-17	May-18	Jul-18	Oct-18	Jul-23
I-5, Alicia Parkway to El Toro Road	$133.6	Sep-11	Jun-14	Mar-15	Jun-18	Dec-18	Jan-19	May-19	Jun-23
Project C **Cost/Schedule Risk**	$166.5	**Oct-11**	**May-14**	**Mar-15**	Jul-18	May-19	Jul-19	Nov-19	Dec-23
I-5, I-5/El Toro Road Interchange	TBD	Apr-17	Nov-19	TBD	TBD	TBD	TBD	TBD	TBD
Project D	TBD	**Apr-17**	Nov-19	TBD	TBD	TBD	TBD	TBD	TBD
I-5, I-405 to SR-55	TBD	May-14	Aug-18	TBD	TBD	TBD	TBD	TBD	TBD
Project B	TBD	**May-14**	Oct-18	TBD	TBD	TBD	TBD	TBD	TBD
I-5, SR-55 to SR-57	$37.1	Jul-11	Jun-13	Jun-15	Mar-17	Jul-17	Sep-17	Dec-17	Feb-20
Project A **Cost/Schedule Risk**	$39.6	**Jun-11**	**Apr-15**	**Jun-15**	**Jun-17**	Oct-17	Jan-18	Apr-18	Jun-20
SR-55, I-405 to I-5	TBD	Feb-11	Nov-13	TBD	TBD	TBD	TBD	TBD	TBD
Project F **Cost/Schedule Risk**	$410.9	**May-11**	Sep-17	Aug-17	Apr-20	Nov-20	Feb-21	May-21	Jun-25
SR-55, I-5 to SR-91	TBD	Dec-16	Jan-20	TBD	TBD	TBD	TBD	TBD	TBD
Project F	TBD	**Dec-16**	Jan-20	TBD	TBD	TBD	TBD	TBD	TBD
SR-57 Northbound (NB), Orangewood Avenue to Katella Avenue	TBD	Apr-16	Dec-18	TBD	TBD	TBD	TBD	TBD	TBD
Project G	TBD	**Apr-16**	Dec-18	TBD	TBD	TBD	TBD	TBD	TBD
SR-57 (NB), Katella Avenue to Lincoln Avenue	$78.7	Apr-08	Jul-09	Jul-08	Nov-10	Mar-11	May-11	Aug-11	Sep-14
Project G	$40.5	**Apr-08**	**Nov-09**	**Aug-08**	**Dec-10**	**Apr-11**	**Jul-11**	**Oct-11**	**Apr-15**
SR-57 (NB), Katella Avenue to Lincoln Avenue (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project G **Cost/Schedule Risk**	N/A	N/A	N/A	**May-09**	**Jul-10**	**Jun-17**	Jul-17	Oct-17	Dec-18

ATTACHMENT A

Capital Action Plan

Status Through June 2017

Updated: July 25, 2017

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast: Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
SR-57 (NB), Orangethorpe Avenue to Yorba Linda Boulevard	$80.2	Aug-05	Dec-07	Feb-08	Dec-09	Apr-10	Jun-10	Oct-10	May-14
Project G	$52.6	**Aug-05**	**Dec-07**	**Feb-08**	**Jul-09**	**Dec-09**	**May-10**	**Oct-10**	**Nov-14**
SR-57 (NB), Yorba Linda Boulevard to Lambert Road	$79.3	Aug-05	Dec-07	Feb-08	Dec-09	Apr-10	Jun-10	Oct-10	Sep-14
Project G	$55.4	**Aug-05**	**Dec-07**	**Feb-08**	**Jul-09**	**Mar-10**	**May-10**	**Oct-10**	**May-14**
SR-57 (NB), Orangethorpe Avenue to Lambert Road (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project G **Cost/Schedule Risk**	N/A	N/A	N/A	**Oct-14**	Aug-17	Nov-17	Jan-18	Mar-18	May-19
SR-57 (NB), Lambert Road to Tonner Canyon	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Cost/Schedule Risk	TBD	Aug-18	Jul-21	TBD	TBD	TBD	TBD	TBD	TBD
SR-91 Westbound (WB), I-5 to SR-57	$78.1	Jul-07	Apr-10	Oct-09	Feb-12	Jul-12	Aug-12	Nov-12	Apr-16
Project H	$59.6	**Jul-07**	**Jun-10**	**Mar-10**	**Apr-12**	**Aug-12**	**Oct-12**	**Jan-13**	**Jun-16**
SR-91 Westbound (WB), I-5 to SR-57 (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project H	N/A	N/A	N/A	**Nov-14**	**Aug-16**	**Dec-16**	**Feb-17**	**Mar-17**	May-18
SR-91, SR-57 to SR-55	TBD	Jan-15	Oct-18	TBD	TBD	TBD	TBD	TBD	TBD
Project I **Cost/Schedule Risk**	TBD	**Jan-15**	May-19	TBD	TBD	TBD	TBD	TBD	TBD
SR-91 (WB), Tustin Interchange to SR-55	$49.9	Jul-08	Jul-11	Jul-11	Mar-13	Jul-13	Aug-13	Oct-13	Jul-16
Project I	$43.3	**Jul-08**	**May-11**	**Jun-11**	**Feb-13**	**Apr-13**	**Jun-13**	**Oct-13**	**Jul-16**
SR-91, SR-55 to SR-241	$128.4	Jul-07	Jul-09	Jun-09	Jan-11	Apr-11	Jun-11	Sep-11	Dec-12
Project J	$79.6	**Jul-07**	**Apr-09**	**Apr-09**	**Aug-10**	**Dec-10**	**Feb-11**	**May-11**	**Mar-13**
SR-91, SR-55 to SR-241 (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project J	N/A	N/A	N/A	**May-12**	**Feb-13**	**Apr-13**	**Jul-13**	**Oct-13**	**Feb-15**
SR-91 Eastbound, SR-241 to SR-71	$104.5	Mar-05	Dec-07	Jul-07	Dec-08	Mar-09	May-09	Jul-09	Nov-10
Project J	$57.8	**Mar-05**	**Dec-07**	**Jul-07**	**Dec-08**	**May-09**	**Jun-09**	**Aug-09**	**Jan-11**
91 Express Lanes to SR-241 Toll Connector	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TBD	**Nov-13**	Jan-18	**Dec-16**	Jul-18	Oct-18	Aug-18	Dec-18	Feb-21
I-405, I-5 to SR-55	TBD	Dec-14	Jul-18	TBD	TBD	TBD	TBD	TBD	TBD
Project L	TBD	**Dec-14**	Jul-18	TBD	TBD	TBD	TBD	TBD	TBD
I-405, SR-55 to I-605 (Design-Build)	$1,900.0	Mar-09	Mar-13	Mar-14	Nov-15	Feb-16	Mar-16	Nov-16	May-23
Project K	$1,900.0	**Mar-09**	**May-15**	**Mar-14**	**Nov-15**	**Feb-16**	**Mar-16**	**Nov-16**	May-23
I-405/SR-22 HOV Connector	$195.9	N/A	N/A	Sep-07	Sep-09	Mar-10	May-10	Aug-10	Aug-14
	$120.4	N/A	N/A	**Sep-07**	**Jun-09**	**Sep-09**	**Feb-10**	**Jun-10**	**Mar-15**
I-405/I-605 HOV Connector	$260.4	N/A	N/A	Sep-07	Sep-09	Mar-10	May-10	Oct-10	Jan-15
	$172.6	N/A	N/A	**Sep-07**	**Sep-09**	**Feb-10**	**May-10**	**Oct-10**	**Mar-15**
I-405/SR-22/I-605 HOV Connector (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	**Jun-08**	**May-09**	**Feb-16**	**May-16**	**Jul-16**	Feb-18

Capital Action Plan

Status Through June 2017

Updated: July 25, 2017

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast: Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
I-605, I-605/Katella Interchange	TBD	Aug-16	Nov-18	TBD	TBD	TBD	TBD	TBD	TBD
Project M	TBD	**Aug-16**	Nov-18	TBD	TBD	TBD	TBD	TBD	TBD
Grade Separation Projects:									
Sand Canyon Avenue Railroad Grade Separation	$55.6	N/A	Sep-03	Jan-04	Jul-10	Jul-10	Oct-10	Feb-11	May-14
Project R	$61.8	N/A	**Sep-03**	**Jan-04**	**Jul-10**	**Jul-10**	**Oct-10**	**Feb-11**	**Jan-16**
Raymond Avenue Railroad Grade Separation	$77.2	Feb-09	Nov-09	Mar-10	Aug-12	Nov-12	Feb-13	May-13	Aug-18
Project O **Cost/Schedule Risk**	$124.8	**Feb-09**	**Nov-09**	**Mar-10**	**Dec-12**	**Jul-13**	**Oct-13**	**Feb-14**	Aug-18
State College Boulevard Railroad Grade Separation (Fullerton)	$73.6	Dec-08	Jan-11	Jul-06	Aug-12	Nov-12	Feb-13	May-13	May-18
Project O **Cost/Schedule Risk**	$97.0	**Dec-08**	**Apr-11**	**Jul-06**	**Feb-13**	**May-13**	**Sep-13**	**Feb-14**	Jan-18
Placentia Avenue Railroad Grade Separation	$78.2	Jan-01	May-01	Jan-09	Mar-10	May-10	Mar-11	Jun-11	Nov-14
Project O	$64.6	**Jan-01**	**May-01**	**Jan-09**	**Jun-10**	**Jan-11**	**Mar-11**	**Jul-11**	**Dec-14**
Kraemer Boulevard Railroad Grade Separation	$70.4	Jan-01	Sep-09	Jan-09	Jul-10	Jul-10	Apr-11	Aug-11	Oct-14
Project O	$63.5	**Jan-01**	**Sep-09**	**Feb-09**	**Jul-10**	**Jan-11**	**Jun-11**	**Sep-11**	**Dec-14**
Orangethorpe Avenue Railroad Grade Separation	$117.4	Jan-01	Sep-09	Feb-09	Dec-11	Dec-11	Feb-12	May-12	Sep-16
Project O	$108.6	**Jan-01**	**Sep-09**	**Feb-09**	**Oct-11**	**Apr-12**	**Sep-12**	**Jan-13**	**Oct-16**
Tustin Avenue/Rose Drive Railroad Grade Separation	$103.0	Jan-01	Sep-09	Feb-09	Dec-11	Mar-12	May-12	Aug-12	May-16
Project O	$98.3	**Jan-01**	**Sep-09**	**Feb-09**	**Jul-11**	**Jun-12**	**Oct-12**	**Feb-13**	**Oct-16**
Lakeview Avenue Railroad Grade Separation	$70.2	Jan-01	Sep-09	Feb-09	Oct-11	Oct-12	Feb-13	May-13	Mar-17
Project O	$107.4	**Jan-01**	**Sep-09**	**Feb-09**	**Jan-13**	**Apr-13**	**Sep-13**	**Nov-13**	**Jun-17**
17th Street Railroad Grade Separation	TBD	Oct-14	Jun-16	TBD	TBD	TBD	TBD	TBD	TBD
Project R	TBD	**Oct-14**	Oct-17	TBD	TBD	TBD	TBD	TBD	TBD
Rail and Station Projects:									
Rail-Highway Grade Crossing Safety Enhancement	$94.4	Jan-08	Oct-08	Jan-08	Sep-08	Sep-08	Sep-08	Aug-09	Dec-11
Project R	$90.4	**Jan-08**	**Oct-08**	**Jan-08**	**Sep-08**	**Sep-08**	**Sep-08**	**Aug-09**	**Dec-11**
San Clemente Beach Trail Safety Enhancements	$6.0	Sep-10	Jul-11	Feb-12	Apr-12	Apr-12	Jul-12	Oct-12	Jan-14
Project R	$5.0	**Sep-10**	**Jul-11**	**Feb-12**	**Jun-12**	**Jun-12**	**Oct-12**	**May-13**	**Mar-14**
San Juan Capistrano Passing Siding	$25.3	Aug-11	Jan-13	Mar-15	May-16	May-16	Aug-16	Dec-16	Jan-19
	$30.8	**Aug-11**	**Mar-14**	**Mar-15**	Dec-17	Dec-17	Mar-18	Jul-18	Aug-20
OC Streetcar	$310.4	Aug-09	Mar-12	Feb-16	Sep-17	Oct-17	Oct-17	Apr-18	Jul-20
Project S	$310.4	**Aug-09**	**Mar-15**	**Feb-16**	Sep-17	Oct-17	Oct-17	Apr-18	Jul-20
Placentia Metrolink Station and Parking Structure	$34.8	Jan-03	May-07	Oct-08	Jan-11	TBD	TBD	TBD	TBD
Project R **Cost/Schedule Risk**	$34.8	**Jan-03**	**May-07**	**Oct-08**	**Feb-11**	Sep-17	Oct-17	Feb-18	Oct-19
Anaheim Canyon Station	$27.9	Jan-16	Dec-16	TBD	TBD	TBD	TBD	TBD	TBD
	$27.9	**Jan-16**	**Jun-17**	Feb-18	Apr-19	Apr-19	Jun-19	Sep-19	Dec-20

Capital Action Plan

Status Through June 2017

Updated: July 25, 2017

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast: Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
Orange Station Parking Expansion	$33.2	Dec-09	Dec-12	Nov-10	Apr-13	Jul-16	Jul-16	Nov-16	Jun-18
Cost/Schedule Risk	$32.3	**Dec-09**	**May-16**	**Nov-10**	**Apr-16**	**Jul-16**	**Jul-16**	**Jun-17**	Jan-19
Fullerton Transportation Center - Elevator Upgrades	$3.5	N/A	N/A	Jan-12	Dec-13	Dec-13	Jun-14	Sep-14	Mar-17
Cost/Schedule Risk	$4.0	N/A	N/A	**Jan-12**	**Dec-13**	**Dec-13**	**Aug-14**	**Apr-15**	Sep-18
Laguna Niguel/Mission Viejo Station ADA Ramps	$3.5	Jul-13	Jan-14	Jul-13	Aug-14	Aug-14	Sep-14	Jan-15	Apr-17
	$5.1	**Jul-13**	**Feb-14**	**Jul-13**	**Jul-15**	**Jul-15**	**Jul-15**	**Oct-15**	Oct-17
Anaheim Regional Transportation Intermodal Center	$227.4	Apr-09	Feb-11	Jun-09	Feb-12	Feb-12	May-12	Jul-12	Nov-14
Project R & T	$230.4	**Apr-09**	**Feb-12**	**Jun-09**	**May-12**	**May-12**	**May-12**	**Sep-12**	**Dec-14**

Note: Costs associated with landscape projects are included in respective freeway projects.

Grey = Milestone achieved
Green = Forecast milestone meets or exceeds plan
Yellow = Forecast milestone is one to three months later than plan
Red = Forecast milestone is over three months later than plan

Begin Environmental: The date work on the environmental clearance, project report, or preliminary engineering phase begins.
Complete Environmental: The date environmental clearance and project approval is achieved.
Begin Design: The date final design work begins, or the date when a design-build contract begins.
Complete Design: The date final design work is 100 percent complete and approved.
Construction Ready: The date contract bid documents are ready for advertisement, including certification of right-of-way, all agreements executed, contract constraints are cleared.
Advertise for Construction: The date a construction contract is both funded and advertised for bids.
Award Contract: The date the construction contract is awarded.
Construction Complete: The date all construction work is completed and the project is open to public use.

Acronyms

I-5 - Santa Ana Freeway (Interstate 5)
SR-73 - San Joaquin Freeway (State Route 73)
SR-55 - Costa Mesa Freeway (State Route 55)
SR-57 - Orange Freeway (State Route 57)
SR-91 - Riverside Freeway (State Route 91)
SR-22 - Garden Grove Freeway (State Route 22)
I-405 - San Diego Freeway (Interstate 405)
SR-241 - Foothill/Eastern Transportation Corridor (State Route 241)
I-605 - San Gabriel River Freeway (Interstate 605)
ADA - Americans with Disabilities Act

ATTACHMENT B

Capital Programs Division
Fiscal Year 2016-17 Performance Metrics Status Through June 2017

Begin Environmental

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
I-605, I-605/ Katella Avenue Interchange	X	✔							
I-5, I-5/El Toro Road Interchange			X					✔	
SR-55, I-5 to SR-91			X	✔					
Total Forecast/Actual	1	1	2	1	0	0	0	1	3

Complete Environmental

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
Anaheim Canyon Metrolink Station			X					✔	
17th Street Railroad Grade Separation							X		(missed)
Total Forecast/Actual	0	0	1	0	0	0	1	1	2

Begin Design

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
No "Begin Design" milestones scheduled for fiscal year 2016-17									
Total Forecast/Actual	0	0	0	0	0	0	0	0	0

Complete Design

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
SR-91 (Westbound), I-5 to SR-57 Landscape	X	✔							
SR-57 (Northbound), Orangethorpe Avenue to Lambert Raod Landscape			X						(missed)
I-5, SR-55 to SR-57					X			✔	
I-5, Oso Parkway to Alicia Parkway							X		(missed)
I-405 Southbound, SR-133 to University Drive						✔	X		
San Juan Capistrano Passing Siding							X		(missed)
Total Forecast/Actual	1	1	1	0	1	1	3	1	6

Construction Ready

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
Orange Metrolink Station Parking Expansion	X	✔							
SR-57 (Northbound), Katella Avenue to Lincoln Avenue Landscape			X					✔	
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape			X						(missed)
SR-91 (Westbound), I-5 to SR-57 Landscape			X	✔					
I-405 Southbound, SR-133 to University Drive							X	✔	
San Juan Capistrano Passing Siding							X		(missed)
Total Forecast/Actual	1	1	3	1	0	0	2	2	6

Capital Programs Division
Fiscal Year 2016-17 Performance Metrics Status Through June 2017

Advertise Construction

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
Orange Metrolink Station Parking Expansion	X	✔							
SR-91 (Westbound), I-5 to SR-57 Landscape			X			✔			
SR-57 (Northbound), Katella Avenue to Lincoln Avenue Landscape					X				(missed)
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape					X				(missed)
Total Forecast/Actual	1	1	1	0	2	1	0	0	4

Award Contract

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
I-405/SR-22/I-605 HOV Connector Landscape	X	✔							
I-405, SR-55 to I-605 (Design-Build)			X	✔					
Orange Metrolink Station Parking Expansion			X					✔	
SR-91 (Westbound), I-5 to SR-57 Landscape					X	✔			
SR-57 (Northbound), Katella Avenue to Lincoln Avenue Landscape					X				(missed)
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape					X				(missed)
Total Forecast/Actual	1	1	2	1	3	1	0	1	6

Complete Construction

Project Description	FY 17 Qtr 1 Fcst	FY 17 Qtr 1 Actual	FY 17 Qtr 2 Fcst	FY 17 Qtr 2 Actual	FY 17 Qtr 3 Fcst	FY 17 Qtr 3 Actual	FY 17 Qtr 4 Fcst	FY 17 Qtr 4 Actual	FY 17 Fcst
SR-91 (Westbound), Tustin Interchange to SR-55	X	✔							
Orangethorpe Avenue Railroad Grade Separation	X			✔					
Tustin Avenue/Rose Drive Railroad Grade Separation	X			✔					
I-5/Ortega Highway Interchange Landscape		✔	X						
I-5, Vista Hermosa to Pacific Coast Highway					X				(missed)
Fullerton Transportation Center - Elevator Upgrades					X				(missed)
Lakeview Avenue Railroad Grade Separation								✔	(early)
Total Forecast/Actual	3	2	1	2	2	0	0	1	6

Totals	8	7	11	5	8	3	6	7	33

Begin Environmental: The date work on the environmental clearance, project report, or preliminary engineering phase begins.
Complete Environmental: The date environmental clearance and project approval is achieved.
Begin Design: The date final design work begins or the date when a design-build contract begins.
Complete Design: The date final design work is 100 percent complete and approved.
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Advertise for Construction: The date a construction contract is both funded and advertised for bids.
Award Contract: The date the construction contract is awarded.
Construction Complete: The date all construction work is completed and the project is open to public use.

Acronyms

I-5 - Santa Ana Freeway (Interstate 5)
SR-22 - Garden Grove Freeway (State Route 22)
SR-55 - Costa Mesa Freeway (State Route 55)
SR-57 - Orange Freeway (State Route 57)
SR-91 - Riverside Freeway (State Route 91)
SR-133 - Laguna Freeway (State Route 133)
I-605 - San Gabriel River Freeway (Interstate 605)
I-405 - San Diego Freeway (Interstate 405)
HOV - high-occupancey vehicle

X = milestone forecast in quarter
✔ = milestone accomplished in quarter

ATTACHMENT C

Capital Programs Division
Fiscal Year 2017-18 Performance Metrics

Begin Environmental

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
No "Begin Environmental" milestones scheduled for FY 2017-18									
Total Forecast/Actual	0	0	0	0	0	0	0	0	0

Complete Environmental

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
SR-55, I-405 to I-5	X								
17th Street Railroad Grade Separation			X						
91 Express Lanes to SR-241 Toll Connector					X				
Total Forecast/Actual	1	0	1	0	1	0	0	0	3

Begin Design

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
SR-55, I-405 to I-5	X								
Anaheim Canyon Metrolink Station					X				
Total Forecast/Actual	1	0	0	0	1	0	0	0	2

Complete Design

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape	X								
OC Streetcar	X								
I-5, Oso Parkway to Alicia Parkway			X						
San Juan Capistrano Passing Siding			X						
I-5, SR-73 to Oso Parkway					X				
Total Forecast/Actual	2	0	2	0	1	0	0	0	5

Construction Ready

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
Placentia Metrolink Station and Parking Structure	X								
I-5, SR-55 to SR-57			X						
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape			X						
San Juan Capistrano Passing Siding			X						
OC Streetcar			X						
I-5, Oso Parkway to Alicia Parkway							X		
Total Forecast/Actual	1	0	4	0	0	0	1	0	6

Advertise Construction

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
SR-57 (Northbound), Katella Avenue to Lincoln Avenue Landscape	X								
OC Streetcar			X						
Placentia Metrolink Station and Parking Structure			X						
I-5, SR-55 to SR-57					X				
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape					X				
San Juan Capistrano Passing Siding					X				
Total Forecast/Actual	1	0	2	0	3	0	0	0	6

Capital Programs Division
Fiscal Year 2017-18 Performance Metrics

Award Contract

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
SR-57 (Northbound), Katella Avenue to Lincoln Avenue Landscape			X						
SR-57 (Northbound), Orangethorpe Avenue to Lambert Road Landscape					X				
Placentia Metrolink Station and Parking Structure					X				
I-5, SR-55 to SR-57							X		
OC Streetcar							X		
Total Forecast/Actual	0	0	1	0	2	0	2	0	5

Complete Construction

Project Description	FY 18 Qtr 1 Fcst	FY 18 Qtr 1 Actual	FY 18 Qtr 2 Fcst	FY 18 Qtr 2 Actual	FY 18 Qtr 3 Fcst	FY 18 Qtr 3 Actual	FY 18 Qtr 4 Fcst	FY 18 Qtr 4 Actual	FY 18 Fcst
I-5, Vista Hermosa to Pacific Coast Highway	X								
Laguna Niguel/Mission Viejo Station ADA Ramps			X						
I-405/SR-22/I-605 HOV Connector Landscape					X				
State College Boulevard Railroad Grade Separation (Fullerton)					X				
I-5, Pico to Vista Hermosa							X		
I-5, Pacific Coast Highway to San Juan Creek Road							X		
SR-91 (Westbound), I-5 to SR-57 Landscape							X		
Total Forecast/Actual	1	0	1	0	2	0	3	0	7

Totals	7	0	11	0	10	0	6	0	34

Begin Environmental: The date work on the environmental clearance, project report, or preliminary engineering phase begins.
Complete Environmental: The date environmental clearance and project approval is achieved.
Begin Design: The date final design work begins or the date when a design-build contract begins.
Complete Design: The date final design work is 100 percent complete and approved.
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SR-91 - Riverside Freeway (State Route 91)
I-605 - San Gabriel River Freeway (Interstate 605)
I-405 - San Diego Freeway (Interstate 405)
SR-241 - Foothill/Eastern Transportation Corridor (State Route 241)
ADA - Americans with Disability Act
HOV - high-occupancey vehicle

X = milestone forecast in quarter
✔ = milestone accomplished in quarter

COMMITTEE TRANSMITTAL

August 14, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Measure M2 Environmental Mitigation Program Update

Executive Committee Meeting of August 7, 2017

Present: Chairman Hennessey, Vice Chair Bartlett, and Directors Do, Nelson, and Shaw
Absent: Directors Donchak and Murray

Committee Vote

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

Staff Recommendation

Receive and file as an information item.

August 7, 2017

To: Executive Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Measure M2 Environmental Mitigation Program Update

Overview

Measure M2 includes a program to deliver comprehensive mitigation for the environmental impacts of freeway projects in exchange for streamlined project approvals from the state and federal resources agencies. To date, the Environmental Mitigation Program has acquired conservation properties and provided funding for habitat restoration projects. A status report on the draft Natural Community Conservation Plan/Habitat Conservation Plan and accompanying environmental impact report/environmental impact statement is presented.

Recommendation

Receive and file as an information item.

Background

Measure M2 (M2) includes an innovative comprehensive Environmental Mitigation Program (EMP) to address the biological impacts of M2 freeway projects. This is achieved through a Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), approved by the California Department of Fish and Wildlife, and the United States Fish and Wildlife Service (USFWS) (Wildlife Agencies). These documents demonstrate that the conservation properties (Preserves) and habitat restoration projects have largely met the mitigation needs for the M2 Freeway Program. The NCCP/HCP and associated environmental impact report/environmental impact statement (EIR/EIS) were approved by the Orange County Transportation Authority (OCTA) Board of Directors (Board) in November 2016. The final permits were approved by the Wildlife Agencies in June 2017. A status report on the program is presented.

Discussion

NCCP/HCP and Associated EIR/EIS Update

On November 28, 2016, the Board approved the NCCP/HCP, certified the final EIR/EIS, and authorized the Chief Executive Officer to negotiate and execute the implementing agreement (IA) between OCTA and the resources agencies. The IA signifies that the state and federal Wildlife Agencies formally accept that OCTA has implemented a mechanism to ensure successful implementation of the NCCP/HCP.

On March 31, 2017, the USFWS issued a 30-day notice of availability in the Federal Register that the final EIR/EIS had been completed, and also announced receipt of a final NCCP/HCP from the applicant, OCTA. The M2 NCCP/HCP, final EIR/EIS, and IA were available for public review per the requirements of the National Environmental Policy Act. At the close of the public review period on May 1, 2017, USFWS received two comment letters. Both comment letters were in support of the NCCP/HCP and were submitted by the United States Environmental Protection Agency, as well as the Environmental Coalition. This coalition is comprised of environmental and community groups that supported the Renewed M2 in 2006 because of its inclusion of a programmatic mitigation component.

On June 19, 2017, the Wildlife Agencies finalized the issuance of their respective biological opinion, findings, and associated permits, as well as signed the NCCP/HCP IA. As a result, the M2 environmental process will be streamlined allowing OCTA to move forward with the M2 freeway projects (as described in the NCCP/HCP).

As part of the NCCP/HCP process, an endowment is required to be established to fund the long-term management of the Preserves. In November 2016, the Board approved the plan for establishment of the fund. It is estimated that it will take up to ten to 12 years to fully fund the endowment. On March 17, the first deposit into the endowment was made, and the first quarterly investment report for the endowment was provided to the Finance and Administration Committee (F&A) in June. The report was found to be consistent with the endowment pool objectives. Staff will continue to oversee and provide endowment updates to the F&A and Environmental Oversight Committee (EOC) on a regular basis.

To date, five of the seven Preserve resource management plans (RMPs) have been completed. These RMPs guide the management of the Preserves as required under the NCCP/HCP. OCTA anticipates the release of the remaining two RMPs to the public by the end of summer 2017. The five previously released RMPs are being finalized and expected to be completed on a similar time line.

Next Steps

Staff will focus on the following key actions for the remainder of 2017 and beyond:

- Implement the process to utilize the NCCP/HCP mitigation for the M2 freeway projects during construction;
- Release and finalize the Aliso Canyon and Hayashi RMPs;
- Finalize the five RMPs (Trabuco and Silverado Canyon properties);
- Execute conservation easements, seek appropriate long-term land managers, and identify entities to assume the title for the Preserves;
- Continue to coordinate with the endowment fund manager and provide updates to the F&A and EOC;
- Develop annual reports to document environmental permitting for the M2 freeway projects, preserve activities, restoration status, and endowment funds;
- Identify and fund new restoration projects to satisfy remaining mitigation requirements of NCCP/HCP;
- Continue to coordinate with the Army Corps of Engineers and the State Water Resources Control Board to identify additional funding needed in order to obtain the programmatic Clean Water Act Section 401 and 404 permits for the freeway projects;
- Work with the environmental community and interested parties on public access opportunities.

OCTA will continue to manage the Preserves until a long-term manager(s) is established. Additionally, staff will monitor the progress of all restoration projects and provide status updates to the EOC until each project is implemented.

Summary

M2 includes an EMP that provides funding for programmatic mitigation to off-set impacts of the 13 freeway projects. To expedite the delivery of the freeway projects, this program was initiated to implement early project mitigation through property acquisition and habitat restoration. This program is administered through a NCCP/HCCP, which was completed and approved by the Board in November 2016. A status report on the program is presented.

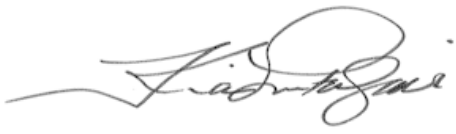
Attachment

A. Acquisition Properties and Funded Restoration Projects

Prepared by:

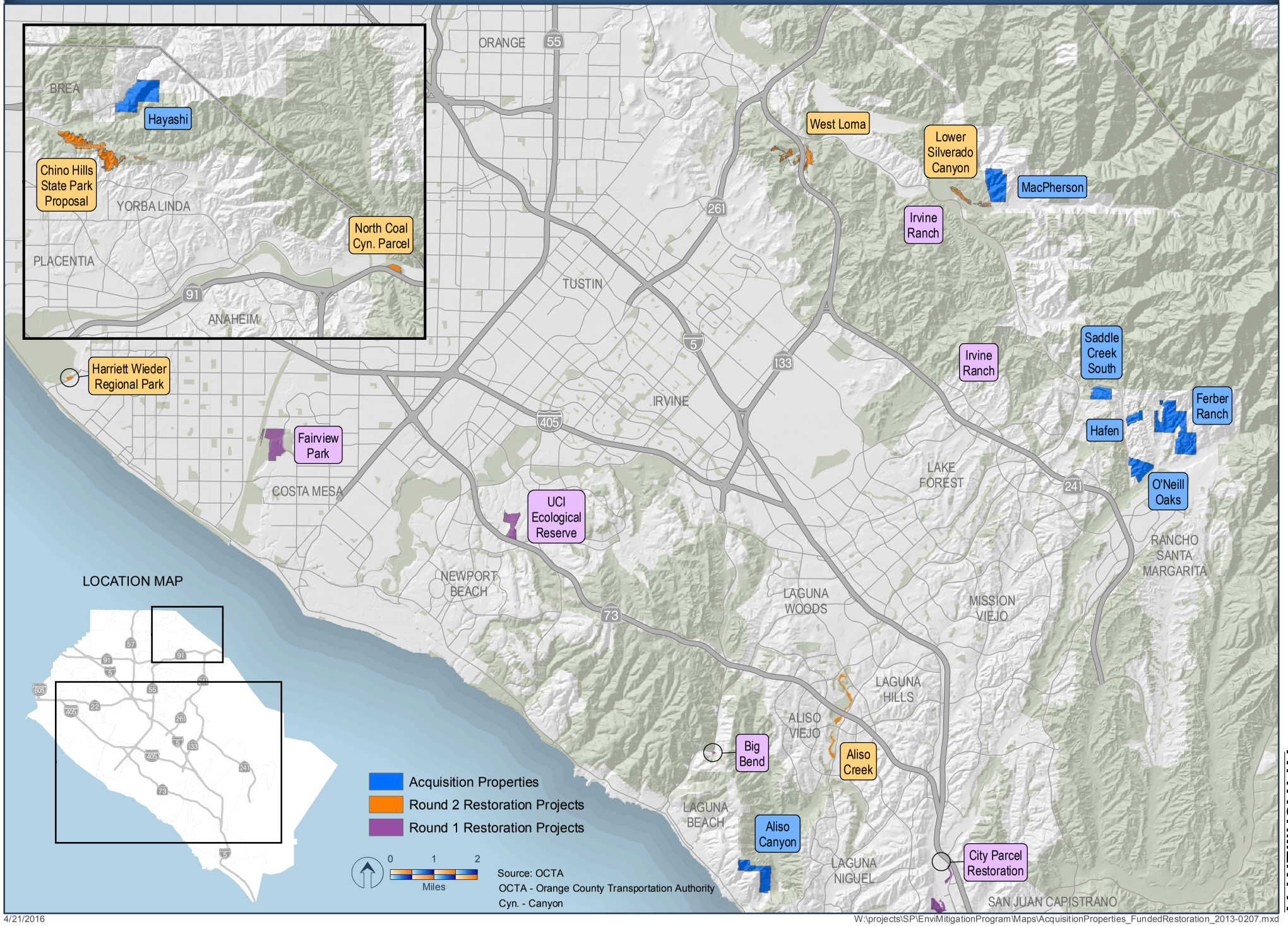
Lesley Hill
Project Manager, Environmental
Mitigation Program
(714) 560-5759

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741

Acquisition Properties and Funded Restoration Projects



ATTACHMENT A

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OCTA

COMMITTEE TRANSMITTAL

August 14, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Measure M2 Comprehensive Transportation Funding Programs - 2018 Annual Call for Projects

Regional Planning and Highways Committee Meeting of August 7, 2017

Present: Directors Delgleize, Do, M. Murphy, Nelson, Spitzer, and Steel
Absent: Director Donchak

Committee Vote

This item was passed by the Members present.

Committee Recommendations

A. Approve the proposed revisions to the Comprehensive Transportation Funding Programs Guidelines.

B. Authorize staff to issue the 2018 annual call for projects for the Regional Capacity Program for approximately $32 million.

C. Authorize staff to issue the 2018 annual call for projects for the Regional Traffic Signal Synchronization Program for approximately $8 million.

OCTA

August 7, 2017

To: Regional Planning and Highways Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Measure M2 Comprehensive Transportation Funding Programs – 2018 Annual Call for Projects

Overview

The Comprehensive Transportation Funding Programs Guidelines provide the mechanism for the administration of the annual competitive call for projects for numerous programs, including the countywide Regional Capacity Program (Project O) and the Regional Traffic Signal Synchronization Program (Project P). The 2018 Regional Capacity Program and Regional Traffic Signal Synchronization Program call for projects are presented for review and approval.

Recommendations

A. Approve the proposed revisions to the Comprehensive Transportation Funding Programs Guidelines.

B. Authorize staff to issue the 2018 annual call for projects for the Regional Capacity Program for approximately $32 million.

C. Authorize staff to issue the 2018 annual call for projects for the Regional Traffic Signal Synchronization Program for approximately $8 million.

Background

Measure M2 (M2) includes a number of competitive grant programs that provide funding for regional streets and roads projects. The Regional Capacity Program (RCP) provides funding for improvements to the Orange County Master Plan of Arterial Highways. The program provides for intersection improvements and other projects to help improve street operations and reduce congestion. The Regional Traffic Signal Synchronization Program (RTSSP) provides funding for multi-agency, corridor-based signal synchronization throughout Orange County.

These programs allocate funds through a competitive process and target projects that improve traffic flow by considering factors such as degree of congestion relief, cost-effectiveness, and project readiness, among other factors.

On March 22, 2010, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved guidelines for the Comprehensive Transportation Funding Programs (CTFP), which serve as the mechanism for administration of the RCP and RTSSP under M2. The CTFP Guidelines provide the procedures necessary for Orange County agencies to apply for funding and seek reimbursement for projects that have been allocated funds. Seven annual calls for projects (call) have been issued to date for both the RCP and RTSSP and, collectively, OCTA has provided over $335 million countywide for capacity and synchronization improvement projects. In preparation for the 2018 annual call, updates to the guidelines have been prepared in close coordination with the Technical Advisory Committee (TAC).

Discussion

The call schedule and funding amounts are updated to reflect the amounts available for programming ($32 million for the RCP, $8 million for the RTSSP). OCTA staff worked with the TAC to determine areas of the program guidelines that needed to be adjusted and reviewed issues that emerged out of the previous calls for projects. In addition, guidelines were reviewed to ensure consistency throughout the document. The proposed modifications to the CTFP Guidelines are included in Attachment A.

The modifications include recommendations made by the Technical Steering Committee (TSC) at the June 14, 2017 meeting. The TAC reviewed and accepted the proposed changes at the June 26, 2017 meeting. A summary of the modifications is included below.

2018 Call Updates

- Updated RCP call application schedule and funding commitment level (approximately $32 million in M2 Project O funds).
- Updated RTSSP call application schedule and funding commitment level (approximately $8 million in M2 Project P funds).

General Updates

- Precept (number 40): Updated regarding environmental mitigation activities and to be consistent with the Precept 27.
- Revisions made to the application submittal deadlines.
- Clarification added regarding tiered funding approach in Chapter 7.
- Deleted language for specific construction elements not being eligible under Project P through the 2018 call.
- Increased project caps from $60,000 to $75,000 per signal and from $200,000 to $250,000 per project corridor in Chapter 8.
- Minor modifications and clarification language added in Chapter 8.
- General updates and cleanup throughout the document for consistency.
- Updated Chapter 12 Environmental Cleanup Program Tier 1 Program Guidelines added (approved by the Board in April 2017).

Next Steps

Following Board approval, staff anticipates sending out letters to notify local agencies of the call. Project applications would be due to OCTA by October 20, 2017. Based on the selection criteria, projects will be prioritized for the TSC/TAC and Board consideration in spring 2018.

Awards would be effective with Board approval and become available starting on July 1, 2018. Some projects may be programmed in subsequent fiscal years (FY) 2019-20 and FY 2020-21, based on schedules provided by local agencies.

Summary

M2 provides funds for intersection and arterial improvements (through Project O) and signal synchronization (through Project P), in an effort to enhance street operations and reduce congestion. The CTFP serves as the mechanism that OCTA uses to administer the competitive RCP and RTSSP funds. Staff is seeking the approval of proposed modifications to the guidelines and authorization to release the 2018 annual call.

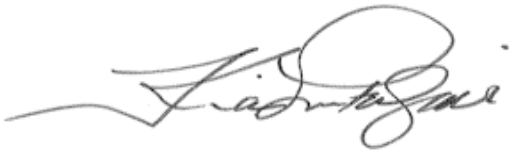
Attachments

A. Measure M - Proposed Modifications to the Comprehensive Transportation Funding Programs Guidelines
B. Measure M - Draft - Comprehensive Transportation Funding Programs Guidelines - 2018 Call for Projects

Prepared by:

Sam Kaur
Manager, Measure M Local Programs
(714) 560-5673

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741

ATTACHMENT A

Proposed Modifications
to the
Comprehensive Transportation Funding Programs Guidelines

36. When a project phase is complete, an agency shall notify OCTA in writing within 30 days of completion. The date of project phase completion will begin the 180-day requirement for the submission of a project final report as required by the M2 Ordinance, Attachment B, Section III.A.9.

37. An agency shall provide final accounting in an approved final report format (see Chapter 10) within 180 days of project phase completion. The process for untimely final reports is described in Chapter 10. Failure to provide a final accounting shall result in repayment of applicable M2 funds received for the project phase in a manner consistent with the Master Funding Agreement. Projects funded with M2 funding require a project final report within 180 days of project phase completion as part of eligibility compliance. Failure to meet eligibility requirements, including submittal of final reports within 180 days of project phase completion may result in suspension of all net revenues including fair share funds.

38. The payment distribution ratio referenced in Precept 35 may be modified to a reimbursement process, at the discretion of the Board, in the event that financing or bonding is required to meet OCTA's cash flow needs.

39. Agencies may appeal to the TAC on issues that the agency and OCTA staff cannot resolve. An agency may file an appeal by submitting a brief written statement of the facts and circumstances to OCTA staff. The appellant local agency must submit a written statement which proposes an action for TAC consideration. The TSC shall recommend specific action for an appeal to the TAC. The Board shall have final approval on appeals.

40. Projects within the Coastal Zone Boundary, as a requirement of a Coast Development Permit, may be required to replace existing on-street parking on a one-for-one basis for spaces removed as a result of a roadway widening project. Right-of-way costs to replace the existing on-street parking can be considered ~~an eligible expense~~ mitigation for coastal zone cities only (see exhibit IV-1). The mitigation activities can be covered up to 25 percent of the total eligible cost consistent with Precept 27. Jurisdictional boundaries are more fully described in the Public Resource Code, Division 20, California Coastal Act (2016) Sections 30168 & 30169. OCTA staff will work with the local agency staff during the project application process to determine eligibility of these costs and to identify any excess right-of-way that will require a disposal plan. OCTA and the local agency will also establish any savings that will revert back to the Measure M Program after project completion. The cost of right-of-way required to replace parking should be fair and reasonable in comparison to the total cost of the project.

TAC and Board. Funds can only be transferred to a phase that has already been awarded competitive funds. Such requests must be made prior to the acceptance of a final report, and submitted as part of a semi-annual review. State-Local Partnership Program (SLPP) funds are not eligible for the transfer of savings. Agencies may only use savings as an aid for unanticipated cost overruns within the approved scope of work.

23. Where the actual conditions of a roadway differs from the MPAH classification (e.g. number of through lanes), OCTA shall use the actual conditions for the purposes of competitive scoring. An agency may appeal to the TAC to request that the MPAH classification be adjusted/reconsidered.

24. For the purpose of calculated level of service (LOS), the capacity used in the volume over capacity calculation shall be 100 percent capacity, or LOS level "E". Intersection Capacity Utilization (ICU) calculations shall use 1,700 vehicles per hour per lane with a .05 clearance interval.

25. OCTA shall consider matching fund credit(s) for an implementing agency's proposed projects current and applicable environmental clearance expenditures. OCTA will review and consider these expenditures on a case by case basis at the time of funding approval.

26. An approved CTFP project may be determined ineligible for funding at any time if it is found that M2 funding has replaced all or a portion of funds or commitments that were to be provided by other sources such as: development conditions of approval, development deposits, fee programs, redevelopment programs or other dedicated local funding sources (i.e., assessment districts, community facilities districts, bonds, certificates of participation, etc.). Appeals may be made in accordance with Precept 39.

27. OCTA may fund environmental mitigation, up to 25 percent of the total eligible project cost by phase, as required for the proposed project contained in the environmental document. Participating environmental mitigation expenditures are eligible for funding under certain programs, but not all.

28. Construction Engineering, Construction Management, Materials Testing, Engineering Support and/or Project Management shall not exceed 15 percent of the total eligible project cost based upon the engineers' estimate. The cap is applied to the sum of eligible expenses, contract change orders (within the scope of work), equipment and materials (e.g. eligible traffic signal equipment).

Application Review Process

Once applications are reviewed and ranked according to the Board approved scoring criteria, a recommended funding program will be developed by OCTA staff. These programming recommendations will be presented to the TAC for review and comment. The TAC approved programming recommendations will then be presented to the OCTA Highways Committee and Board for review and final approval.

Local agencies awarded funding will be notified as to which projects have been funded and from what sources after the Board takes action. A tentative call schedule is detailed below:

Board authorization to issue call: August 201~~6~~7

Application submittal deadline: October 2~~1~~0, 201~~6~~7

TSC/TAC Review: February/March 201~~7~~8

Committee/Board approval: May 201~~7~~8

M2 Project O Funding

M2 Project O funding will be used for this call.

The CTFP Guidelines include a provision that allows applicants to request right of way (ROW) and/or construction funding prior to completion of the planning phase (included final design) provided that the phase is underway, substantially complete and the agency will complete the activities within six months of the start of the new phase programmed year. A thorough review of eligible activities is not always possible during the call for projects evaluation period. As a result, it is possible that cost elements contained within an application and included in a funding recommendation may ultimately be deemed ineligible for program participation. The applicant is responsible for ensuring projects are implemented according to eligible activities contained within the program guidelines.

Funding Estimates

Funding will be provided on a pay-as-you go basis. The RCP will make an estimated $1.1 billion (in 2005 dollars) available during the 30-year M2 program. Programming estimates are developed in conjunction with periodic calls for projects. Funding is shared with intersection, interchange and grade separation improvement categories. No predetermined funding has been set aside or established for street widening.

Programming Approach

Programming decisions are based upon project prioritization ranking, feasibility and readiness. Each round of funding has resulted in a diverse range of activities, cost and competitive score. Funding applications may seek financial assistance for planning, engineering, right of way, construction or a combination of these activities. Effective grant programs include a combination of project development as well as implementation projects. In order to ensure continued distribution of funding opportunities between small and large scale projects, a tiered funding approach will be used.

An estimated $32 million will be available for Project O programming during the 2018 Call for Projects. Category 1 projects are limited to those projects requesting $5 million or less. Category 2 projects are defined as those requesting more than $5 million in Measure M2 funds.

Tiered Funding Approach: The two-tiered funding (Tier 1 and Tier 2) approach will only be applicable to the RCP. This approach is proposed to prioritize high scoring projects while providing a balanced program with funding availability for small and large projects. The first tier is for projects scoring 50 points or higher, and the second tier is for projects scoring below 50 points. Within Tier 1, two categories would be established with 60 percent (Category 1) of the M2 funds available for smaller projects (requesting $5 million or less), and 40 percent (Category 2) of the M2 funds available for larger projects (requesting $5 million or more). This approach is intended to broaden the distribution of M2 funds to higher scoring/lower cost projects and retain the ability to fund larger projects without placing formal funding caps on allocations. Any M2 funds not used in Tier I would move to Tier 2 (projects scoring less than 50 points). A funding split between small and large projects is not recommended for Tier 2.

Applications may be for any project phase provided it represents a meaningful, logical terminus and is consistent with scoping from a previously funded project if applicable (i.e., if engineering was previously funded, the right of way and/or construction request must be for the same project scope).

Chapter 8 - Regional Traffic Signal Synchronization Program (Project P)

Overview

The Project P - Regional Traffic Signal Synchronization Program (RTSSP) includes competitive funding for the coordination of traffic signals across jurisdictional boundaries ~~in addition to~~ including Project based operational and maintenance funding. OCTA will provide funding priority to programs and projects, which are multi-jurisdictional in nature.

The RTSSP is based on the Traffic Signal Synchronization Master Plan (Master Plan). The Board adopted the Master Plan as an element of the MPAH on July 26, 2010. The Master Plan defines the foundation of the RTSSP. The Master Plan consists of the following components:

- Regional signal synchronization network
- Priority corridors for accelerated signal synchronization
- Definition of Traffic Forums
- Model agreements presenting roles and responsibilities for Project P
- Signal synchronization regional assessment every three years
    - NOTE: For Call for Projects 2018, Priority Corridors are not an eligible inclusion and no additional points will be awarded. A Priority Corridor is considered to be on the Signal Synchronization Network.

The Master Plan will be reviewed and updated by OCTA every three years and will provide details on the status and performance of the traffic signal synchronization activities over that period. Local agencies are required to adopt and maintain a Local Traffic Signal Synchronization Plan (Local Plan) that is consistent with the Master Plan and shall issue a report on the status and performance of its traffic signal synchronization activities. Details on both the Master Plan and requirements for Local Plan development are available in the "Guidelines for the Preparation of Local Signal Synchronization Plans" dated April 2014. A hard copy of these guidelines can be requested from OCTA.

The remainder of this chapter details the key components of the RTSSP:

- Funding guidelines for the competitive call for projects
- 2018 Call for Projects

Projects compete for funding as part of the RTSSP. Projects submitted by local agencies as part of the call must meet specific criteria. Projects are rated based on scoring criteria and are selected based on their competitive ratings.

Section 8.1 - Funding Guidelines

Objectives

Synchronize traffic signals across jurisdictions

- Monitor and regularly improve the synchronization.
- Synchronize signals on a corridor basis reflecting existing traffic patterns in contiguous zones or road segments that have common operations.

Project Definition

Local agencies are required to submit complete projects that, at minimum, result in field-implemented coordinated timing. Project tasks that are eligible for funding can consist of design, engineering, construction, and construction management. Partial projects that design improvements but do not field implement the improvements are ineligible.

Projects must consist of a corridor along the priority corridor network, signal synchronization network, or the Master Plan of Arterial Highways (MPAH). Projects previously awarded RTSSP funding must be complete with a final report submitted and approved by OCTA. Projects can be the full length of the corridor or a segment that complies with the project requirements identified later in the chapter. **Communication system improvements that directly benefit signal synchronization along the project corridor limits, but are not physically within the project corridor, are eligible for inclusion in a project.**

Applicant agency and owning agency must demonstrate through simulation, or actual vehicle counts showing Origin – Destination that proposed linked corridors for a route. Two linked corridors may also combine at the point of intersection to form a single local Master offset Control Point (T_0) for future Zone operations.

Multimodal consideration of bicyclists and pedestrians along or crossing the intersection or roadway may enhance overall circulation. Therefore, active transportation elements may be included as part of the project.

Eligible Activities

The primary purpose of the Program is to provide funding for projects that develop and maintain corridor-based, multi-jurisdictional signal synchronization along corridors throughout Orange County. All projects funded by this Program must be corridor-based and have a signal coordination component that includes the following:

- Signal Coordination
  - Developing and implementing new signal synchronization timing ~~and~~ parameters based on current travel patterns, and federal and state MUTCD traffic signal timing mandates and guidance

- Monitor, maintain (minimum quarterly/maximum monthly) and/or regularly improve the newly implemented signal synchronization timing and parameters ~~after project signal timing is implemented~~ for the remainder of the project
- "Before" and "after" studies for the project ~~using~~ comparing travel times, average speeds, ratio of green lights passed to red lights stopped (greens per red), average stops per mile, and emissions of greenhouse gases

In addition to developing optimized signal timing, a project may include other improvements as long as they contribute to the goal of multi-agency signal synchronization of corridors throughout Orange County. These improvements are restricted to the signal synchronization project limits, but may include traffic signalized intersections on intersecting corridors where new optimized timing has occurred within the past three years; maximum distance for either direction from crossing arterial intersection in 2,700 feet. Gap closure ~~with the exception of~~ communications links that are installed from a central location to the project corridor are eligible. All improvements must be designed to enhance the specific project. The following are a list of potentially eligible items as part of a signal coordination project:

- New or upgraded detection
  - Upgrade detection along the signal synchronization corridors to ensure necessary conditions for signal synchronization: inductive loops, video detection, radar, sonar, thermal, hybrids thereof, and other types of detection systems
- New or upgraded communication systems
  - New contemporary communication system improvements (e.g. Ethernet) including all conduits, pull boxes, fiber optic and/or copper cabling, network switches and distribution systems
  - Replacement fiber optic or copper cabling for network communication
    - Fiber optic is the preferred medium and includes pull boxes, network switches and distribution systems
  - Software and hardware for system traffic control
  - Control and monitoring interconnect conduit (including upgrades or replacement of existing systems)
  - Gap closure systems of conduit, cable, and associated equipment that are outside of project limits but complete a designated communications link to an existing network for the Advanced Transportation Management System (ATMS) for an agency or agencies. (See paragraph 2, page 8-3)
- Communications and detection support
  - Monitor, maintain, and repair communication and detection along synchronized corridors to ensure necessary conditions for signal synchronization including

interconnect and Central Systems and Local Systems communications equipment (two years after Primary Implementation acceptance)

- Intersection/field system modernization and replacement
  - Traffic signal controller replacement of antiquated units with Advanced Transportation controller (ATC) units
  - Controller cabinet (assemblies) replacements that can be shown to enhance signal synchronization
  - Closed circuit television (CCTV (also can perform video detection))
  - Uninterruptible power supply (UPS) for ATMS and intersection field equipment
    - For ATMS, UPS shall solely provide electrical power for ATMS Server(s), one dedicated workstation (console terminal) and related communications devices
      - Limited cost and scale
      - UPS not intended to provide power to entire TMC
      - Approval is at the sole discretion of the AUTHORITY
- Minor signal operational improvements (new)
  - Emergency vehicle preempt (~~signal~~ intersection control equipment only)
  - Transit signal priority (~~signal~~intersection control equipment only)
  - Channelization (striping and legends) improvements required for traffic signal phasing but not requiring street construction
  - Traffic signal phasing improvements that will improve traffic flow and system performance including protective permissive left turns and shared pedestrian phasing
  - Improvements to comply with new federal or state standards (MUTCD) for traffic signal design as related to signal synchronization
  - Pedestrian countdown heads
- Traffic management center (TMC)/traffic operations centers (TOC) and motorist information
  - New TMCs or TOCs (any project funded under this category must be planned or built to be center-to-center communication "ready" with nearby agencies and/or OCTA)
  - Upgrades to existing TMCs or TOCs (any project funded under this category must be planned or built to be center-to-center communication "ready" with nearby agencies and/or OCTA)
  - Motorist information systems (up to 10 percent of total project costs)
  - Video display equipment, including wall monitors, screens, mounting cabinets, and optical engines (up to 10 percent of total project costs)
- Real-time traffic actuated operations and demonstration projects

  - Adaptive traffic signal systems
- Caltrans encroachment permits and agency to Caltrans Cooperative Agreement fees
  - Includes eligible Caltrans labor, capital, and permitting expenses
- Active Transportation/Pedestrian Safety related elements
  - Installation of new and/or improved traffic control devices to improve the accessibility, mobility and safety of the facility for pedestrians and bicyclists
    - Accessibility Pedestrian Push Button Systems
  - ~~Improvements to existing traffic control devices to improve the accessibility, mobility and safety of the facility for pedestrians and bicyclists~~

~~Note: Construction of new or replacement elements will not be considered eligible for Project P funding during the 2017 Call for Projects.~~ ~~In an effort to address ongoing timely project delivery issues and to reduce delays often related to construction items, emphasis during this cycle is on "plug & play" elements such as new cabinets, controllers, software, communications equipment, operations and maintenance activities. Placement of new conduit, fiber optic cable or construction of facilities will not be considered at this time. Please consult with Ms. Sam Kaur as Program Manager if in doubt about an eligible item. Projects that require construction items should be deferred until the next funding cycle.~~

In addition, expenditures related to the design of systems, permitting, and environmental clearance are eligible for funding.

Ineligible Expenditures

- Isolated traffic signal improvements
- Traffic hardware (pole, mast arms, lights, electrical, signs, etc.)
- Regular signal operation and maintenance (such as replacement of light bulbs)
- Field display equipment (Traffic/not pedestrian signal heads)
- Feasibility studies
- Relocation of utilities except for electrical service requirements
- ~~Battery backup systems for TMC~~
- Right-of-way

Funding Estimates

The streets and roads component of M2 is to receive 32 percent of net revenues, 4 percent of which are allocated for the RTSSP. The RTSSP will make an estimated $270 million (2009 dollars) available over the course of the 30-year M2 Program. Programming estimates are developed in conjunction with a call for projects cycle corresponding to concurrent funding agreements with all local agencies.

The RTSSP targets over 2,000 intersections across Orange County for coordinated operations. Because of the limited amount of funds available for the RTSSP, project cap of ~~$60,000~~ $75,000 per signal or ~~$200,000~~ $250,000 per project corridor mile included as part of each project (whichever is higher) has been established for the call for projects.

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on furthering the overall goal of multi-jurisdictional, corridor-based signal synchronization.

Vehicle Miles Traveled (VMT): Centerline length of segment(s) on the corridor proposed for synchronization multiplied by the existing average daily traffic (ADT) for the proposed segment(s) length. For instance, for a three-mile segment with one-mile interval ADT data at of 200 vehicles, 300 vehicles, and 400 vehicles, the VMT would be calculated as:

*200 vehicles * 1 mile + 300 vehicles * 1 mile + 400 vehicles * 1 mile = 900 vehicle miles.*

VMT should be calculated by the smallest segmentation on which the city typically collects ADT data. (maximum: 20 points)

ADT must be based upon actual count information taken within the 36 months preceding the application date. Data from the OCTA Traffic Flow Map may not be used.

Cost Benefit: Total project cost divided by Existing VMT. (maximum: 10 points)

Project Characteristics: Points are awarded based on the type and relevance of the proposed project. For instance, points accumulate if a signal synchronization project is combined with improvements as defined in the "Eligible Activities" section above. (maximum: 10 points)

Transportation Significance: Points are earned based on the corridor being on the ~~priority corridor network or the~~ signal synchronization network. (maximum: ~~10~~5 points) (Priority signal network will not be a part of the 2018 Call for Projects. No points will be awarded for being on a Priority Corridor.)

Maintenance of Effort: Points are earned for a commitment to operate the project signal synchronization timing for a defined period of time beyond the three year grant period. (maximum: 5 points)

Project Scale: Points are earned for including more intersections along ~~priority corridor network,~~ signal synchronization network, or serving as a signal corridor "gap closure". (maximum: 10 points)

Number of Local Agencies: Points are earned for including multiple local agencies as part of the project. (maximum: 20 points)

Current Project Readiness: Points are earned based on the current status of the project development. Evidence of actual preliminary engineering performed for proposals requesting funding for implementation phases must be provided to qualify for points related to this attribute. (maximum for category: 10 points)

Funding Rate: The percentages shown in Table 8-1 apply to match rates above a local agency's minimum match requirement. M2 requires a 20 percent local match for RTSSP projects. Project match rates above 20 percent is limited to dollar match only. (maximum: 5 points)

Table 8-1

RTSSP SCORING CRITERIA
Point Breakdown for Regional Traffic Signal Synchronization Projects
Maximum Points = 100

Vehicle Miles Travelled (VMT) — **Points: 20**

VMT Range		Points
250+	thousand	20
200 - 249	thousand	15
150 - 199	thousand	10
100 - 149	thousand	6
50 - 99	thousand	3
0 - 49	thousand	1

Calculation: ADT x segment length
(Applies only to coordinated segments of project)

Economic Effectiveness — **Points: 10**

Cost Benefit (Total $/VMT) Range*	Points
< 3	10
3 - 5	9
6 - 8	8
9 - 11	7
12 - 14	6
15 - 17	5
18 - 20	4
21 - 23	3
24 - 26	2
27+	1

Project Characteristics — **Points: 10**

Project Feature	Points
TMC/TOC and motorist information	2
New or upgraded communications systems	2
New or upgraded detection	2
Intersection/field system modernization	2
Minor signal operational improvements	2
New Protected/Permissive signals	3
Adaptive traffic and demonstration projects	3
TMC/CMC Connections between agencies	3

Points are additive to maximum of 10 points

Transportation Significance — **Points: 10**

Corridor Type	Points
~~Priority Corridor~~	~~10~~
Signal Synchronization Corridor	5
Corridor "Gap Closure"	5
~~Local TSSP Route / MPAH~~	~~0~~

Maintenance of Effort — **Points: 5**

MOE after Grant Period	Points
3 years	5
2 years	3
1 year	1
None	0

* Points are additive to category maximum

Project Scale — **Points: 10**

Number of Signals Coordinated by Project

Range	Point
50+	5
40 - 49	4
30 - 39	3
20 - 29	2
10 - 19	1
< 10	0

AND

Percent of Corridor Signals Being Retimed

Range	Point
90% or above	5
80 - 89%	4
70 - 79%	3
60 - 69%	2
50 - 59%	1
< 50%	0

Calculation: Number of signals in project divided by total signals in full corridor length

Number of Jurisdictions — **Points: 20**

Total Number of Involved Jurisdictions

Range	Point
5 or more	20
4	16
3	12
2	8
1	0

OR

% of Priority Corridor Jurisdictions Involved

Range	Point
100%	20
75 - 99%	12
50 - 75%	6
< 50%	0

Current Project Readiness — **Points: 10**

Project Status	Point
Preliminary Engineering Complete	5
Re-timing of prior RTSSP project	3
Implementation within 12 months	5

Funding Match — **Points: 5**

Overall Match %	Point
50+%	5
40 - 49%	4
35 - 39%	3
30 - 34%	2
25 - 29%	1
<25%	0

Application Process

Project grants are determined through a competitive application process administered by OCTA. Agencies seeking funding must complete an online application, a supplemental application, and provide supporting documentation that will be used to evaluate the project proposal as outlined below. Key information to be provided as part of the application process includes:

- Funding needs by phase and fiscal year
- Percent match rate including funds type, source, and description (minimum 20 percent)
- Lead agency Option 1 (default – local agency) or Option 2 (OCTA)
- Lead and supporting agencies names
- Supporting technical information
- Project development and implementation schedule
- Environmental clearances and other permits
- Any additional information deemed relevant by the applicant
- Complete photographic field review (including cabinet interiors and communication facilities) for all projects that either exceed one million dollars in capital improvements or request OCTA serve as lead agency regardless of capital improvement budget.

A call for projects for the funding cycle will be issued as determined by the Board. Complete project applications must be submitted by the established due dates to be considered eligible for consideration.

Applications will be reviewed by OCTA for consistency, accuracy, and concurrence. Once applications have been completed in accordance with the Program requirements, the projects will be scored, ranked, and submitted to the TSC, TAC, and the Board for consideration and funding approval. OCTA reserves the right to evaluate submitted project costs for reasonableness as part of the review and selection process and suggest potential revisions to make the cost more appropriate. Grants will be subject to funding agreements with OCTA.

Application Instructions

An application should be submitted for a single corridor project. Multiple corridors, related systems of corridors, and corridors that form a "grid" ~~must~~ may be submitted as separate or single~~corridor~~ project(s). The following instructions should be used in developing project applications.

OCFundtracker Application Components

Final applications MUST be submitted via OCFundtracker and in hard copy format. Selection criteria must be inputted as part of the OCFundtracker online application and includes the following categories of information:

- Vehicle Miles Traveled
- Cost Benefit
- Project Characteristics
- Transportation Significance
- Maintenance of Effort
- Project Scale
- Number of Local agencies
- Current Project Readiness
- Funding Match Rate

Minimum Eligibility Requirements

All local agencies may participate in the RTSSP. Caltrans facilities are eligible for the RTSSP, but Caltrans cannot act as the lead agency. Local agencies will be required to provide a minimum of 20 percent matching funds for eligible projects (see definition of matching funds below).

The goal of the RTSSP is to provide regional signal synchronization that cross jurisdictional boundaries. To be eligible for funding through this Program, a project must meet the following requirements:

1. Be on a street segment that is part of the ~~priority corridor network,~~ signal synchronization network, or the MPAH. The project must be consistent with Local Signal Synchronization Plans and support the Regional Traffic Signal Synchronization Master Plan goals.
2. Be multi-jurisdictional, have documented support from all participating local agencies (cities, County, or Caltrans) and a minimum of 20 signals

   or

   Be multi-jurisdictional, have documented support from all participating local agencies (cities, County, or Caltrans) and a minimum distance of five miles

   or

   Include at minimum three local agencies, have documented support from all participating local agencies (cities, County, or Caltrans), and have a minimum intersection density of four intersections per mile with a minimum of eight signals

or

Include the full length of the ~~priority corridor or~~ signal synchronization network corridor, or MPAH corridor

Matching Funds

Local agencies along the corridor are required to provide minimum local match funding of 20 percent for each project. As prescribed by the M2 Ordinance, this includes local sources, M2 Fair Share, and other public or private sources (herein referred to as a "cash match"). Projects can designate local matching funds as cash match, in-kind match provided by local agency staff and equipment, or a combination of both.

"In-kind match" is defined as those actions that local agencies will do in support of the project including staffing commitment and/or new signal system investment related to improved signal synchronization. Examples of staffing commitment include, but are not limited to, implementation of intersection or system timing parameters, review of timing documentation, meeting participation, conducting or assisting in before/after studies, and other similar efforts that directly enhance the signal synchronization project. Administrative staff time for documentation of in-kind services is ineligible. Staff time charged to a project is limited to the caps as described in these guidelines. Allowable signal system investment would be improvements that are "eligible activities" per the funding guidelines, which can be shown to improve signal synchronization and would not include any prior investments made by the agency.

The specific matching requirement by project category type is listed below for city led projects:

Project category	Type of matching allowed*
Signal coordination	In-kind match** or cash match
New or upgraded detection	In-kind match** or cash match
New or upgraded communications systems	In-kind match** or cash match
Communications and detection support	In-kind match** or cash match
Intersection/field system modernization and replacement	In-kind match** or cash match
Minor signal operational improvements	In-kind match** or cash match

Traffic management center/traffic operations centers and motorist information systems	Cash match
Real-time traffic actuated operations and demonstration projects	Cash match

* Project match beyond 20 percent is limited to cash match only.

** In-kind services are subject to audit.

In-kind match must be defined for each local agency as part of the supplemental application. In-kind match must be identified as staffing commitment and/or new signal system investment. The supplemental application template will include a section to input in-kind match type as well as additional data related to the match:

- Staffing commitment
  - Staff position
  - Number of hours
  - Hourly (fully burdened) rate
  - Total cost
- New signal system investment
  - Cost of any signal system investment
  - Benefit to project

Projects submitted as OCTA led require a 20 percent cash match for Primary Implementation activities with a nominal in-kind allowance for local agency oversight. Operations and Maintenance activities will be permitted in-kind match only for local agency oversight functions. Contract activities will require cash match. Local agency contributions identified as cash match in the application cannot be converted into in-kind match.

OCTA staff will review in detail the presented cash and in-kind match by local agency for reasonableness. Additional requirements on in-kind match as part of the upcoming call are provided in Section 8.2.

Other Application Materials

Supporting documentation is required to fully consider each project application. A Supplemental Application Template is required to be completed for each project application. The template is distributed with other application materials at the issuance of the Call for Projects. In addition to the funding plan described above, local agencies will be required to submit the following materials:

Lead Agency: Lead agency for the project must be identified: local agency or OCTA.

Participating Agencies: All participating agencies must be identified and adopted City Council resolutions or Minute Order actions authorizing the participating agency's support of the project under the lead agency must be included. **If a *draft* copy of these resolutions of support are provided, the local agency must also provide the date the resolution will be finalized by the participating agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Council Approval: A Council Resolution or Minute Order action authorizing request for funding consideration with a commitment of project local match funding must be provided with the project application from all participating agencies. **If a *draft* copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Project Support: If proposed project has completed initial planning activities (such as project study report or equivalent, environmental impact report, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. The applicant will be asked for detailed information only if necessary to adequately evaluate the project application.

Lead Agency

This Program is administered through a single lead agency: a local city or OCTA.

Local Agency Lead: Only the lead agency will receive payments in accordance with the CTFP Guidelines regarding payment for costs related to project for optimized signal timing development, capital improvements, planning, and related design. Payments will be disbursed consistent with Chapter 10. The lead agency is responsible for reimbursing other agencies as part of the effort. Additionally, the lead agency is also responsible for ensuring that all agencies participating in the project provide the local match proposed in the project application.

OCTA Lead ~~(Not available for 2017 Call for Projects)~~: OCTA may, at the request of the involved local agencies, act as the lead agency for RTSSP projects. If the involved local agencies would like OCTA to implement a project on the signal synchronization network, the local agency shall work cooperatively with OCTA to develop the scope of work and cost elements of the project. The lead local agency shall contact OCTA with **a written request at least four weeks prior to submittal of the project grant application**. Projects nominated for OCTA lead ~~must~~ shall be discussed at the Traffic Forum. Applications must include a complete photographic field review (as outlined above) when

submitted. The application will be scored using the criteria outlined in the previous sections. Based on local agency interest and OCTA resource availability, a limited number of projects will be developed and implemented by OCTA. ~~Recent calls have resulted in OCTA implementing seven projects per year.~~

If any projects that are designated as OCTA lead are awarded funding, OCTA will then be responsible for implementation of the project including optimized signal timing development, capital improvements, planning, and related design. OCTA will implement the project based on the cost estimates developed in the application. Project elements may be modified based on final costs with the agreement of all participating agencies. OCTA will be responsible for ensuring that all agencies participating in the project provide the local match as identified in the project application (minimum 20 percent).

Additionally, for projects designating OCTA as lead agency, a consultant traffic engineering firm ~~will~~ may be contracted to provide staff and services to implement the project. Therefore, in-kind match designated as staffing commitment under an OCTA lead agency option ~~should~~ shall be limited. The following will be used as a guide for staffing commitment, when the local agency develops the application:

- Primary Implementation (12 months)
  - Project Administration - Each local agency traffic engineer or equivalent participates in approximately 10-15 hours per month of project administration (meetings, review of reports, minutes, and other administration).
  - Signal Synchronization Timing - Each local agency traffic engineer or equivalent reviews consultant developed draft and final timing plans for intersections within the local agency, approximately 2-4 hours per local agency intersection.
  - Before and After Study - Each local agency traffic engineer or equivalent reviews consultant developed draft and final project Before and After Study, approximately 2-5 hours per local agency.
  - Engineering design/review - Each local agency traffic engineer or equivalent reviews consultant developed engineer design within the local agency, approximately 2-4 hours per affected local agency intersection.
  - System integration - Each local agency traffic engineer or equivalent provides support for this function (hours vary depending on improvements).
  - Construction management - Each local agency traffic engineer or equivalent provides construction management support including inspection (hour vary depending on improvements.
- Ongoing Maintenance and Monitoring (24 months) - Each local agency traffic engineer or equivalent participates in continued project level meetings of 2-5 hours per local agency per month to review consultant traffic engineering progress of Ongoing Maintenance and Monitoring. In addition, each local agency traffic engineer or equivalent reviews consultant developed draft and final project report.

For projects designating a local agency as lead, the above may be used as a guide with additional local match related to implementation, development, design, monitoring and other costs that the local agency may choose to include as local match. For instance, Ongoing Maintenance and Monitoring may be performed by in house staff and be calculated using a different formula (e.g., 2-5 hours per local agency signal for 24 months).

Project Cancellation

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

If a lead agency decides to cancel a project before completion of the entire project, for whatever reason, the agency shall notify OCTA as soon as possible. It is the responsibility of the project lead agency to repay OCTA for any funds received.

Project Extensions

Local agencies are provided 36 months to expend the funds from the date of encumbrance. Agencies can request timely use of funds extensions through the SAR in accordance with the CTFP guidelines. Local agencies should issue a separate Notice to Proceed (NTP) while combining contracts for both the PI and O & M phases. NTP requirement should be identified in the initial contract/agreement to avoid obligation of both phases at the same time. If this procedure is followed by the local agency the NTP date will be considered the date of encumbrance for the O & M phase.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be conducted by OCTA Internal Audit Department or other authorized agent either through the normal annual process or on a schedule to be determined by the Board.

Data Compatibility

All count data collected as part of any funded project shall be provided to OCTA in one of the two following digital formats: 1) NDS/Southland Car Counters style Excel

spreadsheet; or 2) JAMAR comma separated value style text file. The data shall then be loaded into the OCTA Roadway Operations and Analysis Database System (ROADS). Any data files containing numeric intersection or node identifiers shall use the same node identification (ID) numbers as is stored in the ROADS database. OCTA shall provide a listing of intersections and corresponding unique node ID numbers. Each count data file shall adhere to the following file naming or csv. As an example, a turning movement count file for the intersection of Harbor Boulevard and Wilson Street in Costa Mesa would be given the filename CostaMesa_Harbor-Wilson_4534.csv.

All traffic signal synchronization data collected and compiled as part of any funded project for both existing (before) and final optimized (after) conditions shall be provided to OCTA in Synchro version ~~6~~8/9 csv Universal Traffic Data Format (UTDF) format and version 7 combined data UTDF format. This data shall include the network layout, node, link, lane, volume, timing, and phase data for all coordinated times. All such data shall be consistent with the OCTA ROADS database.

Section 8.2 - 2018 Call for Projects

The following information provides an overview of the 2018 RTSSP Call for Projects.

1. For this RTSSP Call for Projects, projects totaling up to $8 million in M2 funds will be available to local agencies.
2. Projects must result in new, optimized, and field-implemented coordination timing.
3. Project ~~must~~ may be a single contiguous corridor or set of contiguous corridors related to each other. Multiple corridors, related systems of corridors, and corridors that form a "grid" ~~must~~may be submitted as ~~separate~~ a single optimized timing ~~corridor~~ project~~s~~.
4. Projects selected will be programmed after July 1 of the programmed year (July 1 – June 30).
5. Project delays resulting in a time extension request will fall within the process outlined in the CTFP Guidelines.
6. Projects are funded for a grant period of three (3) years and are divided into two phases:
   a. Primary Implementation – includes the required implementation of optimized signal timing as well as any signal improvements proposed as part of a project. ~~As an exception to Precept 16, Primary Implementation of the project must be completed within one (1) year of the initial payment. Note: During the 2017 Call for Projects, capital improvements will be limited to address ongoing timely project delivery issues.~~
   b. Ongoing Maintenance and Operations – includes the required monitoring and improving optimized signal timing in addition to any optional communications and detection support. Ongoing Maintenance and Operations will begin after the optimized signal timing is implemented and be required for the remainder of the project (typically 2 Years). A project final report is required at the conclusion of this phase.
7. Projects shall include a Before and After Study. This study shall collect morning and evening peak period using travel times, average speeds, green lights to red lights, stops per mile, and the derived corridor system performance index (CSPI) metric. This information shall be collected both before any signal timing changes have been made and after the Primary Implementation. The study shall compare the information collected both before and after the timing changes. Comparisons shall identify the absolute and percent differences for the entire corridor, by segment, direction, and time period. Segments will be defined by major traffic movements as observed during the project (e.g. commuting segments between freeways, pedestrian-friendly segments in a downtown area, etc.). The Before and After Study shall be submitted after the Primary Implementation phase is completed.
8. Any corridor or portion of a corridor funded through this call cannot re-apply for funding until the three year grant period or commitment to operate signal

synchronization beyond the three year grant period is completed, whichever ends later.

9. Section 8.1 identifies the selection criteria for projects, eligible activities, minimum project requirements, data compatibility required as part of any funded project, and other key information.

Applications

In order for OCTA to consider a project for funding, applications will be prepared by the local agency responsible for the project application. OCTA shall require agencies to submit applications for the call for projects by **5:00 p.m. on Friday, October 20, 2017**. Late submittals will not be accepted. The local agency responsible for the project application must submit the application and any supporting documentation via OCFundtracker as outlined below.

Project Submittal

A separate application package must be completed for each individual project and uploaded to OCFundtracker. **Three (3) unbound printed copies and one electronic copy on a CD or USB** of each complete application shall also be mailed or delivered to:

Orange County Transportation Authority
550 South Main Street
P.O. Box 14184
Orange, California 92863-1584
Attn: Ms. Sam Kaur

Application Review and Program Adoption

10. OCTA staff will conduct a preliminary review of all applications for completeness and accuracy, may request supplemental information for projects during initial staff evaluations, and prepare a recommended program of projects for the TSC. In addition, OCTA may hire a consultant(s) to verify information within individual applications including, but not limited to, project scope, cost estimates, vehicle miles traveled, and average daily traffic.
11. ~~Based on recommendations from the TSC~~Final programming recommendations will be provided to the TSC and TAC for approval. ~~, a program will be presented to the TAC for review and endorsement.~~
12. Recommendations will be ~~from the TAC will be~~ presented to the Board, who will approve projects for funding under the CTFP.
13. OCTA shall distribute copies of the approved program to each participating local jurisdiction with any qualifying conditions stipulated for the jurisdiction's funded project(s).

Checklist Guide

The "Project P Regional Traffic Signal Synchronization Program Application Checklist" has been provided for the RTSSP (Exhibit 8-1). The checklist identifies the basic documentation required for the program. In addition to items required at the time of project submittal, additional items that are not specified may be requested later. The checklist should be provided as a cover sheet for **each** application submitted. For any items that are required for the candidate project or program that are missing or incomplete, an explanation should be included in a cover letter with the application.

Sample Resolution Form

A resolution or minute action must be approved by the local agency's governing body. A sample resolution is included as Exhibit 8-2. The mechanism selected shall serve as a formal request for RTSSP funds and states that matching funds will be provided by the agency, if necessary. All project requests (i.e., multiple corridors proposed for RTSSP funds) must be included in this action.

Chapter 10 - Reimbursements and Reporting

Procedures for Receiving Funds

An implementing agency must encumber funds OCTA awards to a project phase within the fiscal year the grant is programmed (July 1-June 30). Prior to the encumbrance of funds, an agency must have a fully executed letter agreement with OCTA. An agency encumbers funds by awarding a contract, completing the appraisal or issuing an offer letter for one parcel of right-of-way, or by providing expense reports with supporting documentation to prove an agency's workforce costs (provided that the agency intends to complete the phase with agency staff). OCTA shall consider the primary contract or the contract with the largest dollar amount, associated with the phase's tasks, when an agency uses a contract to show encumbrance of CTFP funds. Once an agency encumbers CTFP funds for a phase, it can begin the process for receiving payment of the funds.[7]

OCTA will release funds through two payments. The initial payment will provide up to 75 percent of the contract award or programmed amount, whichever is less. OCTA will disburse the final payment, 25 percent of eligible funds, after it approves the final report.

For situations where a grant exceeds $2 million, the final report retention shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant for that phase. Should the 75/25 payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached (See Precept 32).

Agencies shall submit payment requests to OCTA in a timely fashion. The M2 Ordinance requires the submittal of a final report within 180 days of the project phase completion date (See M2 Ordinance/definitions/Precept 33). Failure to submit a final report within the 180-day time frame will result in an agency being found ineligible to receive net revenues. Per the M2 Ordinance, no provision for extension is allowed. The project completion date refers to the date all final invoices have been paid and any pending litigation has been adjudicated for either the engineering phase or for the right-of-way phase, and all liens/claims have been settled for the construction phase.

OCTA will provide a separate CTFP payment supplement that includes sample forms and instructions for payment submittals and can be downloaded from the OCFundtracker website at https://ocfundtracker.octa.net/report_payment_excel.asp. Payment submittals are described in this chapter and must be submitted through OCTA's online

[7] Funds from state and federal sources funds will undertake a separate process. Local agencies must contact Caltrans local assistance for reimbursement.

database, OCFundtracker: http://ocfundtracker.octa.net. Detailed instructions for OCFundtracker are available online at the previously mentioned website. Staff is also available to assist agencies with this process. Agencies must upload appropriate backup documentation to the database. OCTA may request hardcopy payment requests.

Availability of Funds

The funds granted by OCTA for each phase will be available on July 1, the first day of the fiscal year in which the funds are programmed and upon implementation of the letter agreement for the specific project.

Cancellation of Project

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible during the planning phase shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty. Right-of-way funding received for property acquisition prior to cancellation shall be repaid upon cancellation, regardless of whether property has been purchased or not. Construction funding received prior to cancellation shall be repaid upon cancellation.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Section 10.1 - Regional Capacity Program Initial Payment

Payment Requests

An agency shall use the report and checklist provided in the CTFP Payment Supplement (see https://ocfundtracker.octa.net/report_payment_excel.asp) in order to determine the reporting and documentation requirements for initial payment requests. Payment requirements are located in the Guidelines. Staff may request additional documentation that is not listed on the checklist prior to approving the request.

The interactive electronic versions of all payment forms can be downloaded via OCFundtracker at http://ocfundtracker.octa.net.

OCTA usually releases funds through two payments. The initial payment will constitute 75 percent of the eligible contract award or allocation amount, whichever is less. In addition to the bid abstract, OCTA will require local agencies to submit appropriate backup documentation for all project phases to support the initial payment request. OCTA will release the final payment of remaining balance, usually the final 25 percent of CTFP grant funds, when the project is complete and OCTA accepts the final report. The balance is determined based on final costs for CTFP eligible program expenditures. Prior to submitting the report, review the program specific section in these guidelines that addresses the final report process.

OCTA will reimburse costs associated with the Measure M informational signs (fabrication, installation, and removal) and do not count against a project's grant. Measure M informational "Funded By" sign removal costs should be requested in the Final Report.

Prior to submitting an initial payment request, a local agency may request a meeting with OCTA staff to determine eligible/ineligible items prior to requesting reimbursement.

Below is additional information regarding the documentation requirements of payment requests:

1. Invoice – For initial payments, an agency shall invoice for 75 percent of the contract amount or programmed amount, whichever is less. For final payments, an agency shall invoice for the remaining balance of the contract amount or programmed amount, whichever is less. Final payment request invoices shall normally be approximately 25 percent of the eligible funds. Interest earned by an agency for initial payments received shall be applied to and deducted from the final payment balance amount. For situations where a grant exceeds $2 million, the final report retention shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant for that phase. Should the 75/25 payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached (See Precept 36). Agencies seeking initial payment for the planning, environmental and preliminary engineering

work performed by local agency forces, must submit payroll records and City Council budget allocation with the initial payment request. The payroll records should identify the project name, date of expenditures, amount, and employee position. It is recommended that a unique project key be created for each project and all project charges be billed under that job code. OCTA staff can provide a sample of acceptable form of payroll report upon local agency request.

2. Project Certification Letter – The public works director, or appropriate equivalent, shall submit a certification letter, with applicable statements, using the Project Certification Form (see https://ocfundtracker.octa.net/report_payment_excel.asp). This will include the certification that the project being reimbursed has meet the signage requirements laid out in Precept 22.

3. ~~Minutes~~ Documentation of the Contract Award – The agency shall submit a minute order, agency resolution, or other council/board action showing award of the contract and the contract amount. After contract award, the agency shall submit the project name, contractor/consultant company name, and project scope including bid/task list, for each contract. The city clerk, clerk of the board, or appropriate equivalent shall certify minutes. Agencies that use on-call consultants shall submit a purchase order that includes the scope of work for the contractor.

4. Revised Cost Estimate – The agency shall use the format provided in the Revised Costs Estimate form (see https://ocfundtracker.octa.net/report_payment_excel.asp).

5. Work Schedule – OCTA prefers a complete project schedule, but an agency may provide as little as the expected start and completion dates for preliminary engineering, final engineering, right-of-way, and construction phases on form 10-1A.

6. Right-of-Way Documents – Each parcel shall include an appraiser's ~~invoice~~report, written offer letter, plat map, and legal description. Agencies attempting to acquire five or more parcels for a project shall include a parcel location map. Initial payments for ROW will be considered after submittal of a signed ROW agreement with the property owners and/or upon City Council Resolution initiating a property acquisition in accordance with the Code of Civil Procedure per §1230.010, et. seq.

7. Plans, Specifications, & Estimate (PS&E) Certification – Agencies shall submit a PS&E certification using the PS&E Certification form (see https://ocfundtracker.octa.net/report_payment_excel.asp). The agency engineer shall certify that the local agency properly prepared and approved plans and specifications in accordance with authorized procedures and adopted standards, followed approved scope of work, and incorporated materials report.

8. Layout Plans – An agency shall not submit layout plans that print on paper larger than 11 inches by 17 inches.

9. Documentation of Decision to Use Local Agency Forces – For all project phases, for any work performed by local agency forces in lieu of a primary contract, local agency must document that local agency forces could perform the work more cost effectively or timely than a contractor; and documentation of this decision can be supplied in case of audit.
10. Documentation Supporting Local Agency Liability for Utility Relocation Costs – Local agency liability can be supported by the documentation of property rights, franchise rights/agreements, state and local statutes/ordinances, permits, or a finding by the local agency's counsel.

Reimbursement

OCTA shall not reimburse for a project prior to the beginning of the fiscal year of the grant. If an agency receives an advancement and begins work prior to the start of the fiscal year of the grant, the agency may request an initial payment against the grant. If an agency receives an advancement and completes a project prior to the start of the fiscal year of the grant, OCTA shall disburse the grant in a single payment. OCTA must accept the final report prior to issuing a payment.

Calculation of Payment

Once an agency encumbers Measure M funds, the agency may request a maximum of 75 percent of the contract award amount or programmed amount, whichever is less. For situations where a grant exceeds $2 million, the final report retention shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant for that phase. Should the 75/25 payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached (See Precept 36). Examples of calculating the initial funding request for a standard 75/25 payment are described below.

Example A - **Contract** is awarded for **less than** the estimated construction cost.

Given:

$160,000 = CTFP Allocation $40,000 = City Share

$200,000 = Total Contract Award for Project X

Calculations:

75% of CTFP allocation = $160,000 x 0.75 = $**120,000**.

Example B - **Contract** is awarded for **more than** the estimated construction cost.

Given:

$200,000 = Total CTFP funds programmed for Project Y

$280,000 = Construction contract award (CTFP share)

Calculations:

Construction costs = $280,000

Since this amount exceeds $200,000 programmed, the initial payment is limited to 75% of the programmed amount.

75% of contract amount = $200,000 x 0.75 = $**150,000**.

Section 10.2 - Regional Capacity Program Final Report and Payment Process

The remaining CTFP funds are reimbursed to the lead agency following completion of the final reporting process. This final payment is calculated by considering the grant amount, the minimum local match rate, how much has been previously reimbursed as part of the initial payment, and the total eligible costs that can be applied to the grant (see program specific eligibility sections). M2 funds are applied proportionally to all eligible project expenses. Prior to submitting the Final Report, review the following section which includes items important to the final reporting process. The CTFP Payment Supplement provides additional instructions and sample forms to complete payment requests. Payment requirements are located in this chapter.

Project Cost Changes

If the contract price is lower than the amount programmed and the agency requested additional items and/or change orders during construction/study, OCTA may approve the additional costs during the review of the final report. OCTA will review these reports to:

1. Determine that the agency submitted proper justification for the change order(s)
2. Determine if the items are eligible for reimbursement
3. Confirm that expenses are within the project's original scope of work
4. The lead agency should provide information supporting the need for the change orders in the final report. Changes in project limits for construction projects are not eligible for reimbursement.

Additional Documentation Requirements

The items listed below are to be submitted to complete the final reporting process. If the local jurisdiction has not submitted a final report for any previous phases of the project, the reporting requirements outlined in Section 10.1 must be followed, with exception to the initial report forms, in addition to the Final Report requirements listed below.

5. Final Report Form – The local agency shall prepare a final report form using the final report form (see https://ocfundtracker.octa.net/report_payment_excel.asp).
6. OCTA shall reimburse general lump sum pay items, appraisal cost, design, and construction engineering in the same ratio as the total right-of-way acquisition or construction costs.
7. Proof of Project Payment ~~and Division of Costs~~ – The required documentation ~~that will be submitted required as proof of payment~~ includes approved contract invoices and may also include, but is not limited to, supportive material for agency work forces,

equipment, ~~and~~ material, and corresponding proof of payment. Additional records are required to be maintained as outlined in the Audit

8. Division of Costs – ~~For the division of costs, original contract bid item lists can be supplied. If these are not available, the Proof of Project Payment and~~ The Division of Costs form can be used (see https://ocfundtracker.octa.net/report_payment_excel.asp). Supportive material shall equal the division of costs totals that are located in the final report form.
9. Summary of Right-of-Way Acquisition – Agencies shall submit a summary of right-of-way acquisition as described in the Summary of right-of-way acquisition form (see https://ocfundtracker.octa.net/report_payment_excel.asp).
10. Notice of Completion – An agency may submit ~~a recorded Notice of Completion (NOC) or where a NOC is not typically used, t~~The Notice of Completion form may be used to certify the phase completion date. (see https://ocfundtracker.octa.net/report_payment_excel.asp). Please note the date of completion refers to the date all final 3rd party contractor invoices have been paid and any pending litigation has been adjudicated for either the engineering phase or for the right-of-way phase, and all liens/claims have been settled for the construction phase.
11. Before and After Project Photos (where applicable) – photographs showing the project before and after the improvements.

Electronic copies of all payment forms can be downloaded from OCFundtracker.

Timely Final Reports

OCTA will work with local agencies to ensure the timeliness of final reports by utilizing the following procedures:

1. Local agencies to notify OCTA of the project phase completion date within 30 days of completion.
2. Local agencies to file a final report within 180 days of project phase completion date.
3. OCTA to issue a notice to the public works directors or TAC representative(s) 90 days after the project completion date, as reported in OCFundtracker, to remind local agencies that the final report is due in 90 days. The reminder notice will include an offer from OCTA for a consultant to assist in preparation of the final report. The agency shall reimburse OCTA for the consultant services if used.
4. OCTA to issue a final notice letter to the public works directors or TAC representative(s) with a copy to the agency's management and finance director if OCTA does not receive the final report within 180 days of the project completion

date. The final notice letter will inform the local agencies that if OCTA does not receive a response to the final notice letter and the final report within 180 days, then the funds will be unencumbered and OCTA shall request that the agency return disbursed funds, plus interest.

5. OCTA to issue the final payment to local agencies within 60 days of receiving the complete final report and all supporting documentation.

Failure to Submit Final Report

Agencies who fail to submit a Final Report will be required to repay applicable M2 funds received for the project in a manner consistent with the Master Funding Agreement and/or will be found ineligible to receive M2 Net Revenues.

Excess Right-of-Way

Agencies that use Net Revenues (through CTFP or Local Fair Share programs) to acquire project right-of-way shall dispose of land deemed in excess of the proposed transportation use. Excess land sold by the lead agency will be disposed of in accordance with the process established in Government Code, Article 8, Surplus Land, Section 54220-54232, et. Seq. and the right-of-way acquisition/disposal plan submitted as part of the application process. The agency shall return proceeds from the sale to OCTA. OCTA shall return the funds to the program of origin for future use.

Proceeds from the sale of excess right-of-way shall be returned to OCTA in proportion to the amount of M2 funds used in the purchase.

Agencies shall submit right-of-way documents for all parcels utilizing M2 Net Revenues. Agencies must submit the following documents:

- Summary of the right-of-way required for the project
- Plat maps and legal descriptions for right-of-way acquisitions
- Parcel location map
- Identification of anticipated excess right-of-way, if any
- Appraisal reports for excess right-of-way

OCTA shall consider excess right-of-way with a value of $10,000.00 or less as an uneconomic remnant. OCTA shall determine if excess right-of-way is to be considered an uneconomic remnant.

The agency shall submit a fair market value appraisal report for the excess land of each parcel. Appraisers must conduct appraisals in accordance with the Uniform Standards of Professional Appraisal Practice (USPAP). If an agency suspects that the excess right-of-way has a value of $10,000.00 or less, the agency may conduct a limited fair market

value appraisal to confirm the value of the excess right-of-way. The agency shall submit the appraisals with the right-of-way final report.

OCTA shall retain from the final payment the value of excess right-of-way that is proportional to OCTA's percentage match rate to the project up to OCTA's match rate of right-of-way grant. However, if the local agency provided additional funds beyond what was original estimated, OCTA will be reimbursed based on its proportional share of the cost of right-of-way.

An agency may include incidental expenditures from the disposal of property in their final report for the right-of-way grant.

An agency shall begin the process to sell excess right-of-way within 60 days after acceptance of the construction improvements.

OCTA shall not close-out the right-of-way grant or construction grant until the agency and OCTA resolve questions regarding excess right-of-way.

Example:

OCTA's right-of-way grant: $500,000

OCTA grant match rate 75%

Parcel Costs:

Cost – Parcel 1:	$300,000
Cost – Parcel 2:	$380,000
Cost – Parcel 3:	$120,000
Cost – Parcel 4:	$100,000
Total right-of-way Costs:	$900,000
Payment with no excess ROW:	$500,000

Excess right-of-way:

Value of excess right-of-way for parcel 1:	$200,000
Value of excess right-of-way for parcel 2:	$105,000
Value of excess right-of-way for parcel 3:	$ 0
Value of excess right-of-way for parcel 4:	$ 0
Total Value of excess right-of-way:	$305,000

OCTA contribution to right-of-way acquisition:

CTFP right-of-way contribution ÷ Agency total cost of right-of-way

$500,000 ÷ $900,000 = 56%

OCTA's shall reduce the final right-of-way payment by:

Parcel 1:	$200,000 x 56% =		$112,000
Parcel 2:	$105,000 x 56% =	+	$58,800
Total:			$170,800
Payment (incorporating excess right-of-way):			$500,000
		-	$170,800
			$329,200

Agency Workforce and Equipment Rental

An agency must provide supporting documentation for work completed by agency staff. It is recommended that a unique project job key be created for each project and all project charges be billed under that job code. The agency shall multiply the fully burdened labor rate by the number of hours for each staff person assigned to the project. An agency may add actual overhead costs at an allowable rate up to 30 percent of payroll and fringe benefits. Where an agency due to size cannot calculate its specific overhead rate, an agency may refer to the Cost Accounting Policies and Procedures Manual (CAPPM) of the California Uniform Public Construction Cost Accounting Commission, which allows for a fixed overhead rate billing dependent on city size. Where an agency has actual overhead costs that exceed 30 percent, these will be accepted when a fully audited cost allocation plan is provided and approved by the appropriate governmental entity listed in the CAPPM or 2 Code of Federal Regulations Part 225.

An agency must provide supporting documentation for equipment used by local agency staff. An agency may use local agency or Caltrans surcharge and equipment rental rates.

Technical and/or Field Review

Once an agency submits a final report for a project, OCTA shall review the report for compliance with the CTFP Guidelines and may conduct a technical and/or field review. As part of the technical/field review of a CTFP project, OCTA may:

- review right-of-way acquisitions and the potential for excess right-of-way
- compare hourly breakdown of staff time compared to staff time sheets
- conduct a project field review – ensure improvements are within scope
- review items that agencies self-certify
- verification of the reasonableness of project costs

OCTA may review all phases of the project.

OCTA will use the project cost estimate forms submitted with the application and revised where appropriate, project accounting records and the final report as the primary items to conduct the review. Agencies must maintain separate records for projects (i.e.,

expenditures, interest) to ensure compliance. OCTA will only reimburse eligible CTFP items listed on the cost estimate. The implementing agency is expected to complete the entire scope of work as presented in the original application.

See Chapter 11 for independent audit requirements beyond the technical/field review.

Reporting of Local Fair Share

For the purposes of reporting non-project work (maintenance, repair, and other non-project related costs) funded by Measure M local fair share funds, the Measure M expenditure report cited M2 Ordinance, Section III(B)(8) shall satisfy reporting requirements. If local fair share funds are used for projects, the local agency shall also include a list of those funds and/or other Measure M funds in the Project Final Report cited in Section III(B)(9).

Section 10.3 - Regional Traffic Signal Synchronization Program Reimbursements and Reporting Requirements

The previous sections of this chapter outline the process and requirements regarding reimbursements and reporting for all competitive programs that are part of Measure M2. A lead agency shall also use the following additional reporting and documentation requirements specific to any competitive project funded through Project P as part of the reimbursement process.

Procedures for Receiving Funds

Regional Traffic Signal Synchronization Program funds projects with a three (3) year grant. Projects are divided into two components for the purposes of reimbursements and reporting: Primary Implementation and Ongoing Maintenance and Operations. Ongoing Maintenance and Operations will begin after the Primary Implementation of the project is completed and be required for the remainder of the project and last for a minimum of two (2) years.

Primary Implementation includes the following:

- Project administration (required)
- Developing and implementing optimized signal synchronization timing (required)
- Producing a Before and After Study for the proposed project (required)
- Engineering design of signal improvements for the project (optional)
- System integration (optional)
- Proposed signal improvements, construction support, and contingency (optional):
  - New or upgraded detection
  - New or upgraded communication systems
  - Intersection/field system modernization and replacement
  - Minor signal operation improvements
  - Traffic management centers
  - Real-time traffic actuated operations and demonstration projects
- Contingencies (optional)
- Construction management (optional)

Ongoing Maintenance and Operation will begin after the Primary Implementation of the project is completed. Includes the following:

Monitoring and improving optimized signal timing (required)

- Communications and detection support (optional)
- Final report (required)

A lead agency must encumber funds OCTA allocates to a project within the fiscal year of the grant and after funding agreements with OCTA are executed. A lead agency encumbers funds by awarding a contract or providing expense reports to prove the lead or a participating agency's workforce costs, provided that the lead agency intends to complete the Primary Implementation with lead agency or participating agency staff. Once an agency encumbers Project P funds for Primary Implementation, it can begin the process for receiving payment of the funds. Note that only the lead agency will receive payment of funds from OCTA. Any funds that are due to other participating agencies are the responsibility of the lead agency and not OCTA.

The project lead agency must submit payment requests through OCTA's online database, OCFundtracker: https://ocfundtracker.octa.net. Additional details about the retention caps, timely payment requests, project closeout, and payment are available in Section 10.1 and 10.2 of the chapter.

Availability of Funds

The funds allocated for projects will be available to project lead agencies July 1st of the programmed year and after funding agreements with OCTA are executed.

Initial Payment Requests for Primary Implementation

The initial payment will provide up to 75 percent of funds for the Primary Implementation of the project. The following information specific to the Regional Traffic Signal Synchronization Project is provided regarding the documentation requirements for initial payment of Primary Implementation after an agency encumbers funds for the project.

The interactive electronic versions of all payment forms can be downloaded via OCFundtracker (see https://ocfundtracker.octa.net/report_payment_excel.asp).

The Primary Implementation report has been provided so a lead agency can determine the reporting and documentation required for an initial payment request. Staff may request additional documentation that is not listed on the Primary Implementation Report prior to approving the request. The electronic versions of the forms are available through the OCFundtracker.

Below is additional information updating Section 10.1 of this chapter regarding documentation requirements for RTSSP payment requests. The CTFP Payment Supplement provides instructions and sample forms for the items listed.

- Invoice - For initial payments, the lead agency shall invoice for 75 percent of the contract amount or programmed amount of the project's Primary Implementation, whichever is less. For final payments of the Primary Implementation, the lead agency shall invoice the remaining balance of the project's Primary Implementation phase contract amount or programmed amount, whichever is less

- Project Certification Letter (initial and final)
- Revised Cost Estimate (initial)
- Plans, Specifications, and Estimate (PS&E) Certification (initial)
- Certification of Phase (initial)
- Final Report Submission
- Division of Cost Schedule (final)
- Work Schedule - OCTA requires a complete project schedule, including expected start and competition dates for tasks in the Primary Implementation and Ongoing Maintenance and Operation phases (initial and final)
- Right-of-Way Documents - No requirements as Right-of-Way is not a part of RTSSP

Detail on other aspects on Initial Payment Requests for Primary Implementation including project advancement and reimbursement is available in section 10.1 of this chapter.

Final Payment Requests for Primary Implementation

OCTA will release the remaining balance to the lead agency, approximately 25 percent of funds for the Primary Implementation, when the project's Primary Implementation phase is complete and OCTA receives the project Before and After Study. The balance is determined based on the final costs for the eligible RTSSP expenditures. The Before and After Study is defined as the following:

> This study shall at minimum collect morning and evening peak period using travel times, average speeds, green lights to red lights, stops per mile, and the derived corridor system performance index (CSPI) metric. In addition, greenhouse gas and gasoline savings should be identified. This information shall be developed both before any signal timing changes have been made and after the Primary Implementation. The study shall compare the information collected both before and after the timing changes. Comparisons shall identify the absolute and percent differences for the entire corridor, by segment, direction, and time period. Segments will be defined by major traffic movements as observed during the project (e.g. commuting segments between freeways, pedestrian-friendly segments in a downtown area, etc.).

A template for the before and after study is available. The Before and After Study for RTSSP shall be included as a requirement at the end of the Primarily Implementation phase and as part of the Final Report for reimbursement purposes.

Payment Requests for Ongoing Maintenance and Operations

The payments for the Ongoing Maintenance and Operations portion of the project award will cover the remainder of the grant period after Primary Implementation is completed and will be paid as a reimbursement upon proof of work/payment and receipt of invoice. The invoice should include details on the ongoing maintenance and operation work done

including on the required (1) work monitoring and improving optimized signal timing; and optional (2) communications and detection support.

Project Final Report

The project final report shall be completed in accordance with all CTFP Guidelines upon the end of the three year grant period. In addition, the final report shall summarize the full project through the three-year grant period, include the Before and After Study from the Primary Implementation phase, and report on additional updates/information that result from the Ongoing Maintenance and Operation phase.

Example of Reimbursement

$1,000,000 = Total RTSSP funds programmed for Example Street Signal Synchronization allocated in Fiscal Year 2011/2012. The grant period is for three years.

$900,000 for Primary Implementation – This amount of the project award is subject to the 75 percent initial payment and 25 percent final payment split as defined in the CTFP Guidelines.

Initial Payment = $900,000 x 0.75 = $675,000

Final Payment upon completion, submission, and acceptance by OCTA of project Before and After Study to OCTA

Approximate Final Payment = $900,000 x 0.25 = $225,000

$100,000 for Ongoing Maintenance and Operation – This amount of the project award will cover the remainder of the three year grant period after Primary Implementation is completed and will be paid upon proof of payment and receipt of invoice.

Section 10.4 - Environmental Cleanup Program Reimbursements and Reporting Requirements

Sections 10.1 and 10.2 of this chapter outline the process and requirements regarding reimbursements and reporting for the Regional Capacity Program. The CTFP Payment Supplement provides instructions and sample forms for ECP projects. The interactive electronic versions of all payment forms can be downloaded via OCFundtracker. These processes are applicable to the Tier 1 and Tier 2 Grant Programs with the following exceptions:

- For an initial payment, the ECP Initial Report Form 10-15 must be submitted (see https://ocfundtracker.octa.net/report_payment_excel.asp).
- For a final payment, the ECP Final Report Form 10-16 must be submitted. Supporting documentation for O & M costs (if used as local match) and location maps must also be submitted (see https://ocfundtracker.octa.net/report_payment_excel.asp).
- A final report must be filed within 180 days of the project phase completion with information as shown on the ECP Final Report Form 10-16 (see https://ocfundtracker.octa.net/report_payment_excel.asp).
- Additionally, an exception to Precept 29: agencies may appeal to the ECAC and the OCTA Board on any issues that the agency and OCTA cannot resolve, as such are the approving bodies for this program.

For Tier 1 of the Environmental Cleanup Program, where ongoing operations and maintenance of the project ~~can be~~ were pledged as a local match.~~:~~ ~~A~~as part of the semi-annual review reporting process, OCTA will verify local agency operations and maintenance expenditures to ensure local match commitments are being met. Local agencies must complete the In-Kind O&M Report Form 10-17 (see https://ocfundtracker.octa.net/report_payment_excel.asp) for each ECP grant as part of their SAR updates.

ATTACHMENT B

Draft
Comprehensive Transportation Funding Programs Guidelines
2018 Call for Projects

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I. Overview

On November 6, 1990, Orange County voters approved Measure M, a 20-year half-cent local transportation sales tax. All major transportation improvement projects and programs included in the original Measure M have been completed or are currently underway.

Expected growth demands in Orange County over the next 30 years will require agencies to continue to invest in transportation infrastructure projects. A collaborative effort between County leaders and the Orange County Transportation Authority (OCTA) identified additional projects to fund through an extension of the Measure M program. Voters approved Measure M2 (M2) on November 7, 2006. Ordinance No. 3 (Ordinance) outlines all programs.

Background

A robust freeway network, high occupancy vehicle & toll lanes, a master plan of arterial highways, extensive fixed route and demand response bus service, commuter rail, and bicycle/pedestrian facilities comprise Orange County's transportation system. Future planning efforts are considering high speed rail service as part of a statewide system. Separate agencies manage and maintain each transportation component with a common purpose: mobility.

OCTA is responsible for planning and coordination of county regional transportation components. Local agencies generally oversee construction and maintenance of roadway improvements using a combination of regional and local funding sources derived from grants and formula distributions.

The Comprehensive Transportation Funding Programs (CTFP) represents a collection of competitive grant programs offered to local agencies. OCTA administers a variety of additional funding sources including M2, state/federal gas taxes, and Transportation Development Act (TDA) revenues.

Guidelines Overview

This document provides guidelines and procedures necessary for Orange County agencies to apply for funding of transportation projects contained within the CTFP through a simplified and consistent process. Each program has a specific objective, funding source and set of selection criteria detailed in separate chapters contained within these guidelines.

Guidelines are updated on a periodic basis in coordination with local agencies working through the Technical Steering Committee (TSC) and Technical Advisory Committee (TAC). Modifications to the guidelines are discussed in details with the local agency

representatives during the TSC and TAC meetings held to review and approve the updated guidelines.

Additionally, OCTA may add, modify, or delete non-M2 programs over time to reflect legislative action and funding availability.

II . Funding Sources

Renewed Measure M

M2 is a 30-year, multibillion-dollar program extension of the original Measure M (approved in 1990) with a new slate of planned projects and programs. These include improvements to the County freeway system, streets and roads network, expansion of the Metrolink system, more transit services for seniors and the disabled as well as funding for the cleanup of roadway storm water runoff.

OCTA shall select projects through a competitive process for the Regional Capacity Program (Project O), the Regional Traffic Signal Synchronization (Project P), the various transit programs (Projects S, T, V and W), and the Environmental Cleanup Program (Project X). Each program has a specific focus and evaluation criteria as outlined in the guidelines.

OCTA shall distribute Local Fair Share Program (Project Q) funds on a formula basis to eligible local agencies. The program receives 18 percent of Net Revenues. The formula is based upon three components:

- Fifty percent based upon population
- Twenty-five percent based upon centerline miles on the existing Master Plan of Arterial Highways (MPAH)
- Twenty-five percent based upon local agency's share of countywide taxable sales

Projects that are wholly funded by M2 Fair Share revenues and/or local sources are not subject to a competitive process. However, program expenditures must maintain certain criteria as outlined in the Ordinance and M2 Eligibility Guidelines. Local agencies must conform to annual eligibility requirements in order to receive fair share funding and participate in the CTFP funding process. Key requirements include:

- Timely use of funds (expend within three years of receipt)
- Meet maintenance of effort requirements
- Use of funding on transportation activities consistent with Article XIX of State Constitution (Article XIX)
- Include project in seven-year capital improvement plan (CIP)
- Consistency with MPAH, Pavement Management Program, and Signal Synchronization Master Plan

As indicated above, M2 Fair Share revenues are subject to timely use of funds provisions (must be expended within three years of receipt). If an agency is unable to meet this provision, an extension of up to 24 months can be granted. Requests for extension on the timely use of M2 Fair Share revenues will be made as part of the semi-annual review

process. In addition to a written request, the agency will also submit an expenditure plan of how the funds will be expended.

State/Federal Programs

OCTA participates in state and federal transportation funding programs based on competitive and formula distributions. OCTA typically earmarks this funding for major regional transportation projects. From time to time, OCTA may set aside funding, where permitted, for use by local agencies through a competitive selection process.

Call for Projects

OCTA issues calls for projects annually or on an as needed basis. Secure revenue sources, such as M2, will provide funding opportunities on an annual basis. OCTA will update program guidelines and selection criteria periodically. OCTA may offer limited opportunity funding, such as a state-wide bond issuance or federal grants, consistent with funding source requirements. OCTA may conduct concurrent calls for projects when necessary. Detailed funding estimates, application submittal processes and due dates will be updated for each call for projects and will be included in section V of these guidelines.

III. Definitions

1. The term "agency," "agencies," "local agency" or any form thereof shall be described in Precept 2.
2. "Competitive funds" refers to funding grants received through the Comprehensive Transportation Funding Programs (CTFP).
3. The term "complete project" is inclusive of acquiring environmental documents, preliminary engineering, right-of-way acquisition, construction, and construction engineering.
4. The term "cost overrun" in reference to projects awarded through the CTFP shall refer to any and all costs beyond the original estimate that are necessary to complete the approved project scope.
5. The term "encumbrance" or any variation thereof shall mean the execution of a contract or other action (e.g. city council award of a primary contract or issuance of a purchase order and notice to proceed) to be funded by Net Revenues.
6. The term "escalation" or "escalate" is the inflationary adjustment, as determined by the Engineering News Record (ENR) Construction Cost Index (CCI) 20-city average, added to the application funding request (current year basis) for right-of-way and construction phases (see Precept 13).
7. The term "environmental mitigation" is referred to as environmental clean-up/preservation measures made as part of that projects environmental clearance.
8. The term "excess right-of-way" is right-of-way acquired for projects and deemed excess to the proposed transportation use. Excess right-of-way designation shall be acknowledged by applicant during the grant application process.
9. The term "Fast Track" shall refer to projects that apply for both planning and implementation phase funding in a single competitive application/call for projects.
10. The term "Fully Burdened Labor Rates" include Work Force Labor Rate (WFLR) plus overhead (see Chapter 10)
11. The term "funding grant," "grant," "project funding," "competitive funds," "project programming" shall refer to the total amount of funds approved by the Board through the CTFP competitive process.
12. The term "Gap Closure" shall refer to the construction of a roadway to its full MPAH build-out for the purpose of connecting two existing ends of that roadway by filling in a missing segment or for completing the terminus of an MPAH roadway. This applies to increased roadway capacity only as it relates to vehicular traffic.

13. The term "implementing agency" is the agency responsible for managing the scope, cost and schedule of the proposed project as defined in the grant application.

14. The term "lead agency" shall refer to the agency responsible for the submission of the grant application.

15. The term "Master Funding Agreements" or any form thereof shall refer to cooperative funding agreements described in Precept 4.

16. The term "match rate", "local match", "local matching funds", or any variation thereof, refers to the match funding that an agency is pledging through the competitive process and disposed of through procedures in Chapter 10.

17. A "micro-purchase" is any purchase that does not exceed $2,500. For the purposes of proof of payment, only an invoice is required.

18. The term "obligate" or any variation thereof shall refer to the process of encumbering funds.

19. "OCFundtracker" refers to the online grant application and payment system used by OCTA to administer the competitive programs awarded through the CTFP. Refer to https://ocfundtracker.octa.net/

20. The term "project phase" or any form thereof shall refer to the three distinct project phases (Engineering, right-of-way, and construction) OCTA funds through the CTFP. Additionally, the "engineering phase" shall include the preparation of environmental documents, preliminary engineering, and right-of-way engineering. The "right-of-way phase" shall include right-of-way acquisition, utility relocation and adjustment to private property as contained in the ROW agreements, private improvements taken, TCEs, severance damages, relocation costs that are the legal obligation of the agency, as well as loss of good will, fixtures and equipment including legal cost. The "construction phase" shall include construction and construction engineering. A fourth phase defined as "Operations & Maintenance" applies to select programs and is described more fully in the applicable program chapter.

21. Programming for Project O (Regional Capacity Program) follows a sequential process related to Planning and Implementation elements as described more fully in Chapter 2. The Planning step includes environmental evaluation, planning and engineering activities. The Implementation step includes right of way and construction activities.

22. The term "project phase completion" refers to the date all final 3rd party contractor invoices have been paid and any pending litigation has been adjudicated for either the engineering phase or for the right-of-way phase, and all liens/claims have been

settled for the construction phase. The date of project phase completion will begin the 180-day requirement for the submission of a project final report as required by the M2 Ordinance, Attachment B, Section III.A.9.

23. The term "reasonable" in reference to project phase costs shall refer to a cost that, in its nature and amount, does not exceed that which would normally be incurred under the circumstances prevailing at the time the decision was made to incur the cost. Factors that influence the reasonableness of costs: whether the cost is of a type generally recognized as ordinary and necessary for the completion of the work effort and market prices for comparable goods or services.

24. The term "savings" or "project savings" in reference to projects awarded through the CTFP are any grant funds remaining on a particular project phase after all eligible items within the approved project scope have been reimbursed.

25. "Sustainability", as it applies to capacity enhancing infrastructure projects, refers to project elements that support environmental benefits as recognized through the Envision Process (www.sustainableinfrastructure.org).

26. The term "Work Force Labor Rates (WFLR)" include direct salaries plus direct fringe benefits.

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IV. Precepts

The OCTA Board of Directors (Board) approved these guidelines on March 22, 2010. The guidelines subsequently have been amended and approved by the Board as needed. The purpose is to provide procedures that assist in the administration of the CTFP under M2 where other superseding documents lack specificity. OCTA, or an agent acting on the authority's behalf, shall enforce these guidelines.

1. All eligible Orange County cities and the County of Orange may participate in the M2 competitive programs and federal funding programs included in the CTFP. Other agencies (e.g. Department of Transportation or local jurisdiction) may participate on a project, however, one local agency shall be designated as the implementing agency, shall be responsible for all funding requirements associated with the project, and shall be the recipient of funds through the program.

2. To participate in the CTFP, OCTA must declare that an agency is eligible to receive M2 Net Revenues which include local fair share distributions. Failure to meet minimum eligibility requirements after programming of funds will result in deferral or cancellation of funding.

3. The lead agency must execute a Master Funding Agreement with the OCTA. OCTA and lead agencies will periodically amend the agreement via letter to reflect funding changes through competitive calls for projects.

4. A separate cooperative funding agreement will be issued for any OCTA-led Regional Traffic Signal Synchronization Program projects.

5. An agency must have a fully executed letter agreement prior to the obligation of funds. Local agencies may be granted pre-award authority for M2 funded projects once the letter agreement is executed. Local agencies, at their own risk, may use this pre-award authority to advance an M2 funded project prior to the programmed year. Reimbursement will be available in the Board approved programmed year (see Chapter 10).

6. For transit programs not covered by the letter agreement process (e.g. Projects S, V and W), pre-award authority is granted upon the Board approval of the funding grant.

7. Local agencies shall scope projects, prepare estimates, and conduct design in cooperation with and in accordance with the standards and procedures required by the local agencies involved with the project (e.g., Caltrans, County, state/federal resource agencies).

8. Local agencies should select consultants based upon established contract management and applicable public contracting practices, with qualification based selection for architectural/engineering (A/E) services, and competitive bidding environments for construction contracts in accordance with the Public Contracts Code. Agencies must meet procurement and contracting requirements of non-M2 funding sources which may exceed those identified in the CTFP.

9. Based upon funding availability, a "Call for Projects" shall be considered annually but may be issued less frequently.

10. In each call cycle, OCTA shall program projects for a three-year period, based upon an estimate of available funds.

11. OCTA will base funding grants on project cost estimates including up to 10 percent contingency for construction. During the programming process, OCTA adds an inflationary adjustment.

12. OCTA shall escalate project grants for years two and three for right-of-way and construction phases only. OCTA will base escalation rates on the Engineering News Record (ENR) Construction Cost Index (CCI) 20-city average.

13. Match rate commitments identified by implementing agencies in the project grant application shall remain constant throughout the project. This includes projects where the programming has been escalated for future years. OCTA and implementing agencies shall not reduce match rate commitments or split the match rate by phase. Actual project contributions by the local agency or OCTA are dependent on final project costs and may not be equal to the match rate if a local agency overmatch exists. Local agency contributions may exceed the committed local match rate in the event of cost overruns. OCTA will not increase the funding grant to cover cost overruns. Ineligible expenditures cannot be considered when calculating the local match rate.

14. Where a project experiences savings, the local match percentage must be maintained.

15. OCTA shall program funds by fiscal year for each phase of a project.

16. A grant for a specific project shall be cancelled if the funds are not encumbered within the fiscal year the funds are programmed, unless the OCTA Board has granted a delay.

17. Implementing agencies may request a delay not exceeding a total of 24 months per project grant. Agencies shall justify this request, receive City Council/Board of

Supervisor concurrence, and seek approval of OCTA staff the Technical Advisory Committee (TAC), and the Board as part of the semi-annual review process. Extension requests must be received no less than ninety days prior to the encumbrance deadline and are not permitted for projects that seek "fast track" grants.

18. An administrative time extension may be granted for expiring M2 funds for a project that is clearly engaged in the procurement process (advertised but not yet awarded).

19. Funds that have been encumbered shall be used in a timely fashion. For project phases, excluding right-of-way, funds will expire after 36 months from encumbrance. For the right-of-way phase, funds will expire after 36 months from the date of the first offer letter and/or, if contract services are required, 36 months from the contract NTP. Extensions up to 24 months may be granted through the Semi-Annual Review (SAR) process. Extension requests must be received no less than 90 days prior to the encumbrance deadline.

20. Preliminary Engineering allocations can be programmed in two different fiscal years depending on the project schedule and when certain engineering costs will need to occur during the project development and implementation phases. Local agencies can issue a separate NTP on a single contract to ensure compliance with the timely use of funds requirement. Local agencies may also issue separate contracts for the funds programmed in different fiscal years. Local agencies are required to obligate the funds within the same fiscal year of the programming or request a delay at least 90 days prior to the obligation deadline.

21. For all construction projects awarded CTFP funds in excess of $500,000 and/or exceeding a 90-day construction period schedule, the local agency shall install and remove signage in accordance with OCTA specifications during the construction period. The implementing agency may request OCTA furnished signage or it may choose to provide agency furnished signage so long as said signage conforms to OCTA specifications as follows: Signage shall include an M2 logo that is a minimum of 12" tall, an OCTA logo that is a minimum of 3" tall (image files provided by OCTA upon request), verbiage stating "Street Improvements Funded by Measure M" in Myriad Pro, bold condensed font at 256 pt. and "Your dollars at Work" in Myriad Pro, bold condensed font at 180 pt. Agencies will be required to certify that these signage requirements have been met as part of the initial payment process (see chapter 10).

22. OCTA shall reprogram funds derived from savings or project cancellation based upon final project status. An implementing agency may request to transfer 100 percent of savings of M2 funds between the phases within a project with approval from the

TAC and Board. Funds can only be transferred to a phase that has already been awarded competitive funds. Such requests must be made prior to the acceptance of a final report, and submitted as part of a semi-annual review. State-Local Partnership Program (SLPP) funds are not eligible for the transfer of savings. Agencies may only use savings as an aid for unanticipated cost overruns within the approved scope of work.

23. Where the actual conditions of a roadway differs from the MPAH classification (e.g. number of through lanes), OCTA shall use the actual conditions for the purposes of competitive scoring. An agency may appeal to the TAC to request that the MPAH classification be adjusted/reconsidered.

24. For the purpose of calculated level of service (LOS), the capacity used in the volume over capacity calculation shall be 100 percent capacity, or LOS level "E". Intersection Capacity Utilization (ICU) calculations shall use 1,700 vehicles per hour per lane with a .05 clearance interval.

25. OCTA shall consider matching fund credit(s) for an implementing agency's proposed projects current and applicable environmental clearance expenditures. OCTA will review and consider these expenditures on a case by case basis at the time of funding approval.

26. An approved CTFP project may be determined ineligible for funding at any time if it is found that M2 funding has replaced all or a portion of funds or commitments that were to be provided by other sources such as: development conditions of approval, development deposits, fee programs, redevelopment programs or other dedicated local funding sources (i.e., assessment districts, community facilities districts, bonds, certificates of participation, etc.). Appeals may be made in accordance with Precept 39.

27. OCTA may fund environmental mitigation, up to 25 percent of the total eligible project cost by phase, as required for the proposed project contained in the environmental document. Participating environmental mitigation expenditures are eligible for funding under certain programs, but not all.

28. Construction Engineering, Construction Management, Materials Testing, Engineering Support and/or Project Management shall not exceed 15 percent of the total eligible project cost based upon the engineers' estimate. The cap is applied to the sum of eligible expenses, contract change orders (within the scope of work), equipment and materials (e.g. eligible traffic signal equipment).

29. Contract change orders are only eligible for reimbursement of work due to unforeseen changed conditions within the original scope of work and not exceeding 10 percent contingency provided in the application cost estimate.

30. OCTA shall evaluate "whole" projects during the initial review process. Subsequent phase application reviews shall not include prior phases in the evaluation unless locally funded and pledged as a match and are subject to OCTA verification. The criteria for ranking project applications is included in these guidelines as part of each program component chapter.

31. Projects that receive competitive CTFP funds shall not use other M2 competitive funds as a local match source. Lead agencies may request project consolidation. The TAC and Board must approve consolidation requests. OCTA shall use the weighted average match rate of the consolidated project's individual segments.

32. OCTA shall conduct a semi-annual review of all active CTFP projects. All agencies shall participate in these sessions through a process established by OCTA. Currently, OCTA administers the semi-annual review through OCFundtracker. OCTA shall: 1) verify project schedule, 2) confirm project's continued viability, 3) discuss project changes to ensure successful and timely implementation, and 4) request sufficient information from agencies to administer the CTFP. 5) any potential issues with external fund sources committed as match against the competitive funds.

33. For any project experiencing cost increases exceeding 10 percent of the originally contracted amount, a revised cost estimate must be submitted to OCTA as part of the semi-annual review process. This is applicable even if the increase is within the overall grant amount.

34. Agencies shall submit payment requests to OCTA in a timely fashion. Agencies may request an initial payment for M2 (generally up to 75 percent of programmed amount or eligible expenditures, see Chapter 10) once the funds have been encumbered. The final 25 percent of the available programmed balance will be released upon the submission of an approved final report.

35. The amount withheld pending the submittal of an approved final report shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant or the contract amount, whichever is less. Should the 75 percent/25 percent payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached. At no time will the final payment retention be less than 10 percent.

36. When a project phase is complete, an agency shall notify OCTA in writing within 30 days of completion. The date of project phase completion will begin the 180-day requirement for the submission of a project final report as required by the M2 Ordinance, Attachment B, Section III.A.9.

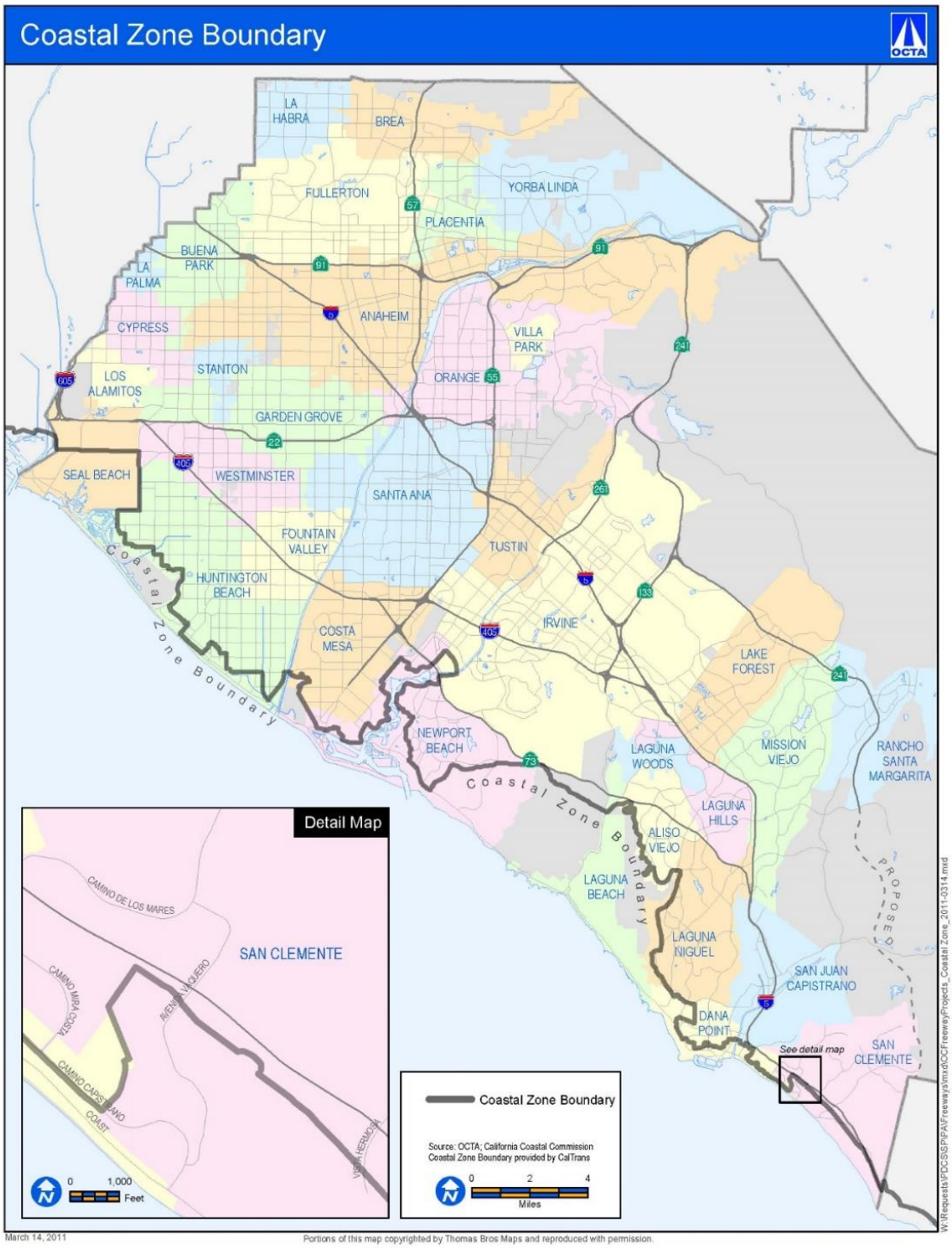
37. An agency shall provide final accounting in an approved final report format (see Chapter 10) within 180 days of project phase completion. The process for untimely final reports is described in Chapter 10. Failure to provide a final accounting shall result in repayment of applicable M2 funds received for the project phase in a manner consistent with the Master Funding Agreement. Projects funded with M2 funding require a project final report within 180 days of project phase completion as part of eligibility compliance. Failure to meet eligibility requirements, including submittal of final reports within 180 days of project phase completion may result in suspension of all net revenues including fair share funds.

38. The payment distribution ratio referenced in Precept 35 may be modified to a reimbursement process, at the discretion of the Board, in the event that financing or bonding is required to meet OCTA's cash flow needs.

39. Agencies may appeal to the TAC on issues that the agency and OCTA staff cannot resolve. An agency may file an appeal by submitting a brief written statement of the facts and circumstances to OCTA staff. The appellant local agency must submit a written statement which proposes an action for TAC consideration. The TSC shall recommend specific action for an appeal to the TAC. The Board shall have final approval on appeals.

40. Projects within the Coastal Zone Boundary, as a requirement of a Coast Development Permit, may be required to replace existing on-street parking on a one-for-one basis for spaces removed as a result of a roadway widening project. Right-of-way costs to replace the existing on-street parking can be considered ~~an eligible expense~~ mitigation for coastal zone cities only (see exhibit IV-1). The mitigation activities can be covered up to 25 percent of the total eligible cost consistent with Precept 27. Jurisdictional boundaries are more fully described in the Public Resource Code, Division 20, California Coastal Act (2016) Sections 30168 & 30169. OCTA staff will work with the local agency staff during the project application process to determine eligibility of these costs and to identify any excess right-of-way that will require a disposal plan. OCTA and the local agency will also establish any savings that will revert back to the Measure M Program after project completion. The cost of right-of-way required to replace parking should be fair and reasonable in comparison to the total cost of the project.

Exhibit IV-1


Coastal Zone Boundary
OCTA
LA HABRA
BREA
FULLERTON
YORBA LINDA
PLACENTIA
BUENA PARK
LA PALMA
CYPRESS
ANAHEIM
VILLA PARK
LOS ALAMITOS
STANTON
ORANGE
GARDEN GROVE
SEAL BEACH
WESTMINSTER
SANTA ANA
FOUNTAIN VALLEY
TUSTIN
HUNTINGTON BEACH
COSTA MESA
IRVINE
LAKE FOREST
NEWPORT BEACH
LAGUNA WOODS
MISSION VIEJO
RANCHO SANTA MARGARITA
LAGUNA HILLS
ALISO VIEJO
LAGUNA BEACH
LAGUNA NIGUEL
SAN JUAN CAPISTRANO
DANA POINT
SAN CLEMENTE
See detail map
Coastal Zone Boundary
PROPOSED
Detail Map
CAMINO DE LOS MARES
SAN CLEMENTE
CAMINO MIRA COSTA
AVENIDA VISCUERO
CAMINO CAPISTRANO
COAST
VISTA HERMOSA
0 1,000 Feet
Coastal Zone Boundary
Source: OCTA; California Coastal Commission Coastal Zone Boundary provided by CalTrans
0 2 4 Miles
W:\Requests\PDCS\GIS\PIPA\Freeways\mxd\OCFreeways\Projects_Coastal Zone_2011-0314.mxd
March 14, 2011
Portions of this map copyrighted by Thomas Bros Maps and reproduced with permission.

V. 2018 Call for Projects – Regional Capacity Program

The 2018 Call for Projects (call) for Project O – the Regional Capacity Program (RCP) – under M2 will provide approximately **$32 million** for streets and roads improvements across Orange County.

Funding will be provided for the three RCP funding programs: ACE, ICE, and FAST (see Chapter 7). Chapter 7 details the specific program's intent, eligible project expenditures, ineligible project expenditures, and additional information that may be needed when applying for funds. Each section should be read thoroughly before applying for funding. Application should be prepared for the program that best fits the proposed project.

For this call, OCTA shall program projects for a three-year period (FY 18/19 – 20/21), based upon the current estimate of available funds. For specifics on the funding policies that apply to this call, refer to the Program Precepts as found in Section IV of these guidelines.

Applications

In order for OCTA to consider a project for funding, applications will be prepared by the lead agency. OCTA shall require agencies to submit both online and hardcopy applications for the 2018 call for projects by **5:00 p.m. on Friday, October 20, 2017**. **Late submittals will not be accepted.**

The agency must submit the application and any supporting documentation via OCFundTracker (see Chapter 9). Additionally, **three (3) unbound hardcopies** of the application and any supporting documentation must be submitted to OCTA by the application deadline. Hardcopy applications should be mailed to:

OCTA

Attention: Ms. Sam Kaur

600 S. Main Street

P.O. Box 14184 Orange, CA 92863-1584

Hardcopy applications can be hand delivered to:

600 S. Main Street

Orange, CA 92868

Application Review Process

Once applications are reviewed and ranked according to the Board approved scoring criteria, a recommended funding program will be developed by OCTA staff. These programming recommendations will be presented to the TAC for review and comment. The TAC approved programming recommendations will then be presented to the OCTA Highways Committee and Board for review and final approval.

Local agencies awarded funding will be notified as to which projects have been funded and from what sources after the Board takes action. A tentative call schedule is detailed below:

Board authorization to issue call: August 201~~6~~7

Application submittal deadline: October 2~~1~~0, 201~~6~~7

TSC/TAC Review: February/March 201~~7~~8

Committee/Board approval: May 201~~7~~8

M2 Project O Funding

M2 Project O funding will be used for this call.

The CTFP Guidelines include a provision that allows applicants to request right of way (ROW) and/or construction funding prior to completion of the planning phase (included final design) provided that the phase is underway, substantially complete and the agency will complete the activities within six months of the start of the new phase programmed year. A thorough review of eligible activities is not always possible during the call for projects evaluation period. As a result, it is possible that cost elements contained within an application and included in a funding recommendation may ultimately be deemed ineligible for program participation. The applicant is responsible for ensuring projects are implemented according to eligible activities contained within the program guidelines.

Chapter 1 - Eligibility

Overview

To apply for the CTFP, local agencies must fulfill an annual eligibility process. OCTA established this process to ensure that improvements are consistent with regional plans. The cities and county approved a process reflecting the eligibility criteria found in Measure M. Eligibility packages are due to OCTA by June 30 of each year.

In order to receive CTFP and M2 Fair Share funds, OCTA must deem agencies as eligible. OCTA shall annually distribute an eligibility information package to local agencies. Below is a brief list of requirements:

- Adoption of a Capital Improvement Program
- Adoption of a General Plan Circulation Element which does not preclude implementation of the MPAH
- Adoption of a Pavement Management Plan
- Adoption of a Local Traffic Signal Synchronization Plan
- Satisfied Maintenance of Effort requirements
- Approved agreement to expend funds within three years of receipt (based upon date OCTA issues check to local agency)
- Adopt an annual Expenditure Report
- Submit Project Final Report for all Net Revenue projects

The M2 Eligibility Guidelines outline the eligibility requirements in detail. OCTA updates the Eligibility Preparation Manual annually and encourages agencies to use it as a reference when preparing items to meet eligibility requirements (see http://www.octa.net/pdf/m2Eligibility.pdf). Agencies will submit a CIP through an electronic database application (see http://websmartcip.octa.net/). OCTA develops a manual and workshops to prepare local agency staff for the annual eligibility process.

MPAH Consistency Review and Amendment Process

Through a transfer agreement with the County of Orange, OCTA assumed responsibility for administering the MPAH starting in mid-1995. As the administrator, OCTA is responsible for maintaining the integrity of the MPAH through coordination with cities and the County and shall determine an agency's consistency with the MPAH. In order to provide a mechanism to communicate MPAH policies and procedures, OCTA prepared the *Guidance for the Administration of the Orange County Master Plan of Arterial Highways (see http://www.octa.net/pdf/mpah_guidlines.pdf)*. The guidance document is to assist OCTA, the County, and the cities of Orange County to maintain the MPAH as a vital component of transportation planning in the County. The guidance document outlines, in

detail, the MPAH consistency review and amendment process. Agencies can find contact information for OCTA staff assigned to MPAH administration in the manual.

Additional Information Regarding MPAH

The agency's General Plan Circulation Element must be consistent with the MPAH. In order for an agency's circulation element to be consistent with the MPAH, it shall have a planned-carrying capacity equivalent to the MPAH for all MPAH links within the agency's jurisdiction. "Planned capacity" shall be measured by the number of through lanes on each arterial highway as shown on the local circulation element. Agencies are not considered "inconsistent" as a result of existing capacity limitations on arterials which are not yet constructed to the circulation element design.

The agency must also submit a resolution attesting that no unilateral reduction in lanes has been made on any MPAH arterials. For a sample resolution, see the Measure M2 Eligibility Guidelines.

Chapter 2 - Project Programming

Program Consolidation

The M2 RCP improvement categories (ACE, ICE, and FAST) will combine projects into one application review process. The programs of the CTFP will act as the project funding source. The consolidation of programs will help eliminate confusion among the various requirements and allow the greatest flexibility for programming projects. Other funding programs (Projects S, T, V, W, and X) have similar eligibility requirements, but OCTA will evaluate and approve these projects through a separate process.

Sequential Programming Process – RCP

Timely and efficient use of funding is a critical success factor for the CTFP. Historically, agencies were encouraged to develop long term projects spanning three or more years which often led to delays in implementing final project phases. This dynamic led to larger-than-anticipated funding program cash balances and an inability to fund smaller time sensitive projects in the interim.

In response to concerns raised by the Board and the Taxpayers Oversight Committee responsible for M2 oversight, OCTA will use annual calls that serve a near term programming window (3 years), as well as a sequential funding approach for M2 projects. OCTA expects this new approach to aid in a more timely use of funding and limit the potential for unanticipated project completion delays inherent with long lead time projects.

Sequential funding is a two-step process. Step One, also known as the planning phase, includes funding requests for planning/environmental, engineering and right-of-way engineering activities. Step Two, also known as the implementation phase, includes right-of-way engineering/acquisition and construction activities. Right-of-way engineering can be requested in either the planning or implementation phases. Projects must complete the planning phase before an agency requests implementation phase funding during a call for projects. Exceptions to this rule include the following:

- An agency may request implementation funding prior to completion of the planning phase if the jurisdiction can demonstrate that the planning phase activities are underway, are substantially complete and the agency will complete the activities within six months of the start of the new phase programmed year.

OR

- An agency may request a Fast Track approach, seeking funds for planning and implementation phase at the same time. . The agency must demonstrate that the policy variance is necessary due to the project schedule and waiting until the next annual call for projects to apply for implementation phase funding presents undue

hardship or could jeopardize the overall project delivery and milestones. The agency will waive the opportunity to request a project delay under this approach. The Fast Track approach is permitted only for projects that do not have right of way acquisition needs. The Fast Track approach is permitted only for projects that do not have right of way acquisition needs. In no circumstances will the Fast Track option be considered for local agency convenience as this could delay implementation of other projects that are shelf ready.

Each call for projects will cover a three-year period which overlaps subsequent future cycles. Funding targets for each cycle are based upon prior funding commitments, anticipated revenues, reprogramming of unused grants (cancellations and savings), and a set aside for future funding cycles.

As part of each call for projects, OCTA will determine an appropriate balance between grants made for the planning and implementation phases.

Tiered Funding

Project funding for Project O (Regional Capacity Program or RCP) will follow a tiered funding process that differentiates between large and small projects. The tiered process is described in detail in Chapter 7.

Funding Projections – Call for Projects

Revenue estimates for M2 are updated annually. Programming decisions are based upon conservative economic assumptions provided by Southern California academic institutions. In the future, OCTA will add project cancellations and realized savings from completed projects to anticipated revenues for redistribution in the first year of each funding cycle.

Project Cost Escalation

OCTA will escalate approved right-of-way and construction projects in years two and three. The match rate percentage identified by implementing agencies in the project grant application shall remain constant throughout the project. This includes projects where the programming has been escalated for future years. OCTA will base escalation rates for future years on Engineering News Record (ENR) Construction Cost Index 20 City Average (CCI) escalation rates.

Programming Adjustments

OCTA bases funding grants on cost estimates that agencies provide and that OCTA validates against industry norms during the evaluation process. Agencies must provide estimates in current year dollars.

Projects programmed in Year Two or Year Three of each funding cycle include a CCI-based adjustment factor for the right-of-way and construction phases only. Lead agencies shall not receive grant increases. Cost overruns are the responsibility of local agencies and may count against agencies' match rate commitment for eligible activities. Local agencies may request scope adjustments to meet budget shortfalls when the agency can demonstrate substantial consistency and attainment of proposed transportation benefits compared to the original project scope.

When agencies are preparing applications, **all cost estimates must be in current year dollars with Month and Year cited**. OCTA will review each cost estimate thoroughly and will escalate right-of-way and construction costs based on the year OCTA programs the project grant. For example, if an agency's cost estimate lists construction costs for a project and OCTA programs the project for year 3 of the funding cycle, then OCTA will escalate the costs by the CCI-based adjustment factor, compounded annually, beginning in year 1 of the funding cycle.

Project Readiness

In an effort to better utilize project funding and maintain project schedules, programming of funding for CTFP under the sequential approach has been revised. In general, to program grants for Step Two (right-of-way or construction phases), a project must either have:

1. Project-level approval for environmental clearance (CEQA) for M2 programs, (NEPA and CEQA for federally funded programs), or;
2. Exempt (categorically or statutorily) under CEQA and/or NEPA (as applicable).

OCTA may consider exceptions to these programming rules, on a case by case basis, if an agency can confirm that a project will receive environmental clearance prior to project approval of programming for right-of-way and construction. OCTA will not approve any projects for funding for right-of-way and construction without final adopted project level environmental clearance documentation.

Programming Policies

OCTA will not increase grants after the initial programming for each phase except through project savings transfers, where applicable. Project savings are defined as the grant value remaining after one project phase (such as engineering) has been completed. Transfers should be identified during the semi-annual review phase. Formal request of savings transfers must be accompanied by updated information and justification for the intended phase. Scope reductions are not considered project savings. Overall projects savings at the conclusion of a project are returned to the original program for reprogramming in a

subsequent call for projects. This section is intended to clarify rather than replace the transfer policy identified in Precept 22.

In order to receive right-of-way and construction grants, a project must have all environmental clearances in place. OCTA shall not release final payment for the planning stage (includes final design) until confirmation of environmental clearance is provided.

Agencies are responsible for costs that exceed the project grant, maintaining the project schedule, and maintaining the project scope.

An agency's grant will be cancelled if the agency does not encumber the funds within the programmed fiscal year. An agency may request a delay in accordance with the time extension policy described in the precepts.

An agency must have a fully executed Letter Agreement prior to the obligation of funds.

As stated above, an agency's grant is based on the project's cost as requested and programmed with established escalation rates. If project costs escalate beyond original estimates and the agency is unable to cover additional costs, a request to reduce the project scope or limits will be considered where feasible. All requests for changes in scope and limits must be submitted to OCTA in advance of the change. This request will be evaluated on a case-by-case basis and must be approved by the TAC and the Board prior to initiation of the change by the lead agency. The lead agency must submit a letter to OCTA no later than June 30th of the year in which funds are programmed stating the reasons for cost increases, a proposal for project scope or limit reduction, and an explanation of why approval of the request is warranted. The review process is similar to the appeals process mentioned above.

Schedule change requests

Grants approved as part of the CTFP process are subject to timely delivery requirements. Implementation schedules are determined by the lead agency (applicant). Contract work must be awarded prior to the end of the programmed fiscal year to encumber the funds. If work cannot be initiated within this time frame, a request to defer funding may be submitted to OCTA for consideration. Project status is reviewed every six months during the semi-annual review process. Expired project funding is subject to withdrawal from project and reprogramming in a subsequent call for projects.

Funding delays must be submitted to OCTA in conjunction with the semi-annual review process. These reviews are typically held in Fall and Spring. Emergency extensions after the Spring semi-annual review may be considered on a case by case basis, but no less than 90 days prior to the encumbrance deadline. The M2 Ordinance permits a delay for up to 24 months. Implementing agencies may request a one-time delay of up to 24 months per project grant. Agencies shall justify this request, receive City Council/Board of Supervisor concurrence, and seek approval of OCTA staff, the TAC and Board as part

of the semi-annual review process. Projects that are expected to incur extensive delays beyond the parameters of the program should consider cancellation and reapplication at a future date. Advancement requests may be considered during the review process and may be approved subject to funding availability.

Timely use of funds

For project phases, excluding right-of-way, funds will expire after 36 months from encumbrance. For the right-of-way phase, funds will expire after 36 months from the date of the first offer letter. Extensions up to 24 months may be granted through the SAR. Extension requests must be received no less than 90 days prior to the encumbrance deadline. Additional extensions may be considered on a case by case basis for the Regional Capacity Program and the Regional Traffic Signal Synchronization Program.

Project Advancements

Agencies wishing to advance a project by one fiscal year or more may request project advancement. Advancement requests will be considered only if program funds are available. The grant will be de-escalated according to the original escalation rate.

Requests must be submitted as part of the semi-annual review. All advancements will be reviewed by the TAC and approved by the Board. If approved, the agency and project will be required to meet the new fiscal year award or encumbrance deadline.

Should OCTA be unable to accommodate an advancement request due to cash flow constraints, the agency may still move forward with the project using local funding. (See Precept 6) The lead agency must have a fully executed letter agreement prior to beginning work. The lead agency may subsequently seek reimbursement of CTFP funds in the fiscal year in which funds are programmed. Reimbursement shall follow the standard CTFP process (see Chapter 10). Prior approval is not necessary if the project is being advanced through local funds.

Semi-Annual Review

OCTA staff will conduct a comprehensive review of CTFP projects on a semi-annual basis to determine the status of projects. Project updates will be provided by the local agencies and uploaded to OCFundtracker. Follow-up meetings to these updates will be held as needed. Semi-annual project reviews are usually scheduled to occur in March and September of each year.

Projects are reviewed to:

1. Update project cost estimates. For any project experiencing cost increases exceeding 10 percent of the originally contracted amount, a revised cost estimate

must be submitted to OCTA. This is applicable even if the increase is within the overall grant amount.

2. Review the project delivery schedule
3. Determine the project's continued viability
4. Verify project operations and maintenance expenditures (e.g. Environmental Cleanup Program)
5. Discuss any potential issues with external fund sources committed as match against the competitive funds

Prior to each review meeting, OCTA staff will distribute a list of active projects to each local agency. Each agency will be contacted and asked to participate in the upcoming review where each agency's project schedules, cost estimates, and scope will be reviewed. Agencies will be given the opportunity to request program changes (e.g. delaying and advancing funds from one fiscal year to another) and each adjustment will be considered on a case-by-case basis. The agency should be prepared to explain any changes and provide all necessary supporting documentation. Generally, the local agency is responsible for the implementation of the projects as approved by OCTA, however consideration will be given for circumstances beyond the lead agency's control that affect scope, cost, or schedule.

Based on the semi-annual review meetings, OCTA staff will develop and present recommendations for project adjustments to the TAC. Requests for project changes (delays, advancements, scope modifications, etc.) will be considered on an individual basis. The following action plan has been developed for the semi-annual review process:

- Require local agencies to submit status reports, project worksheets, and supporting documentation to OCTA for all project adjustments.
- Require local agencies to abide by **Time Extension Policy**:
  - Agencies may request a delay of up to 24 months per grant. Local agencies will be required to justify this request and seek approval of OCTA staff, the TAC, and the Board as part of the semi-annual review process.
  - Approved schedule changes will require an update of the local jurisdiction's seven-year CIP and the OCTA cooperative funding agreement.
  - Evidence of Council approval (resolution, minute order, or notification) must be provided prior to Board approval of delays.
  - An administrative extension may be granted for expiring M2 funds for a project phase that is clearly engaged in the procurement process (advertised but not yet awarded).
  - Agencies that have requested Fast Track funding cannot request time extensions.

Environmental Cleanup Program Operations and Maintenance Reporting

For Tier 1 of the Environmental Cleanup Program, cash match is required. ~~o~~Ongoing operations and maintenance of the project ~~can~~cannot be pledged as a match ~~(page 12-6)~~. ~~As part of the semi-annual review reporting process, OCTA will verify local agency operations and maintenance expenditures to ensure minimum match rate commitments are being met. Local agencies must complete Form 10-17 (available for download from OCFundtracker) for each ECP grant as part of their semi-annual review updates.~~

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Chapter 3 - Safe Transit Stops (Project W)

Purpose

This is a fixed-scope program, which provides funding for passenger amenities at the 100 busiest bus stops in Orange County determined by average daily weekday passenger boardings (October 2012 data).

City-Initiated Bus Stop Improvements

Eighty percent of the available Project W funding ($4,470,000) will be made available to support city-initiated projects. The Orange County Transportation Authority (OCTA) is functioning as the funding agency for the local bus stop amenity improvements implemented by cities under this program. Local agencies have the authority and responsibility for designing, constructing, and maintaining bus stop improvements. Local agencies will retain local control and responsibility for these improvements including, but not limited to, shelters, lighting, seating, and waste receptacles.

OCTA-Initiated Bus Stop Improvements

Twenty percent of available Project W funding ($1,120,000) is proposed to be directed towards the development and implementation of regional, customer-facing technologies that benefit the 100 busiest stops. Examples include design of the real-time "text4next" system, ticketing vending machines, and other regional elements that benefit the region, as well as the 100 busiest stops. OCTA would implement these passenger amenities working in cooperation with local agencies.

Eligible Applicants

Eligible applicants for the "city-initiated bus stop improvements" funding include the 15 local agencies in Orange County, which have at least one of the top 100 busiest bus stops as defined above. Bus stops on private property would need to be submitted by the city on behalf of the property owner.

Application

Required to Include:

- Proposed maintenance plan;
- Photos of the proposed project site in the weekday AM peak and PM peak period;
- Project design or concept drawings;
- Shelter size and covered passenger waiting area footage; and
- Needs assessment.

Evaluation Criteria

If sufficient funds are not available during a funding cycle to fund all the projects that are submitted, projects will be prioritized for funding based on a combination of boarding ranking and the needs of each stop.

Available Funding

Five and a half million on a pay-as-you-go basis is available for Project W between fiscal year (FY) 2012-13 through FY 2019/20. Funding for the city-initiated bus stop improvements will be offered biennially. The amount available through FY 2020, as well as the amount available for each round of funding, is shown below.

Project W Estimated Funding by FY (in thousands)									
FY	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
Total Revenue	$580	$610	$650	$690	$720	$750	$780	$810	$5,590
City-Initiated 80%	$460	$490	$520	$550	$580	$600	$620	$650	$4,470
OCTA-Initiated 20%	$120	$120	$130	$140	$140	$150	$160	$160	$1,120

The first round of funding for Project W funds will target $950,000 for city-initiated improvements, and $240,000 for OCTA-initiated improvements. These figures are comprised of the amounts available from FYs 2012-13 and 2013-14.

Project W Funding Available Biennially for City Project Applications and Stops Improved (in thousands)					Total
FYs	12/13 and 13/14	14/15 and 15/16	16/17 and 17/18	18/19 and 19/20	
City Available Funds Biennially	$950	$1,070	$1,180	$1,270	$4,470
Bus Stops Improved	30+	35+	35+	TBD	

Eligible Costs

Project W will pay for up to $20,000 for "normal load stops" and up to $30,000 for "high load stops.* A high load stop is where the 90th percentile of boarding events have ten or more passengers waiting. The following expenses are eligible for reimbursement under the program:

Eligible

- Passenger Waiting Amenities
  - Bus shelters or shade structures (required);
  - Seating/leaning fixtures (required);
  - Waste receptacles (required);
  - Ad displays; and
  - Bus stop lighting.
- Other Amenities
  - Transit/pedestrian information display;
  - Security cameras (monitored by local police department);
  - Bicycle lockers or racks;
  - Mature street trees;
  - Minor improvements to sidewalks necessary to accommodate shelters; and,
  - Installation of electric service on bus shelters for future OCTA uses.

Not Eligible

- Right-of-way acquisition;
- Planning and design;
- Maintenance; and
- Electricity.

Other OCTA-Funded Items

- Installation of Bus stop signage;
- Real-time information display improvements will be provided in future; and
- Ticket vending machines can be installed as funding becomes available in future.

*The average cost of a single width shelter and bench is approximately $15,000 and the average cost of a double width shelter and bench is $25,000.

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Chapter 4 - Transit Extensions to Metrolink (Project S)

Overview

This Measure M2 (M2) Program establishes a competitive process to enable local agencies to enhance regional transit capabilities through creation of new connections to the existing Metrolink system. Projects must meet specific criteria in order to compete for funding through this program. In addition, local agencies will be required to demonstrate the ability to fund the local share of operations and maintenance on an ongoing basis using non-Orange County Transportation Authority (OCTA) resources. Public-private partnerships[1] are encouraged but not required.

[1] Public-private partnerships are defined as direct financial contributions or sponsorships for eligible program activities.

Section 4.1 – Fixed Guideways

Objectives

- Expand multi-modal transit options for regional travel by establishing new transit connections to existing Metrolink stations
- Provide new service on a defined route with primary ridership derived from Metrolink patronage

Project Participation Categories

Metrolink provides a vital transit option for travel throughout southern California. Orange County is home to 12 Metrolink stations currently serving residents and commuters for employment, education, and pleasure-based trips. These stations serve diverse destination and trip origination needs. Efficient and convenient access enables the system to thrive and the overall transportation network (all motorized and non-motorized modes) to operate effectively.

Transit needs may differ from one location to the next and projects pursued under this program have significant latitude in how the challenge of delivering enhanced transit service to/from existing Metrolink stations are addressed. The program categories listed below identify key project elements that can be pursued through the Project S funding source. Fixed guideway projects are capital intensive. Additional funding sources may be required to supplement M2 for maximum investment opportunities. Selection criteria will parallel Federal Transportation Administration (FTA) programs such as New Starts or Small Starts wherever possible to aid in streamlining the competitive process. The program categories eligible for funding through the fixed guideway component of Project S are:

- Fixed guideway systems including rolling stock acquisition
- Station/stop improvements (includes signage, furniture, and shelters)
- Maintenance facilities and fueling stations

Match Funding Requirements

Local funding must meet a minimum 10 percent match rate requirement for the whole project comprised of any combination private contributions, advertising revenues, and local discretionary funds. Match funding commitments in excess of 10 percent for one project phase (capital or operations/maintenance) may result in a reduced minimum match rate requirement for another phase subject to Board of Directors (Board) approval. Minimum match rate commitments will be incorporated into a cooperative funding agreement and will apply on an annual basis to the entire service life of the project (typically 5, 7, or 25 years).

Eligibility Requirements

Minimum eligibility and participation requirements must be considered before a project funding application should be submitted. Adherence to strict funding guidelines is required by the M2 Ordinance. Additional standards have been established to provide assurance that M2 funds are spent in the most prudent, effective manner. There is no guarantee that funding will be approved during a particular call for projects. If no acceptable project is identified during a funding cycle, a subsequent call for projects will be scheduled at an appropriate time.

- Applicant must be eligible to receive M2 funding (established on an annual basis) to participate in this program
- Initial call for projects is limited to fixed guideway projects based upon Go Local Step 3 activities (preliminary engineering)
- Agency must have a financial plan outlining a funding strategy for ongoing operations and maintenance (minimum of five years)
- Project applications must be for complete projects (environmental clearance through implementation, where applicable) for evaluation purposes
- Project application must meet minimum competitive score to be deemed eligible and "of merit" (as determined by the OCTA Board)
- Any proposal to duplicate or replace existing local or OCTA service must be clearly detailed
- Complete applications must be approved by the city council and partner agencies prior to submittal to OCTA to demonstrate adequate community and elected official support for initial consideration
- Procurements associated with the project must follow FTA procurement policies
- Agencies submitting for funding must agree to follow the FTA Small Starts/New Starts process

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. (See Table 4.1) Emphasis is placed on projects with firm financial commitments and overall project readiness as shown on the Project S selection criteria. In addition, projects will be evaluated based upon existing and future transit usage, ease of connection, cost effectiveness, and local/regional benefits. Although a minimum 10 percent match rate for capital investments is required, projects that leverage M2 funds with a higher percentage from other sources are encouraged and will be more competitive.

Application Process

Project grants are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to fully evaluate the project proposal as outline below.

- Complete information application
- Provide funding/operations plan
- Grants subject to a cooperative funding agreement

The funding plan shall include, at a minimum, the following information:

- Financials (funding needs, match rate availability, operations funding assurances, and public-private partnership arrangements)
- Project development and implementation schedule
- Operations and maintenance facility management
- Service coordination plan (scheduling/ticketing for Metrolink and fixed route service)
- Any additional information deemed relevant by the applicant

The last call for projects under this program was held in 2010. No call for projects is envisioned in the immediate future. The Board will determine an appropriate time to authorize additional funding.

Application Guidelines

Project selection is based upon merit utilizing a series of qualitative and quantitative criteria. Candidate projects are required to submit a financial plan with sufficient data to enable an adequate evaluation of the application. Each jurisdiction is provided broad latitude in formatting, content and approach. However, key elements described below must be clearly and concisely presented to enable timely and accurate assessment of the project.

Financial Details

Each candidate project application must include all phases through construction of facilities. The financial plan will include, at a minimum, the following information:

- Estimated project cost for each phase of development (planning, environmental, permitting, design, right-of-way acquisition, construction, and project oversight)
- Funding request for each phase of project implementation with match commitment and sources clearly identified
- Realistic project schedule for each project phase
- Demonstrated financial commitments for minimum match commitment and ongoing operations (first five years of operation)

- Discussion of contingency planning for revenue shortfalls
- Revenue projections and methodology where on-site commercial activity is expected to support implementation and/or operations costs
- Right-of-way status and strategy for acquisition
- Project's status in current local plans

Technical Attributes

The formal application must include feasibility and efficacy components to demonstrate transportation benefit to ensure the selected project(s) meet the spirit and intent of M2. Merit will be demonstrated through technical attributes and industry standard methodologies. The following data will be included and fully discussed in the application.

- Planned employment densities per square mile (opening year)
- Planned population densities per square mile (opening year)
- Projected daily transit boardings with projection methodology fully presented
- Percent of projected ridership from commuter rail riders
- Description of all transit modes serviced by the Metrolink station at time of application and projected future mode increase
- Ease of connections to other travel modes (average walking distance)
- Incremental cost per hour of system user benefits (per FTA guidelines)

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the information described above, local agencies will be required to submit the following materials:

Council Resolution: A Council Resolution authorizing request for funding consideration with a commitment of project local match rate and operating funds as shown in the funding plan.

Lease/Cost Sharing Agreements: Copies of leases, sponsorship, and/or advertising revenue documents. Confidential agreements may be included by reference when accompanied by affidavit from City Treasurer or Finance Director.

Project Documentation: If the proposed project has completed initial planning activities (such as project study report or equivalent, environmental impact report, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. The applicant will be asked for detailed information only if necessary to adequately evaluate the project application.

Operations Plan: In addition to the financial details indicated in 8.1, the operations plan submitted shall include the following technical data (consistent with FTA guidelines) a route map, draft time table, headways, stop location listing, summary of alternatives (including any special operations – interlining, feeder bus connections, etc.), summary of vehicle types and characteristics, speed profile, fleet size, and any other applicable supporting documentation.

Approved Land Use Supporting Documentation: Any documentation which describes the transit supportive land use changes already in place to support the proposed guideway projects.

Reimbursements

This program is administered on a reimbursement basis. Reimbursements will be disbursed upon review and approval of a complete expense report, performance report, and consistent with a cooperative funding agreement.

Project Cancellation

Projects deemed infeasible during the planning process will be cancelled and further expenditures will be prohibited except where necessitated to bring the current phase to a logical conclusion.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be conducted by the OCTA Internal Audit department or other authorized agent either through the normal annual process or on a schedule to be determined by the OCTA Board.

Section 4.2 – Bus and Station Vans

Objectives

- Expand multi-modal transit options for regional travel by establishing new transit connections to existing Metrolink stations
- Provide new service (shuttle bus and station van) on a defined route with ridership derived from Amtrak/Metrolink patronage

Project Participation Categories

Metrolink provides a vital transit option for travel throughout Southern California. Orange County is home to 11 Metrolink stations currently serving residents and commuters for employment, education, and recreational-based trips. These stations serve diverse destination and trip origination needs. Efficient and convenient access enables the system to thrive and the overall transportation network (all motorized and non-motorized modes) to operate effectively.

Transit needs may differ from one location to the next, and projects pursued under this program have significant latitude on how the challenge of delivering enhanced transit service to/from existing Metrolink stations are addressed. The program categories listed below identify key project elements that can be pursued through the Project S funding source. Selection criteria will parallel Federal Transportation Administration (FTA) programs wherever possible to aid in streamlining the competitive process. The program categories eligible for funding through Project S are:

- Bus leases/purchases for the purposes of providing expanded service to/from a Metrolink station
- Bus stop improvements (including signage, furniture, fare box equipment, and shelters) on the new route
- Maintenance facilities and fueling stations required for the new bus service
- Station vans leases for the purposes of providing expanded service to/from a Metrolink station
- Consistent with FTA guidelines, Americans with Disabilities Act (ADA) complementary paratransit service costs are considered capital costs for the purposes of this program

Operating Reserve Incentive

OCTA has established an operating reserve as part of this program that may be used to offset the costs of operations and maintenance. The operating reserve is subject to the following requirements:

1. OCTA will reserve a total of $1 million per year in Project S revenue for operations and maintenance distributed on a pro-rata basis
2. The project must have been awarded Project S non-guideway funds through the Project S competitive process and meet a minimum standard of ten boardings per revenue vehicle hour on an ongoing basis for shuttle buses and a 60 percent minimum occupancy for station vans
3. Awarded agencies must submit audited operations and maintenance costs and ridership and fare performance data to OCTA by September 30 of each year for the prior fiscal year
4. OCTA will reimburse awarded agencies on a pro-rata basis but not to exceed $6 per boarding, not to exceed 90 percent of net operating and maintenance costs (after deducting fares), and no more than $150,000 per agency or project, whichever is less
5. Participation in the operating reserve is limited to the useful life of the capital purchased with Project S funds

All submitted materials are subject to audit prior to OCTA pro-rata reimbursements. Funds not used in a given year will become available for future calls for projects.

Capital Match Rate Funding Requirements

The Implementing agency must meet a minimum ten percent match requirement for the entire capital project comprised of any combination of private contributions, advertising revenues, and local discretionary funds. Match rate funding commitments in excess of ten percent for one project phase may result in a reduced minimum match rate requirement for another phase subject to Board of Directors (Board) approval. Match funding commitments will be incorporated into the cooperative funding agreement.

Eligibility Requirements

Minimum eligibility and participation requirements must be considered before a project funding application should be submitted. Adherence to strict funding guidelines is required by the M2 Ordinance. Additional standards have been established to provide assurance that M2 funds are spent in the most prudent, effective manner. There is no guarantee that funding will be approved during a particular call for projects. If no

acceptable project is identified during a funding cycle, a subsequent call for projects will be scheduled at an appropriate time.

Additional Project S Precepts

- Applicant must be eligible to receive M2 funding (established on an annual basis) to participate in this program
- The proposed project must be included in the 2011 Transit System Study or have participated in prior Go Local planning efforts
- Agency must have a financial plan outlining a funding strategy for ongoing operations and maintenance (minimum of five years)
- If the service operator is OCTA, and the local agency would retain routing and service-level decisions, or local agencies may propose an alternate service provider
- Letter of commitment for an 80 percent start-up occupancy rate for each station van and documentation supporting the commitment (e.g. letters of interest, proof of van pool request and or survey data). Station van passengers must be Amtrak/Metrolink passengers
- Local agency will be required to enter into a cooperative funding agreement with OCTA
- Project applications must be for complete projects (environmental clearance through implementation, where applicable) for evaluation purposes
- All projects must include meeting ADA requirements, and these costs must be included in the project application
- Project application must meet minimum competitive score to be deemed eligible and "of merit" (as determined by the OCTA Board)
- Any proposal to duplicate or replace existing local or OCTA service must be clearly detailed
- Complete applications must be approved by the city council and partner agencies prior to submittal to OCTA to demonstrate adequate community and elected official support for initial consideration
- Procurements associated with the project must follow FTA procurement policies
- Agencies submitting for funding must agree to follow applicable FTA requirements
- Agencies will be required to submit annual National Transit Database reporting information to OCTA

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on projects with firm financial commitments and overall project readiness as shown on the Project S scoring criteria. In addition, projects will be evaluated based upon existing and future usage, ease of connection, cost effectiveness, and local/regional benefits. Although a minimum of ten percent match funding for capital investments is required, projects that leverage M2 funds with a higher match rate are encouraged and will be more competitive.

Application Process

Project grants are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to fully evaluate the project proposal as outlined below.

- Complete application
- Provide five-year funding/operations plan
- Grants subject to cooperative funding agreement

The funding plan shall include, at a minimum, the following information:

- Financials (funding needs, minimum match commitments, funding availability, operations funding assurances, and public-private partnership arrangements)
- Project development and implementation schedule
- Operations and maintenance facility management
- Service coordination plan (scheduling/ticketing for Metrolink and fixed-route service)
- Any additional information deemed relevant by the applicant

A call for projects for the initial funding cycle was held in 2012. No call for projects is envisioned in the immediate future. The Board will determine an appropriate time to authorize additional funding.

The final approved application (including funding plan) will serve as the basis for any funding agreement required under the program.

Application Guidelines

Project selection is based upon merit utilizing a series of qualitative and quantitative criteria. Candidate projects are required to submit a financial plan with sufficient data to enable an adequate evaluation of the application. Each jurisdiction is provided broad latitude in formatting, content, and approach. However, key elements described below must be clearly and concisely presented to enable timely and accurate assessment of the project.

Financial Details

Each candidate project application must include all phases through construction of facilities. The financial plan will include, at a minimum, the following information:

- Estimated project cost for each phase of development (planning, environmental, permitting, design, right-of-way acquisition, construction, and project oversight)
- Funding request for each phase of project implementation with match funding amounts and funding sources clearly identified
- Demonstrated financial commitments for minimum match commitments and ongoing operations
- Discussion of contingency planning for revenue shortfalls
- Revenue projections and methodology where commercial activity is expected to support implementation and/or operations costs
- Project readiness status
- Subscriber commitment for proposed station van services
- Right-of-way status and strategy for acquisition
- Project's status in current local plans
- Realistic project schedule for each project phase

Scoring Criteria

The formal application must include feasibility and efficacy components to demonstrate transportation benefit to ensure the selected project(s) meet the spirit and intent of M2. Merit will be demonstrated through technical attributes and industry standard methodologies. The applications will be evaluated against the criteria identified in the Measure M2 voter pamphlet and fully discussed in the application:

- Match funding and level of commitment from private partners
- Operating subsidy per boarding for opening year
- Annualized cost per incremental passenger trip for opening year
- Project readiness including projected opening year and phase readiness
- Projected daily boardings with projection methodology fully presented
- Percent of projected ridership from commuter rail riders
- Projected average daily occupancy for station vans
- Ease of connections (average travel time to employment and recreation centers served)
- Planned employment densities per square mile for opening year
- Planned population densities per square mile for opening year

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the information described above, local agencies will be required to submit the following materials:

Council Resolution: A Council Resolution authorizing request for funding consideration with a commitment of project local match funding (local sources) and operating funds as shown in the funding plan.

Lease/Cost Sharing Agreements: Copies of leases, sponsorship, and/or advertising revenue documents. Confidential agreements may be included for reference when accompanied by affidavit from City Treasurer or Finance Director.

Project Documentation: If the proposed project has completed initial planning activities (such as project study report or equivalent, environmental impact report, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. The applicant will be asked for detailed information only if necessary to adequately evaluate the project application.

Operations Plan: In addition to the financial details indicated in Section 9.1, the operations plan submitted shall include the following technical data: a route map, draft time table, headways, stop location listing, summary of vehicle types and characteristics, speed profile, fleet size, and any other applicable supporting documentation.

Approved Land Use Supporting Documentation: Any documentation which describes the transit supportive land use changes already in place to support the proposed guideway projects.

Reimbursements

The capital program is administered on a reimbursement basis. Capital reimbursements will be disbursed upon review and approval of a complete expense report, performance report, and consistent with the cooperative funding agreement. Local agency revenues provided to OCTA for ongoing operating assistance will be in accordance with terms identified in the cooperative funding agreement.

Project Cancellation

Projects deemed infeasible during the planning process will be cancelled and further expenditures will be prohibited except where necessitated to ~~bring the current phase to a logical conclusion~~conclude the current phase.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits may be conducted by the OCTA Internal Audit Department or an authorized agent.

Table 4-1
Point Breakdown for Transit Extensions to Metrolink (Project S)

(For Fixed Guideway Preliminary Engineering Call for Projects Only)

Financial Commitment/Partnership (20 points)

Match funding *(Complete Project; Capital)*	
>=30%	6
29% to 20%	4
19% to 11%	2
10% *(Program Minimum)*	0
Five-Year Operations Funding Plan Submitted and OCTA Concurrence with Assumptions*	
Yes	10
No	0
Level of Commitment from Private Partners	
Binding Agreement	4
Commitment Letter	2

Project Readiness (8 points)

Opening Year	
By 2015	4
By 2016	3
By 2017	2
By 2018	1
Land Acquired for Total Project	
Yes	4
No	0

Regional/Local Benefits (16 points)

Regional: Planned Employment *(Jobs/Square Mile; Opening Year)***	
>15,500	8
15,500 to 13,001	6
13,000 to 8,500	4
<8,500	2
Regional: Daily Vehicle Miles Traveled Reduction *(Opening Year)****	
>2,000	4
2,000 to 1,501	3
1,500 to 1,000	2
<1,000	1
Local: Planned Population *(Persons/Square Mile; Opening Year)***	
>11,000	4
10,999 to 7,000	3
6,999 to 3,500	2
<3,500	1

Transit Usage/Congestion Relief (16 points)

Percent of Ridership from Commuter Rail Riders *(Opening Year)*	
>=50%	8
49% to 40%	6
39% to 30%	4
29% to 20%	2
<20%	0
Projected Average Daily Ridership *(Opening Year)*	
>=10,000	8
9,999 to 8,500	6
7,999 to 6,500	4
6,499 to 5,000	2
<5,000	0

Ease of Connections (14 points)

Number of Transit Modes Provided at Metrolink Station *(Opening Year)*	
>9	8
9 to 8	6
7 to 6	4
<6	2
Average Walking Distance to Proposed Connections *(From Metrolink Station; Feet; Opening Year)*	
<250	6
251 to 500	4
501 to 750	2
>500	1

Cost Effectiveness (16 points)

Incremental Cost per Hour of System User Benefit****	
$15 to $17.99	16
$18 to $20.99	12
$21 to $23.99	8
>$24	4

Approved Land Use (5 points)

Included in City Council-Approved Plan	
Yes	5
No	0

Safety (5 points)

At-Grade Rail Crossings	
No	5
Yes	0

* May assume first three-years Congestion Mitigation Air Quality funded and no Project S funds for operations

** Average within 1/4 mile of each station

*** Total within 2 miles of proposed route (one mile buffer)

****Incremental cost per hour of system user benefit from FTA "Summit" Program (in opening and horizon years)

Table 4-2
Point Breakdown for Transit Extension to Metrolink (Project S)
(For Bus and Station Van Program Only)

M2 Eligible	**Yes**	**No**	
In Go Local Planning and/or 2011 Transit Study	**Yes**	**No**	
Five-year Operations and Maintenance Plan	**Yes**	**No**	
Total Project Cost (information only)		$	(capital)

Financial Commitment/Partnership (18 points)

Match funding (capital)

≥50%	10 points
40% - 49%	8 points
30% - 39%	6 points
20% - 29%	4 points
11% - 19%	2 points

Level of commitment from private partners

Binding agreement	8 points
Commitment letter	4 points

Cost Effectiveness (20 points)

Operating subsidy per boarding opening year

≤$4.50	10 points
$4.51 - $8.50	8 points
$8.51 - $14.99	6 points
$14.50 - $18.00	4 points

Annualized cost per incremental passenger opening year

≤$7.00	10 points
$7.01 - $11.20	8 points
$11.21 - $14.20	6 points
$14.21 - $17.99	4 points
≥$18.00	2 points

Project Readiness (20 points)

Estimated opening year

By 2012	10 points
By 2013	8 points
By 2014	4 points
By 2015	2 point

Phase readiness

Planning and environmental complete	10 points
ROW acquired or not applicable	5 points
Maintenance facilities available	1 points

Transit Usage - Shuttle Bus (20 points)

Projected average daily boardings (first year)

≥300	10 points
201 - 299	8 points
101 - 200	6 points
31 - 100	4 points
≤30	2 points

Percent of projected ridership from commuter rail

≥70%	10 points
50% - 69%	6 points
30% - 49%	3 points

Transit Usage - Station Van (20 Points)

Projected average daily occupancy (first year)

≥100%	10 points
90% - 99%	8 points
80% - 89%	6 points

Percent of projected ridership from commuter rail

100%	10 points
<100%	0 points

Community Connections (10 points)

Average travel time to station from employment/ activity center

1 - 10 minutes	5 points
11 - 15 minutes	4 points
16 - 20 minutes	3 points
21 - 30 minutes	2 points

Connectivity/activity centers served by project

5 points maximum

Senior center(s)	1 point
Schools	1 point
Retail centers (over 000k feet)	1 point
Special event venues	1 point
Major employment centers	1 point
Connections to existing service	1 point

Local/Regional Benefit (12 points)

Planned employment densities per square mile (within 1/4 mile of route) opening year

>15,000	6 points
10,001 - 15,000	4 points
5,001 - 10,000	2 points
1,001 - 5,000	1 points

Planned population densities per square mile (within 1/4 mile of route) for opening year

>10,000	6 points
7,001 - 10,000	4 points
4,001 - 7,000	2 points
501 - 4,000	1 points

Chapter 5 - Metrolink Gateways (Project T)

Overview

This M2 program establishes a competitive process for local agencies to convert Metrolink stations into regional gateways for enhanced operations related to high-speed rail service. Projects must meet specific criteria in order to compete for funding through this program. In addition, local agencies will be required to demonstrate the ability to fully fund operations on an ongoing basis using non-OCTA resources. Public-private partnerships[2] are encouraged but not required.

Objectives

- Convert Metrolink stations(s) to regional gateways that connect Orange County with planned future high-speed rail systems.
- Deliver improvements that are necessary to connect planned future high-speed rail systems to stations(s) on the Orange County Metrolink route.

Project Participation Categories

Multi-modal transit facilities provide expanded transportation options for regional and long distance travel. These "hubs" provide a vital link in the mobility chain. Availability of viable stations is a critical consideration for high speed rail service implementation. Each host community has unique needs and expectations related to high-speed rail systems. Conditions will differ from one location to the next and projects pursued under this program have significant latitude in how they address the challenge of delivering supporting facilities for high speed rail services. Converting a station may include modifying and/or relocating the station. The program categories listed below identify key project elements that can be pursued through the Project T funding source. Public-private partnerships and local funding sources may be used to leverage these elements.

- Station and passenger facilities necessary to support planned high-speed rail system[3]
- Parking structures related to expanded high-speed rail service
- Track improvements (e.g., track, switching, signal equipment)
- Traffic control enhancements for ingress/egress from public roadways

[2] Public-private partnerships are defined as direct financial contributions or right-of-way dedications for eligible program activities.

[3] Program should not build retail or other leasable space. Mixed Use and TOD elements will be the responsibility of others.

- Aesthetics limited to 10 percent of the Project T funds (specifically limited to: landscaping, non-standard lighting, and on-site signage)
- On-site public art expenses limited to one percent of Measure M funds in order to improve the appearance and safety of the facility
- Off-site improvements cannot exceed 5 percent of Measure M funding request[4]
- Bond financing costs
- Construction Management (not to exceed 15 percent of construction cost)

Commercial facilities that are not transit related are not eligible for Measure M funds.

Eligibility Requirements

Minimum eligibility and participation requirements must be considered before a project funding application should be submitted. Adherence to strict funding guidelines is required by the Ordinance. Additional standards have been established to provide assurance that M2 funds are spent in the most prudent, effective manner. There is no guarantee that funding will be approved during a particular call for projects. If no acceptable project is identified during a funding cycle, a subsequent call for projects will be scheduled at an appropriate time.

- Station must be included as part of a planned future high-speed rail system.
- Station must be identified in constrained or unconstrained chapters of the 2008 Regional Transportation Plan for the initial M2 funding cycle
- Agency must demonstrate sufficient funding for first five years of operation with financial plan outlining funding strategy for ongoing operations and maintenance (cannot include OCTA funding sources)
- Project applications must be for complete projects (environmental clearance through construction)
- Project application must meet minimum competitive score to be deemed eligible and "of merit" (as determined by OCTA Board of Directors)
- Capital improvements must adhere to public bidding requirements
- Complete applications must be approved by the applicant City Council prior to submittal to OCTA to demonstrate adequate community and elected official support for initial consideration
- Applicant must be eligible to receive Measure M funding (established on an annual basis) to participate in this program

[4] "Off-site" improvements adjacent to the project site such as monumentation, traffic control, etc.

Funding Estimates

The program will make an estimated $186 million (nominal dollars) available during the initial 21-year period of the program (Fiscal Year 2011 through 2031). For the initial call for projects, bonds were issued in fiscal year (FY) 2011 and FY 2012, making the maximum net programming amount of $82.3 million available after deducting for bond costs. Funding for the remaining nine-year period of M2 will not be programmed until a future call for projects is warranted. This approach provides a hedge against economic uncertainty and preserves funding for future system expansion.

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on projects with firm funding commitments and overall project readiness as shown on Table 5-1. In addition, projects will be evaluated based upon existing and future transit usage, intermodal connectivity, and community land use attributes. Although a local match commitment is not required, projects that leverage M2 funds with at least 10 percent from other sources are encouraged and will be more competitive.

Application Process

Project grants are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to fully evaluate the project proposal as outline below.

Complete information application

- Provide funding/operations plan
- Grants subject to a cooperative funding agreement

A call for projects for the initial funding cycle was issued in January 2009. The need for a future call will be determined by the OCTA Board of Directors. Complete project applications must be submitted by the established due date to be considered eligible for consideration.

The funding plan shall include, at a minimum, the following information:

- Financials (Funding needs, match rate funding availability, operations funding assurances, public-private partnership arrangements, bond financing projections)
- Project development and implementation schedule
- High speed rail ridership projections
- Any additional information deemed relevant by the applicant

Applications will be reviewed by the Authority for consistency, accuracy and concurrence. Once applications have been completed in accordance with the program requirements,

the projects will be scored, ranked and submitted to the T2020 Committee and Board of Directors for consideration and funding approval.

The final approved application (including Financial Plan) will serve as the basis for any funding agreement required under the program.

Reimbursements

This program is administered on a reimbursement basis for capital improvements, planning design, right-of-way acquisition, and related bond financing costs. Reimbursements will be disbursed upon review and approval of a complete expense report, performance report, and consistent with the executed cooperative agreement.

Status Reports

Projects selected for funding will be subject to submittal of an annual financial plan update in order to receive project reimbursement payments during the following fiscal year. The updated financial plan will be due as a supplement to the annual Measure M eligibility process (typically due on June 30th).

Project Cancellation

Projects deemed infeasible during the planning process will be cancelled and further expenditures will be prohibited (except where necessitated to bring the current phase to a logical conclusion). Right-of-way acquired for projects which are cancelled prior to construction will require repayment to the contributing funding program(s) within a reasonable time as determined by the Board.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be conducted by OCTA Internal Audit department or other authorized agent either through the normal annual process or on a schedule to be determined by the OCTA Board of Directors.

Proceeds from the sale of excess right-of-way acquired with program funding must be paid back to the project fund as described in the executed funding agreement.

Application Guidelines

Funding grants provided through M2 are determined through a competitive application process. Project selection is based upon merit utilizing a series of qualitative and quantitative criteria. Candidate projects are required to submit a financial plan with sufficient data to enable an adequate evaluation of the application. Each jurisdiction is provided broad latitude in formatting, content and approach. However, key elements described below must be clearly and concisely presented to enable timely and accurate assessment of the project.

Financial Details

Each candidate project must include all phases through construction of facilities and implementation of service. The financial plan will include, at a minimum, the following information:

- Estimated project cost for each phase of development (planning, environmental, permitting, design, right-of-way acquisition, construction, and project oversight)
- Funding request for each phase of project implementation with match funding amounts and sources clearly identified
- Realistic project schedule for each project phase
- Demonstrated financial commitments for match funding and ongoing operations (through first five years of operation)
- Discussion of contingency planning for revenue shortfalls
- Revenue projections and methodology where on-site commercial activity or advertising revenue is expected to support implementation and/or operations costs
- Right-of-way status and strategy for acquisition
- Revenue sharing proposals (where applicable)

Technical Attributes

The formal application must include feasibility and efficacy components to demonstrate transportation benefit to ensure the selected project(s) meet the spirit and intent of M2. Merit will be demonstrated through technical attributes and industry standard methodologies. The following site-specific data will be included and fully discussed in the application:

- Current employment estimates within five mile radius of project site (cite reference)
- Freeway lane miles within five mile radius of site (provided by OCTA upon request)
- Planned job density within 1,500’ radius of project boundary based upon current General Plan

- Planned housing density within 1,500' radius of project boundary based upon current General Plan
- Daily transit boardings within five mile radius of project boundary (include rail and fixed route bus/shuttle)
- Daily transit boardings growth within five mile radius of project boundary with projection methodology fully presented for opening day operations
- Description of all transit modes serviced by the site at time of application
- Discussion of new transit modes (including high speed rail) served by the site as a result of proposed project (opening day)
- Service coordination plan (how will proposed project facilitate transfer between transit services?)

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the funding plan described above, local agencies will be required to submit the following materials:

Council Resolution: A Council Resolution authorizing request for funding consideration with a commitment of project match funding (local sources) and operating funds as shown in the funding plan.

Lease/Cost Sharing Agreements: Copies of leases, cost sharing (match funding), and/or land dedication documents. Confidential agreements may be included by reference when accompanied by affidavit from City Treasurer or Finance Director.

Project Documentation: If proposed project has completed initial planning activities (such as PSR or equivalent, EIR, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. The applicant will be asked for detailed information only if necessary to adequately evaluate the project application.

TABLE 5-1

Point Breakdown for Metrolink Gateways (Project T)
Maximum Points = 100

Financial Commitment (30 points)

Total Project Cost (information only)	
$ (capital)	*(No Points)*
Percent of M2 for capital	
50% or less	16 points
51% to 65%	12 points
66% to 80%	8 points
81% to 90%	4 points
Level of commitment from private partners	
Investment agreement (binding)	8 points
Commitment letters	2 points
OCTA concurrence with financial assumptions/analysis	
Yes	6 points
No	0 points

Readiness (20 points)

High-speed rail system status	
In constrained 2008 RTP	10 points
Added in unconstrained RTP	2 points
Land acquired for total project	
Yes	5 points
No	0 points
Project design status	
Design complete	5 points
Environmental complete	3 points
PSR equivelent complete	1 point

Regional Markets / Land Use (12 points)

Adjacent freeway lane miles (within five miles)	
>500 lane miles	3 points
400 to 500 lane miles	2 points
<400 lane miles	1 point
Current employment (within 5 miles)	
>350,000	3 points
200,000 to 350,000	2 points
<200,000	1 point
Planned job density within 1,500 feet	
>2.0 avg. floor area ratio	3 points
1.5 to 2.0 avg. floor area ratio	2 points
<1.5 avg. floor area ratio	1 point
Planned housing density within 1,500 feet	
>35 dwelling units/acre	
20 to 35 dwelling units/acre	
<20 dwelling units/acre	

Transit Usage (20 points)

Existing transit boardings (within 5 miles)	
>75,000 a day	4 points
50,000 to 75,000 a day	3 points
25,000 to 49,000 a day	2 points
<25,000 a day	1 point
Transit boardings growth (within 5 miles)	
>20,000 daily increase	8 points
15,000 to 20,000 daily increase	6 points
10,000 to 14,900 daily increase	4 points
<10,000 daily increase	2 points
Consistent ridership projections	
100% to 110% of OCTAM*	
111% to 120% of OCTAM	
121% to 140% of OCTAM	
**Projections below OCTAM get 8 points*	

Intermodal Connections (18 points)

Number of current transit modes provided	
>6	5 points
4 to 6	3 points
<4	1 point
Future increase in the number of transit modes	
>5 added	10 points
3 to 5 added	6 points
<3 added	2 points
OCTA concurrence with intermodal analysis	
Yes	3 points
No	0 points

* OCTAM - Orange County Transportation Analysis Model

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Chapter 6 - Community Based Transit/Circulators (Project V)

Overview

The Measure M2 (M2) Project V- Community-Based Transit/Circulators Program establishes a competitive process to enable local jurisdictions to develop community based local transit services that complement regional transit services, and meet needs in areas not adequately serviced by regional transit. Projects must meet specific criteria in order to compete for funding through this program. In addition, local jurisdictions will be required to demonstrate the ability to provide funding match for capital and ongoing local share of operations and maintenance using non-Orange County Transportation Authority (OCTA) resources[1]. Public-private partnerships[2] are encouraged but not required. Local jurisdictions may partner with each other.

Regional Transit: Regional Transit services are provided by OCTA, specifically through routes 1 through 99 (and excluding those route sections that perform less than 10 boardings per revenue vehicle hour). Additional information on OCTA routes and schedules can be accessed from OCTA website at www.octa.net.

Objectives

- To provide community transit service that is safe, clean and convenient.
- To encourage new, well-coordinated, flexible transportation systems customized to each community's needs.
- To develop local bus transit services such as community-based circulators, shuttles, and bus trolleys that complement regional bus and rail service.
- To meet transportation needs in areas not served by regional transit.

Project Participation Categories

Transit needs may differ from one location to the next, and projects pursued under this program have significant latitude on how the challenge of delivering community based transit will be delivered. The program categories listed below identify key project elements that can be pursued through the Project V funding source. The program categories eligible for funding through Project V are:

Planning for new service (Up to $50,000 per agency)

[1] Fairshare revenues are considered non-OCTA resources.

[2] Public-private partnerships are defined as direct financial contributions or sponsorships for eligible program activities

- Need for Community-Based Transit/Circulator Services
- Origin and Destination Studies
- Surveys and Marketing Research
- Development of Proposed Service Plans
- Transit Coordination Studies

Capital

- Bus and vehicle leases/purchases for the purposes of providing community based circulators, shuttles, and trolleys
- Equipment for the deployment, implementation and use of Project V-funded services, including but not limited to:
  - Bike racks
  - Software
  - Communications equipment
  - Fare collection equipment
  - Passenger amenities
  - Americans with Disabilities Act (ADA) equipment for vehicles
- Maintenance facilities and fueling stations required for the new transit service
- Bus stop improvements (including signage, furniture, and shelters) for Project V funded service stops only.

Operations and Maintenance

- Fixed route, deviated fixed route, demand responsive, seasonal community transit and shuttle services including administration, operations and maintenance of services
- Services to be operated by OCTA. Local agencies may propose an alternate service provider which will be considered at the discretion of OCTA
- Parking leases needed in response to expanded transit services
- Special event shuttle services for events that will create significant congestion
- Other flexible and innovative transit services contingent on the service plan and anticipated service performance
- Marketing efforts including expenditures related to service schedules, marketing materials such as flyers and brochures, and community outreach efforts. Project V contributions for marketing will be capped at $25,000 for the startup cost and up to $10,000 annually thereafter for the remaining grant period.

Agencies may be awarded a total from all project categories of no more than $550,000 annually for a period of up to seven years per project.

Ineligible Categories

Project V funds may not be used for the following:

- right of way acquisition
- to supplant existing transit services (subject to the Regional Transit definition in Section 1)
- fare subsidies

Project Category Requirements

All projects funded through Project V must comply with the Comprehensive Transportation Funding Programs Guidelines, unless specifically noted in the agreement with the local agency and must comply with applicable state and federal laws, including American with Disabilities Act (ADA) requirements for transit services.

Planning for New Service

Cities must provide a scope of work for the proposed planning document requesting Project V funds. The scope must include project need and goals and objectives for the proposed or considered service. OCTA transit planning staff must be included in the development of any planning documents funded through the Project V planning category. Planning documents must include specific recommendations for community-based transit/circulator services that can be implemented within the operating subsidy provided through Project V and must consider coordination with existing services. Plans may also consider ways to eliminate duplication of service or to improve service by combining resources. Progress on planning projects must be reported to OCTA through the semi-annual review process. Agencies will be required to submit all data and planning documents to OCTA in order to receive final payment.

Capital

Project V funding is available to offset the costs of purchasing or leasing vehicles, equipment and other amenities as described in Section 3.2. Progress on capital projects must be reported to OCTA through the semi-annual review process. Agencies must inspect vehicle purchases to ensure they meet specifications prior to final acceptance and withhold retention until warranty issues and/or final acceptance is met. If vehicles are sold before the end of their useful life or if service is discontinued, agencies shall repay OCTA the same percentage of the sale price or estimated value based on straight line depreciation of asset consistent with the Project V percentage of the initial purchase.

Operations and Maintenance

OCTA has established an operating reserve as part of this program that may be used to support the costs of operations and maintenance. The operating reserve is subject to the following requirements:

- For seasonal community shuttles, fixed route service, event shuttle and similar services, the project must meet a minimum performance standard. The Project V funded service must achieve the performance standard of 6 passenger boardings per revenue vehicle hour (RVH) within the first 12 months of operations and must achieve the 10 passenger boardings per RVH within the first 24 months of operations and every year thereafter. For other proposed transit services such as vanpool, demand responsive, deviated fixed route service or another innovative service delivery model, a different ridership service standard may be required consistent with the type of service being proposed. Local agencies may propose an alternative ridership measure or standard, other than those listed above, which would be considered on a case by case basis.
- As part of the Project V service, local agencies must develop strategies to measure ridership satisfaction and on-time performance and must achieve an 85% on-time performance on an ongoing basis and rider satisfaction must be 90% satisfied based on customer surveys.
- Awarded agencies must submit operations and maintenance costs and ridership and fare performance data to OCTA on a quarterly basis. The OCTA Transit Committee will be provided with summarized information from these reports on a quarterly basis.
- OCTA will reimburse awarded agencies on a pro-rata basis but not to exceed $9 per boarding, not to exceed 90 percent of net operating and maintenance costs whichever is less. The $9 per boarding may increase annually by an OCTA-approved inflationary factor.
- Consistent with Federal Transit Administration guidelines, Americans with Disabilities Act (ADA) complementary paratransit service is required for certain types of transit operations. For Project V funded services, paratransit services will be covered with Project V funds through the OCTA Board policy. Agencies receiving Project V funds will be required to adopt a paratransit plan prior before starting operations.

Agency Match Requirements

Local funds are required to provide a minimum 10% non-OCTA match for all Project V components (see section 5.3 for instances where a higher match may be required for

operations and maintenance). The match may be comprised of any combination of private contributions, advertising revenues, local discretionary funds and farebox revenue. Farebox revenue cannot be used for capital match. The match may not be made up of in-kind services. Capital match funding commitments in excess of ten percent are eligible for additional points. The OCTA contribution for Operations and Maintenance will not exceed $9 per boarding, therefore actual match provided by the local agency may be greater than 10% depending on the ridership. Agency match commitments will be incorporated into the funding agreement.

Eligibility Requirements

Minimum eligibility and participation requirements must be considered before a project funding application should be submitted. Adherence to strict funding guidelines is required by the M2 Ordinance. Additional standards have been established to provide assurance that M2 funds are spent in the most prudent, effective manner. There is no guarantee that funding will be approved during a particular call for projects. If no acceptable project is identified during a funding cycle, a subsequent call for projects will be scheduled at an appropriate time.

- Applicant must be eligible to receive M2 funding (established on an annual basis) to participate in this program
- Support recommendations from Transit System Study, OCTA Short Range Transit Plan, Go Local planning efforts and goals of the Sustainable Communities Strategy
- Supplement rather than supplant existing transit services and emphasize service to areas not served by transit
- Demonstrate local share of operations and maintenance funding for specific time horizon
- Demonstration of cost reasonableness for new bus stop improvements
- Agency must have a financial plan outlining a funding strategy for ongoing operations and maintenance (minimum of five years)
- The service operator is OCTA. Local agencies may propose an alternate service provider which will be considered at the discretion of OCTA
- Local agency will be required to enter into a cooperative funding agreement with OCTA
- All projects must include meeting ADA requirements, and these costs must be included in the project application
- Complete applications must be approved by the city council and partner jurisdictions prior to submittal to OCTA to demonstrate adequate community and elected official support for initial consideration

- Local agencies will be required to submit appropriate National Transit Database data to OCTA or local agency's operator must submit directly to the National Transit Database.

Application Process

Project V allocations are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to fully evaluate the project proposal. An application for any proposed service must include a detailed funding/operations plan. Note that as described in Section 3.1, Project V funds are eligible for the development of a detailed funding/operations plan prior to submittal of an application for operation of the proposed service.

The project application for capital and operations and maintenance shall include, at a minimum, the following information:

- Project need, goals and objectives
- Project development and implementation schedule
- Funding plan (funding needs, match funding availability, operations funding assurances, and public-private partnership arrangements)
- Ongoing service and operations plan
- Operations and maintenance facility management
- Any additional information deemed relevant by the applicant
- Ridership Projection
- Coordination with existing services such as OCTA transit services, existing Project V services, Metrolink, I-Shuttle, Anaheim Transportation Network and/or Senior Mobility Program

The project application for planning for new projects shall include a scope of work for the proposed planning document requesting Project V funds. The scope must include project need and goals and objectives for the proposed or considered service.

Complete project applications must be submitted by the established due date to be eligible for consideration.

Applications will be reviewed by OCTA for consistency, accuracy, and concurrence. For applications completed in accordance with the program requirements, the projects will be scored, ranked and submitted to the Executive Committee, and the Board for consideration and funding approval. The process is expected to be concluded by June 30, 2016.

The final approved application (including funding plan) will serve as the basis for any funding agreement required under the program. The approved projects will be subject to

the Comprehensive Transportation Funding Programs (CTFP) Guidelines for project delivery requirements.

Application Guidelines

Project selection is based upon merit utilizing a series of qualitative and quantitative criteria. Candidate projects are required to submit a financial plan with sufficient data to enable an adequate evaluation of the application. Each jurisdiction is provided broad latitude in formatting, content, and approach. However, key elements described below must be clearly and concisely presented to enable timely and accurate assessment of the project.

Financial Details

Each candidate project application must include all phases through construction of facilities. The financial plan will include, at a minimum, the following information:

- Estimated project cost for each phase of development (planning, environmental, permitting, design, right-of-way acquisition, equipment and vehicle acquisition, construction, and project oversight)
- Preliminary cost estimates for operations and maintenance should be coordinated with OCTA.
- Funding request for each phase of project implementation with match funding amounts and funding sources clearly identified
- Demonstrated financial commitments for match funding and ongoing operations
- Discussion of contingency planning for revenue shortfalls
- Revenue projections and methodology where commercial activity is expected to support implementation and/or operations costs
- Project readiness status
- Realistic project schedule for each project phase

<u>Scoring Criteria</u>

Specific selection criteria will be used to evaluate the competitive program project applications. Emphasis is placed on projects with firm financial commitments and overall project readiness as shown in the Project V scoring criteria. In addition, projects will be evaluated based upon ridership projections, areas served, cost effectiveness and local/regional benefits.

The formal application must include feasibility and efficacy components to demonstrate transportation benefit to ensure the selected project(s) meet the spirit and intent of M2. Merit will be demonstrated through technical attributes and industry standard methodologies. The following data will be included and fully discussed in the application:

- Matching funds
- Level of commitment from non-applicant partners
- Operating cost per boarding for opening year
- Annualized cost per incremental passenger trip for opening year
- Project readiness including projected opening year and phase readiness
- Projected daily boardings with projection methodology fully presented
- Community connections; connections to fixed route bus and rail
- Planned employment densities per square mile for opening year
- Planned population densities per square mile for opening year
- Projected annual visitors served by seasonal route
- Other Local and Regional Benefits
- Agency experience

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the information described above, local agencies will be required to submit the following materials:

Council Resolution: A council resolution authorizing request for funding consideration with a commitment of project match funding (local sources) and operating funds as shown in the funding plan.

Lease/Cost Sharing Agreements: Copies of leases, sponsorship, and/or advertising revenue documents. Confidential agreements may be included for reference when accompanied by affidavit from city treasurer or finance director.

Project Documentation: If the proposed project has completed initial planning activities (such as project study report or equivalent, environmental impact report, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. The applicant will be asked for detailed information only if necessary to adequately evaluate the project application.

Operations Plan: In addition to the financial details indicated in 8.1, the operations plan submitted shall include the following technical data: a route map, draft time table, headways, stop location listing, summary of vehicle types and characteristics, speed profile, fleet size, and any other applicable supporting documentation.

Reimbursements

The planning, capital and marketing and outreach programs are administered on a reimbursement basis. Planning, capital and marketing and outreach reimbursements will

be disbursed upon review and approval of a complete expense report, performance report, and consistent with the cooperative funding agreement. Local agency revenues provided to OCTA for ongoing operating assistance will be in accordance with terms identified in the cooperative funding agreement. If the agency uses an operator other than OCTA, then operations will be administered on a reimbursement basis.

Project Cancellation

Projects deemed infeasible during the planning process will be cancelled and further expenditures will be prohibited except where necessitated to bring the current phase to a logical conclusion.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall allocation, and/or other sanctions to be determined. Audits shall be conducted by the OCTA Internal Audit Department or other authorized agent either through the normal annual process or on a schedule to be determined by the OCTA Board.

Table 6-1
Point Breakdown for Community Based Transit/Circulators (Project V)

A.	M2 Eligible	Yes	No
B.	In Go Local Planning and/or 2011 Transit Study, Supports Goals of Sustainable Communities Strategy	Yes	No
C.	Minimum five year operations and maintenance plan	Yes	No
D.	Total Project Cost (information only)	$	(Capital)

Financial Commitment/Partnership (18 points)

Match Funding (Capital)

≥50%	10 points
40% - 49%	8 points
30% - 39%	6 points
20% - 29%	4 points
11% - 19%	2 points

Level of Commitment from non applicant for O & M and Capital

Binding Agreement	8 points
Commitment Letter	4 points

Cost-Effectiveness (20 points)

Operating Cost per Boarding Opening Year

<$6.00	10 points
$6.01 - $8.99	8 points
$9.00 - $11.99	6 points
$12.00 - $15.00	4 points

Annualized operating and capital cost per boarding opening year

<$7.00	10 points
$7.01 - $10.00	8 points
$10.01 - $13.00	6 points
$13.01 - $16.00	4 points
$16.01 - $20.00	2 points

Project Readiness (20 points)

Estimated Opening Year

By 2014	10 points
By 2015	8 points
By 2016	4 points
By 2017	2 points

Phase Readiness

Planning and Environmental complete	10 points
ROW acquired or not applicable	5 points
Maintenance facilities available	1 points

Community Connections (13 points maximum)

Connectivity/Activity Centers Served by Project

Senior center(s)	1 point
Schools	1 point
Retail centers	1 point
Special event venues	1 point
Major employment centers (over 250 persons)	1 point
Connections to existing service	1 point

Fixed-Route Bus/Rail Connections (8 points)

Number of fixed-route bus/rail connections (w/in 1/4 mil

≥8 connections	8 points
6 - 7 connections	6 points
3 - 4 connections	4 points
1 - 2 connections	2 points

Transit Usage (10 points)

Projected Average Daily Boardings (first year)

>300	10 points
201 - 299	8 points
101 - 200	6 points
50 - 100	4 points

Local/Regional Benefit (9 points)

Planned Employment Densities per Square Mile (within 1/4 mile of route) Opening Year

>10,001	4 points
5,001 - 10,000	2 points
1,001 - 5,000	1 point

Planned Population Densities per Square Mile (within 1/4 mile of route) for Opening Year

>7,001	4 points
4,001 - 7,000	2 points
501 - 4,000	1 point

Projected Annual Visitors Served by Seasonal Route (4 points)

>500,000	4 points
250,000 - 499,000	3 points
249,000-100,000	2 points
99,000-50,000	1 point

Agency Experience (2 points maximum)

Previously Operated Community Based Service

Shuttles or trolleys	1 Point
Vans or community circulator	1 Point
Any other service complementing regional bus and rail service	1 Point

O & M - Operations and maintenance
ROW - Right-of-Way

Chapter 7 - Regional Capacity Program (Project O)

Introduction

The RCP is a competitive program that will provide more than $1 billion over a thirty-year period. The RCP replaces the Measure M local and regional streets and roads competitive programs (1991-2011).

Although each improvement category described in this chapter has specific eligible activities, the use of RCP funding is restricted to and must be consistent with the provisions outlined in Article XIX. The California State Controllers Guidelines Relating to Gas Tax Expenditures, which implements Article XIX, will provide additional clarification.

The MPAH serves as the backbone of Orange County's arterial street network. Improvements to the network are required to meet existing needs and address future demand. The RCP is made up of three (3) individual program categories which provide improvements to the network:

- The ACE improvement category complements freeway improvement initiatives underway and supplements development mitigation opportunities on arterials throughout the MPAH.
- The ICE improvement category provides funding for operational and capacity improvements at intersecting MPAH roadways.
- The FAST focuses upon street to freeway interchanges and includes added emphasis upon arterial transitions to interchanges.

Projects in the arterial, intersection, and interchange improvement categories are selected on a competitive basis. All projects must meet specific criteria in order to compete for funding through this program.

Also included under the RCP is the Rail Grade Separation Program (RGSP), which is meant to address vehicle delays and safety issues related to at-grade rail crossings. Seven rail crossing projects along the MPAH network were identified by the CTC to receive TCIF. TCIF allocations required an additional local funding commitment. The RGSP captures these prior funding commitments. Future calls for projects for grade separations are not anticipated.

Funding Estimates

Funding will be provided on a pay-as-you go basis. The RCP will make an estimated $1.1 billion (in 2005 dollars) available during the 30-year M2 program. Programming estimates are developed in conjunction with periodic calls for projects. Funding is shared with intersection, interchange and grade separation improvement categories. No predetermined funding has been set aside or established for street widening.

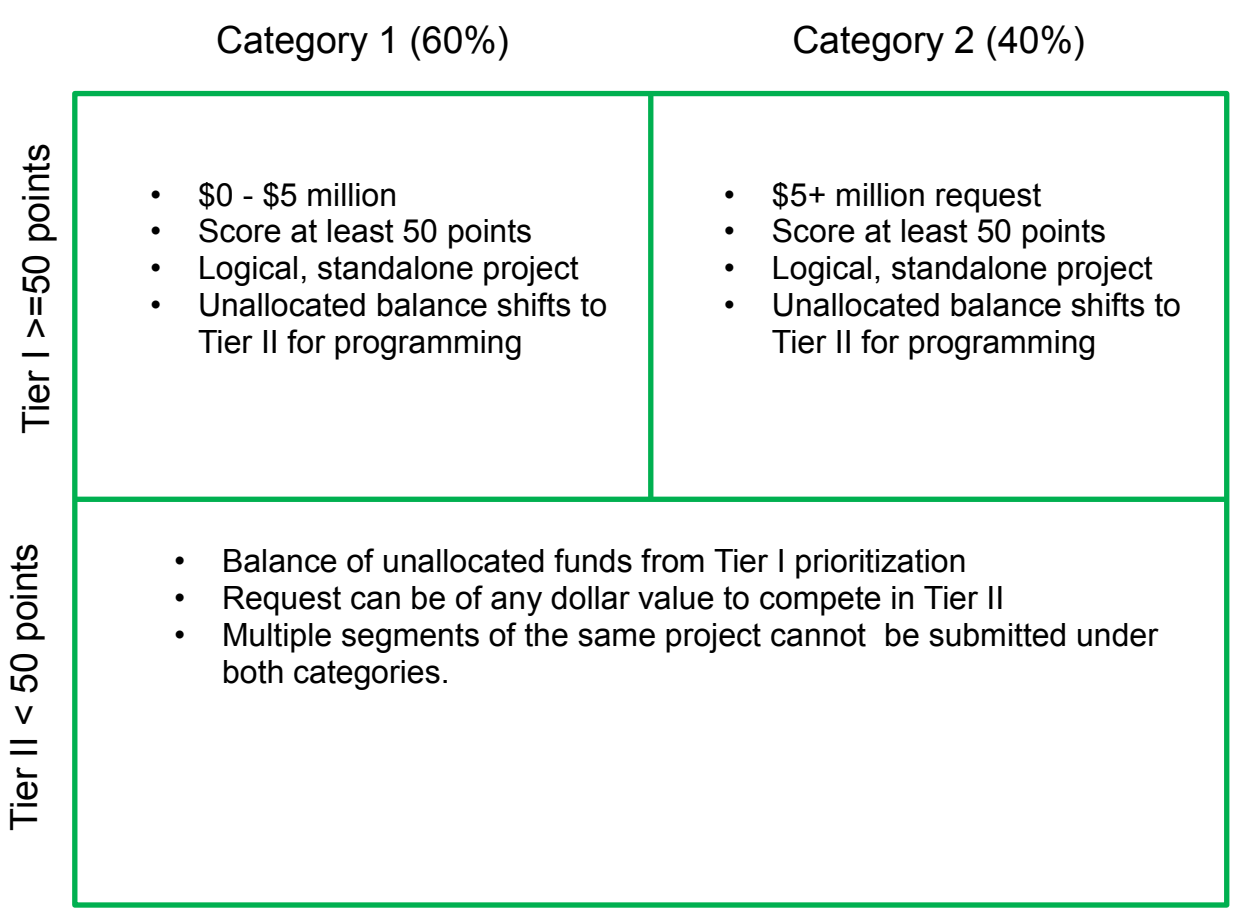
Programming Approach

Programming decisions are based upon project prioritization ranking, feasibility and readiness. Each round of funding has resulted in a diverse range of activities, cost and competitive score. Funding applications may seek financial assistance for planning, engineering, right of way, construction or a combination of these activities. Effective grant programs include a combination of project development as well as implementation projects. In order to ensure continued distribution of funding opportunities between small and large scale projects, a tiered funding approach will be used.

An estimated $32 million will be available for Project O programming during the 2018 Call for Projects. Category 1 projects are limited to those projects requesting $5 million or less. Category 2 projects are defined as those requesting more than $5 million in Measure M2 funds.

Tiered Funding Approach: The two-tiered funding (Tier 1 and Tier 2) approach will only be applicable to the RCP. This approach is proposed to prioritize high scoring projects while providing a balanced program with funding availability for small and large projects. The first tier is for projects scoring 50 points or higher, and the second tier is for projects scoring below 50 points. Within Tier 1, two categories would be established with 60 percent (Category 1) of the M2 funds available for smaller projects (requesting $5 million or less), and 40 percent (Category 2) of the M2 funds available for larger projects (requesting $5 million or more). This approach is intended to broaden the distribution of M2 funds to higher scoring/lower cost projects and retain the ability to fund larger projects without placing formal funding caps on allocations. Any M2 funds not used in Tier I would move to Tier 2 (projects scoring less than 50 points). A funding split between small and large projects is not recommended for Tier 2.

Applications may be for any project phase provided it represents a meaningful, logical terminus and is consistent with scoping from a previously funded project if applicable (i.e., if engineering was previously funded, the right of way and/or construction request must be for the same project scope).



If a project is partially funded under Tier I, additional funding will not be considered under Tier II.

Section 7.1 - Arterial Capacity Enhancements (ACE)

Overview

The MPAH serves as the backbone of Orange County's arterial street network. Improvements to the network are required to meet existing needs and address future traffic demand. The ACE improvement category complements freeway improvement initiatives underway, supplements development mitigation activities and enables improvements based upon existing deficiencies.

Projects in the ACE improvement category are selected on a competitive basis. Projects must meet specific criteria in order to compete for funding through this program.

Objectives

- Complete MPAH network through gap closures and construction of missing segments
- Relieve congestion by providing additional roadway capacity where needed
- Provide timely investment of M2 Revenues
- Leverage funding from other sources

Project Participation Categories

The ACE category provides capital improvement funding (including planning, design, right-of-way acquisition and construction) for capacity enhancements on the MPAH for the following:

- Gap closures – the construction of a roadway to its full MPAH build-out for the purpose of connecting two existing ends of that roadway by filling in a missing segment or for completing the terminus of an MPAH roadway. This applies to increased roadway capacity only as it relates to vehicular traffic.
- Roadway widening where additional capacity is needed
- New roads / extension of existing MPAH facility

Eligible Activities

- Planning, environmental clearance
- Design
- Right-of-way acquisition
- Construction (including curb-to-curb, lighting, drainage, etc.)

Potentially Eligible Items

Below is a list of potentially eligible items. However, final determination of the eligibility of all project related costs will be made at the time of reimbursement. Prior to the submittal of an application for funding, or at any point in the project life cycle, local agencies may meet with OCTA staff to review the eligibility of project related costs. Application review and approval does not guarantee the eligibility of all items.

- Direct environmental mitigation for projects funded by ACE (subject to limitations identified in precepts)
- Storm drains/catch basins/detention basins/bioswales/other pollutant discharge mitigation devices
- Sound walls (in conjunction with roadway improvement mitigation measures)
- Aesthetic improvements including landscaping within the project right-of-way (eligible improvements up to 10 percent of construction costs, provided costs are reasonable for the transportation benefit)
- ITS infrastructure (advance placement in anticipation of future project)
- Rehabilitation and/or resurfacing of existing pavement when necessitated by proposed improvement (such as change in profile and cross section)
- Improvements to private property if part of a right-of-way settlement agreement
- Utility relocation where the serving utility has prior rights as evidenced by a recorded legal document
- Roadway grading within the right-of-way (inclusive of any temporary construction easements and/or right-of-way agreement related improvements) should not exceed a depth for normal roadway excavation (e.g. structural section). Additional grading (e.g. over excavation for poor soil conditions) will be considered on a case by case basis. Agencies shall provide supporting documentation (e.g. soils reports, right-of-way agreements) to justify the additional grading.
- Additional right-of-way to accommodate significant pedestrian volumes or bikeways shown on a Master Plan of Bikeways or in conjunction with the "Complete Streets" effort. These will be considered for eligibility on a case by case basis during the application process.
- Installation of a pedestrian activated traffic signal where necessitated by pedestrian traffic warrants or other engineering criteria.

Environmental mitigation will be allowed only as required for the proposed roadway improvement, and only as contained in the environmental document. Program participation in environmental mitigation shall not exceed 25 percent of the total eligible construction costs.

Longitudinal storm drains are eligible for program participation when the storm drain is an incidental part (cost is less than 25 percent of the total eligible construction cost) of an eligible improvement. Program participation shall not exceed 10 percent of the cost of storm drain longitudinal/parallel and main lines. Storm drain inlets, connectors, laterals and cross culverts shall have full participation in ACE Program funding. Storm drains outside standard MPAH right-of-way widths are not eligible, excluding catch basins within reasonable distance and in general proximity to a project intersection (e.g. within ten feet of the curb return). Catch basins and drainage systems extending into adjacent areas (including public streets) shall not be eligible past the first catch basin designated by aforementioned criteria.

The relocation of detention basins/bioswales are potentially eligible dependent on prior rights and will be given consideration on a case by case basis (see utility relocations below).

Soundwalls are eligible only if they are required as part of the environmental mitigation for the proposed project and the Measure M contribution to the cost of soundwalls shall not exceed 25 percent of the total eligible project costs. Aesthetic enhancements and landscaping in excess of minimum environmental mitigation requirements are subject to limitations described in this section above.

Roadway grading will be eligible for structural sections within the roadway right of way. Additional grading required within the project limits will be subject to OCTA's review. OCTA will make the determination based on the additional documentation provided to demonstrate local agency's financial obligation to pay for such improvements. Rough roadway grading must be complete prior to project start.

Utility Relocations

The expenses associated with the relocation of utilities are eligible for RCP reimbursement only when all conditions listed below have been met:

- The relocation is made necessary due to conflict with proposed improvements.
- The facility to be relocated is within the project right-of-way.
- It has been determined that the local agency is legally liable for either a portion of or all of the relocation costs.

Liability can be determined by property rights, franchise rights/agreements, state and local statutes/ordinances, permits, a finding by the local agency's counsel, or other recorded legal document. Documentation providing proof of the local agency's liability for the costs of utility relocation must be submitted with an initial payment request (see Chapter 10). Utilities funded through enterprise funds shall not be eligible for reimbursement.

If a relocation is eligible to be reimbursed, and to be performed by the utility owner or by the utility owner's contractor, the work should be included in the right-of-way phase costs and clearly identified in the project application submittal. For eligible relocations to be performed during the construction phase by the local agency's contractor, the work should be included in the plans and specifications similar to other construction activities. Adjustment of existing utilities to grade (e.g. water valves, manhole frames and covers), due to new roadway cross sections are generally eligible in the construction phase subject to the limitations previously described. New or relocated fire hydrants are ineligible.

In all cases, eligible costs shall only include "in-kind" relocation. No reimbursements will be made for betterments above the cost of "in-kind" relocation. Additionally, costs submitted for program reimbursement must include any salvage credits received.

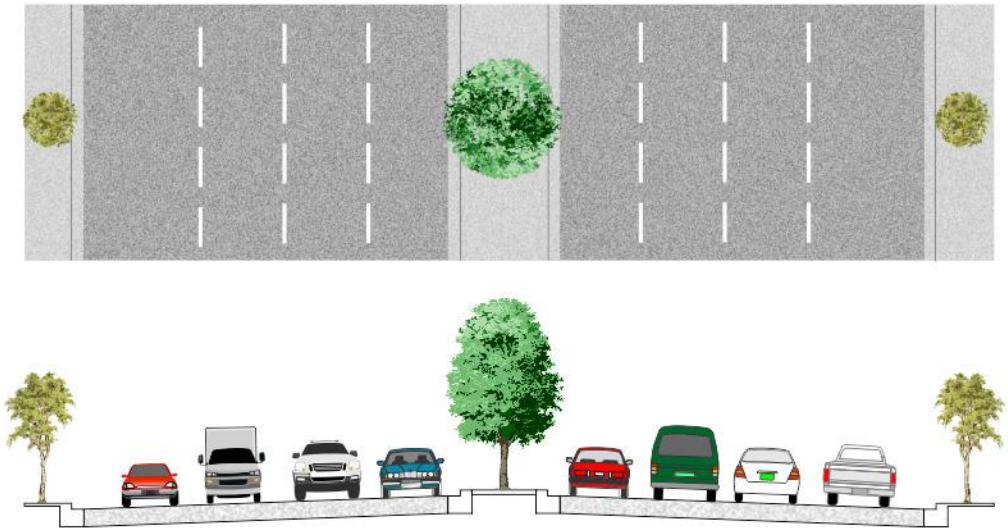
Ineligible Expenditures

Items that are not eligible under the ACE Program are:

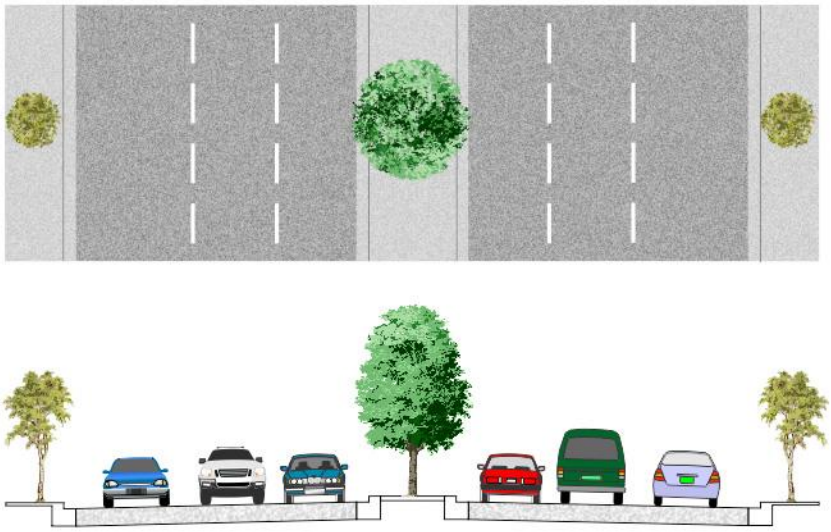
- Grading outside of the roadway right-of-way not related to a temporary construction easement or right-of-way agreement.
- Rehabilitation (unless performed as component of capacity enhancement project)
- Reconstruction (unless performed as component of capacity enhancement project)
- Grade Separation Projects
- Enhanced landscaping and aesthetics (landscaping that exceeds that necessary for normal erosion control and ornamental hardscape)
- Right-of-way acquisition and construction costs for improvements greater than the typical right-of-way width for the applicable MPAH Roadway Classification. (See standard MPAH cross sections in Exhibit 7-1) Where full parcel acquisitions are necessary to meet typical right-of-way requirements for the MPAH classification, any excess parcels shall be disposed of in accordance with the provisions of these guidelines, State statutes as outlined in Article XIX and the California State Controllers Guidelines Relating to Gas Tax Expenditures.
- Utility Betterments
- Construction of new utilities

Exhibit 7-1

Standard MPAH Cross Sections



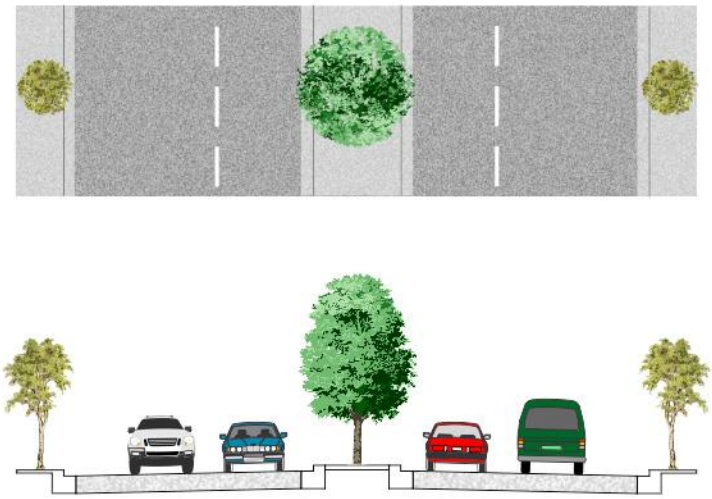
PRINCIPAL
144 FT
(8 LANES, DIVIDED)



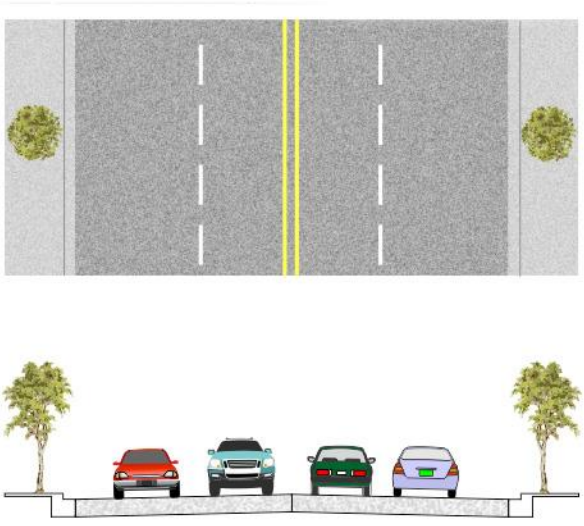
MAJOR
120FT
(6 LANES, DIVIDED)

Exhibit 7-1 *continued*

Standard MPAH Cross Sections



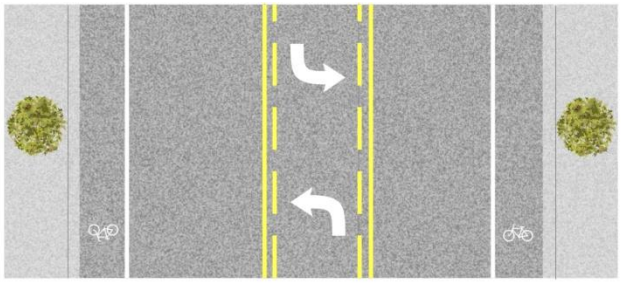
PRIMARY
100 FT
(4 LANES, DIVIDED)

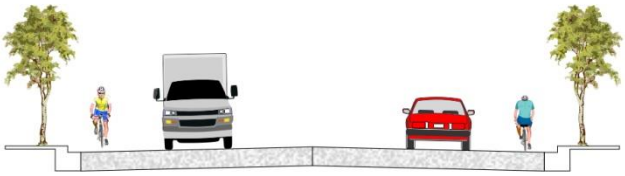


SECONDARY
80 FT
(4 LANES, UNDIVIDED)

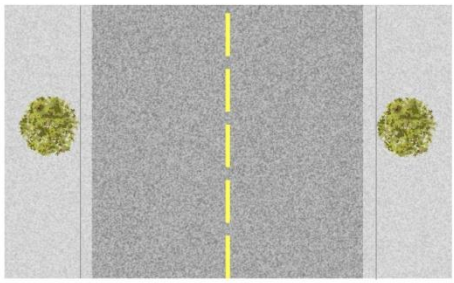
Exhibit 7-1 *continued*

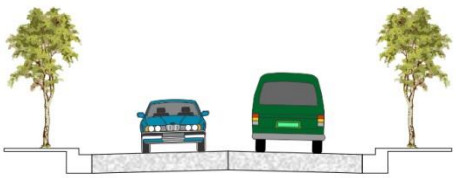
Standard MPAH Cross Sections





DIVIDED COLLECTOR
80 FT
(2 LANES, DIVIDED)





COLLECTOR
56 FT
(2 LANES, UNDIVIDED)

Master Plan of Arterial Highway Capacities

Below are the approximate roadway capacities that will be used in the determination of level of service:

	Level of Service				
Type of Arterial	**A** .51 - .60 v/c	**B** .61 - .70 v/c	**C** .71 - .80 v/c	**D** .81 - .90 v/c	**E** .91 - 1.00 v/c
8 Lanes Divided	45,000	52,500	60,000	67,500	75,000
6 Lanes Divided	33,900	39,400	45,000	50,600	56,300
4 Lanes Divided	22,500	26,300	30,000	33,800	37,500
4 Lanes (Undivided)	15,000	17,500	20,000	22,500	25,000
2 Lanes Divided	9,000	12,000	15,000	20,000	22,000
2 Lanes (Undivided)	7,500	8,800	10,000	11,300	12,500

Note: Values are maximum Average Daily Traffic

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on existing usage, proposed Vehicle Miles Traveled (VMT), level of services benefits, local match rate funding and overall facility importance. Technical categories and point values are shown on Tables 7-1 and 7-2. Data sources and methodology are described below.

Projected/Current Average Daily Trips (ADT): Current ADT is the preferred method of measuring congestion. However, traffic counts projected to the year of opening for the project will be allowed as part of the competitive evaluation. These must be submitted along with current 24-hour traffic counts for the proposed segment for comparison purposes. The agency must submit the project projected ADT, current ADT, the delta, and justification of the increase. Regarding "current" counts, these are defined as those taken for a typical mid-week period within the preceding 12-months. Projects submitted without "current counts" will be considered incomplete and non-responsive. Project applications using projected ADT must use traffic counts taken within the preceding 12 months. Project applications not using projected ADT may use traffic counts taken within the preceding 36 months. **Note:** New facilities must be modeled through OCTAM and requests should be submitted to OCTA a minimum of six (6) weeks prior to application submittal deadline. **This deadline is September ~~9~~8, ~~2016~~ 2017 for the ~~2017~~ 2018**

Call for Projects. If modeling requests are not submitted six (6) weeks prior to the application submittal deadline, the application will not be considered. For agencies where event, weekend, or seasonal traffic presents a significant issue, Average Annual Daily Traffic (AADT) counts can be used, provided the agency gives sufficient justification for the use of AADT.

VMT: Centerline length of segment proposed for improvement multiplied by the existing ADT for the proposed segment length. Measurement must be taken proximate to capacity increase. VMT for Improvements covering multiple discrete count segments are calculated on a weighted average basis.

Current Project Readiness: This category is additive. Points are earned for the highest qualifying designation at the time applications are submitted

- Right-of-Way (All easements and titles) – applies where no right-of-way is needed for the project or where all right-of-way has been acquired/dedicated.
- Right-of-Way (all offers issued) – applies where offers have been made for every parcel where acquisition is required and/or offers of dedication or orders of immediate possession have been received by the jurisdiction.
- Final Design (PS&E) – applies where the jurisdiction's City engineer or other authorized person has approved the final design.
- Preliminary design (35 percent level) – will require certification from the City Engineer and is subject to verification.
- Environmental Approvals – applies where all environmental clearances have been obtained on the project.

Cost Benefit: Total project cost (including unfunded phases) divided by the existing ADT (or modeled ADT for new segments).

Funding Over-Match: The percentages shown apply to match rates above a jurisdiction's minimum local match rate requirement. M2 requires a 50 percent local match for RCP projects. This minimum match can be reduced by up to 25 percentage points if certain eligible components are met. If a jurisdiction's minimum match target is 30 percent and a local match of 45 percent is pledged, points are earned for the 15 percent over-match differential. The pledged amount is considered the committed match rate and will be required, at a minimum, from the local agency throughout the life of the project.

Transportation Significance: Roadway classification as shown in the current MPAH.

MPAH Needs Assessment Category: Segment designation as shown in the RCP Needs Assessment study.

Operational Attributes (within the roadway): This category is additive. Each category, except Active Transit Routes, must be a new feature added as a part of the proposed project.

- Pedestrian Facilities: Placement of a new sidewalk where **none currently exists** along an entire segment of proposed project.
- Meets MPAH configuration: Improvement of roadway to full MPAH standard for the segment classification.
- Active Transit Route(s): Segments served by fixed route public transit service.
- Bus Turnouts: Construction of bus turnouts.
- Bike Lanes: Installation of new bike lanes (Class I or II)
- Median (Raised): Installation of a mid-block raised median where none exists today. Can be provided in conjunction with meeting MPAH standards.
- Remove On-street Parking: Elimination of on-street parking in conjunction with roadway widening project. Can be provided in conjunction with meeting MPAH standards and installation of new bike lanes.
- Sustainability Elements: Includes the use of recycled materials during the roadway construction process (recycled aggregate or rubberized asphalt) or the installation of solar lighting within the roadway cross section. Other elements of sustainability may be considered on a case by case basis.
- Water Conservation: Includes elements that reduce water consumption. Such as the replacement of existing landscaping with hardscape and/or "California Native" drought tolerant type landscaping; the replacement of existing sprinklers with drip irrigation systems; the installation of new "grey" or recycled water systems where such does not currently exist.
- Safety Improvements: Project features that increase the safety of pedestrians. These elements can include the new installation of: median barriers, curb extensions, residential traffic diverters, pedestrian crossing islands, pedestrian activated signals, crosswalk enhancements, safety signage, and the addition, modification, or improvement of existing pedestrian signals. Other elements of safety may be considered on a case by case basis.
- Other (Golf cart paths in conformance with California Vehicle Code and which are demonstrated to remove vehicle trips from roadway).

Improvement Characteristics: Select one characteristic which best describes the project:

- Gap Closures: the construction of a roadway to its full MPAH build-out for the purpose of connecting two existing ends of that roadway by filling in a missing segment or for completing the terminus of an MPAH roadway. This applies to increased roadway capacity only as it relates to vehicular traffic.

- New Facility/Extensions: Construction of new roadways.
- Bridge crossing: Widening of bridge crossing within the project limits.
- Adds capacity: Addition of through traffic lanes.
- Improves traffic flow: Installation of a median, restricting cross street traffic, adding midblock turn lanes, or elimination of driveways.

LOS Improvement: This category is a product of the existing or projected LOS based upon volume/capacity– or v/c -- and LOS improvement "with project". **Projects must meet a minimum existing or projected LOS of "D" (.81 v/c) "without project" condition to qualify for priority consideration for funding.** Existing LOS is determined using current 24-hour traffic counts (averaging AM/PM peaks) for the proposed segment. However, for projects where traffic volumes follow unconventional patterns, unidirectional volumes may be proposed as an acceptable alternate methodology for determining LOS. If unidirectional volumes are used for level of service calculations, ADT for the proposed direction of improvement shall serve as the basis for ADT, cost benefit and vehicle miles travelled (VMT) scoring categories. Projects that do not meet the minimum LOS "D" can be submitted, but are not guaranteed consideration as part of the competitive process.

If during the competitive process, it is determined that additional programming capacity exists after all eligible projects with LOS "D" have been funded, a consideration of projects with a minimum LOS "C" (.71 v/c) may be undertaken. Such consideration will be at the discretion of OCTA. Projects with an LOS better than "C" (.70 v/c) will not be considered.

Application Process

Project grants are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to evaluate the project proposal as outlined below. Detailed instructions and checklists are provided in Chapter 9.

Complete application

- Funding needs by phase and fiscal year
- Local committed match funding source, confirmed through city council resolution or minute order
- Supporting technical information (including current traffic counts)
- Project development and implementation schedule
- Right-of-way status and detailed plan for acquisition/disposal of excess right-of-way. The right-of-way acquisition/disposal plan must be submitted using the "right-of-way acquisition/disposal plan" form provided by OCTA and available for download at https://ocfundtracker.octa.net.

- Any additional information deemed relevant by the applicant
- Grants subject to Master Funding Agreement

Calls are expected to be issued on an annual basis, or as determined by the Board. Complete project applications must be submitted by the established due date to be considered eligible for consideration.

Applications will be reviewed by OCTA for consistency, accuracy and concurrence. Once applications have been completed in accordance with the program requirements, the projects will be scored, ranked and submitted to the TSC, TAC and Board for consideration and funding approval.

Minimum Eligibility Requirements

Projects must have an existing or projected LOS "D" (.81 v/c) or worse to qualify for priority consideration for funding in this program.

All project roadways must be identified on the MPAH network. Local streets not shown on the MPAH are not eligible for funding through this program.

New Facilities

New facilities must be modeled through OCTAM. A local agency planning on submitting a request for funding for a new facility must submit a modeling request a minimum of six (6) weeks prior to the application submittal deadline. If modeling requests are not submitted six (6) weeks prior to the application submittal deadline, the application associated with the related project will not be considered. Any request for modeling **must be submitted to OCTA no later than September ~~98~~ 98, ~~2016~~ 2017** for the 201~~7~~8 Call for Projects.

Facility Modeling: For consistency purposes, all proposed new facilities will be modeled by OCTA using the most current version of OCTAM. Applicants may supplement their application with a locally-derived model with OCTAM used for validation purposes. The facility will be modeled with the lane capacity reflected in the application.

Average Daily Trips Determination: OCTAM will provide an "existing" ADT using a "with project" model run under current conditions. The ADT for the proposed segment will serve as the ADT value to be considered in the application.

LOS Improvement: LOS on existing facilities may be positively or negatively affected by a proposed new roadway segment through trip redistribution. A current condition model run is generated "with" and "without" the proposed project. The intent is to test the efficacy of the proposed segment. A comparison of these before and after project runs (using current traffic volumes) yields potential discernable changes in LOS. The greatest benefit is generally on a parallel facility directly adjacent to the proposed project. Trip

distribution changes generally dissipate farther from the project. For evaluation purposes, the segment LOS (determined through a simple volume / capacity calculation) for the "with" and "without project" will be used for the existing LOS and LOS improvement calculations.

Matching Funds

Local agencies are required to provide local match funding for each phase of the project. As prescribed by the M2 Ordinance, the minimum local match requirement is 50 percent with potential to reduce this amount if certain eligibility requirements are met. The amount pledged during the application process is considered the committed match rate and will be required, at a minimum, from the local agency throughout the life of the project. Actual project contributions by the local agency are dependent on final project costs and may not be equal to the committed match rate in the event of cost overruns. OCTA will not increase the funding grant to cover cost overruns. Ineligible expenditures do not contribute to the local match rate.

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the funding plan described above, local agencies will be required to submit the following materials:

Council Approval: A Council Resolution or Minute Order action authorizing request for funding consideration with a commitment of local match funding must be provided with the project application. **If a *draft* copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Project Documentation: If proposed project has completed initial planning activities (such as Project Study Report (PSR) or equivalent, Environmental Impact Report (EIR), or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. An electronic copy of the PSR and/or environmental document must be supplied as applicable. The applicant will be asked for additional detailed information if necessary to adequately evaluate the project application.

Pavement Management Supporting Documentation: The M2 Ordinance provides for a 10 percent reduction in the required local match if the agency can demonstrate a measurable improvement in Pavement Condition Index (PCI) (1-point increase or greater) over the previous reporting period, or if the agency can demonstrate a PCI that is within the

highest 20 percent of the scale (PCI of 75 or greater). If an agency is electing to take the 10 percent local match reduction, **supporting documentation indicating either the PCI improvement or PCI scale must be provided.**

Project Summary Information: With each application being recommended for funding, the agency shall submit a PowerPoint presentation summarizing the pertinent project information for review and discussion purposes. The presentation shall be no more than three (3) slides and should contain, at a minimum, a project description, project benefits, location map, and cost estimate. **OCTA staff will request the PowerPoint when/if a project is recommended for funding.**

Reimbursements

This program is administered on a reimbursement basis for capital improvements, planning, design, and right-of-way acquisition. Reimbursements will be disbursed upon review and approval of an acceptable initial payment submittal, final report, and consistency with Master Funding Agreement or cooperative agreement if federal funds are awarded. The reimbursement process is more fully described in Chapter 10 of this manual.

Project Cancellation

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible during the planning phase shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty. All right-of-way funding received for property acquisition prior to cancellation shall be repaid upon cancellation even if property has been acquired. All construction funding received prior to cancellation shall be repaid upon cancellation.

Cancelled projects will be eligible to reapply upon resolution of issues that led to original project termination. Agencies can resubmit an application for funding consideration once either the cancellation of the existing funding grant has been approved by the OCTA Board or is in the process of approval through the semi-annual review. In the event the OCTA Board does not approve the cancellation, the lead agency will be required to withdraw the application.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation, which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be

conducted by OCTA's Internal Audit department or other authorized agent either through the normal annual process or on a schedule to be determined by the Board (see Chapter 11).

Proceeds from the sale of excess right-of-way acquired with program funding must be paid back to the project fund as described in Chapter 10 and the Master Funding Agreement.

TABLE 7-1

Regional Capacity Program
Street Widening

	Category	Points Possible	Percentage	
Facility Usage				**25%**
	Existing ADT	10	10%	
	Existing VMT	10	10%	
	Current Project Readiness	10	5%	
Economic Effectiveness				**20%**
	Cost Benefit	10	15%	
	Funding Over-Match	5	5%	
Facility Importance				**20%**
	Transportation Significance	5	5%	
	MPAH Assessment Category	5	10%	
	Operational Efficiency	10	5%	
Benefit				**35%**
	Improvement Characteristics	10	10%	
	Level of Improvement and Service	25	25%	
TOTAL		**100**	**100%**	

Table 7-2

ACE SCORING CRITERIA
Point Breakdown for Arterial Capacity Enhancement Projects
Maximum Points = 100

Facility Usage **Points: 25**

Existing ADT

Range		Points
45+	thousand	10
40-44	thousand	8
35 - 39	thousand	6
30 - 34	thousand	5
25 - 29	thousand	4
20 - 24	thousand	3
15 - 19	thousand	2
10-14	thousand	1
<10	thousand	0

VMT

Range		Points
31+	thousand	10
26-30	thousand	8
22-25	thousand	6
18-21	thousand	5
14-17	thousand	4
11-13	thousand	3
8-10	thousand	2
4-7	thousand	1
<4,000	thousand	0

Current Project Readiness — Max Points: 10

	Points
Environmental Approvals	2
Preliminary Design (35%)	2
Right Of Way (All offers issued)	2
Final Design (PS&E)	4
Right Of Way (All easement and titles)	5

Points are additive, Design and ROW limited to highest qualifying designation

Economic Effectiveness **Points: 15**

Cost Benefit (Total $/ADT)

Range*	Points
<99	10
100 - 149	9
150 - 199	7
200 - 249	5
250 - 299	4
300 - 349	3
350 - 399	2
400 - 499	1
500+	0

Funding Over-Match (local match/project cost) minus minimum local match requirement

Range*		Points
25+	%	5
20 - 24	%	4
15 - 19	%	3
10 - 14	%	2
5-9	%	1
0-4	%	0

*Range refers to % points above agency minimum requirement

Facility Importance **Points: 20**

Transportation Significance

Range	Points
Principal or CMP Route	5
Major	4
Primary	3
Secondary	2
Collector	1

MPAH Assessment Category

Range	Points
Category 1	~~5~~
Category 2	~~4~~
Category 3	~~3~~
Category 4	~~2~~
Category 5	~~1~~

Operational Attributes (within the roadway) — Maximum 10 points

	Points
Pedestrian Facilities (New)	3
Meets MPAH Configs.	3
Bike Lanes (New)	3
Active Transit Route(s)	2
Bus Turnouts	2
Median (Raised)	2
Remove On-Street Parking	2
Water Conservation Elements	2
Safety Improvements	2
Sustainability	2
Other	2

Benefit: **Points: 35**

Improvement Characteristics	Points
Gap Closure	10
New Facility/Extension	8
Bridge Crossing	8
Adds Capacity	6
Improves Traffic Flow	2

LOS Improvement — Max Points: 25

Calculation: LOS Imp x LOS Starting Pt.

Existing LOS Starting Point

Range	Points
1.01+	5
.96 - 1.00	4
.91 -. 95	3
.86-.90	2
.81-.85	1

LOS Improvement W/Project (exist. volume)

Range	Points
.20+	5
.16 -.19	4
.1 -.15	3
.05 - .09	2
.01 - .05	1

Section 7.2 - Intersection Capacity Enhancements (ICE)

Overview

The MPAH serves as the backbone of Orange County's arterial street network. Intersections at each intersecting MPAH arterial throughout the County will continue to require improvements to mitigate current and future needs. The ICE improvement category complements roadway improvement initiatives underway and supplements development mitigation opportunities.

Projects in the ICE improvement category are selected on a competitive basis. Projects must meet specific criteria in order to compete for funding through this program.

For the purposes of the ICE improvement category, the limits of an intersection shall be defined as the area that includes all necessary (or planned) through lanes, turn pockets, and associated transitions required for the intersection. Project limits of up to a maximum of 600 feet for each intersection leg are allowable. Projects that, due to special circumstances, must exceed the 600-foot limit, shall include in their application the request for a technical variance. The project shall be presented to the Technical Steering Committee by the local agency to request approval of the variance.

Objectives

- Improve MPAH network capacity and throughput along MPAH facilities
- Relieve congestion at MPAH intersections by providing additional turn and through lane capacity
- Improve connectivity between neighboring jurisdiction by improving operations
- Provide timely investment of M2 revenues

Project Participation Categories

The ICE category provides capital improvement funding (including planning, design, right-of-way acquisition and construction) for intersection improvements on the MPAH network for the following:

- Intersection widening – constructing additional through lanes and turn lanes, extending turn lanes where appropriate, and signal equipment
- Street to street grade separation projects

Eligible Activities

- Planning, environmental clearance
- Design (plans, specifications, and estimates)
- Right-of-way acquisition
- Construction (including bus turnouts, curb ramps, median, and striping)

Potentially Eligible Items

Below is a list of potentially eligible items. However, final determination of the eligibility of all project related costs will be made at the time of reimbursement. Prior to the submittal of an application for funding, or at any point in the project life cycle, local agencies may meet with OCTA staff to review the eligibility of project related costs. Application review and approval does not guarantee the eligibility of all items.

- Required environmental mitigation for projects funded by ICE
- Storm drains/catch basins/detention basins/bioswales/other pollutant discharge mitigation devices
- Sound walls (in conjunction with roadway improvement mitigation measures)
- Aesthetic improvements including landscaping within the project right-of-way (eligible improvements up to 10 percent of construction costs, provided costs are reasonable for the transportation benefit)
- Signal equipment (as incidental component of program), including the installation or upgrade of pedestrian countdown heads
- Bicycle detection systems
- Rehabilitation and/or resurfacing of existing pavement when necessitated by proposed improvement (such as change in profile and cross section)
- Improvements to private property if part of a right-of-way settlement agreement
- Utility relocation where the serving utility has prior rights as evidenced by a recorded legal document and are located within the roadway right-of-way.
- Roadway grading within the right-of-way (inclusive of any temporary construction easements and/or right-of-way agreement related improvements) should not exceed a depth for normal roadway excavation (e.g. structural section). Additional grading (e.g. over excavation for poor soil conditions) will be considered on a case by case basis. Agencies shall provide supporting documentation (e.g. soils reports, right-of-way agreements) to justify the additional grading.

Ineligible Items

- Grading outside of the roadway right-of-way not related to a temporary construction easement or right-of-way agreement.

- Right-of-way acquisition greater than the typical right-of-way width for the applicable MPAH Roadway Classification. Additional turn lanes not exceeding 12 feet in width needed to maintain an intersection LOS D requiring right-of-way in excess of the typical right-of-way width for the applicable MPAH classification shall be fully eligible. Where full parcel acquisitions are necessary to meet typical right-of-way requirements for the MPAH classification any excess parcels shall be disposed of in accordance with State statutes and the acquisition/disposal plan submitted in accordance with these guidelines.
- Enhanced landscaping and aesthetic improvements (landscaping that exceeds that necessary for normal erosion control and ornamental hardscape).

Environmental mitigation will be allowed only as required for the proposed roadway improvement and only as contained in the environmental document. Program participation in environmental mitigation shall not exceed 25 percent of the total eligible project costs.

Longitudinal storm drains are eligible for program participation when the storm drain is an incidental part (cost is less than 25 percent of the total eligible improvement cost) of an eligible improvement. Program participation shall not exceed 10 percent of the cost of storm drain longitudinal/parallel and main lines. Storm drain inlets, connectors, laterals and cross culverts shall have full participation in ICE improvement category funding. Storm drains outside standard MPAH right-of-way widths are not eligible, excluding catch basins within reasonable distance and in general proximity to a project intersection (e.g. within ten feet of the curb return). Catch basins and drainage systems extending into adjacent areas (including public streets) shall not be eligible past the first catch basin.

Soundwalls are eligible only if they are required as part of the environmental clearance for the proposed project and shall not exceed 25 percent of the total eligible project costs. Aesthetic enhancements and landscaping in excess of minimum environmental mitigation requirements are subject to limitations described in the "Potentially Eligible Item" section above.

The relocation of detention basins/bioswales/other pollutant discharge mitigation devices are potentially eligible dependent on who has prior rights and will be given consideration on a case by case basis (see utility relocations below).

Roadway grading is eligible for structural sections. OCTA assumes rough roadway grading is complete prior to project start and is considered an ineligible item.

Utility Relocations

The expenses associated with the relocation of utilities are eligible for RCP reimbursement only when all conditions listed below have been met:

- The relocation is made necessary due to conflict with proposed improvements.

- The facility to be relocated is within the project right-of-way.
- It has been determined that the local agency is legally liable for either a portion of or all of the relocation costs.

Liability can be determined by property rights, franchise rights/agreements, state and local statutes/ordinances, permits, a finding by the local agency's counsel, or other recorded legal document. Documentation providing proof of the local agency's liability for the costs of utility relocation must be submitted with an initial payment request (see Chapter 10). Utilities funded through enterprise funds shall not be eligible for reimbursement.

If a relocation is eligible to be reimbursed, and to be performed by the utility owner or by the utility owner's contractor, the work should be included in the right-of-way phase costs and clearly identified in the project application submittal. For eligible relocations to be performed during the construction phase by the local agency's contractor, the work should be included in the plans and specifications similar to other construction activities. Adjustment of existing utilities to grade (e.g. water valves, manhole frames and covers), due to new roadway cross sections are generally eligible in the construction phase.

In all cases, eligible costs shall only include "in-kind" relocation. No reimbursements will be made for betterments above the cost of "in-kind" relocation. Additionally, costs submitted for program reimbursement must include any salvage credits received.

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on existing usage, LOS benefits, local match funding, and overall facility importance. Technical categories and point values are shown on Tables 7-3 and 7-4. Data sources and methodology are described below.

Projected/Current Average Daily Trips (ADT): Current ADT is the preferred method of measuring congestion. However, traffic counts projected to the year of opening for the project will be allowed as part of the competitive evaluation. These must be submitted along with current 24-hour traffic counts for the proposed segment for comparison purposes. The agency must submit the project projected ADT, current ADT, the delta, and justification of the increase. Regarding "current" counts, these are defined as those taken for a typical mid-week period within the preceding 12-months. Project applications using projected ADT must use traffic counts taken within the preceding 12 months. Project applications not using projected ADT may use traffic counts taken within the preceding 36 months. Project applications without "current" counts will be deemed incomplete and non-responsive. Average ADT for the east and west legs of the intersection will be added to the average ADT for the north and south legs.

For agencies where event or seasonal traffic presents a significant issue, Average Annual Daily Traffic (AADT) counts can be used, provided the agency gives sufficient justification for the use of AADT.

Current Project Readiness: This category is additive. Points are earned for each satisfied readiness stage at the time applications are submitted.

- Right-of-Way (all easements and titles) – applies where no right-of-way is needed for the project or where all right-of-way has been acquired/dedicated.
- Right-of-Way (all offers issued) – applies where offers have been made for every parcel where acquisition is required and/or offers of dedication or orders of immediate possession have been received by the jurisdiction. Documentation of right-of-way possession will be required with application submittal.
- Final Design (PS&E) – applies where the jurisdiction's City Engineer or other authorized person has approved the final design.
- Preliminary design (35 percent level) – will require certification from the City Engineer and is subject to verification.
- Environmental Approvals – applies where all environmental clearances have been obtained on the project.

Cost Benefit: Total project cost (included unfunded phases) divided by the existing ADT (or modeled ADT for new segments).

Funding Over-Match: The percentages shown apply to match rates above a jurisdiction's minimum match rate requirement. M2 requires a 50 percent local match for RCP projects. This minimum match can be reduced by up to 25 percentage points if certain eligible components are met. If a jurisdiction's minimum match target is 30 percent and a local match of 45 percent is pledged, points are earned for the 15 percent over-match. The pledged amount is considered the committed match rate and will be required, at a minimum, from the local agency throughout the life of the project.

Coordination with Contiguous project: Projects that complement a proposed arterial improvement project with a similar implementation schedule earn points in this category. This category is intended to recognize large projects that segregate intersection components from arterial components for funding purposes.

Transportation Significance: Roadway classification as shown in the current MPAH.

MPAH Needs Assessment Category: Segment designation as shown in the RCP Needs Assessment study.

Operational Attributes (within the roadway): This category is additive. Each category must be a new feature added as a part of the proposed project.

- Bike Lanes: Extension of bike lanes (Class I, II, or IV) through intersection

- Bus Turnouts: Construction of a bus turnout as a new feature.
- Lowers density: Addition of through travel lanes.
- Channels traffic: Addition and/or extension of turn pockets (other than free right turn).
- Free right turn: installation of new free right or conversion of an existing right turn to free right
- Protected/permissive left turn: Convert from protected to protected/permissive
- Pedestrian Facilities: Placement of a new sidewalk if none currently exists.
- Grade separations: Street to street grade separations and do not apply to rail grade separation projects which are covered by the grade separation program category.
- Sustainability Elements: Includes the use of recycled materials during the roadway construction process (recycled aggregate or rubberized asphalt) or the installation of solar lighting within the roadway cross section. Other elements of sustainability may be considered on a case by case basis.
- Water Conservation: Includes elements that reduce water consumption. Such as the replacement of existing landscaping with hardscape and/or "California Native" drought tolerant type landscaping; the replacement of existing sprinklers with drip irrigation systems; the installation of new "grey" or recycled water systems where such does not currently exist.
- Safety Improvements: Project features that increase the safety of pedestrians. These elements can include the new installation of: median barriers, curb extensions, residential traffic diverters, pedestrian crossing islands, pedestrian activated signals, crosswalk enhancements, safety signage, and the addition, modification, or improvement of existing pedestrian signals. Other elements of safety may be considered on a case by case basis.

LOS Improvement: This category is a product of the existing or projected LOS based upon volume/capacity– or v/c -- and LOS improvement "with project" using Intersection Capacity Utilization (ICU) calculation with 1,700 vehicles per lane per hour and a .05 clearance interval. Calculations will be based upon "current" arterial link and turning movement counts projected to opening year. **Projects must meet a minimum existing or projected LOS of "D" (.81 v/c) to qualify for priority consideration for funding.** Existing LOS is determined using current 24-hour traffic counts/turning movements (averaging AM/PM peaks) for the proposed segment utilizing Intersection Capacity Utilization (ICU) methodology and using 1,700 vehicles per lane/per hour and a .05 clearance interval.

For projects where traffic volumes follow unconventional patterns (e.g. unidirectional congestion, large disparity between AM and PM peaks, etc.) HCM 2010 may be proposed as an alternate methodology for determining LOS. HCM calculations must use SYNCHRO and be supported with complete calculation documentation using standard industry

approaches and current signal timing plans. If an alternative methodology is proposed, all analysis **must be submitted to OCTA for review no later than September 9, 2016** for the 2017 Call for Projects. OCTA will contract with an independent third party firm to review the technical analysis. The cost for the review will be charged to the applicant.

Projects that do not meet the minimum LOS "D" can be submitted, but are not guaranteed consideration as part of the competitive process.

If during the competitive process, it is determined that additional programming capacity exists after all eligible projects with LOS "D" have been funded, a consideration of projects with a minimum LOS "C" (.71 v/c) may be undertaken. Such consideration will be at the discretion of OCTA. Projects with an LOS better than "C" (.70 v/c) will not be considered.

Application Process

Project grants are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to evaluate the project proposal as outlined below. Detailed instructions and checklists are provided in Chapter 9.

- Complete application
  - Funding needs by phase and fiscal year
  - Local match funding source, confirmed through city council resolution or minute order
  - Supporting technical information (including current arterial link and turning movement counts)
  - Project development and implementation schedule
  - Right-of-way status and a detailed plan for acquisition/disposal of excess right-of-way. The right-of-way acquisition/disposal plan must be submitted using the "right-of-way acquisition/disposal plan" form provided by OCTA and available for download at https://ocfundtracker.octa.net.
  - Any additional information deemed relevant by the applicant
- Grants subject to master funding agreement

Calls for projects are expected to be issued on an annual basis, or as determined by the Board. Complete project applications must be submitted by the established due date to be considered eligible for consideration.

Applications will be reviewed by OCTA for consistency, accuracy, and concurrence. Once applications have been completed in accordance with the program requirements, the projects will be scored, ranked and submitted to the TSC, TAC and Board for consideration and funding approval.

Minimum Eligibility Requirements

Projects must have an existing or projected LOS "D" (.81 v/c) or worse to qualify for priority consideration for funding in this program.

All project roadways must be identified on the MPAH network. Local streets not shown on the MPAH are not eligible for funding through this program.

Matching Funds

Local agencies are required to provide local match funding for each phase of the project. As prescribed by the M2 Ordinance, the minimum local match requirement is 50 percent with potential to reduce this amount if certain eligibility requirements are met. The amount pledged during the application process is considered the committed match rate and will be required, at a minimum, from the local agency throughout the life of the project. Actual project contributions by the local agency are dependent on final project costs and may not be equal to the committed match rate in the event of cost overruns. OCTA will not increase the funding grant to cover cost overruns. Ineligible expenditures do not contribute to the local match rate.

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the funding plan described above, local agencies will be required to submit the following materials:

Council Approval: A Council Resolution or Minute Order action authorizing request for funding consideration with a commitment of local match funding must be provided with the project application. **If a *draft* copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Project Documentation: If proposed project has completed initial planning activities (such as PSR or equivalent, EIR, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. An electronic copy of the PSR and/or environmental document must be supplied as applicable. The applicant will be asked for additional detailed information only if necessary to adequately evaluate the project application.

Pavement Management Supporting Documentation: The M2 Ordinance provides for a 10 percent reduction in the required local match if the agency can demonstrate a measurable improvement in PCI (1 point or greater) over the previous reporting period, or if the

agency can demonstrate a PCI that is within the highest 20 percent of the scale (PCI of 75 or greater). If an agency is electing to take the 10 percent match rate reduction, supporting documentation indicating either the PCI improvement or PCI scale must be provided.

Project Summary Information: With each application being recommended for funding, the agency shall submit a PowerPoint presentation summarizing the pertinent project information for review and discussion purposes. The presentation shall be no more than three (3) slides and should contain, at a minimum, a project description, project benefits, location map, and cost estimate. **OCTA staff will request the PowerPoint when/if a project is recommended for funding.**

Reimbursements

This program is administered on a reimbursement basis for capital improvements, planning, design, and right-of-way acquisition. Reimbursements will be disbursed upon review and approval of an acceptable initial payment submittal, final report and consistency with Master Funding Agreement or cooperative agreement. The reimbursement process is more fully described in Chapter 10 of this manual.

Project Cancellation

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible during the planning phase shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty. Right-of-way funding received for property acquisition prior to cancellation shall be repaid upon cancellation even if property has been acquired. Construction funding received prior to cancellation shall be repaid upon cancellation.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be conducted by OCTA's Internal Audit department or other authorized agent either through the normal annual process or on a schedule to be determined by the Board (see Chapter 11).

Proceeds from the sale of excess right-of-way acquired with program funding must be paid back to the project fund as described in Chapter 10 and the Master Funding Agreement.

TABLE 7-3

Regional Capacity Program
Intersection Improvement

	Category	Points Possible	Percentage	
Facility Usage				***25%***
	Existing ADT	15	15%	
	Current Project Readiness	10	10%	
Economic Effectiveness				***20%***
	Cost Benefit	10	10%	
	Funding Over-Match	5	5%	
	Coordination with Contiguous Project	5	5%	
Facility Importance				***30%***
	Transportation Significance	5	5%	
	MPAH Assessment Category	5	5%	
	Operational Efficiency	20	20%	
Benefit				***25%***
	LOS Improvement	25	25%	
TOTAL		**100**	**100%**	

Table 7-4

ICE SCORING CRITERIA
Point Breakdown for Intersection Capacity Enhancement Projects
Maximum Points = 100

Facility Usage **Points: 25**

ADT

Range*		Points
60+	thousand	15
55 - 59	thousand	13
50 - 54	thousand	11
45 - 49	thousand	9
40 - 44	thousand	7
35 - 39	thousand	5
30 - 34	thousand	3
25 - 29	thousand	1

* AVG ADT for east and west legs plus AVG ADT for north and south legs of intersection

Current Project Readiness — Max Points: 10

Range*	Points
Environmental Approvals	2
Preliminary Design (35%)	2
Right Of Way (All offers issued)	2
Final Design (PS&E)	4
Right Of Way (All easement and titles)	5

Points are additive, Design and ROW limited to highest qualifying designation

Economic Effectiveness **Points: 20**

Cost Benefit (Total $/ADT)

Range*	Points
<20	10
21 - 30	9
31 - 50	7
51 - 75	5
76 - 100	3
>100	1

* = total cost / average ADT

Funding Over-Match (local match/project cost) minus minimum local match requirement

Range		Points
25+	%	5
20 - 24	%	4
15 - 19	%	3
10 - 14	%	2
5-9	%	1
0-4	%	0

Coordination with Contiguous Project

Range	Points
yes	5
no	0

Coordination with ACE project with similar implementation schedule.

Facility Importance **Points: 30**

Transportation Significance

Range	Points
Principal or CMP Route	5
Major	4
Primary	3
Secondary	2
Collector	1

MPAH Assessment Category

Range	Points
Category 1	5
Category 2	4
Category 3	3
Category 4	2
Category 5	1

Operational Attributes (within the roadway) — Max Points: 20

	Points
Grade separations	10
Bus turnouts	4
Bike lanes	4
Ped. facilities (new)	4
Free right	4
Lowers density	3
Channels traffic	3
Protected/Permissive left turn	2
Water Conservation Elements	2
Safety Improvements	2
Sustainability	2

Benefit: **Points: 25**

LOS Improvement — Max Points: 25

Calculation: LOS Imp x LOS Starting Pt.

Existing LOS (Peak Hour)

Range	Points
1.01+	5
.96 - 1.00	4
.91 -. 95	3
.86-.90	2
.81 - .85	1

LOS Reduction W/Project (exist. volume)

Range	Points
.20+	5
.16 - .19	4
.10 - .15	3
.05 - .09	2
.01 - .05	1

Section 7.3 - Freeway Arterial/Streets Transitions (FAST)

Overview

The MPAH serves as the backbone of Orange County's arterial street network. Current and future needs at existing interchanges along MPAH highways and freeways will need to be addressed in order to improve connectivity between freeways and MPAH arterials. The interchange improvement program complements roadway improvement initiatives underway as well and supplements development mitigation opportunities.

Projects in the FAST improvement category are selected on a competitive basis. Projects must meet specific criteria in order to compete for funding through this program.

Objectives

- Improve transition to and from Orange County freeways
- Provide timely investment of M2 revenues

Project Participation Categories

The FAST category provides capital improvement funding (including planning, design, right-of-way acquisition and construction) for interchange improvements on the MPAH network for the following:

- MPAH facility interchange connections to Orange County freeways (including on-ramp, off-ramp and arterial improvements)

Eligible Activities

- Planning, environmental clearance
- Design
- Right-of-way acquisition
- Construction (including ramps, intersection and structural improvements/reconstruction incidental to project)
- Signal equipment (as incidental component of the program)

Potentially Eligible Items

Below is a list of potentially eligible items. However, final determination of the eligibility of all project related costs will be made at the time of reimbursement. Prior to the submittal of an application for funding, or at any point in the project life cycle, local agencies may meet with OCTA staff to review the eligibility of project related costs. Application review and approval does not guarantee the eligibility of all items.

- Direct environmental mitigation for projects funded by FAST (details below)

- Storm drains/catch basins/detention basins/bioswales/other pollutant discharge mitigation devices (details below)
- Aesthetic improvements including landscaping within the project right-of-way (eligible improvements up to 10 percent of construction costs, provided costs are reasonable for the transportation benefit)
- Rehabilitation and/or resurfacing of existing pavement when necessitated by proposed improvement (such as change in profile and cross section)
- Improvements to private property if part of a right-of-way settlement agreement
- Utility relocation where the serving utility has prior rights as evidenced by a recorded legal document
- Roadway grading within the right-of-way should not to exceed a depth for normal roadway excavation (e.g. structural section) or as required by temporary construction easements, and/or right-of-way agreement related improvements. Additional grading (e.g. over excavation for poor soil conditions) will be considered on a case by case basis.
- Auxiliary lanes if necessitated by interchange improvements
- Soundwalls (in conjunction with roadway improvement mitigation measures)

Environmental mitigation will be allowed only as required for the proposed roadway improvement, and only as contained in the environmental document. Program participation in environmental mitigation shall not exceed 25 percent of the total eligible project costs.

Longitudinal storm drains are eligible for program participation when the storm drain is an incidental part (cost is less than 25 percent of the total eligible improvement cost) of an eligible improvement. Program participation shall not exceed 10 percent of the cost of storm drain longitudinal/parallel and main lines. Storm drain inlets, connectors, laterals and cross culverts shall have full participation in FAST improvement category funding. Storm drains outside standard MPAH right-of-way widths are not eligible, excluding catch basins within reasonable distance and in general proximity to a project intersection (e.g. within ten feet of the curb return). Catch basins and drainage systems extending into adjacent areas (including public streets) shall not be eligible past the first catch basin.

Soundwalls are eligible only if they are required as part of the environmental mitigation for the proposed project and shall not exceed 25 percent of the total eligible project cost. Aesthetic enhancements and landscaping in excess of minimum environmental mitigation requirements are eligible at up to 10 percent of the total eligible construction costs, provided costs are reasonable for the transportation benefit.

The relocation of detention basins/bioswales are potentially eligible dependent on prior rights and will be giving consideration on a case by case basis (see utility relocations below).

Roadway grading is eligible for structural sections if within the standard MPAH cross section for the facility (inclusive of any temporary construction easements). OCTA assumes rough roadway grading is complete prior to project start and is considered an ineligible item.

Utility Relocations

The expenses associated with the relocation of utilities are eligible for RCP reimbursement only when:

- The relocation is made necessary due to conflict with proposed improvements.
- The facility to be relocated is within the project right-of-way.
- It has been determined that the local agency is legally liable for either a portion of or all of the relocation costs.

Liability can be determined by property rights, franchise rights/agreements, state and local statutes/ordinances, permits, a finding by the local agency's counsel, or other recorded legal document. Documentation providing proof of the local agency's liability for the costs of utility relocation must be submitted with an initial payment request (see Chapter 10). Utilities funded through enterprise funds shall not be eligible for reimbursement.

If a relocation is eligible to be reimbursed, and to be performed by the utility owner or by the utility owner's contractor, the work should be included in the right-of-way phase costs and clearly identified in the project application submittal. For eligible relocations to be performed during the construction phase by the local agency's contractor, the work should be included in the plans and specifications similar to other construction activities. Adjustment of existing utilities to grade (e.g. water valves, manhole frames and covers), due to new roadway cross sections are generally eligible in the construction phase.

In all cases, eligible costs shall only include "in-kind" relocation. No reimbursements will be made for betterments above the cost of "in-kind" relocation. Additionally, costs submitted for program reimbursement must be reduced by any salvage credits received.

Ineligible Projects

- Seismic retrofit projects (unless combined with eligible capacity enhancements)
- Enhanced landscaping and aesthetics (landscaping that exceeds that necessary for normal erosion control and ornamental hardscape).

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on existing usage, level of services benefits, local match

funding and overall facility importance. Technical categories and point values are shown on Tables 7-5 and 7-6. Data sources and methodology are described below.

Projected/Current Average Daily Trips (ADT): Current ADT is the preferred method of measuring congestion. However, traffic counts and ramp volumes projected to the year of opening for the project will be allowed as part of the competitive evaluation. These must be submitted along with current 24-hour traffic counts for the proposed segment for comparison purposes. The agency must submit the project projected ADT, current ADT, the delta, and justification of the increase. Regarding "current" counts, these are defined as those taken for a typical mid-week period within the preceding 12-months. Project applications using projected ADT must use traffic counts taken within the preceding 12 months. Project applications not using projected ADT may use traffic counts taken within the preceding 36 months. Project applications without "current" counts will be deemed incomplete and non-responsive. Average ramp intersection volume for each interchange ramp will be used for the current counts. New facilities will rely on projected ramp volume based upon Caltrans approved projection.

For agencies where event or seasonal traffic presents a significant issue, Average Annual Daily Traffic (AADT) counts can be used, provided the agency gives sufficient justification for the use of AADT.

Current Project Readiness: This category is additive. Points are earned for each satisfied readiness stage at the time applications are submitted.

- Right-of-Way (all easements and titles) – applies where no right-of-way is needed for the project or where all right-of-way has been acquired/dedicated).
- Right-of-Way (all offers issued) – applies where offers have been made for every parcel where acquisition is required and/or offers of dedication have been received by the jurisdiction.
- Final Design (PS&E) – applies where the jurisdiction's City engineer or other authorized person has approved the final design.
- Preliminary design (35 percent level) – will require certification from the City engineer and is subject to verification.
- Project Approvals/Environmental Documentation (PA/ED) – applies where a Project Report-level analysis has been completed and environmental approvals have been attained.

Cost Benefit: Total project cost (including unfunded phases) divided by the existing ADT (or modeled ADT for new segments).

Funding Over-Match: The percentages shown apply to match rates above a jurisdiction's minimum local match requirement. M2 requires a 50 percent local match for RCP projects. This minimum match can be reduced by up to 25 percentage points if certain eligible components are met. If a jurisdiction's minimum match target is 30 percent and a local

match of 45 percent is pledged, points are earned for the 15 percent over-match. The pledged amount is considered the committed match rate and will be required, at a minimum, from the local agency throughout the life of the project.

Coordination with Freeway Project: Interchanges planned to coincide with or accommodate programmed freeway improvements receive points in this category.

Transportation Significance: Roadway classification as shown in the current MPAH.

MPAH Needs Assessment Category: Segment designation as shown in the RCP Needs Assessment study.

Operational Efficiencies: This category is additive. Each category, except Active Transit Routes, must be a new feature added as a part of the proposed project.

- Eliminate left turn conflicts: Ramp intersection reconfiguration which does not permit left turns onto ramps.
- Coordinated signal: Ramp intersections within a coordinated corridor where coordination did not previously exist.
- Add turn lanes: Increase in number of turn lanes on arterial.
- Add traffic control: Signalization of ramp intersection.
- Enhanced ramp storage: Extension or widening of existing ramp to improve off-street storage capacity.
- Pedestrian facilities: Add crosswalk and or sidewalk to ramp or bridge crossing within context of interchange improvements.
- Active Transit Route: facility contains a currently active OCTA transit route
- Sustainability Elements: Includes the use of recycled materials during the roadway construction process (recycled aggregate or rubberized asphalt) or the installation of solar lighting within the roadway cross section. Other elements of sustainability may be considered on a case by case basis.
- Water Conservation: Includes elements that reduce water consumption. This includes the replacement of existing landscaping with hardscape and/or "California Native" drought tolerant type landscaping; the replacement of existing sprinklers with drip irrigation systems; the installation of new "grey" or recycled water systems where such does not currently exist.
- Safety Improvements: Project features that increase the safety of pedestrians. These elements can include the new installation of: intersection median barriers, curb extensions, pedestrian crossing islands, crosswalk enhancements, safety signage, and the addition, modification, or improvement of existing pedestrian signals. Other elements of safety may be considered on a case by case basis.

LOS Improvement: This category is a product of the existing or projected LOS based upon volume/capacity– or v/c -- and LOS improvement "with project" for arterial based

improvements and ICU for intersection based improvements. **Projects must meet a minimum existing or projected LOS of "D" (.81 v/c) to qualify for priority consideration for funding.** Existing LOS is determined using current 24-hour traffic counts/turning movements (averaging AM/PM peaks) for the proposed segment. However, for projects where traffic volumes follow unconventional patterns (e.g. unidirectional congestion, large disparity between AM and PM peaks, etc.) alternate methodologies for determining LOS can be proposed as discussed Section 7.1 (ACE) and Section 7.2 for ICE. If HCM 2010 is proposed for intersections as an alternative methodology, all analysis must be submitted to OCTA no later than September 9, 2016 and the cost for independent review shall be reimbursed by the applicant. Projects that do not meet the minimum LOS "D" can be submitted, but are not guaranteed consideration as part of the competitive process.

If during the competitive process, it is determined that additional programming capacity exists after all eligible projects with LOS "D" have been funded, a consideration of projects with a minimum LOS "C" (.71 v/c) may be undertaken. Such consideration will be at the discretion of OCTA. Projects with an LOS better than "C" (.70 v/c) will not be considered.

Improvement Characteristics: Select the attribute that best fits your project definition.

- New facility: New interchange where none exists.
- Partial facility: New interchange which does not provide full access.
- Interchange reconstruction: improvement of existing interchange to provide additional arterial capacity (widening of overcrossing or undercrossing).
- Ramp reconfiguration: Widening of ramp or arterial to improve turning movements or other operational efficiencies.
- Ramp metering: Installation of metering on ramp.

Application Process

Project grants are determined through a competitive application process. Local agencies seeking funding must complete a formal application and provide supporting documentation that will be used to evaluate the project proposal as outlined below.

- Complete application
  - Funding needs by phase and fiscal year
  - Local match funding source
  - Supporting technical information
  - Project development and implementation schedule
  - Right-of-way status and a detailed plan for acquisition/disposal of excess right-of-way. The right-of-way acquisition/disposal plan must be submitted using the "right-of-way acquisition/disposal plan" form provided by OCTA and available for download at https://ocfundtracker.octa.net.

    - Any additional information deemed relevant by the applicant
- Grants subject to a Master Funding Agreement or cooperative agreement if federal funds are awarded

Calls for projects are expected to be issued on an annual basis, or as determined by the OCTA Board of Directors. Complete project applications must be submitted by the established due date to be considered eligible for consideration.

Applications will be reviewed by OCTA for consistency, accuracy and concurrence. Once applications have been completed in accordance with the program requirements, the projects will be scored, ranked and submitted to the TAC and Board or consideration and funding approval.

Minimum Eligibility Requirements

Projects must have an existing or projected LOS "D" (.81 v/c) or worse to qualify for priority consideration for funding in this program. Worst peak hour period is used for this evaluation and eligibility purposes.

Matching Funds

Local agencies are required to provide local match funding for each phase of the project. As prescribed by the M2 Ordinance, a 50 percent minimum local match is required. A lower local match may be permitted if certain eligibility criteria are met. The amount pledged during the application process is considered the committed match rate and will be required, at a minimum, from the local agency throughout the life of the project. Actual project contributions by the local agency are dependent on final project costs and may not be equal to the committed match rate in the event of cost overruns. OCTA will not increase the funding grant to cover cost overruns. Ineligible expenditures do not contribute to the local match rate.

Reimbursements

This program is administered on a reimbursement basis for capital improvements, planning, design, and right-of-way acquisition. Reimbursements will be disbursed upon review and approval of an acceptable initial payment submittal, final report and consistency with Master Funding Agreement. The reimbursement process is described in Chapter 10.

Caltrans Coordination

Caltrans is not eligible to submit applications or receive payment under this program. Only cities or the County of Orange may submit applications and receive funds. This program was designed to benefit local agencies.

Coordination with Caltrans will be essential for most, if not all, of the projects submitted for this program. Local agencies should therefore establish contacts with the Caltrans District 12 Office (Project Development Branch) to ensure that candidate projects have been reviewed and approved by Caltrans. All other affected agencies should be consulted as well.

Agencies submitting projects for this program must have confirmation from Caltrans that the proposed improvement is consistent with other freeway improvements as evidenced by and agreement or other formal document.

Applications should be submitted so that interchange projects are done in conjunction with construction of other freeway improvements whenever possible. However, if the interchange project can be done in advance of the freeway project, verification and/or supporting documentation must be submitted showing the interchange improvement has merit for advanced construction and that it will be compatible with the freeway design and operation. Additionally, the interchange improvements should take into account the ultimate freeway improvements if the interchange is to be improved in advance.

Project Cancellation

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible during the planning phase shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty. Right-of-way funding received for property acquisition prior to cancellation shall be repaid upon cancellation even if property has been acquired. Construction funding received prior to cancellation shall be repaid upon cancellation.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be conducted by OCTA's Internal Audit department or other authorized agent either through the normal annual process or on a schedule to be determined by the Board (see Chapter 11).

Proceeds from the sale of excess right-of-way acquired with program funding must be paid back to the project fund as described in Chapter 10 and Master Funding Agreement.

Other Application Materials

Supporting documentation will be required to fully consider each project application. In addition to the funding plan described above, local agencies will be required to submit the following materials:

Council Approval: A Council Resolution or minute order authorizing request for funding consideration with a commitment of local match funding must be provided with the project application. **If a *draft* copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Project Documentation: If proposed project has completed initial planning activities (such as PSR or equivalent, EIR, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion of planning phases. An electronic copy of the PSR and/or environmental document must be supplied as applicable. The applicant will be asked for additional detailed information only if necessary to adequately evaluate the project application.

Pavement Management Supporting Documentation: The M2 Ordinance provides for a 10 percent reduction in the required local match if the agency can demonstrate a measurable improvement in PCI (1 point or greater) over the previous reporting period, or if the agency can demonstrate a PCI that is within the highest 20 percent of the scale (PCI of 75 or greater). If an agency is electing to take the 10 percent local match rate reduction, supporting documentation indicating either the PCI improvement or PCI scale must be provided.

Project Summary Information: With each application being recommended for funding, the agency shall submit a PowerPoint presentation summarizing the pertinent project information for review and discussion purposes. The presentation shall be no more than three (3) slides and should contain, at a minimum, a project description, project benefits, location map, and cost estimate. **OCTA staff will request the PowerPoint when/if a project is recommended for funding.**

TABLE 7-5

Freeway/Arterial Street Transitions
Interchange Improvements

	Category	Points Possible	Percentage	
Facility Usage				***20%***
	Existing ADT	10	10%	
	Current Project Readiness	10	10%	
Economic Effectiveness				***25%***
	Cost Benefit	10	10%	
	Matching Funds	10	10%	
	Coordination with Freeway Project	5	5%	
Facility Importance				***25%***
	Transportation Significance	5	5%	
	MPAH Assessment Category	5	5%	
	Operational Efficiencies	15	15%	
Benefit				***30%***
	Existing LOS	10	10%	
	LOS Reduction W/Project	10	10%	
	Improvement Characteristics	10	10%	
TOTAL		**100**	**100%**	

Table 7-6

FAST SCORING CRITERIA

Point Breakdown for Freeway/Arterial Street Transitions Program
Maximum Points = 100

Facility Usage **Points: 20**

ADT (Arterial plus daily ramp exit volume)

range		Points
55+	thousand	10
50 - 54	thousand	9
45 - 49	thousand	8
40 - 44	thousand	6
35 - 39	thousand	4
30 - 34	thousand	3
25 - 29	thousand	2
20 - 24	thousand	1
<10 - 19	thousand	0

Current Project Readiness — Max. 10

range	Points
Right Of Way (All easement and titles)	6
Right Of Way (All offers issued)	4
Final Design (PS&E)	4
PA/ED	2
Project Study Report or Equiv.	1

Points are additive, ROW is highest qualifying designation

Economic Effectiveness **Points: 25**

Cost Benefit (Total $/ADT)

range	Points
<20	10
20-39	8
40-79	6
80-159	4
160-319	2
320-640	1
>640	0

Funding Over-Match (local match/project cost) minus minimum local match requirement

range		Points
30+	%	10
25-29	%	8
20-24	%	6
15-19	%	4
10-14	%	2
0-9	%	1

Range refers to % points above agency min. req.

Coordination with Freeway Project

Range	Points
yes	5
no	0

Facility Importance **Points: 25**

Transportation Significance

range	Points
Principal or CMP Route	5
Major	4
Primary	3
Secondary	2
Collector	1

MPAH Assessment Category

range	Points
Category 1	5
Category 2	4
Category 3	3
Category 4	2
Category 5	1

Operational Attributes (within the roadway) — Max. 15

	Points
Eliminate left turn conflict	3
Coordinated signal	2
Add turn lanes	3
Add traffic Control	1
Enhanced ramp storage	3
Pedestrian Facilities (New)	3
Water Conservation Elements	2
Safety Improvements	2
Sustainability	2

Benefit **Points: 30**

LOS Improvement — Max: 20
Calculation: Ave LOS Imp + Ave LOS Starting Pt.

LOS Reduction W/Project (exist. volume)

range	Points
.20+	10
.16-.19	8
.1-.15	6
.05-.09	4
<.05	2

Existing LOS

range	Points
1.06+	10
1.01 - 1.05	8
.96 - 1.00	6
.91 -. 95	4
.86-.90	2
.81 -.85	1

Improvement Characteristics	Points
New facility (full interchange)	10
New facility (partial interchange)	8
Interchange reconstruction	6
Ramp reconfiguration	4
Ramp metering	2

Section 7.4 - Regional Grade Separation Program (RGSP)

Background

Seven rail crossing projects along the Master Plan of Arterial Highways (MPAH) network were identified by the CTC to receive Trade Corridors Improvement Funds (TCIF). These TCIF allocations required an additional local funding commitment. To meet this need, the Board approved the commitment of $160 million in Regional Capacity Program funds to be allocated from M2. The RGSP captures these prior funding commitments.

Future calls for projects for grade separations are not anticipated.

Chapter 8 - Regional Traffic Signal Synchronization Program (Project P)

Overview

The Project P - Regional Traffic Signal Synchronization Program (RTSSP) includes competitive funding for the coordination of traffic signals across jurisdictional boundaries ~~in addition to~~ including Project based operational and maintenance funding. OCTA will provide funding priority to programs and projects, which are multi-jurisdictional in nature.

The RTSSP is based on the Traffic Signal Synchronization Master Plan (Master Plan). The Board adopted the Master Plan as an element of the MPAH on July 26, 2010. The Master Plan defines the foundation of the RTSSP. The Master Plan consists of the following components:

- Regional signal synchronization network
- Priority corridors for accelerated signal synchronization
- Definition of Traffic Forums
- Model agreements presenting roles and responsibilities for Project P
- Signal synchronization regional assessment every three years
    - NOTE: For Call for Projects 2018, Priority Corridors are not an eligible inclusion and no additional points will be awarded. A Priority Corridor is considered to be on the Signal Synchronization Network.

The Master Plan will be reviewed and updated by OCTA every three years and will provide details on the status and performance of the traffic signal synchronization activities over that period. Local agencies are required to adopt and maintain a Local Traffic Signal Synchronization Plan (Local Plan) that is consistent with the Master Plan and shall issue a report on the status and performance of its traffic signal synchronization activities. Details on both the Master Plan and requirements for Local Plan development are available in the "Guidelines for the Preparation of Local Signal Synchronization Plans" dated April 2014. A hard copy of these guidelines can be requested from OCTA.

The remainder of this chapter details the key components of the RTSSP:

- Funding guidelines for the competitive call for projects
- 2018 Call for Projects

Projects compete for funding as part of the RTSSP. Projects submitted by local agencies as part of the call must meet specific criteria. Projects are rated based on scoring criteria and are selected based on their competitive ratings.

Section 8.1 - Funding Guidelines

Objectives

Synchronize traffic signals across jurisdictions

- Monitor and regularly improve the synchronization.
- Synchronize signals on a corridor basis reflecting existing traffic patterns in contiguous zones or road segments that have common operations.

Project Definition

Local agencies are required to submit complete projects that, at minimum, result in field-implemented coordinated timing. Project tasks that are eligible for funding can consist of design, engineering, construction, and construction management. Partial projects that design improvements but do not field implement the improvements are ineligible.

Projects must consist of a corridor along the priority corridor network, signal synchronization network, or the Master Plan of Arterial Highways (MPAH). Projects previously awarded RTSSP funding must be complete with a final report submitted and approved by OCTA. Projects can be the full length of the corridor or a segment that complies with the project requirements identified later in the chapter. **Communication system improvements that directly benefit signal synchronization along the project corridor limits, but are not physically within the project corridor, are eligible for inclusion in a project.**

Applicant agency and owning agency must demonstrate through simulation, or actual vehicle counts showing Origin – Destination that proposed linked corridors for a route. Two linked corridors may also combine at the point of intersection to form a single local Master offset Control Point (T_0) for future Zone operations.

Multimodal consideration of bicyclists and pedestrians along or crossing the intersection or roadway may enhance overall circulation. Therefore, active transportation elements may be included as part of the project.

Eligible Activities

The primary purpose of the Program is to provide funding for projects that develop and maintain corridor-based, multi-jurisdictional signal synchronization along corridors throughout Orange County. All projects funded by this Program must be corridor-based and have a signal coordination component that includes the following:

- Signal Coordination
  - Developing and implementing new signal synchronization timing ~~and~~ parameters based on current travel patterns, and federal and state MUTCD traffic signal timing mandates and guidance

- Monitor, maintain (minimum quarterly/maximum monthly) and/or regularly improve the newly implemented signal synchronization timing and parameters ~~after project signal timing is implemented~~ for the remainder of the project
- "Before" and "after" studies for the project ~~using~~ comparing travel times, average speeds, ratio of green lights passed to red lights stopped (greens per red), average stops per mile, and emissions of greenhouse gases

In addition to developing optimized signal timing, a project may include other improvements as long as they contribute to the goal of multi-agency signal synchronization of corridors throughout Orange County. These improvements are restricted to the signal synchronization project limits, but may include traffic signalized intersections on intersecting corridors where new optimized timing has occurred within the past three years; maximum distance for either direction from crossing arterial intersection in 2,700 feet. Gap closure ~~with the exception of~~ communications links that are installed from a central location to the project corridor are eligible. All improvements must be designed to enhance the specific project. The following are a list of potentially eligible items as part of a signal coordination project:

- New or upgraded detection
  - Upgrade detection along the signal synchronization corridors to ensure necessary conditions for signal synchronization: inductive loops, video detection, radar, sonar, thermal, hybrids thereof, and other types of detection systems
- New or upgraded communication systems
  - New contemporary communication system improvements (e.g. Ethernet) including all conduits, pull boxes, fiber optic and/or copper cabling, network switches and distribution systems
  - Replacement fiber optic or copper cabling for network communication
    - Fiber optic is the preferred medium and includes pull boxes, network switches and distribution systems
  - Software and hardware for system traffic control
  - Control and monitoring interconnect conduit (including upgrades or replacement of existing systems)
  - Gap closure systems of conduit, cable, and associated equipment that are outside of project limits but complete a designated communications link to an existing network for the Advanced Transportation Management System (ATMS) for an agency or agencies. (See paragraph 2, page 8-3)
- Communications and detection support
  - Monitor, maintain, and repair communication and detection along synchronized corridors to ensure necessary conditions for signal synchronization including

interconnect and Central Systems and Local Systems communications equipment (two years after Primary Implementation acceptance)

- Intersection/field system modernization and replacement
  - Traffic signal controller replacement of antiquated units with Advanced Transportation controller (ATC) units
  - Controller cabinet (assemblies) replacements that can be shown to enhance signal synchronization
  - Closed circuit television (CCTV (also can perform video detection))
  - Uninterruptible power supply (UPS) for ATMS and intersection field equipment
    - For ATMS, UPS shall solely provide electrical power for ATMS Server(s), one dedicated workstation (console terminal) and related communications devices
      - Limited cost and scale
      - UPS not intended to provide power to entire TMC
      - Approval is at the sole discretion of the AUTHORITY
- Minor signal operational improvements (new)
  - Emergency vehicle preempt (~~signal~~ intersection control equipment only)
  - Transit signal priority (~~signal~~intersection control equipment only)
  - Channelization (striping and legends) improvements required for traffic signal phasing but not requiring street construction
  - Traffic signal phasing improvements that will improve traffic flow and system performance including protective permissive left turns and shared pedestrian phasing
  - Improvements to comply with new federal or state standards (MUTCD) for traffic signal design as related to signal synchronization
  - Pedestrian countdown heads
- Traffic management center (TMC)/traffic operations centers (TOC) and motorist information
  - New TMCs or TOCs (any project funded under this category must be planned or built to be center-to-center communication "ready" with nearby agencies and/or OCTA)
  - Upgrades to existing TMCs or TOCs (any project funded under this category must be planned or built to be center-to-center communication "ready" with nearby agencies and/or OCTA)
  - Motorist information systems (up to 10 percent of total project costs)
  - Video display equipment, including wall monitors, screens, mounting cabinets, and optical engines (up to 10 percent of total project costs)
- Real-time traffic actuated operations and demonstration projects

- Adaptive traffic signal systems
- Caltrans encroachment permits and agency to Caltrans Cooperative Agreement fees
  - Includes eligible Caltrans labor, capital, and permitting expenses
- Active Transportation/Pedestrian Safety related elements
  - Installation of new and/or improved traffic control devices to improve the accessibility, mobility and safety of the facility for pedestrians and bicyclists
    - Accessibility Pedestrian Push Button Systems
  - ~~Improvements to existing traffic control devices to improve the accessibility, mobility and safety of the facility for pedestrians and bicyclists~~

~~***Note: Construction of new or replacement elements will not be considered eligible for Project P funding during the 2017 Call for Projects.*** In an effort to address ongoing timely project delivery issues and to reduce delays often related to construction items, emphasis during this cycle is on "plug & play" elements such as new cabinets, controllers, software, communications equipment, operations and maintenance activities. Placement of new conduit, fiber optic cable or construction of facilities will not be considered at this time. Please consult with Ms. Sam Kaur as Program Manager if in doubt about an eligible item. Projects that require construction items should be deferred until the next funding cycle.~~

In addition, expenditures related to the design of systems, permitting, and environmental clearance are eligible for funding.

Ineligible Expenditures

- Isolated traffic signal improvements
- Traffic hardware (pole, mast arms, lights, electrical, signs, etc.)
- Regular signal operation and maintenance (such as replacement of light bulbs)
- Field display equipment (Traffic/not pedestrian signal heads)
- Feasibility studies
- Relocation of utilities except for electrical service requirements
- ~~Battery backup systems for TMC~~
- Right-of-way

Funding Estimates

The streets and roads component of M2 is to receive 32 percent of net revenues, 4 percent of which are allocated for the RTSSP. The RTSSP will make an estimated $270 million (2009 dollars) available over the course of the 30-year M2 Program. Programming estimates are developed in conjunction with a call for projects cycle corresponding to concurrent funding agreements with all local agencies.

The RTSSP targets over 2,000 intersections across Orange County for coordinated operations. Because of the limited amount of funds available for the RTSSP, project cap of ~~$60,000~~ $75,000 per signal or ~~$200,000~~ $250,000 per project corridor mile included as part of each project (whichever is higher) has been established for the call for projects.

Selection Criteria

Specific selection criteria will be used to evaluate competitive program project applications. Emphasis is placed on furthering the overall goal of multi-jurisdictional, corridor-based signal synchronization.

Vehicle Miles Traveled (VMT): Centerline length of segment(s) on the corridor proposed for synchronization multiplied by the existing average daily traffic (ADT) for the proposed segment(s) length. For instance, for a three-mile segment with one-mile interval ADT data at of 200 vehicles, 300 vehicles, and 400 vehicles, the VMT would be calculated as:

*200 vehicles * 1 mile + 300 vehicles * 1 mile + 400 vehicles * 1 mile = 900 vehicle miles.*

VMT should be calculated by the smallest segmentation on which the city typically collects ADT data. (maximum: 20 points)

ADT must be based upon actual count information taken within the 36 months preceding the application date. Data from the OCTA Traffic Flow Map may not be used.

Cost Benefit: Total project cost divided by Existing VMT. (maximum: 10 points)

Project Characteristics: Points are awarded based on the type and relevance of the proposed project. For instance, points accumulate if a signal synchronization project is combined with improvements as defined in the "Eligible Activities" section above. (maximum: 10 points)

Transportation Significance: Points are earned based on the corridor being on the ~~priority corridor network or the~~ signal synchronization network. (maximum: ~~10~~5 points) (Priority signal network will not be a part of the 2018 Call for Projects. No points will be awarded for being on a Priority Corridor.)

Maintenance of Effort: Points are earned for a commitment to operate the project signal synchronization timing for a defined period of time beyond the three year grant period. (maximum: 5 points)

Project Scale: Points are earned for including more intersections along ~~priority corridor network,~~ signal synchronization network, or serving as a signal corridor "gap closure". (maximum: 10 points)

Number of Local Agencies: Points are earned for including multiple local agencies as part of the project. (maximum: 20 points)

Current Project Readiness: Points are earned based on the current status of the project development. Evidence of actual preliminary engineering performed for proposals requesting funding for implementation phases must be provided to qualify for points related to this attribute. (maximum for category: 10 points)

Funding Rate: The percentages shown in Table 8-1 apply to match rates above a local agency's minimum match requirement. M2 requires a 20 percent local match for RTSSP projects. Project match rates above 20 percent is limited to dollar match only. (maximum: 5 points)

Table 8-1

RTSSP SCORING CRITERIA
Point Breakdown for Regional Traffic Signal Synchronization Projects
Maximum Points = 100

Vehicle Miles Travelled (VMT) — **Points: 20**

VMT

Range		Points
250+	thousand	20
200 - 249	thousand	15
150 - 199	thousand	10
100 - 149	thousand	6
50 - 99	thousand	3
0 - 49	thousand	1

Calculation: ADT x segment length
(Applies only to coordinated segments of project)

Economic Effectiveness — **Points: 10**

Cost Benefit (Total $/VMT)

Range*	Points
< 3	10
3 - 5	9
6 - 8	8
9 - 11	7
12 - 14	6
15 - 17	5
18 - 20	4
21 - 23	3
24 - 26	2
27+	1

Project Characteristics — **Points: 10**

Project Feature	Points
TMC/TOC and motorist information	2
New or upgraded communications systems	2
New or upgraded detection	2
Intersection/field system modernization	2
Minor signal operational improvements	2
New Protected/Permissive signals	3
Adaptive traffic and demonstration projects	3
TMC/CMC Connections between agencies	3

Points are additive to maximum of 10 points

Transportation Significance — **Points: 10**

Corridor Type	Points
~~Priority Corridor~~	~~10~~
Signal Synchronization Corridor	5
Corridor "Gap Closure"	5
~~Local TSSP Route / MPAH~~	~~0~~

Maintenance of Effort — **Points: 5**

MOE after Grant Period	Points
3 years	5
2 years	3
1 year	1
None	0

* Points are additive to category maximum

Project Scale — **Points: 10**

Number of Signals Coordinated by Project

Range	Point
50+	5
40 - 49	4
30 - 39	3
20 - 29	2
10 - 19	1
< 10	0

AND

Percent of Corridor Signals Being Retimed

Range	Point
90% or above	5
80 - 89%	4
70 - 79%	3
60 - 69%	2
50 - 59%	1
< 50%	0

Calculation: Number of signals in project divided by total signals in full corridor length

Number of Jurisdictions — **Points: 20**

Total Number of Involved Jurisdictions

Range	Point
5 or more	20
4	16
3	12
2	8
1	0

OR

~~% of Priority Corridor Jurisdictions Involved~~

Range	Point
~~100%~~	~~20~~
~~75 - 99%~~	~~12~~
~~50 - 75%~~	~~6~~
~~< 50%~~	~~0~~

Current Project Readiness — **Points: 10**

Project Status	Point
Preliminary Engineering Complete	5
Re-timing of prior RTSSP project	3
Implementation within 12 months	5

Funding Match — **Points: 5**

Overall Match %	Point
50+%	5
40 - 49%	4
35 - 39%	3
30 - 34%	2
25 - 29%	1
<25%	0

Application Process

Project grants are determined through a competitive application process administered by OCTA. Agencies seeking funding must complete an online application, a supplemental application, and provide supporting documentation that will be used to evaluate the project proposal as outlined below. Key information to be provided as part of the application process includes:

- Funding needs by phase and fiscal year
- Percent match rate including funds type, source, and description (minimum 20 percent)
- Lead agency Option 1 (default – local agency) or Option 2 (OCTA)
- Lead and supporting agencies names
- Supporting technical information
- Project development and implementation schedule
- Environmental clearances and other permits
- Any additional information deemed relevant by the applicant
- Complete photographic field review (including cabinet interiors and communication facilities) for all projects that either exceed one million dollars in capital improvements or request OCTA serve as lead agency regardless of capital improvement budget.

A call for projects for the funding cycle will be issued as determined by the Board. Complete project applications must be submitted by the established due dates to be considered eligible for consideration.

Applications will be reviewed by OCTA for consistency, accuracy, and concurrence. Once applications have been completed in accordance with the Program requirements, the projects will be scored, ranked, and submitted to the TSC, TAC, and the Board for consideration and funding approval. OCTA reserves the right to evaluate submitted project costs for reasonableness as part of the review and selection process and suggest potential revisions to make the cost more appropriate. Grants will be subject to funding agreements with OCTA.

Application Instructions

An application should be submitted for a single corridor project. Multiple corridors, related systems of corridors, and corridors that form a "grid" ~~must~~ may be submitted as separate or single~~corridor~~ project(s). The following instructions should be used in developing project applications.

OCFundtracker Application Components

Final applications MUST be submitted via OCFundtracker and in hard copy format. Selection criteria must be inputted as part of the OCFundtracker online application and includes the following categories of information:

- Vehicle Miles Traveled
- Cost Benefit
- Project Characteristics
- Transportation Significance
- Maintenance of Effort
- Project Scale
- Number of Local agencies
- Current Project Readiness
- Funding Match Rate

Minimum Eligibility Requirements

All local agencies may participate in the RTSSP. Caltrans facilities are eligible for the RTSSP, but Caltrans cannot act as the lead agency. Local agencies will be required to provide a minimum of 20 percent matching funds for eligible projects (see definition of matching funds below).

The goal of the RTSSP is to provide regional signal synchronization that cross jurisdictional boundaries. To be eligible for funding through this Program, a project must meet the following requirements:

1. Be on a street segment that is part of the ~~priority corridor network,~~ signal synchronization network, or the MPAH. The project must be consistent with Local Signal Synchronization Plans and support the Regional Traffic Signal Synchronization Master Plan goals.
2. Be multi-jurisdictional, have documented support from all participating local agencies (cities, County, or Caltrans) and a minimum of 20 signals

   or

   Be multi-jurisdictional, have documented support from all participating local agencies (cities, County, or Caltrans) and a minimum distance of five miles

   or

   Include at minimum three local agencies, have documented support from all participating local agencies (cities, County, or Caltrans), and have a minimum intersection density of four intersections per mile with a minimum of eight signals

or

Include the full length of the ~~priority corridor or~~ signal synchronization network corridor, or MPAH corridor

Matching Funds

Local agencies along the corridor are required to provide minimum local match funding of 20 percent for each project. As prescribed by the M2 Ordinance, this includes local sources, M2 Fair Share, and other public or private sources (herein referred to as a "cash match"). Projects can designate local matching funds as cash match, in-kind match provided by local agency staff and equipment, or a combination of both.

"In-kind match" is defined as those actions that local agencies will do in support of the project including staffing commitment and/or new signal system investment related to improved signal synchronization. Examples of staffing commitment include, but are not limited to, implementation of intersection or system timing parameters, review of timing documentation, meeting participation, conducting or assisting in before/after studies, and other similar efforts that directly enhance the signal synchronization project. Administrative staff time for documentation of in-kind services is ineligible. Staff time charged to a project is limited to the caps as described in these guidelines. Allowable signal system investment would be improvements that are "eligible activities" per the funding guidelines, which can be shown to improve signal synchronization and would not include any prior investments made by the agency.

The specific matching requirement by project category type is listed below for city led projects:

Project category	**Type of matching allowed***
Signal coordination	In-kind match** or cash match
New or upgraded detection	In-kind match** or cash match
New or upgraded communications systems	In-kind match** or cash match
Communications and detection support	In-kind match** or cash match
Intersection/field system modernization and replacement	In-kind match** or cash match
Minor signal operational improvements	In-kind match** or cash match

Traffic management center/traffic operations centers and motorist information systems	Cash match
Real-time traffic actuated operations and demonstration projects	Cash match

* Project match beyond 20 percent is limited to cash match only.

** In-kind services are subject to audit.

In-kind match must be defined for each local agency as part of the supplemental application. In-kind match must be identified as staffing commitment and/or new signal system investment. The supplemental application template will include a section to input in-kind match type as well as additional data related to the match:

- Staffing commitment
  - Staff position
  - Number of hours
  - Hourly (fully burdened) rate
  - Total cost
- New signal system investment
  - Cost of any signal system investment
  - Benefit to project

Projects submitted as OCTA led require a 20 percent cash match for Primary Implementation activities with a nominal in-kind allowance for local agency oversight. Operations and Maintenance activities will be permitted in-kind match only for local agency oversight functions. Contract activities will require cash match. Local agency contributions identified as cash match in the application cannot be converted into in-kind match.

OCTA staff will review in detail the presented cash and in-kind match by local agency for reasonableness. Additional requirements on in-kind match as part of the upcoming call are provided in Section 8.2.

Other Application Materials

Supporting documentation is required to fully consider each project application. A Supplemental Application Template is required to be completed for each project application. The template is distributed with other application materials at the issuance of the Call for Projects. In addition to the funding plan described above, local agencies will be required to submit the following materials:

Lead Agency: Lead agency for the project must be identified: local agency or OCTA.

Participating Agencies: All participating agencies must be identified and adopted City Council resolutions or Minute Order actions authorizing the participating agency's support of the project under the lead agency must be included. **If a *draft* copy of these resolutions of support are provided, the local agency must also provide the date the resolution will be finalized by the participating agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Council Approval: A Council Resolution or Minute Order action authorizing request for funding consideration with a commitment of project local match funding must be provided with the project application from all participating agencies. **If a *draft* copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board of Directors.

Project Support: If proposed project has completed initial planning activities (such as project study report or equivalent, environmental impact report, or design), evidence of approval should be included with the application. Satisfactory evidence includes project approval signature page, engineer-stamped site plan, or other summary information to demonstrate completion or planning phases. The applicant will be asked for detailed information only if necessary to adequately evaluate the project application.

Lead Agency

This Program is administered through a single lead agency: a local city or OCTA.

Local Agency Lead: Only the lead agency will receive payments in accordance with the CTFP Guidelines regarding payment for costs related to project for optimized signal timing development, capital improvements, planning, and related design. Payments will be disbursed consistent with Chapter 10. The lead agency is responsible for reimbursing other agencies as part of the effort. Additionally, the lead agency is also responsible for ensuring that all agencies participating in the project provide the local match proposed in the project application.

OCTA Lead ~~(Not available for 2017 Call for Projects)~~: OCTA may, at the request of the involved local agencies, act as the lead agency for RTSSP projects. If the involved local agencies would like OCTA to implement a project on the signal synchronization network, the local agency shall work cooperatively with OCTA to develop the scope of work and cost elements of the project. The lead local agency shall contact OCTA with **a written request at least four weeks prior to submittal of the project grant application**. Projects nominated for OCTA lead ~~must~~ shall be discussed at the Traffic Forum. Applications must include a complete photographic field review (as outlined above) when

submitted. The application will be scored using the criteria outlined in the previous sections. Based on local agency interest and OCTA resource availability, a limited number of projects will be developed and implemented by OCTA. ~~Recent calls have resulted in OCTA implementing seven projects per year.~~

If any projects that are designated as OCTA lead are awarded funding, OCTA will then be responsible for implementation of the project including optimized signal timing development, capital improvements, planning, and related design. OCTA will implement the project based on the cost estimates developed in the application. Project elements may be modified based on final costs with the agreement of all participating agencies. OCTA will be responsible for ensuring that all agencies participating in the project provide the local match as identified in the project application (minimum 20 percent).

Additionally, for projects designating OCTA as lead agency, a consultant traffic engineering firm ~~will~~ may be contracted to provide staff and services to implement the project. Therefore, in-kind match designated as staffing commitment under an OCTA lead agency option ~~should~~ shall be limited. The following will be used as a guide for staffing commitment, when the local agency develops the application:

- Primary Implementation (12 months)
  - Project Administration - Each local agency traffic engineer or equivalent participates in approximately 10-15 hours per month of project administration (meetings, review of reports, minutes, and other administration).
  - Signal Synchronization Timing - Each local agency traffic engineer or equivalent reviews consultant developed draft and final timing plans for intersections within the local agency, approximately 2-4 hours per local agency intersection.
  - Before and After Study - Each local agency traffic engineer or equivalent reviews consultant developed draft and final project Before and After Study, approximately 2-5 hours per local agency.
  - Engineering design/review - Each local agency traffic engineer or equivalent reviews consultant developed engineer design within the local agency, approximately 2-4 hours per affected local agency intersection.
  - System integration - Each local agency traffic engineer or equivalent provides support for this function (hours vary depending on improvements).
  - Construction management - Each local agency traffic engineer or equivalent provides construction management support including inspection (hour vary depending on improvements.
- Ongoing Maintenance and Monitoring (24 months) - Each local agency traffic engineer or equivalent participates in continued project level meetings of 2-5 hours per local agency per month to review consultant traffic engineering progress of Ongoing Maintenance and Monitoring. In addition, each local agency traffic engineer or equivalent reviews consultant developed draft and final project report.

For projects designating a local agency as lead, the above may be used as a guide with additional local match related to implementation, development, design, monitoring and other costs that the local agency may choose to include as local match. For instance, Ongoing Maintenance and Monitoring may be performed by in house staff and be calculated using a different formula (e.g., 2-5 hours per local agency signal for 24 months).

Project Cancellation

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

If a lead agency decides to cancel a project before completion of the entire project, for whatever reason, the agency shall notify OCTA as soon as possible. It is the responsibility of the project lead agency to repay OCTA for any funds received.

Project Extensions

Local agencies are provided 36 months to expend the funds from the date of encumbrance. Agencies can request timely use of funds extensions through the SAR in accordance with the CTFP guidelines. Local agencies should issue a separate Notice to Proceed (NTP) while combining contracts for both the PI and O & M phases. NTP requirement should be identified in the initial contract/agreement to avoid obligation of both phases at the same time. If this procedure is followed by the local agency the NTP date will be considered the date of encumbrance for the O & M phase.

Audits

All M2 payments are subject to audit. Local agencies must follow established accounting requirements and applicable laws regarding the use of public funds. Failure to submit to an audit in a timely manner may result in loss of future funding. Misuse or misrepresentation of M2 funding will require remediation which may include repayment, reduction in overall grant, and/or other sanctions to be determined. Audits shall be conducted by OCTA Internal Audit Department or other authorized agent either through the normal annual process or on a schedule to be determined by the Board.

Data Compatibility

All count data collected as part of any funded project shall be provided to OCTA in one of the two following digital formats: 1) NDS/Southland Car Counters style Excel

spreadsheet; or 2) JAMAR comma separated value style text file. The data shall then be loaded into the OCTA Roadway Operations and Analysis Database System (ROADS). Any data files containing numeric intersection or node identifiers shall use the same node identification (ID) numbers as is stored in the ROADS database. OCTA shall provide a listing of intersections and corresponding unique node ID numbers. Each count data file shall adhere to the following file naming or csv. As an example, a turning movement count file for the intersection of Harbor Boulevard and Wilson Street in Costa Mesa would be given the filename CostaMesa_Harbor-Wilson_4534.csv.

All traffic signal synchronization data collected and compiled as part of any funded project for both existing (before) and final optimized (after) conditions shall be provided to OCTA in Synchro version ~~6~~8/9 csv Universal Traffic Data Format (UTDF) format and version 7 combined data UTDF format. This data shall include the network layout, node, link, lane, volume, timing, and phase data for all coordinated times. All such data shall be consistent with the OCTA ROADS database.

Section 8.2 - 2018 Call for Projects

The following information provides an overview of the 2018 RTSSP Call for Projects.

1. For this RTSSP Call for Projects, projects totaling up to $8 million in M2 funds will be available to local agencies.
2. Projects must result in new, optimized, and field-implemented coordination timing.
3. Project ~~must~~ may be a single contiguous corridor or set of contiguous corridors related to each other. Multiple corridors, related systems of corridors, and corridors that form a "grid" ~~must~~may be submitted as ~~separate~~ a single optimized timing ~~corridor~~ project~~s~~.
4. Projects selected will be programmed after July 1 of the programmed year (July 1 – June 30).
5. Project delays resulting in a time extension request will fall within the process outlined in the CTFP Guidelines.
6. Projects are funded for a grant period of three (3) years and are divided into two phases:
   a. Primary Implementation – includes the required implementation of optimized signal timing as well as any signal improvements proposed as part of a project. ~~As an exception to Precept 16, Primary Implementation of the project must be completed within one (1) year of the initial payment. Note: During the 2017 Call for Projects, capital improvements will be limited to address ongoing timely project delivery issues.~~
   b. Ongoing Maintenance and Operations – includes the required monitoring and improving optimized signal timing in addition to any optional communications and detection support. Ongoing Maintenance and Operations will begin after the optimized signal timing is implemented and be required for the remainder of the project (typically 2 Years). A project final report is required at the conclusion of this phase.
7. Projects shall include a Before and After Study. This study shall collect morning and evening peak period using travel times, average speeds, green lights to red lights, stops per mile, and the derived corridor system performance index (CSPI) metric. This information shall be collected both before any signal timing changes have been made and after the Primary Implementation. The study shall compare the information collected both before and after the timing changes. Comparisons shall identify the absolute and percent differences for the entire corridor, by segment, direction, and time period. Segments will be defined by major traffic movements as observed during the project (e.g. commuting segments between freeways, pedestrian-friendly segments in a downtown area, etc.). The Before and After Study shall be submitted after the Primary Implementation phase is completed.
8. Any corridor or portion of a corridor funded through this call cannot re-apply for funding until the three year grant period or commitment to operate signal

synchronization beyond the three year grant period is completed, whichever ends later.

9. Section 8.1 identifies the selection criteria for projects, eligible activities, minimum project requirements, data compatibility required as part of any funded project, and other key information.

Applications

In order for OCTA to consider a project for funding, applications will be prepared by the local agency responsible for the project application. OCTA shall require agencies to submit applications for the call for projects by **5:00 p.m. on Friday, October 20, 2017**. Late submittals will not be accepted. The local agency responsible for the project application must submit the application and any supporting documentation via OCFundtracker as outlined below.

Project Submittal

A separate application package must be completed for each individual project and uploaded to OCFundtracker. **Three (3) unbound printed copies and one electronic copy on a CD or USB** of each complete application shall also be mailed or delivered to:

Orange County Transportation Authority
550 South Main Street
P.O. Box 14184
Orange, California 92863-1584
Attn: Ms. Sam Kaur

Application Review and Program Adoption

10. OCTA staff will conduct a preliminary review of all applications for completeness and accuracy, may request supplemental information for projects during initial staff evaluations, and prepare a recommended program of projects for the TSC. In addition, OCTA may hire a consultant(s) to verify information within individual applications including, but not limited to, project scope, cost estimates, vehicle miles traveled, and average daily traffic.
11. ~~Based on recommendations from the TSC~~Final programming recommendations will be provided to the TSC and TAC for approval. ~~, a program will be presented to the TAC for review and endorsement.~~
12. Recommendations will be ~~from the TAC will be~~ presented to the Board, who will approve projects for funding under the CTFP.
13. OCTA shall distribute copies of the approved program to each participating local jurisdiction with any qualifying conditions stipulated for the jurisdiction's funded project(s).

Checklist Guide

The "Project P Regional Traffic Signal Synchronization Program Application Checklist" has been provided for the RTSSP (Exhibit 8-1). The checklist identifies the basic documentation required for the program. In addition to items required at the time of project submittal, additional items that are not specified may be requested later. The checklist should be provided as a cover sheet for **each** application submitted. For any items that are required for the candidate project or program that are missing or incomplete, an explanation should be included in a cover letter with the application.

Sample Resolution Form

A resolution or minute action must be approved by the local agency's governing body. A sample resolution is included as Exhibit 8-2. The mechanism selected shall serve as a formal request for RTSSP funds and states that matching funds will be provided by the agency, if necessary. All project requests (i.e., multiple corridors proposed for RTSSP funds) must be included in this action.

Exhibit 8-1

Project P Regional Traffic Signal Synchronization Program Application Checklist

Project P Application Checklist	Included
RTSSP Online Application – submitted through OCFundTracker 1. Vehicle Miles Traveled 2. Benefic Cost Ratio 3. Project Characteristics 4. Transportation Significance 5. Maintenance of Effort 6. Project Scale 7. Number of Jurisdictions 8. Current Project Readiness 9. Funding Over-Match	
Section 1: Key technical information a. Project limits of the corridor to synchronize b. Designation of the corridor to synchronize: priority corridor, signal synchronization network corridor, or master plan of arterial highways corridor c. Project start date and end date, including any commitment to operate signal synchronization beyond the three year grant period d. Signalized intersections that are part of the project e. Traffic Forum members	
Section 2: Lead agency	
Section 3: Resolutions of support from the project's Traffic Forum members	
Section 4: Preliminary plans for the proposed project The plans shall include details about both phases of the project: Primary Implementation and the Ongoing Maintenance and Operation. The plan should be organized using the following setup. Primary Implementation shall include details about the following: a. Developing and implementing optimized signal synchronization timing (required) b. Producing a Before and After Study for the proposed project (required) c. Proposed signal improvements (optional): i. New or upgraded detection ii. New or upgraded communication systems iii. Intersection/field system modernization and replacement iv. Minor signal operation improvements v. Traffic management centers vi. Real-time traffic actuated operations and demonstration projects Ongoing Maintenance and Operation will begin after the Primary Implementation of the project is completed. It shall include details about the following: a. Monitoring and improving optimized signal timing (required) b. Communications and detection support (optional)	
Section 5: Total Proposed Project Cost by Task	
Section 6: Project Schedule by Task for the 3 Year Grant Period	
Section 7: Matching Funds	
Section 8: Environmental clearances and other permits	
Section 9: Calculations used to Develop Selection Criteria Inputs	
Section 10: Any additional information deemed relevant by the applicant	

EXHIBIT 8-2

Sample Resolution for Candidate Orange County Regional Transportation Signal Synchronization Program Projects

A resolution of the _____ City Council approving the submittal of _____ improvement project(s) to the Orange County Transportation Authority for funding under the competitive Measure M2 Regional Transportation Signal Synchronization Program.

THE CITY COUNCIL OF THE CITY OF _____ HEREBY RESOLVES, DETERMINES, AND ORDERS AS FOLLOWS THAT:

WHEREAS, the Measure M2 Regional Traffic Signal Synchronization Program targets over 2000 signalized intersections across Orange County to maintain traffic signal synchronization, improve traffic flow, and reduce congestion across jurisdictions; and

WHEREAS, the City of _____ has been declared by the Orange County Transportation Authority to meet the eligibility requirements to receive revenues as part of Measure M2;

WHEREAS, the CITY must include all projects funded by Net Revenues in the seven-year Capital Improvement Program as part of the Renewed Measure M Ordinance eligibility requirement.

WHEREAS, the CITY authorizes a formal amendment to the seven-year Capital Improvement Program to add projects approved for funding upon approval from the Orange County Transportation Authority Board of Directors.

WHEREAS, the City of _____ has currently adopted a Local Signal Synchronization Plan consistent with the Regional Traffic Signal Synchronization Master Plan as a key component of local agencies' efforts to synchronizing traffic signals across local agencies' boundaries; and

WHEREAS, the City of _____ will provide matching funds for each project as required by the Comprehensive Transportation Funding Programs Procedures Manual; and

WHEREAS, the City of _____ will not use Renewed Measure M funds to supplant Developer Fees or other commitments; and

WHEREAS, the City of _____ desires to implement multi-jurisdictional signal synchronization listed below; and

NOW, THEREFORE, BE IT RESOLVED THAT:

The City Council of the City of _____ hereby requests the Orange County Transportation Authority allocate funds in the amounts specified in the City's application to said City from the Transportation Signal Synchronization Program. Said funds shall be matched by funds from said City as required and shall be used as supplemental funding to aid the City in signal synchronization along the following street(s):

Chapter 9 - Application Materials

Project Submittal

RCP and RTSSSP calls for projects are planned annually. A separate application package must be completed for each individual project and uploaded to OCFundtracker. Only one application may be submitted for each individual project. Multiple variations of the same application (e.g. with different local match rates) will not be considered. **Three (3) unbound copies** of each application should also be mailed to:

OCTA

Attention: Ms. Sam Kaur

550 S. Main Street

P.O. Box 14184

Orange, CA 92863-1584

Hardcopy applications can be hand delivered to:

Attention: Ms. Sam Kaur

600 S. Main Street

Orange, CA 92868

Application Review and Program Adoption

1. OCTA staff will conduct a preliminary review of all applications for completeness and accuracy, request supplemental information (i.e., plans, aerial/strip maps, CEQA forms) for projects that appear to rank well during initial staff evaluations, and prepare a recommended program for the TSC. In addition, OCTA may hire a consultant(s) to verify information within individual applications such as, but not limited to, project scope, cost estimates, ADT and LOS. These applications will be selected through a random process.
2. The TSC will receive and evaluate the project applications and funding grants.
3. Based on recommendations from the TSC, a program will be presented to the TAC for review and endorsement.
4. Recommendations from the TAC will be presented to the Board, who will approve projects for funding under the CTFP.
5. OCTA shall distribute copies of the approved program to all participating local agencies with any qualifying conditions stipulated for the jurisdiction's funded project(s).

Project Guidelines

The following guidelines will be used in reviewing project applications. Any application that does not meet these minimum guidelines must include an explanation of why the guidelines were not met.

6. The travel lane width should be no less than 11 feet (12 feet if adjacent to a raised median or other obstruction) for all arterial highways.
7. For divided roadways, the minimum median width should be no less than 10 feet to allow for turning movements. Divided roadways are defined as those with either a painted or raised median.
8. Arterial highways that are designated for uses in addition to automobile travel (e.g., bicycle, pedestrian, parking) shall provide additional right-of-way consistent with local jurisdiction standards to facilitate such uses.
9. An eight-lane roadway should provide for a continuous median, protected dual or single left-turn pockets as warranted at signalized intersections, single left-turn pockets at non-signalized intersections, and a right-turn lane at signalized intersections where determined necessary by traffic volumes. Right-of-way for a free right-turn lane should be provided at locations warranted by traffic demand.
10. A six-lane divided roadway should provide a continuous median, protected dual or single left-turn pockets as warranted by existing traffic at all signalized intersections, and single left-turn pockets at non-signalized intersections. A right-turn option lane should also be provided as warranted by traffic demand.
11. A four-lane divided roadway should provide a continuous median, protected dual or single left-turn pockets at all signalized intersections, and a left-turn pocket at all non-signalized intersections. A right-turn lane should also be provided as warranted by traffic demand.
12. A four-lane undivided roadway shall provide for a single left-turn pocket at all intersections as warranted by traffic demand.

Application Instructions

A single application should be submitted for each phase of a project. **If funding is requested under multiple program components for a single project (i.e., arterials and intersections) a separate application must be prepared for each request.** Final applications MUST be submitted via OCFundtracker and in hard copy format.

Checklist Guide

Since each funding program has slightly different application requirements, an "Internal Application Checklist Guide" has been provided for the three programs under the RCP (Exhibits 9-1, 9-2, and 9-3). The checklist guide identifies the basic forms and documentation required for each of the program components. In addition, items required at the time of project submittal are differentiated from supplemental items due later. The appropriate checklist should be provided as a cover sheet for **each** application submitted. For any items that are required for the candidate project or program that are missing or incomplete, an explanation should be included in a cover letter with the application. In addition to this checklist guide, please review the **Attachments/Additional Information** section of each program component for a description of supplementary documentation which may be required to support your agency's project application in specific cases.

Attachments

OC Fundtracker Application

Agencies must submit a copy of the OCFundtracker application and scoring information with all application submittals. This document is created within the OCFundtracker web-based application.

"Project Cost Estimate" Form

Include a separate attachment listing all expenditures and costs for the project. Accurate unit prices and a detailed description of work, including design, will be critical when the candidate project is reviewed. For example, design applications should include major tasks that will be performed. Right-of-way cost estimate should include parcel information (including project area needed), improvements taken, severance damages, right-of-way engineering, appraisal and legal costs. Construction should include a listing of all bid items including a maximum 10 percent allowance for contingencies and a maximum 15 percent allowance for construction engineering/project management. The anticipated disbursement of costs (e.g., Agency, Other, Non-Eligible) must also be completed. Agencies should reference the program from which funding is expected to be allocated when completing this portion of the form. Each of the funding programs described in these guidelines may have differing matching fund requirements.

If more than one project phase is requested to be funded, a separate project cost estimate form is to be completed for each phase, or each phase must be clearly indicated and a subtotal prepared on this form. Separate forms should also be prepared if funding for project phases is being requested over multiple fiscal years.

"Sample Resolution" Form

A resolution or minute action must be approved by the local jurisdiction's governing body prior to the Board approval of grant funds. A sample resolution is included as Exhibit 9-4. The mechanism selected shall serve as a formal request for CTFP funds and states that matching funds will be provided by the agency, if necessary. All project requests must be included in this action. **If a *draft* copy of the resolution is provided, the local jurisdiction must also provide the date the resolution will be finalized by the local jurisdiction's governing body.**

Pavement Management Supporting Documentation

The M2 Ordinance provides for a 10 percent reduction in the required local match if the agency can demonstrate a measurable improvement in PCI (1 point or greater) over the previous reporting period, or if the agency can demonstrate a PCI that is within the highest 20 percent of the scale (PCI of 75 or greater). If an agency is electing to take the 10 percent match rate reduction, supporting documentation indicating either the PCI improvement or PCI scale must be provided.

Right-of-way Acquisition/Disposal Plan

For all projects requesting right-of-way phase funding, a detailed plan for acquisition/disposal of excess right-of-way, along with any reasonable labor costs expected, must be included. The right-of-way acquisition/disposal plan and labor cost estimate must be submitted using the "right-of-way acquisition/disposal plan" form provided by OCTA and available for download at https://ocfundtracker.octa.net.

Project Summary Information

For each application that is recommended for funding, the agency shall submit a PowerPoint presentation summarizing the pertinent project information for TAC review and discussion purposes. The presentation shall be no more than three (3) slides and should contain, at a minimum, a project description, project benefits, location map, and cost estimate. **OCTA staff will request the PowerPoint when/if a project is recommended for funding.**

Additional Information

The following documentation should be included with your completed project application:

If a project includes more than one jurisdiction and is being submitted as a joint application, one agency shall act as lead agency and must provide a resolution of support from the other agency.

1. Letters of support for the candidate project (optional).

2. Geotechnical\materials reports for all applicable candidate projects (e.g., widening, intersection improvement, new roadway). The reports should contain sufficient detail for an accurate assessment of improvements needed and costs, since funding will be jeopardized if a project is unable to meet proposed schedule and costs.
3. Preliminary plans, if available for the project. The plans (1"=40' preferred) should include:
    a. Existing and proposed right-of-way (include plat maps and legal descriptions for proposed acquisitions).
    b. Agency boundaries, dimensions and station numbers.
    c. Existing and proposed project features such as: pavement width and edge of pavement, curb, gutter and sidewalk, raised median, driveway reconstruction, signal pole locations, etc.
    d. Typical cross sections.
    e. Proposed striping.
    f. Structural sections per the materials report.
    g. Proposed traffic signals, storm drains, bridges, railroad crossing improvements, safety lighting, etc.
    h. If requesting funds for traffic signals, include a traffic signal warrant(s) prepared by the City Traffic Engineer or City Engineer.
    i. If the project includes construction, relocation, alteration or widening of any railroad crossing or facility, include a copy of the letter of intent sent to the railroad, a copy of which must be sent to the Public Utilities Commission (PUC). Any project including work of interest to a railroad will not be considered for eligibility until the railroad and PUC have been notified.
    j. If the project is proposed as a staged project and additional funds will be necessary in subsequent calls for projects, the preliminary project statement should be accompanied with a complete preliminary estimate and schedule for the completion of the entire project.
    k. If the project is proposed as a safety improvement, provide justifying accident data for the past three years and show the expected decrease in intersection or mid-block accident rate.
4. Current 24-hour traffic counts (taken for a typical mid-week period within the preceding 12-month period) for the proposed segment. Projects submitted without "current counts" will be considered incomplete and non-responsive.

Exhibit 9-1

Arterial Capacity Enhancement (ACE)

CTFP Application Checklist Guide

Planning – Environmental & Engineering

- CTFP Online Application – submitted through OCFundtracker
- Project Description, Scope of Work and Project Limits
- Cost Estimate for Complete Project - ALL PHASES
- General Application Sample Resolution
- ADT Counts and LOS Calculations
- Aerial Photo w/ Proposed Improvements Shown

Right-of-Way

- CTFP Online Application – submitted through OCFundtracker
- Project Description Detail (include plat maps and legal descriptions for proposed acquisitions)
- Detailed right-of-way Acquisition/Disposal Plan using the OCTA provided right-of-way acquisition/disposal plan form available for download at https://ocfundtracker.octa.net.
- Cost Estimate for Complete Project - ALL PHASES
  - Estimated right-of-way Cost by Parcel (Land, Improvements Taken, Severance, Goodwill, Incidental Expenses)*
- General Application Sample Resolution
- CEQA Compliance Form (CE, Negative Declaration, EIR)
- Aerial Strip Map w/ Existing and Proposed Improvements Shown
  - Include right-of-way Improvements and Parcels to be Acquired
- Preliminary Construction Layout Plans*
- ADT and LOS Calculations

Construction

- CTFP Online Application – submitted through OCFundtracker
- Project Construction Specifications
- Cost Estimate for Complete Project - ALL PHASES
- General Application Sample Resolution
- CEQA Compliance Form (CE, Negative Declaration, EIR)
- Project Development Documents - Project Report or Materials Report *
- Approved Project Construction Plans*
- ADT and LOS Calculations

NOTE: To qualify for the 10 percent local match discount for measureable improvement of PCI, please include documentation from the last two PMP biennial Measure M Eligibility submittals that provide average PCI for Overall System.

Items are due after first application review. OCTA staff will contact you regarding those projects that will require this additional information.

Exhibit 9-2

Intersection Capacity Enhancement (ICE)

CTFP Application Checklist Guide

Planning – Environmental & Engineering

- CTFP Online Application – submitted through OCFundtracker
- Project Description, Scope of Work and Project Limits
- Cost Estimate for Complete Project - ALL PHASES
- General Application Sample Resolution
- Peak Hour Turning Movement Counts, LOS Calculations, and ADT for each leg of the intersection
- Aerial Photo w/ Proposed Improvements Shown

Right-of-Way

- CTFP Online Application – submitted through OCFundtracker
- Project Description Detail (include plat maps and legal descriptions for proposed acquisitions)
- Detailed right-of-way Acquisition/Disposal Plan using the OCTA provided right-of-way acquisition/disposal plan form available for download at https://ocfundtracker.octa.net.
- Cost Estimate for Complete Project - ALL PHASES
  - Estimated right-of-way Cost by Parcel (Land, Improvements Taken, Severance, Goodwill, Incidental Expenses) *
- General Application Sample Resolution
- Peak Hour Turning Movement Counts, LOS Calculations, and ADT for each leg of the intersection
- CEQA Compliance Form (CE, Negative Declaration, EIR)
- Aerial Strip Map w/ Existing and Proposed Improvements Shown
  - Include right-of-way Improvements and Parcels to be Acquired
- Preliminary Construction Layout Plans*

Construction

- CTFP Online Application – submitted through OCFundtracker
- Project Construction Specifications
- Cost Estimate for Complete Project - ALL PHASES
- General Application Sample Resolution
- Peak Hour Turning Movement Counts, LOS Calculations, and ADT for each leg of the intersection
- CEQA Compliance Form (CE, Negative Declaration, EIR)
- Project Development Documents - Project Report or Materials Report *
- Approved Project Construction Plans*

NOTE: To qualify for the 10 percent local match discount for measureable improvement of PCI, please include documentation from the last two PMP biennial Measure M Eligibility submittals that provide average PCI for Overall System.

Items are due after first application review. OCTA staff will contact you regarding those projects that will require this additional information.

Exhibit 9-3

Freeway Arterial/Streets Transition (FAST)

CTFP Application Checklist Guide

Planning – Environmental & Engineering

- CTFP Online Application – submitted through OCFundtracker
- Project Description, Scope of Work and Project Limits
- Cost Estimate for Complete Project - ALL PHASES
- General Application Sample Resolution
- Peak Hour Turning Movement Counts, LOS Calculations, ADT for arterial and ramp exit volumes
- Caltrans Letter of Support
- Aerial Photo w/ Proposed Improvements Shown

Right-of-Way

- CTFP Online Application – submitted through OCFundtracker
- Project Description Detail (include plat maps and legal descriptions for proposed acquisitions)
- Detailed right-of-way Acquisition/Disposal Plan using the OCTA provided right-of-way acquisition/disposal plan form available for download at https://ocfundtracker.octa.net.
- Cost Estimate for Complete Project - ALL PHASES
  - Estimated right-of-way Cost by Parcel (Land, Improvements Taken, Severance, Goodwill, Incidental Expenses) *
- General Application Sample Resolution
- Peak Hour Turning Movement Counts, LOS Calculations, and ADT for each leg of the intersection
- CEQA Compliance Form (CE, Negative Declaration, EIR)
- Aerial Strip Map w/ Existing and Proposed Improvements Shown
  - Include right-of-way Improvements and Parcels to be Acquired
- Preliminary Construction Layout Plans*

Construction

- CTFP Online Application – submitted through OCFundtracker
- Project Construction Specifications
- Cost Estimate for Complete Project - ALL PHASES
- General Application Sample Resolution
- Peak Hour Turning Movement Counts, LOS Calculations, and ADT for each leg of the intersection
- CEQA Compliance Form (CE, Negative Declaration, EIR)
- Project Development Documents - Project Report or Materials Report *
- Approved Project Construction Plans*

NOTE: To qualify for the 10 percent local match discount for measureable improvement of PCI, please include documentation from the last two PMP biennial Measure M Eligibility submittals that provide average PCI for Overall System.

Items are due after first application review. OCTA staff will contact you regarding those projects that will require this additional information.

Exhibit 9-4

Sample Resolution for Candidate Orange County Comprehensive Transportation Programs Projects

A resolution of the _____ City Council approving the submittal of _____ improvement project(s) to the Orange County Transportation Authority for funding under the Comprehensive Transportation Program

THE CITY COUNCIL OF THE CITY OF _____ HEREBY RESOLVES, DETERMINES, AND ORDERS AS FOLLOWS THAT:

(a) WHEREAS, the City of _____ desires to implement the transportation improvements listed below; and

(b) WHEREAS, the City of _____ has been declared by the Orange County Transportation Authority to meet the eligibility requirements to receive M2 "Fair Share" funds; and

(c) WHEREAS, the City's Circulation Element is consistent with the County of Orange Master Plan of Arterial Highways; and

(d) WHEREAS, the City of _____ will provide a minimum in __% in matching funds for the _____ project as required by the Orange County Comprehensive Transportation Funding Programs Guidelines; and

(e) WHEREAS, the Orange County Transportation Authority intends to allocate funds for transportation improvement projects within the incorporated cities and the County; and

(f) WHEREAS, the City of _____ will not use M2 funds to supplant Developer Fees or other commitments; and

(g) WHEREAS, the City/County must include all projects funded by Net Revenues in the seven-year Capital Improvement Program as part of the Measure M2 Ordinance eligibility requirement.

(h) WHEREAS, the City/County authorizes a formal amendment to the seven-year Capital Improvement Program to add projects approved for funding upon approval from the Orange County Transportation Authority Board of Directors.

NOW, THEREFORE, BE IT RESOLVED THAT:

The City Council of the City of _____ hereby requests the Orange County Transportation Authority allocate funds in the amounts specified in the City's application to said City from the Comprehensive Transportation Programs. Said funds shall be matched by funds from said City as required and shall be used as supplemental funding to aid the City in the improvement of the following street(s):

ADOPTED BY THE CITY COUNCIL on _____, 20____.

SIGNED AND APPROVED on _____, 20____.

_____ _____

City Clerk Mayor

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Chapter 10 - Reimbursements and Reporting

Procedures for Receiving Funds

An implementing agency must encumber funds OCTA awards to a project phase within the fiscal year the grant is programmed (July 1-June 30). Prior to the encumbrance of funds, an agency must have a fully executed letter agreement with OCTA. An agency encumbers funds by awarding a contract, completing the appraisal or issuing an offer letter for one parcel of right-of-way, or by providing expense reports with supporting documentation to prove an agency's workforce costs (provided that the agency intends to complete the phase with agency staff). OCTA shall consider the primary contract or the contract with the largest dollar amount, associated with the phase's tasks, when an agency uses a contract to show encumbrance of CTFP funds. Once an agency encumbers CTFP funds for a phase, it can begin the process for receiving payment of the funds.[7]

OCTA will release funds through two payments. The initial payment will provide up to 75 percent of the contract award or programmed amount, whichever is less. OCTA will disburse the final payment, 25 percent of eligible funds, after it approves the final report.

For situations where a grant exceeds $2 million, the final report retention shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant for that phase. Should the 75/25 payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached (See Precept 32).

Agencies shall submit payment requests to OCTA in a timely fashion. The M2 Ordinance requires the submittal of a final report within 180 days of the project phase completion date (See M2 Ordinance/definitions/Precept 33). Failure to submit a final report within the 180-day time frame will result in an agency being found ineligible to receive net revenues. Per the M2 Ordinance, no provision for extension is allowed. The project completion date refers to the date all final invoices have been paid and any pending litigation has been adjudicated for either the engineering phase or for the right-of-way phase, and all liens/claims have been settled for the construction phase.

OCTA will provide a separate CTFP payment supplement that includes sample forms and instructions for payment submittals and can be downloaded from the OCFundtracker website at https://ocfundtracker.octa.net/report_payment_excel.asp. Payment submittals are described in this chapter and must be submitted through OCTA's online

[7] Funds from state and federal sources funds will undertake a separate process. Local agencies must contact Caltrans local assistance for reimbursement.

database, OCFundtracker: http://ocfundtracker.octa.net. Detailed instructions for OCFundtracker are available online at the previously mentioned website. Staff is also available to assist agencies with this process. Agencies must upload appropriate backup documentation to the database. OCTA may request hardcopy payment requests.

Availability of Funds

The funds granted by OCTA for each phase will be available on July 1, the first day of the fiscal year in which the funds are programmed and upon implementation of the letter agreement for the specific project.

Cancellation of Project

If a local agency decides to cancel a project, for whatever reason, the agency shall notify OCTA as soon as possible. Projects deemed infeasible during the planning phase shall bring that phase to a logical conclusion, file a final report, and cancel remaining phases so that remaining funds can be reprogrammed without penalty. Right-of-way funding received for property acquisition prior to cancellation shall be repaid upon cancellation, regardless of whether property has been purchased or not. Construction funding received prior to cancellation shall be repaid upon cancellation.

Cancelled projects will be eligible for re-application upon resolution of issues that led to original project termination.

Section 10.1 - Regional Capacity Program Initial Payment

Payment Requests

An agency shall use the report and checklist provided in the CTFP Payment Supplement (see https://ocfundtracker.octa.net/report_payment_excel.asp) in order to determine the reporting and documentation requirements for initial payment requests. Payment requirements are located in the Guidelines. Staff may request additional documentation that is not listed on the checklist prior to approving the request.

The interactive electronic versions of all payment forms can be downloaded via OCFundtracker at http://ocfundtracker.octa.net.

OCTA usually releases funds through two payments. The initial payment will constitute 75 percent of the eligible contract award or allocation amount, whichever is less. In addition to the bid abstract, OCTA will require local agencies to submit appropriate backup documentation for all project phases to support the initial payment request. OCTA will release the final payment of remaining balance, usually the final 25 percent of CTFP grant funds, when the project is complete and OCTA accepts the final report. The balance is determined based on final costs for CTFP eligible program expenditures. Prior to submitting the report, review the program specific section in these guidelines that addresses the final report process.

OCTA will reimburse costs associated with the Measure M informational signs (fabrication, installation, and removal) and do not count against a project's grant. Measure M informational "Funded By" sign removal costs should be requested in the Final Report.

Prior to submitting an initial payment request, a local agency may request a meeting with OCTA staff to determine eligible/ineligible items prior to requesting reimbursement.

Below is additional information regarding the documentation requirements of payment requests:

1. Invoice – For initial payments, an agency shall invoice for 75 percent of the contract amount or programmed amount, whichever is less. For final payments, an agency shall invoice for the remaining balance of the contract amount or programmed amount, whichever is less. Final payment request invoices shall normally be approximately 25 percent of the eligible funds. Interest earned by an agency for initial payments received shall be applied to and deducted from the final payment balance amount. For situations where a grant exceeds $2 million, the final report retention shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant for that phase. Should the 75/25 payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached (See Precept 36). Agencies seeking initial payment for the planning, environmental and preliminary engineering

work performed by local agency forces, must submit payroll records and City Council budget allocation with the initial payment request. The payroll records should identify the project name, date of expenditures, amount, and employee position. It is recommended that a unique project key be created for each project and all project charges be billed under that job code. OCTA staff can provide a sample of acceptable form of payroll report upon local agency request.

2. Project Certification Letter – The public works director, or appropriate equivalent, shall submit a certification letter, with applicable statements, using the Project Certification Form (see https://ocfundtracker.octa.net/report_payment_excel.asp). This will include the certification that the project being reimbursed has meet the signage requirements laid out in Precept 22.

3. ~~Minutes~~ Documentation of the Contract Award – The agency shall submit a minute order, agency resolution, or other council/board action showing award of the contract and the contract amount. After contract award, the agency shall submit the project name, contractor/consultant company name, and project scope including bid/task list, for each contract. The city clerk, clerk of the board, or appropriate equivalent shall certify minutes. Agencies that use on-call consultants shall submit a purchase order that includes the scope of work for the contractor.

4. Revised Cost Estimate – The agency shall use the format provided in the Revised Costs Estimate form (see https://ocfundtracker.octa.net/report_payment_excel.asp).

5. Work Schedule – OCTA prefers a complete project schedule, but an agency may provide as little as the expected start and completion dates for preliminary engineering, final engineering, right-of-way, and construction phases on form 10-1A.

6. Right-of-Way Documents – Each parcel shall include an appraiser's ~~invoice~~report, written offer letter, plat map, and legal description. Agencies attempting to acquire five or more parcels for a project shall include a parcel location map. Initial payments for ROW will be considered after submittal of a signed ROW agreement with the property owners and/or upon City Council Resolution initiating a property acquisition in accordance with the Code of Civil Procedure per §1230.010, et. seq.

7. Plans, Specifications, & Estimate (PS&E) Certification – Agencies shall submit a PS&E certification using the PS&E Certification form (see https://ocfundtracker.octa.net/report_payment_excel.asp). The agency engineer shall certify that the local agency properly prepared and approved plans and specifications in accordance with authorized procedures and adopted standards, followed approved scope of work, and incorporated materials report.

8. Layout Plans – An agency shall not submit layout plans that print on paper larger than 11 inches by 17 inches.

9. Documentation of Decision to Use Local Agency Forces – For all project phases, for any work performed by local agency forces in lieu of a primary contract, local agency must document that local agency forces could perform the work more cost effectively or timely than a contractor; and documentation of this decision can be supplied in case of audit.
10. Documentation Supporting Local Agency Liability for Utility Relocation Costs – Local agency liability can be supported by the documentation of property rights, franchise rights/agreements, state and local statutes/ordinances, permits, or a finding by the local agency's counsel.

Reimbursement

OCTA shall not reimburse for a project prior to the beginning of the fiscal year of the grant. If an agency receives an advancement and begins work prior to the start of the fiscal year of the grant, the agency may request an initial payment against the grant. If an agency receives an advancement and completes a project prior to the start of the fiscal year of the grant, OCTA shall disburse the grant in a single payment. OCTA must accept the final report prior to issuing a payment.

Calculation of Payment

Once an agency encumbers Measure M funds, the agency may request a maximum of 75 percent of the contract award amount or programmed amount, whichever is less. For situations where a grant exceeds $2 million, the final report retention shall be capped at $500,000 per project phase, but shall in no case be less than 10 percent of the grant for that phase. Should the 75/25 payment distribution ratio result in a final payment retention that exceeds $500,000, the payment percentages will be adjusted to meet the $500,000 cap until the 10 percent threshold is reached (See Precept 36). Examples of calculating the initial funding request for a standard 75/25 payment are described below.

Example A - **Contract** is awarded for **less than** the estimated construction cost.

Given:

$160,000 = CTFP Allocation $40,000 = City Share

$200,000 = Total Contract Award for Project X

Calculations:

75% of CTFP allocation = $160,000 x 0.75 = $**120,000**.

Example B - **Contract** is awarded for **more than** the estimated construction cost.

Given:

$200,000 = Total CTFP funds programmed for Project Y

$280,000 = Construction contract award (CTFP share)

Calculations:

Construction costs = $280,000

Since this amount exceeds $200,000 programmed, the initial payment is limited to 75% of the programmed amount.

75% of contract amount = $200,000 x 0.75 = $**150,000**.

Section 10.2 - Regional Capacity Program Final Report and Payment Process

The remaining CTFP funds are reimbursed to the lead agency following completion of the final reporting process. This final payment is calculated by considering the grant amount, the minimum local match rate, how much has been previously reimbursed as part of the initial payment, and the total eligible costs that can be applied to the grant (see program specific eligibility sections). M2 funds are applied proportionally to all eligible project expenses. Prior to submitting the Final Report, review the following section which includes items important to the final reporting process. The CTFP Payment Supplement provides additional instructions and sample forms to complete payment requests. Payment requirements are located in this chapter.

Project Cost Changes

If the contract price is lower than the amount programmed and the agency requested additional items and/or change orders during construction/study, OCTA may approve the additional costs during the review of the final report. OCTA will review these reports to:

1. Determine that the agency submitted proper justification for the change order(s)
2. Determine if the items are eligible for reimbursement
3. Confirm that expenses are within the project's original scope of work
4. The lead agency should provide information supporting the need for the change orders in the final report. Changes in project limits for construction projects are not eligible for reimbursement.

Additional Documentation Requirements

The items listed below are to be submitted to complete the final reporting process. If the local jurisdiction has not submitted a final report for any previous phases of the project, the reporting requirements outlined in Section 10.1 must be followed, with exception to the initial report forms, in addition to the Final Report requirements listed below.

5. Final Report Form – The local agency shall prepare a final report form using the final report form (see https://ocfundtracker.octa.net/report_payment_excel.asp).
6. OCTA shall reimburse general lump sum pay items, appraisal cost, design, and construction engineering in the same ratio as the total right-of-way acquisition or construction costs.
7. Proof of Project Payment ~~and Division of Costs~~ – The required documentation ~~that will be submitted required as proof of payment~~ includes approved contract invoices and may also include, but is not limited to, supportive material for agency work forces,

equipment, ~~and~~ material, and corresponding proof of payment. Additional records are required to be maintained as outlined in the Audit

8. Division of Costs – ~~For the division of costs, original contract bid item lists can be supplied. If these are not available, the Proof of Project Payment and~~ The Division of Costs form can be used (see https://ocfundtracker.octa.net/report_payment_excel.asp). Supportive material shall equal the division of costs totals that are located in the final report form.
9. Summary of Right-of-Way Acquisition – Agencies shall submit a summary of right-of-way acquisition as described in the Summary of right-of-way acquisition form (see https://ocfundtracker.octa.net/report_payment_excel.asp).
10. Notice of Completion – An agency may submit ~~a recorded Notice of Completion (NOC) or where a NOC is not typically used,~~ ~~t~~The Notice of Completion form may be used to certify the phase completion date. (see https://ocfundtracker.octa.net/report_payment_excel.asp). Please note the date of completion refers to the date all final 3rd party contractor invoices have been paid and any pending litigation has been adjudicated for either the engineering phase or for the right-of-way phase, and all liens/claims have been settled for the construction phase.
11. Before and After Project Photos (where applicable) – photographs showing the project before and after the improvements.

Electronic copies of all payment forms can be downloaded from OCFundtracker.

Timely Final Reports

OCTA will work with local agencies to ensure the timeliness of final reports by utilizing the following procedures:

1. Local agencies to notify OCTA of the project phase completion date within 30 days of completion.
2. Local agencies to file a final report within 180 days of project phase completion date.
3. OCTA to issue a notice to the public works directors or TAC representative(s) 90 days after the project completion date, as reported in OCFundtracker, to remind local agencies that the final report is due in 90 days. The reminder notice will include an offer from OCTA for a consultant to assist in preparation of the final report. The agency shall reimburse OCTA for the consultant services if used.
4. OCTA to issue a final notice letter to the public works directors or TAC representative(s) with a copy to the agency's management and finance director if OCTA does not receive the final report within 180 days of the project completion

date. The final notice letter will inform the local agencies that if OCTA does not receive a response to the final notice letter and the final report within 180 days, then the funds will be unencumbered and OCTA shall request that the agency return disbursed funds, plus interest.

5. OCTA to issue the final payment to local agencies within 60 days of receiving the complete final report and all supporting documentation.

Failure to Submit Final Report

Agencies who fail to submit a Final Report will be required to repay applicable M2 funds received for the project in a manner consistent with the Master Funding Agreement and/or will be found ineligible to receive M2 Net Revenues.

Excess Right-of-Way

Agencies that use Net Revenues (through CTFP or Local Fair Share programs) to acquire project right-of-way shall dispose of land deemed in excess of the proposed transportation use. Excess land sold by the lead agency will be disposed of in accordance with the process established in Government Code, Article 8, Surplus Land, Section 54220-54232, et. Seq. and the right-of-way acquisition/disposal plan submitted as part of the application process. The agency shall return proceeds from the sale to OCTA. OCTA shall return the funds to the program of origin for future use.

Proceeds from the sale of excess right-of-way shall be returned to OCTA in proportion to the amount of M2 funds used in the purchase.

Agencies shall submit right-of-way documents for all parcels utilizing M2 Net Revenues. Agencies must submit the following documents:

- Summary of the right-of-way required for the project
- Plat maps and legal descriptions for right-of-way acquisitions
- Parcel location map
- Identification of anticipated excess right-of-way, if any
- Appraisal reports for excess right-of-way

OCTA shall consider excess right-of-way with a value of $10,000.00 or less as an uneconomic remnant. OCTA shall determine if excess right-of-way is to be considered an uneconomic remnant.

The agency shall submit a fair market value appraisal report for the excess land of each parcel. Appraisers must conduct appraisals in accordance with the Uniform Standards of Professional Appraisal Practice (USPAP). If an agency suspects that the excess right-of-way has a value of $10,000.00 or less, the agency may conduct a limited fair market

value appraisal to confirm the value of the excess right-of-way. The agency shall submit the appraisals with the right-of-way final report.

OCTA shall retain from the final payment the value of excess right-of-way that is proportional to OCTA's percentage match rate to the project up to OCTA's match rate of right-of-way grant. However, if the local agency provided additional funds beyond what was original estimated, OCTA will be reimbursed based on its proportional share of the cost of right-of-way.

An agency may include incidental expenditures from the disposal of property in their final report for the right-of-way grant.

An agency shall begin the process to sell excess right-of-way within 60 days after acceptance of the construction improvements.

OCTA shall not close-out the right-of-way grant or construction grant until the agency and OCTA resolve questions regarding excess right-of-way.

Example:

OCTA's right-of-way grant:	$500,000	
OCTA grant match rate	75%	
Parcel Costs:		
Cost – Parcel 1:		$300,000
Cost – Parcel 2:		$380,000
Cost – Parcel 3:		$120,000
Cost – Parcel 4:		$100,000
Total right-of-way Costs:		$900,000
Payment with no excess ROW:		$500,000
Excess right-of-way:		
Value of excess right-of-way for parcel 1:		$200,000
Value of excess right-of-way for parcel 2:		$105,000
Value of excess right-of-way for parcel 3:		$ 0
Value of excess right-of-way for parcel 4:		$ 0
Total Value of excess right-of-way:		$305,000

OCTA contribution to right-of-way acquisition:

CTFP right-of-way contribution ÷ Agency total cost of right-of-way

$500,000 ÷ $900,000 = 56%

OCTA's shall reduce the final right-of-way payment by:

Parcel 1:	$200,000 x 56% =		$112,000
Parcel 2:	$105,000 x 56% =	+	$58,800
Total:			$170,800
Payment (incorporating excess right-of-way):			$500,000
		-	$170,800
			$329,200

Agency Workforce and Equipment Rental

An agency must provide supporting documentation for work completed by agency staff. It is recommended that a unique project job key be created for each project and all project charges be billed under that job code. The agency shall multiply the fully burdened labor rate by the number of hours for each staff person assigned to the project. An agency may add actual overhead costs at an allowable rate up to 30 percent of payroll and fringe benefits. Where an agency due to size cannot calculate its specific overhead rate, an agency may refer to the Cost Accounting Policies and Procedures Manual (CAPPM) of the California Uniform Public Construction Cost Accounting Commission, which allows for a fixed overhead rate billing dependent on city size. Where an agency has actual overhead costs that exceed 30 percent, these will be accepted when a fully audited cost allocation plan is provided and approved by the appropriate governmental entity listed in the CAPPM or 2 Code of Federal Regulations Part 225.

An agency must provide supporting documentation for equipment used by local agency staff. An agency may use local agency or Caltrans surcharge and equipment rental rates.

Technical and/or Field Review

Once an agency submits a final report for a project, OCTA shall review the report for compliance with the CTFP Guidelines and may conduct a technical and/or field review. As part of the technical/field review of a CTFP project, OCTA may:

- review right-of-way acquisitions and the potential for excess right-of-way
- compare hourly breakdown of staff time compared to staff time sheets
- conduct a project field review – ensure improvements are within scope
- review items that agencies self-certify
- verification of the reasonableness of project costs

OCTA may review all phases of the project.

OCTA will use the project cost estimate forms submitted with the application and revised where appropriate, project accounting records and the final report as the primary items to conduct the review. Agencies must maintain separate records for projects (i.e.,

expenditures, interest) to ensure compliance. OCTA will only reimburse eligible CTFP items listed on the cost estimate. The implementing agency is expected to complete the entire scope of work as presented in the original application.

See Chapter 11 for independent audit requirements beyond the technical/field review.

Reporting of Local Fair Share

For the purposes of reporting non-project work (maintenance, repair, and other non-project related costs) funded by Measure M local fair share funds, the Measure M expenditure report cited M2 Ordinance, Section III(B)(8) shall satisfy reporting requirements. If local fair share funds are used for projects, the local agency shall also include a list of those funds and/or other Measure M funds in the Project Final Report cited in Section III(B)(9).

Section 10.3 - Regional Traffic Signal Synchronization Program Reimbursements and Reporting Requirements

The previous sections of this chapter outline the process and requirements regarding reimbursements and reporting for all competitive programs that are part of Measure M2. A lead agency shall also use the following additional reporting and documentation requirements specific to any competitive project funded through Project P as part of the reimbursement process.

Procedures for Receiving Funds

Regional Traffic Signal Synchronization Program funds projects with a three (3) year grant. Projects are divided into two components for the purposes of reimbursements and reporting: Primary Implementation and Ongoing Maintenance and Operations. Ongoing Maintenance and Operations will begin after the Primary Implementation of the project is completed and be required for the remainder of the project and last for a minimum of two (2) years.

Primary Implementation includes the following:

- Project administration (required)
- Developing and implementing optimized signal synchronization timing (required)
- Producing a Before and After Study for the proposed project (required)
- Engineering design of signal improvements for the project (optional)
- System integration (optional)
- Proposed signal improvements, construction support, and contingency (optional):
    - New or upgraded detection
    - New or upgraded communication systems
    - Intersection/field system modernization and replacement
    - Minor signal operation improvements
    - Traffic management centers
    - Real-time traffic actuated operations and demonstration projects
- Contingencies (optional)
- Construction management (optional)

Ongoing Maintenance and Operation will begin after the Primary Implementation of the project is completed. Includes the following:

Monitoring and improving optimized signal timing (required)

- Communications and detection support (optional)
- Final report (required)

A lead agency must encumber funds OCTA allocates to a project within the fiscal year of the grant and after funding agreements with OCTA are executed. A lead agency encumbers funds by awarding a contract or providing expense reports to prove the lead or a participating agency's workforce costs, provided that the lead agency intends to complete the Primary Implementation with lead agency or participating agency staff. Once an agency encumbers Project P funds for Primary Implementation, it can begin the process for receiving payment of the funds. Note that only the lead agency will receive payment of funds from OCTA. Any funds that are due to other participating agencies are the responsibility of the lead agency and not OCTA.

The project lead agency must submit payment requests through OCTA's online database, OCFundtracker: https://ocfundtracker.octa.net. Additional details about the retention caps, timely payment requests, project closeout, and payment are available in Section 10.1 and 10.2 of the chapter.

Availability of Funds

The funds allocated for projects will be available to project lead agencies July 1st of the programmed year and after funding agreements with OCTA are executed.

Initial Payment Requests for Primary Implementation

The initial payment will provide up to 75 percent of funds for the Primary Implementation of the project. The following information specific to the Regional Traffic Signal Synchronization Project is provided regarding the documentation requirements for initial payment of Primary Implementation after an agency encumbers funds for the project.

The interactive electronic versions of all payment forms can be downloaded via OCFundtracker (see https://ocfundtracker.octa.net/report_payment_excel.asp).

The Primary Implementation report has been provided so a lead agency can determine the reporting and documentation required for an initial payment request. Staff may request additional documentation that is not listed on the Primary Implementation Report prior to approving the request. The electronic versions of the forms are available through the OCFundtracker.

Below is additional information updating Section 10.1 of this chapter regarding documentation requirements for RTSSP payment requests. The CTFP Payment Supplement provides instructions and sample forms for the items listed.

- Invoice - For initial payments, the lead agency shall invoice for 75 percent of the contract amount or programmed amount of the project's Primary Implementation, whichever is less. For final payments of the Primary Implementation, the lead agency shall invoice the remaining balance of the project's Primary Implementation phase contract amount or programmed amount, whichever is less

- Project Certification Letter (initial and final)
- Revised Cost Estimate (initial)
- Plans, Specifications, and Estimate (PS&E) Certification (initial)
- Certification of Phase (initial)
- Final Report Submission
- Division of Cost Schedule (final)
- Work Schedule - OCTA requires a complete project schedule, including expected start and competition dates for tasks in the Primary Implementation and Ongoing Maintenance and Operation phases (initial and final)
- Right-of-Way Documents - No requirements as Right-of-Way is not a part of RTSSP

Detail on other aspects on Initial Payment Requests for Primary Implementation including project advancement and reimbursement is available in section 10.1 of this chapter.

Final Payment Requests for Primary Implementation

OCTA will release the remaining balance to the lead agency, approximately 25 percent of funds for the Primary Implementation, when the project's Primary Implementation phase is complete and OCTA receives the project Before and After Study. The balance is determined based on the final costs for the eligible RTSSP expenditures. The Before and After Study is defined as the following:

> This study shall at minimum collect morning and evening peak period using travel times, average speeds, green lights to red lights, stops per mile, and the derived corridor system performance index (CSPI) metric. In addition, greenhouse gas and gasoline savings should be identified. This information shall be developed both before any signal timing changes have been made and after the Primary Implementation. The study shall compare the information collected both before and after the timing changes. Comparisons shall identify the absolute and percent differences for the entire corridor, by segment, direction, and time period. Segments will be defined by major traffic movements as observed during the project (e.g. commuting segments between freeways, pedestrian-friendly segments in a downtown area, etc.).

A template for the before and after study is available. The Before and After Study for RTSSP shall be included as a requirement at the end of the Primarily Implementation phase and as part of the Final Report for reimbursement purposes.

Payment Requests for Ongoing Maintenance and Operations

The payments for the Ongoing Maintenance and Operations portion of the project award will cover the remainder of the grant period after Primary Implementation is completed and will be paid as a reimbursement upon proof of work/payment and receipt of invoice. The invoice should include details on the ongoing maintenance and operation work done

including on the required (1) work monitoring and improving optimized signal timing; and optional (2) communications and detection support.

Project Final Report

The project final report shall be completed in accordance with all CTFP Guidelines upon the end of the three year grant period. In addition, the final report shall summarize the full project through the three-year grant period, include the Before and After Study from the Primary Implementation phase, and report on additional updates/information that result from the Ongoing Maintenance and Operation phase.

Example of Reimbursement

$1,000,000 = Total RTSSP funds programmed for Example Street Signal Synchronization allocated in Fiscal Year 2011/2012. The grant period is for three years.

$900,000 for Primary Implementation – This amount of the project award is subject to the 75 percent initial payment and 25 percent final payment split as defined in the CTFP Guidelines.

Initial Payment = $900,000 x 0.75 = $675,000

Final Payment upon completion, submission, and acceptance by OCTA of project Before and After Study to OCTA

Approximate Final Payment = $900,000 x 0.25 = $225,000

$100,000 for Ongoing Maintenance and Operation – This amount of the project award will cover the remainder of the three year grant period after Primary Implementation is completed and will be paid upon proof of payment and receipt of invoice.

Section 10.4 - Environmental Cleanup Program Reimbursements and Reporting Requirements

Sections 10.1 and 10.2 of this chapter outline the process and requirements regarding reimbursements and reporting for the Regional Capacity Program. The CTFP Payment Supplement provides instructions and sample forms for ECP projects. The interactive electronic versions of all payment forms can be downloaded via OCFundtracker. These processes are applicable to the Tier 1 and Tier 2 Grant Programs with the following exceptions:

- For an initial payment, the ECP Initial Report Form 10-15 must be submitted (see https://ocfundtracker.octa.net/report_payment_excel.asp).
- For a final payment, the ECP Final Report Form 10-16 must be submitted. Supporting documentation for O & M costs (if used as local match) and location maps must also be submitted (see https://ocfundtracker.octa.net/report_payment_excel.asp).
- A final report must be filed within 180 days of the project phase completion with information as shown on the ECP Final Report Form 10-16 (see https://ocfundtracker.octa.net/report_payment_excel.asp).
- Additionally, an exception to Precept 29: agencies may appeal to the ECAC and the OCTA Board on any issues that the agency and OCTA cannot resolve, as such are the approving bodies for this program.

For Tier 1 of the Environmental Cleanup Program, where ongoing operations and maintenance of the project ~~can be~~ were pledged as a local match, ~~.~~ ~~A~~as part of the semi-annual review reporting process, OCTA will verify local agency operations and maintenance expenditures to ensure local match commitments are being met. Local agencies must complete the In-Kind O&M Report Form 10-17 (see https://ocfundtracker.octa.net/report_payment_excel.asp) for each ECP grant as part of their SAR updates.

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Chapter 11 - Audits

Independent Audit Process Overview

Independent audits of CTFP projects may be initiated by OCTA's Internal Audit Department (or agent thereof). The project information on file at OCTA will serve as the primary source of information for each audit. However, additional information may be requested of local agencies.

Accurate records detailing specific expenditures for each CTFP project must be maintained by local agencies. These records must show that proper accounting and cash management procedures were followed, the project was completed in accordance with the application and the CTFP guidelines, and that all records and documentation related to the project were adequately maintained. Consistent with the M2 Ordinance, local agencies must also establish a separate fund accounting system for Measure M funds transactions and expenditures.

Local agencies must maintain a complete set of records in accordance with generally accepted accounting principles, and with reasonable notice, shall permit the authorized representatives of OCTA to inspect and audit all work, materials, payroll, contracts, books, accounts, and other data and for a period of five (5) years after final payment by OCTA for CTFP projects. For the Local Fair Share program, it shall be for a period of five (5) years after expenditure of funds or five (5) years after final payment of debt service where local fair share revenues were pledged, whichever is longer. OCTA has the right to reproduce any such books, records, and accounts. The provision with respect to audits should be extended to/and included in contracts with the local agency's contractor(s).

Record Requirements to Demonstrate Compliance

A description of the required records is given below.

Contracts

For all contract expenses the following records must be maintained:

1. The original executed contract
2. Evidence the procurement of contracted public works and architectural and engineering services followed applicable state laws and local agency procurement requirements
3. All contractor invoices received
4. All contract change order documents
5. Proof of payment to contractors
6. Project "as built" or other final plans

7. Sign-off on completion by Local Agency (letter of acceptance)

Materials and other

For all materials and other miscellaneous expenses charged to the Comprehensive Transportation Programs project, the following records must be maintained:

1. Original invoice and purchase order
2. Proof of delivery
3. Evidence of reasonableness of price, if total cost of purchase is over $1,000
4. Proof of payment

Direct labor

For all direct labor charged to a project, including engineering labor, the following records must be maintained:

1. Summary time sheets showing total time charged to the project by the different individuals working on it
2. Individual time sheets or time cards showing the total time worked by the individual for each period (day, week, etc.) and the different tasks to which the individual's time was charged
3. Personnel files showing the individuals' pay rates
4. Payroll reports showing the computations of paychecks for the applicable periods

Equipment

Equipment rental charges related to a project shall be documented by the following records:

1. Vendor's or local agency's invoice showing hours, rate, and type of equipment and location of rented equipment
2. Evidence of quotes obtained to determine best rate (documented phone quotes are acceptable)
3. Documentation of project need for equipment

Local agency force work

For all construction phase work performed by local agency forces and the decision that local agency forces could perform the work more cost effectively or timely than a contractor must be documented.

Chapter 12 - Environmental Cleanup Program (Project X)

Overview

The Project X/Environmental Cleanup Program (ECP) provides for Measure M2 (M2) revenues to improve overall water quality in Orange County from transportation- generated pollution. Specifically, the Orange County Local Transportation Authority's Ordinance No. 3 (M2 Ordinance) dated July 24, 2006, provides 2 percent of gross M2 revenue dedicated to protecting Orange County beaches and waterways from the conveyance of urban runoff associated with transportation-generated pollution. The M2 ECP ensures that funds will be used on a countywide competitive basis to meet federal Clean Water Act standards for controlling transportation-generated pollution by funding nationally recognized Best Management Practices (BMPs).

As required by the M2 Ordinance, an Environmental Cleanup Allocation Committee (ECAC), representing a broad cross-section of the water quality community, was formed in October 2007 to provide guidance on program design and funding. The goal of the ECP is to fund projects on a countywide, competitive basis. This will assist the County of Orange and Orange County cities in reducing transportation-related water quality pollution by meeting Clean Water Act standards for local waterways and beaches.

Proposed projects must demonstrate a direct nexus (connection) to a reduction of transportation-related pollution as developed and defined by the ECAC in conformity with the M2 Ordinance. All proposing agencies must demonstrate an understanding of how their proposed projects meet the following transportation pollution nexus definition:

- Transportation-related activities can be a contributor of pollutants and/or impairments to receiving waters via aerial deposition, storm, and non-storm water discharges. Transportation-related activities are associated with the operation, construction, and maintenance of public roads, highways, and other ground transportation systems.
- The conveyance of transportation-related pollutants to surface and groundwater can occur from precipitation, runoff, and leaching entering or discharging from public roads, highways, and other ground transportation systems via drainage systems, such as catch basins, curbs, gutters, ditches, manmade channels, retention basins, or storm drains. The quality and quantity of these discharges vary considerably and are affected by hydrology, geology, land use, season, and sequence and discharge of hydrologic events.
- Pollutant sources can encompass right-of-way, properties, facilities, and activities related to motor vehicles, highway maintenance, construction site runoff, maintenance facility runoff, illegal dumping, spills, and landscaping care. Pollutant categories include, but are not limited to metals (such as copper, lead, and zinc), organic chemicals and compounds (hydrocarbons and pesticides), sediment, nutrients (nitrogen and phosphorus), litter, oxygen demanding substances (decaying

vegetation, animal waste, and other organic matter), groundwater dewatering discharges, and pathogenic material.

The M2 ECP funds are designed to supplement, not supplant, existing water quality programs. Proposed projects must improve and not replace existing pollution reduction efforts by an eligible party. Funds will be awarded to the most competitive projects with the highest benefit to water quality.

The intent of the ECP is to provide funding for water quality projects that do not replace existing transportation water quality expenditures. In other words, if a project has components which would replace features already in place or which would fulfill project specific mitigation, those components would not be eligible for M2 funding consideration. Some upgrades and expansions may be eligible. The eligibility of the project and its components will be determined during the evaluation process. Contact the Program Manager for details.

In May 2010, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved a two-tiered approach to fund the M2 ECP. Specifically, the funding plan called for up to $19.5 million in Tier 1 grants on a "pay-as-you-go" basis through fiscal year (FY) 2017-18, and up to $38 million in Tier 2 grants via bonding through FY 2014-15.

Section 12.1 – Tier 1 Grant Program

Overview

The Tier 1 Grant Program is designed to mitigate the more visible forms of pollutants, such as litter and debris, which collect on the roadways and in the catch basins (storm drains) prior to being deposited in waterways and the ocean. It consists of grant funding for Orange County local governments to purchase equipment and upgrades for existing catch basins and other related BMPs (i.e., "street-scale" low flow diversion projects). Examples include screens, filters, and inserts for catch basins, as well as other devices designed to remove the above mentioned pollutants. To date, five Tier 1 calls for projects have been held. Through this process, many of the opportunities for street-scale BMPs have been fulfilled. Water quality projects, regardless of technology, are eligible for Tier 1 funding provided they have a verifiable benefit to water quality and fall within the maximum per project programming cap. The intent of this funding program is for project applicants to complete the work generally within one year from the letter agreement execution.

Tier 1 Project Types

The Tier 1 projects funded in the past include the following types. A description of each project type is provided below:

1) Automatic Retractable Screen and other debris screens or inserts: screen or insert units prevent debris from entering the storm drain system.
2) Irrigation system retrofits to reduce runoff: these projects decrease runoff from highway medians by using more efficient irrigation systems and/or replacing existing landscape to reduce the amount of water used in irrigation.
3) Continuous Deflection Separator (CDS): CDS units screen, separate, and trap debris, sediment, oil, and grease from storm water runoff.
4) Linear Radial Gross Solid Removal Device (GSRD): GSRDs are certified full capture systems which efficiently remove large solids from runoff water flows.
5) Marina Trash Skimmer: these devices draw in floating debris, such as plastics, bottles, paper, oil sheen, and drift wood. The installation of marina trash skimmers will reduce the amount of trash and debris reaching the open ocean.
6) Bioswales and Bioretention systems: pollutants and sedimentation are captured and subsequently removed from stormwater runoff.
7) Trash Boom: a floating boom placed across a channel captures trash and debris that have reached flood channels from being further conveyed to downstream receiving waters.

Pre-Application Process

In order to ensure the best use of M2 funds and assist eligible jurisdictions with the Tier 1 Grant Program, applicants may engage in a pre-application process with OCTA staff in project planning, cost estimate development, and determination of likely projected competitiveness. Specific meeting times will be established once the call is initiated. Subsequent to the call for projects deadline and submittal of the grant application, applicants will not be able to change the content of the application or scope of the project.

Eligible Applicants

ECP funds can be used to implement street and highway-related water quality improvement projects to assist Orange County cities and the County of Orange to meet federal Clean Water Act standards for urban runoff. Applicants eligible for ECP funds include the 34 Orange County cities plus the County of Orange. Eligible applicants must meet the transportation requirements discussed in the M2 Ordinance.

Third parties, such as water and wastewater public entities, environmental resource organizations, nonprofit 501(c) environmental institutions, and homeowners associations cannot act as the lead agency for a proposed project, however; these agencies can jointly apply with an Orange County city and/or the County of Orange.

Two or more agencies may participate in a project. If a joint application among agencies and/or third party entities is submitted, a preliminary agreement with joint or third party entities must be provided as part of the application. In order to meet M2 Ordinance requirements, an eligible applicant must be the lead agency for the funding application. Per Chapter 9, if a project includes more than one jurisdiction and is being submitted as a joint application, one agency shall act as lead agency and must provide a resolution of support from all joint applicants.

Each eligible jurisdiction must meet the eligibility criteria as set forth in Chapter 1 of these guidelines.

Project Programming

The Tier 1 Grant Program approach is designed to be consistent with Chapter 2 of these Comprehensive Transportation Funding Program (CTFP) Guidelines regarding the provisions below:

- Program Consolidation
- Funding Projections
- Programming Adjustments
- Project Cost Escalation
- Programming Policies

- Schedule Change Requests
- Project Advancements
- Semi-Annual Review

Refer to Chapter 2 for explanations of the above provisions.

Funding Estimates

A total of up to $19.5 million is available for the Tier 1 Grant Program over a seven-year window from FY 2011-12 through FY 2017-18. Approximately $3.1 million is available for the 2017 Tier 1 call for projects.

The maximum amount for the Tier 1 Grant Program is $500,000 per project. The maximum amount that an applicant can receive in a funding period is $500,000.

Matching Funds

For the Tier 1 Grant Program, a minimum local match of 20 percent of the eligible project cost is required. The matching funds shall be provided as a cash contribution.

Retroactive expenditures cannot be credited towards the matching fund threshold.

Overmatch

For the Tier 1 Grant Program, administering agencies may "overmatch" ECP projects; that is, additional cash match may be provided for the project. Applicants will receive additional points in the evaluation process for matching with cash above the minimum requirement. Proposals that exceed the 20 percent minimum funding match will be given an additional one-half point for every five percent over the minimum cash match (up to five bonus points).

Additionally, administering agencies must commit to cover any future cost overruns if the project is underfunded. Any work not eligible for ECP reimbursement must be funded by other means by the project applicant and cannot count as match. These non-eligible items should not be included in the cost estimate breakdown in the application.

Reimbursements

For the Tier 1 Grant Program, OCTA will release funds through two payments. The initial payment will constitute 75 percent of the contract award or programmed amount at contract award. OCTA will disburse the final payment, approximately 25 percent of eligible funds, after approval of the final report. Further information on reimbursements can be located within Chapter 10 of these Guidelines.

Scope Reductions/Modifications and Cost Savings

Any proposed scope reductions of an approved project must be submitted to OCTA to ensure consistency with the Tier 1 Grant Program requirements. If the proposed scope reduction is approved by OCTA, cost savings will be proportionally shared between OCTA

and the grantee - a reduction in ECP funds must be applied proportionally to maintain the approved local match percentage. All cost savings will be returned to the Tier 1 Grant Program for reallocation for the subsequent call of projects.

Any minor scope modifications, such as BMP device quantities and/or the adjustment of device locations, must be submitted to OCTA for administrative approval prior to the implementation of the project. The proposed modifications must mitigate the same pollutants, affect the same waterways, and meet all other provisions as stipulated in these guidelines.

2017 Tier 1 Call for Projects

2017 Tier 1 Call for Projects applications must be received by OCTA **no later than 5:00 PM, May 17, 2017**. Projects that do not award construction contracts by June 30, 2018 will not be considered. OCTA allocates funds on July 1 of each year. Tier 1 projects are not eligible for delay requests, please refer to precept number 17 for additional information. Funds will become available upon execution of a letter agreement.

After the Tier 1 applications are reviewed by OCTA, an advisory panel will review and rank projects. Following a review by the ECAC, a recommended priority list of projects will be forwarded to the OCTA Board for approval in summer 2017. Funds allocated for projects are final once approved by the OCTA Board. No additional funds will be allocated to the project. Grantees are responsible for any costs exceeding the allocated amount.

Tier 1 Selection Criteria

OCTA will evaluate all proposals that meet the mandatory prerequisites based on competitive selection criteria (Exhibit 12-1) with the following categories:

- Problem and source identification
- Project design
- Operations and maintenance
- Project benefits
- Performance metrics
- Project implementation and readiness
- Secondary attributes*

*Note: Project elements which may qualify for points under the "secondary attributes" category do not need to be eligible expenditures. See Eligible Expenditures and Ineligible Expenditures sections for further information.

Each proposal can receive a maximum of 100 points, exclusive of ten bonus points associated with up to five points related to a cash overmatch, and up to five points related to eligible agencies that have previously funded the implementation of structural BMP's to mitigate pollutant loading. Previous projects funded by M2 Competitive Grant funds cannot be used for bonus points consideration. Proof of documentation such as invoices or payment request must be available on the purchase of the equipment or services provided by vendors. The latter bonus points are based on the ECAC's recommendations that previous local funding of structural BMPs should be acknowledged and rewarded. See Exhibit 12-1 for scoring categories and point distribution.

Exhibit 12-1 (Tier 1 Scoring Criteria)

Scoring Criteria	Points Possible
1. Describe the need for the selected BMP(s), including nexus to transportation pollutants, and detail the benefits to water quality the BMP(s) will achieve. (up to 15 Points)	**15**
2. List each receiving waterway associated with this project. If the receiving waterway is on the 303(d) list of impaired waters, identify the pollutant(s) for which it is listed. (2 points per waterway; 3 points if waterway is 303(d) listed, up to 12 points)	**12**
3. List the pollutant(s) that would be addressed by the proposed project *and* the source(s) generating those pollutants. (2 points per pollutant and source, 3 points if the addressed pollutant is on the 303(d) list for any receiving waterways identified in Question 2, up to 16 points)	**16**
4. How effective will the proposed project be in dealing with the more visible forms of pollutants, such as a litter and debris? (up to 10 points)	**10**
5. What other BMP types were considered for this project? Why was the proposed BMP chosen? (5 points)	**5**
6. Provide information on proposed BMP performance efficiency and/or effectiveness, including pollutant capture, storage capacity, flow capacity, etc. (up to 6 points)	**6**
7. Project Readiness: The project schedule will be reviewed by the evaluation committee to determine when the proposed BMP will be operational following the OCTA Board of Directors approval. (up to 6 points): Less than 4 Months (6 points) 4 - 8 months (4 points) 8 - 12 months (2 points) More than 12 months (1 point)	**6**
8. Secondary Attributes: Will the proposed project provide any benefits beyond water quality improvement (i.e., water use efficiency, public awareness, flooding control, recreation, habitat, sustainability)? (up to 5 points)	**5**
9. What is the methodology for measuring pollutant reduction before and after the BMP is implemented? How frequently will monitoring and performance assessment occur? (up to 10 points)	**10**
10. Provide an operations and maintenance plan for the lifespan of the proposed project. Include schedule of inspections, cleaning, removal and disposal of pollutants, repairs, etc. (up to 15 points)	**15**
	100
11. **BONUS:** How many different Tier 1 type BMPs are currently installed within the local agency's jurisdiction, excluding BMPs funded by previous ECP grants. (1 point per BMP type, up to 5 points)	**5**
12. **BONUS:** Are local matching funds in excess of the 20% minimum cash being proposed? If yes, at what percentage? (.5 point for each 5% cash overmatch, up to 5 points) Note: overmatch bonus points can only be granted to projects with a cash match.	**5**
	110

Application Process

The following information, which is to be completed within the Tier 1 Grant Application Form, available electronically from OCTA, is required to evaluate and select projects. A checklist is included in the Tier 1 Grant Application Form to assist eligible agencies in assembling project proposals. The following project information will be necessary as part of the application process:

- Project Title
- Lead Agency Information
- Joint-Application (if applicable)
- Proposed Schedule
- Project Management
- Description and Scope of Proposed Project
- Integrated Regional Water Management Plan identification (if applicable)
- Water Bodies and 303(d) Listings
- Project Readiness
- Performance Metrics
- Detailed Project Estimate

In addition to the completed Tier 1 Grant Application, the following documentation is required as part of the application process:

- Project design or concept drawings, including preliminary design calculations, of proposed BMP
- Precise maps to show tributary drainage area and proposed location(s) for BMP installation
- Digital project site photos
- Project master schedule
- Preliminary agreements with joint and/or third party entities if part of the funding application
- A city council resolution. A final resolution authorizing request for funding consideration with a commitment of local match funding must be provided with the project application. **If a *draft* copy of the resolution is provided, the local agency must also provide the date the resolution will be finalized by the local agency's governing body.** A final copy of the City Council approved resolution must be provided at least four (4) weeks **PRIOR** to the consideration of programming recommendations by OCTA's Board.

For the Tier 1 Grant Program, an unbound original and two copies (total of three) of the completed application form and supporting documentation are to be submitted, plus a

CD/DVD copy of the complete application materials. Use separate sheets of paper if necessary.

There is no maximum length for proposals. All pages must be numbered and printed on 8 1/2 x 11 sheets of white paper. Maps and drawings can be included on 11 x 17 sheets, folded into the proposal. The original proposal should be left unbound for reproduction purposes.

Exhibit 12-2 (Tier 1 Sample Resolution)

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL/BOARD OF THE CITY/COUNTY OF _____

AUTHORIZING AN APPLICATION FOR FUNDS FOR THE ENVIRONMENTAL CLEANUP, TIER 1 GRANT PROGRAM UNDER ORANGE COUNTY LOCAL TRANSPORTATION ORDINANCE NO. 3 FOR (PROJECT NAME).

WHEREAS, Orange County Local Transportation Ordinance No.3, dated July 24, 2006, and is known and cited as the Renewed Measure M Transportation Ordinance and Investment Plan makes funds available through the Environmental Cleanup Program to help protect Orange County beaches and waterways from transportation-generated pollution (urban runoff) and improve overall water quality.

WHEREAS, the Environmental Cleanup, Tier 1 Grant Program consists of funding purchases and installation to catch basins with Best Management Practices, such as screens, filters, inserts, and other "street-scale" low flow diversion projects.

WHEREAS, OCTA has established the procedures and criteria for reviewing proposals; and

WHEREAS, (ADMINISTERING AGENCY) possesses authority to nominate water quality improvement projects that have a transportation pollution nexus to finance and construct the proposed project; and

WHEREAS, by formal action the (GOVERNING BODY) authorizes the nomination of (PROJECT NAME), including all understanding and assurances contained therein, and authorizes the person identified as the official representative of the (ADMINISTERING AGENCY) to act in connection with the nomination and to provide such additional information as may be required; and

WHEREAS, the (ADMINISTERING AGENCY) will maintain and operate the equipment acquired and installed; and

WHEREAS, the (ADMINISTERING AGENCY) will give OCTA's representatives access to and the right to examine all records, books, papers or documents related to the funded Tier 1 Grant Project; and

WHEREAS, the (ADMINISTERING AGENCY) will cause work on the project to be commenced within a reasonable time after receipt of notification from OCTA and that the project will be carried to completion with reasonable diligence; and

WHEREAS, the (ADMINISTERING AGENCY) will comply where applicable with provisions of the California Environmental Quality Act, the National Environmental Policy Act, the American with Disabilities Act, and any other federal, state, and/or local laws, rules and/or regulations;

WHEREAS, the (ADMINSTERING AGENCY) must include all projects funded by Net Revenues in the seven-year Capital Improvement Program as part of the Renewed Measure M Ordinance eligibility requirement.

WHEREAS, the (ADMINSTERING AGENCY) authorizes a formal amendment to the seven-year Capital Improvement Program to add projects approved for funding upon approval from the Orange County Transportation Authority Board of Directors.

WHEREAS, the City/County of _____ will provide a minimum of 20% in matching funds for the (PROJECT NAME) as required by the Orange County Comprehensive Transportation Funding Programs Guidelines.

NOW, THEREFORE, BE IT RESOLVED that the City/County of _____ hereby authorizes (NAME OF AGENCY REPRESENTATIVE) as the official representative of the (ADMINISTERING AGENCY) to accept funds for the Environmental Cleanup, Tier 1 Grant Program for (PROJECT NAME).

BE IT FURTHER RESOLVED that the City/County of _____ agrees to fund its share of the project costs and any additional costs over the identified programmed amount.

Eligible Expenditures

- ECP funds must be for capital improvement. Construction management and project management cannot exceed 15 percent of the total construction costs.
- ECP funds can only be used for facilities that are in public ownership for public use; however, water quality improvements on private property, which are connected to municipal separate storm sewer systems, are eligible. (For example, a homeowner association can apply for funding through an eligible agency if the proposed project is connected to a public facility.)
- Reducing volume of surface flows is an integral factor of improving water quality, therefore, projects that have water-saving features (i.e., drip systems) are eligible for funding considerations.

Ineligible Expenditures

- Operations and maintenance costs are not eligible expenditures. Operations and maintenance costs cannot be utilized as a source of matching funds.
- ECP funds are not to be used for planning.
- Expenditures prior to the grantee executed letter agreement date cannot be considered eligible for funding or match.
- Landscaping installation and replacement are not eligible for funding consideration.
- Capital equipment purchases related to regular on-going street maintenance efforts, including, but not limited to: trash receptacles, vacuum trucks and/or equipment, street sweepers, signage, etc.

Reporting and Reimbursement

A final report must be filed within 180 days of the project being completed with information as shown in Form 10-16. See Chapter 10 for the process and requirements regarding reimbursements and reporting for the Tier 1 Grant Program.

Additionally, an exception to Precept #36: Agencies may appeal to the ECAC and the OCTA Board on any issues that the agency and OCTA cannot resolve, as such are the approving bodies for this program.

Technical and/or Field Review

Once an agency submits a final report for a project, OCTA shall review the report for compliance with the CTFP guidelines and may conduct a field review. OCTA will use the project cost estimate forms submitted with the application and revised where appropriate, project accounting records and the final report as the primary items to conduct the review. Agencies must maintain separate records for projects (i.e., expenditures, interest) to ensure compliance. Only CTFP eligible items listed on a project's cost estimate form

will be reimbursed. See Chapter 11 for independent audit requirements beyond the technical and/or field review.

Additional Information

Completed applications and questions regarding these procedures and criteria should be directed to:

By mail:
Sam Kaur
Orange County Transportation Authority
P.O. Box 14184
Orange, CA 92863-1584
Tel: (714) 560-5907
Fax: (714) 560-5673

In person:
Orange County Transportation Authority
600 South Main Street
Orange, CA 92863-1584

Section 12.2 - Tier 2 Grant Program

The Tier 2 Grant Program consists of funding larger (projects treating catchment areas of 50 acres or greater), potentially multi-jurisdictional, capital-intensive structural treatment best management practice (BMP) projects. Proposed projects covering smaller catchment areas which are otherwise eligible are not prohibited from the application process and will be regarded as eligible for consideration if the proposed project can demonstrate highly significant water quality improvement benefits (greater than other competing larger scale proposed projects) and cost-effectiveness under the scoring criteria guidelines. Tier 2 funds are designed to fund large-scale BMP construction projects. Examples include constructed wetlands, detention/infiltration basins and other large-scale BMPs that mitigate litter and debris, heavy metals, organic chemicals, sediment, nutrients, and other transportation-related pollutants. Funds will be awarded through a competitive grant process geared towards awarding funds to the highest scoring, most cost-effective projects.

Pre-Application Process

In order to facilitate a jurisdiction's best use of the Environmental Cleanup Program, Project X (ECP) funds, Tier 2 applicants may engage in a pre-application process with the Orange County Transportation Authority (OCTA) staff in order to assist jurisdictions in project planning, proposal and cost estimate development, and determination of likely projected competitiveness in the scoring criteria. The pre-application timeframe is defined as the time between the initiation of the call for projects (call) and one week prior to the application deadline date. Subsequent to the call deadline, applicants will not be able to change the content of their application or scope of the project.

Eligible Applicants

ECP funds can be used to implement street and highway-related water quality improvement projects to assist Orange County cities and the County of Orange to meet federal Clean Water Act standards for urban runoff. Applicants eligible for ECP funds include the 34 Orange County cities plus the County of Orange. Eligible applicants must meet the transportation requirements discussed in the Measure M2 (M2) Ordinance.

For Tier 2 multi-agency collaborations, M2 eligible jurisdictions may partner with other entities such as special districts and non-profits, but the lead agency must be an M2 eligible jurisdiction.

Third parties, such as water and wastewater public entities, environmental resource organizations, non-profit 501(c) environmental institutions, and homeowners' associations cannot act as the lead agency for a proposed project, however; these agencies can jointly apply with an M2 eligible Orange County city and/or the County of Orange. Joint applicants must contribute to the project in some capacity (monetary contribution, time contribution, etc).

Two or more agencies may participate in a project. If a joint application among agencies and/or third party entities is submitted, a preliminary agreement with joint or third party entities must be provided as part of the application. In order to meet M2 Ordinance requirements, an eligible applicant must be the lead agency for the funding application. Per Chapter 9, if a project includes more than one jurisdiction and is being submitted as a joint application, one agency shall act as lead agency and must provide a resolution of support from the other agency. In addition, the applicant shall provide a schedule by which the lead agency will obtain a final agreement with a third party. The final agreement must be executed prior to contract award date.

Each eligible jurisdiction must meet the eligibility criteria as set forth in Chapter 1 of the Combined Transportation Funding Program (CTFP) Guidelines. For example, to apply for CTFP programs, local agencies must fulfill an annual eligibility process. Eligibility packages are due to OCTA by June 30 of each year. The M2 Eligibility Preparation Manual outlines the eligibility requirements in detail.

In order for an applicant to accept ECP funding for their proposed project OCTA has certain requirements that must be met. These requirements include adhering to the OCTA CTFP Guidelines; meeting a ten-year BMP operations and maintenance (O&M) commitment; and commitment to maintain and monitor the project commensurate with the design life.

Project Programming

The Tier 2 Grant Program is designed to be consistent in terms of approach with Chapter 2 of this CTFP Guidelines regarding the provisions below:

- Program Consolidation
- Sequential Programming Process
- Funding Projections
- Programming Adjustments
- Project Cost Escalation
- Project Readiness
- Programming Policies
- Schedule Change Requests
- Project Advancements
- Semi-Annual Review

Refer to Chapter 2 for explanation of the above provisions.

Funding Estimates

The Tier 2 program was funded beginning in winter 2012-13 using bond financing revenues with up to $38 million allocated through fiscal year (FY) 2014-15. Beyond FY 2014-15, funding will be based on a pay-as-you-go basis. The maximum amount that

an individual project may receive of the initial $38 million in Tier 2 funding is capped at $5 million per project.

For the second Tier 2 call, approximately $24.7 million is expected to be available. Applicants may request allocation of funds in either FY 2013-14 or FY 2014-15. Depending on the outcome of the first two Tier 2 calls, there may be a third call if there are residual funds available after the first two calls.

FY 2013-14 Tier 2 Implementation Timeline

The Tier 2 call will be open for 90 days. The FY 2013-14 Tier 2 applications must be received by OCTA **no later than 5:00 PM, September 20, 2013**. OCTA is seeking applications for projects, which can be awarded no later than June 30, 2014 for the FY 2013-14 funding cycle, or by June 30, 2015 for the FY 2014-15 funding cycle. Projects that do not obligate funds by the dates/cycles listed above will not be considered. Funds allocated by OCTA for each awarded project will be available on July 1st of that funding cycle year.

After the Tier 2 applications are reviewed by OCTA, an advisory panel will review and rank projects. Following review and recommendation by the Environmental Cleanup Allocation Committee (ECAC), a recommended priority list of projects will be forwarded to the OCTA Board for approval. Funds allocated for projects are final once approved by the OCTA Board of Directors (Board). No additional funds will be allocated to the project. Grantees are responsible for any costs exceeding the allocated amount.

Matching Funds

For the Tier 2 Grant Program, a minimum local match of fifty (50) percent of the project phase cost is required. These matching funds can be provided by cash contributions or in-kind services. Construction management and project management cannot exceed 15 percent of construction costs. Previously completed phases of a project may not be attributed to the match. Prior expenditures cannot be used as matching funds. In-kind services can include salaries and benefits for employees who work directly on the project. In-kind services for O&M cannot be pledged as a match.

Potential to reduce matching funds up to 30 percent

- Project readiness (i.e., environmental [5 percent], design [5 percent] or right-of-way (ROW) acquisition (5 percent) – up to 15 percent reduction. Note: 5 percent match reduction for ROW acquisition cannot be claimed if no ROW acquisition is required for the project.
- O&M commitment beyond ten years: Five years above commitment for a total of 15 years (10 percent reduction) or ten years above commitment for a total of 20 years (15 percent reduction).

If a joint application among agencies and/or third party entities is submitted, matching funds documentation must clearly identify the entity providing the funds for each line

item in the matching funds description. Additionally, preliminary agreements are required to be submitted with the grant application that contains the matching funds commitments from a supporting agency.

Applicants must submit a draft BMP O&M Plan covering a minimum of ten years after project completion. The BMP O&M Plan must document (through a resolution) project O&M financial commitment and sustainability for ten years and is subject to an OCTA semi-annual (twice yearly) review process over the ten-year period. BMP O&M costs cannot be used for the match or in-kind services. Applicants must include as part of the O&M Plan project assessment and monitoring of performance. A documented 15- or 20-year draft BMP O&M Plan (submitted with application) will be eligible for a 10 percent or 15 percent matching funds reduction, respectively. Please refer to the County of Los Angeles Stormwater Best Management Practice Design and Maintenance Manual <http://dpw.lacounty.gov/DES/design_manuals/> for guidance.

Refer to Chapter 10 for reimbursement details. Sufficient documentation including council resolutions, purchase orders, invoices, and payroll records must be submitted with the funding request to enable OCTA to verify total project expenditures and eligible costs.

Matching rate commitments identified in the project grant application shall remain constant throughout the project. Match rate commitments may not be reduced for any reason.

Eligible Expenditures

- ECP funds are designed to fund capital improvements. Tier 2 funds are designed to be strictly used for project construction costs, although up to ten percent of total grant amount (i.e., funds requested) may be allocated to preliminary project design, environmental, or engineering costs.
- Tier 2 projects must meet the transportation nexus as outlined previously in this chapter.
- Eligible jurisdictions may use in-kind services to meet all or part of the matching funds requirement. These services can include salaries and benefits for employees of the eligible jurisdiction who perform work on the project or programs. Only those employees' salaries and benefits working directly on the project will be considered for the matching requirement. For Tier 2, construction management and project management cannot exceed 15 percent of the total construction costs.
- ECP funds can only be used for facilities that are in public ownership for public use; however, water quality improvements on private property, which are connected to municipal separate storm sewer systems, are eligible (For example, a homeowner's association can apply for funding through an eligible agency if the proposed project is connected to a public facility).

Ineligible Expenditures (including, but not limited to)

- Non-capital expenses for enhancements such as education, recreation, etc. are not eligible for Tier 2 grant funding.
- Expenditures prior to letter agreement execution cannot be considered eligible for funding or match.
- Benches
- Landscaping not directly related to improving water quality
- Trails/sidewalks, unless contributing to water quality improvement
- Lighting
- O&A (as in-kind match)
- Planning activities beyond ten percent of grant request
- Replacement of existing water quality features

Overmatch

For the Tier 2 Grant Program, administering agencies may "overmatch" ECP projects (up to 25 percent); that is, additional cash match dollars may be provided for the project. Applicants will receive additional points in the evaluation process for over matching with cash contributions. Proposals that exceed the 50 percent minimum funding match will be given an additional one point for every five percent over the minimum cash match (up to five bonus points). Overmatch must be a cash contribution and cannot be from another competitive M2 grant program.

Additionally, administering agencies must commit to cover any future cost overruns if the project is underfunded. Any work not eligible for ECP reimbursement must be funded by other means by the project applicant and cannot count as match. These non-eligible items should not be included in the cost estimate breakdown in the application.

Expenditures incurred prior to letter agreement execution cannot be credited towards the matching fund threshold.

Reimbursements

For the Tier 2 Grant Program, OCTA will release funds through two payments. The initial payment will constitute 75 percent of the contract award or programmed amount at time of award. OCTA will disburse the final payment, approximately, 25 percent of eligible funds, after approval of the final report. Further information on reimbursements can be located within Chapter 10 of the CTFP Guidelines.

Scope Reductions and Cost Savings

Any proposed scope reductions of an approved project must be submitted to OCTA to ensure consistency with the Tier 2 Grant Program requirements. If the proposed scope reduction is approved by OCTA, cost savings will be proportionally shared between OCTA and the grantee. A reduction in ECP funds must be applied proportionally to maintain the approved local match percentage. All cost savings will be returned to the Tier 2 Grant Program for reallocation for the subsequent call.

Tier 2 Selection Criteria

OCTA will evaluate all proposals that meet the mandatory prerequisites based on competitive selection criteria with the following categories:

- Problem and source identification
- Project design
- Project implementation and readiness
- Project benefits
- Performance metrics

Each proposal can receive a maximum of 100 points, exclusive of five bonus points associated with a cash "overmatch," which was discussed in a previous section. Tier 2 selection criteria include both technical scoring criteria –70 percent weighting – and non-technical scoring criteria –30 percent weighting.

A focus on several overarching concepts is emphasized in the funding guidelines and scoring criteria:

- Focus on a clear and measureable transportation nexus, defined as total lane miles in the project catchment area, as defined by the Master Plan of Arterial Highways
- Priority in the scoring criteria is given to projects in areas of highest water quality need, as established by predicted pollutant loading, receiving water monitoring, and the extent of impairment of receiving waters s (i.e., higher priority given to 303(d) listed water bodies or project in a water quality plan)
- Quantification of project benefits where possible in terms of a load reduction metric (pollutants or water volumes), expressed in terms of cost-benefit
- Emphasis on project readiness, and ability to leverage funding
- Emphasis on other regional and environmental benefits
- Emphasis on multi-jurisdictional and public benefits

Application Process

The following information, which is to be completed within the Tier 2 Grant Application Form (Exhibit 12-2), is required by OCTA to evaluate and select projects. A checklist is included in the Tier 2 Grant Application Form to assist eligible agencies in assembling project proposals:

- Project Title
- Lead Agency Information
- Joint-Application (if applicable)
- Funding Request/Match Commitment
- Proposed Schedule
- Project Management
- Integrated Regional Water Management Plan identification (if applicable)

- Description of Proposed Project
- Project Priority
- Funding Cycle preference
- Performance Metrics (Project Specific Information)
- Funding Information

In addition, the following exhibits are required to be included within the submitted proposal:

- Project design or concept drawings, including preliminary design calculations, of proposed BMP
- Estimates of pollutant load reduction, calculated using Structural BMP Prioritization Analysis Tool (SBPAT) or equivalent
- Precise maps to show tributary drainage area and proposed location(s) for BMP installation
- Disposition of environmental clearance and permitting
- Discussion and disposition of long term maintenance agreement
- Discussion of multiple benefits
- Discussion of funding leveraging/overmatch
- Digital project site photos
- A project master schedule
- Preliminary agreements with joint and/or third party entities if part of the funding application
- A draft resolution (final due prior to OCTA Executive Committee and Board approval)
- A ten-year draft BMP O&M Plan. Applicants may propose up to a 20 draft year BMP O&M Plan (if applicant desires match reduction)

Information can be completed utilizing the grant application exhibit. For the Tier 2 Grant Program, an unbound original and two copies (total of three) of the completed application form and related exhibits are to be submitted, plus a CD/DVD copy of the complete application. Use separate sheets of paper if necessary.

There is no maximum length for proposals. All pages must be numbered and printed on 8 1/2 x 11 sheets of white paper. Maps and drawings can be included on 11 x 17 sheets, folded into the proposal. *The original proposal should be left unbound for reproduction purposes.*

Reporting and Reimbursement

The Tier 2 Grant Program is consistent with Chapter 10 of the CTFP Guidelines regarding the process and requirements of reimbursements and reporting including semi-annual

reviews. Upon completion of project construction, a final BMP O&M Plan is required to be submitted along with the final report.

Additionally, an exception to Precept #36: Agencies may appeal to the ECAC and the OCTA Board on any issues that the agency and OCTA cannot resolve.

Technical and/or Field Review

Once an agency submits a final report for a project, OCTA shall review the report for compliance with the CTFP Guidelines and may conduct a field review. OCTA will use the project cost estimate forms submitted with the application and revised where appropriate, project accounting records and the final report as the primary items to conduct the review. Agencies must maintain separate records for projects (i.e., expenditures, interest) to ensure compliance. Only CTFP eligible items listed on a project's cost estimate form will be reimbursed. See Chapter 11 for independent audit requirements beyond the technical and/or field review.

Additional Information

Completed applications and questions regarding these procedures and criteria should be directed to:

By mail:
Dan Phu
Orange County Transportation Authority
P.O. Box 14184
Orange, CA 92863-1584
Tel: (714) 560-5907
Fax: (714) 560-5794

In person:
Orange County Transportation Authority
600 South Main Street
Orange, CA 92863-1584

Exhibit 12-3

ECP Tier 2 Grant Application

Project Title: _____

Lead Agency Information (Project Administrator responsible for day-to-day project implementation) Name: Title: Address: Phone: Email:	**FUNDING/MATCH SUMMARY** TOTAL PROJECT COST (TPC) $_____ Complete section "i." on next page to calculate amounts below TOTAL FUNDS REQUESTED APPLICANT MATCH % (50% min. minus reductions) OVERMATCH COMMITMENT (must be cash and cannot be from a competitive M2 grant program) APPLICANT MATCH AMOUNT Project is part of a larger effort (circle)	 $_____ _____% _____% $_____ Yes / No
Joint Applicant / Third Party: Name: Title: Agency: Address: Phone: Email:	**Joint Applicant / Third Party:** Name: Title: Agency: Address: Phone: Email:	**Joint Applicant / Third Party:** Name: Title: Agency: Address: Phone: Email:

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

i. Funding Request/Match Commitment:

Total Funds Requested ($5 million max)	**$**_____	
Match Reduction Percentages (30% max)* Project Readiness up to 15% Draft Operations and Maintenance (O&M) Plan up to 15%	**Applicant Match**	**Match Calculation**
• Minimum Required Match Percent (50% of the total eligible project cost)	50%	50%
Project Readiness (check box if applicable) ☐ CEQA Certification (must be certified) ☐ Construction Documents Complete ☐ ROW Acquired (only if required for this project)	 5% reduction 5% reduction 5% reduction	 Subtract ____% Subtract ____% Subtract ____%
Draft O&M Plan (10-year Plan Required) • O&M Beyond 10 years: 15 years (10% reduction) or 20 years (15% reduction)	10% or 15% reduction	Subtract ____%
Calculated Applicant Match Percentage	_____%	
Applicant Overmatch Percentage (must be cash and cannot be from a competitive M2 grant program; see Part Two, #7)	_____%	
Applicant Match Amount (Total Eligible Project Cost x Match Percentage)	$_____	
Estimated Eligible Grant Funded Expenditures**	**Amount**	**Percentage**
• Construction	$_____	_____%
• Project Management/Construction Management (max 15% of Construction Cost)	$_____	_____%
• Preliminary Project Design, Environmental, & Engineering (max 10% of Total Funds Requested)	$_____	_____%
Total Eligible Expenditures (Cannot exceed total funds requested plus match amount)	$_____	

* Match reduction(s) require verification by evaluation committee.

** Provide if available. This information will be required for payment verification at time of invoicing.

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

i. Proposed Schedule: Provide an estimate of the project's proposed schedule:

	Start Date	Completion Date
Third Party/Joint Applicant Agreement (must be executed prior to contract award date)		
Environmental Document		
Design and Permitting (if applicable)		
ROW (if applicable)		
Award of Contract		
Construction		
O&M (10 years minimum 15 or 20 years for match reduction)		

ii. Project Management

Provide an assessment of the management capabilities of the Applicant/Lead Agency. At a minimum, include an organization chart (as attachment), showing key project individuals who will be responsible for ensuring that the project is completed and has long-term sustainability.

iii. Partnerships

State in what capacity the joint applicant/third party will be contributing to the project (monetary contribution, time contribution, etc.) and explain the process and timing of the agreement between your agency and the joint applicant/third party.

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

i. Transportation Nexus

Describe how the project meets the transportation nexus definition. See page 12-1 and 12-2.

ii. Existing Water Quality Expenditures

Describe how the project supplements and does not supplant funding from other sources of transportation related water quality projects and programs (see Overview on page 12-1 for further details) This question may not apply to all projects.

iii. Integrated Regional Water Management Plan (IRWMP)

Is the proposed project identified in an existing IRWMP? Yes _____ No _____

iv. Description of Proposed Project

Describe the project and why it is important for controlling transportation-related pollutants to a watershed(s).

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

ii. Project Details:

INFORMATION REQUIRED	INPUT
1. Project Location (Street Address or Lat-Long)	
2. Project BMP Type (use CASQA or equivalent definition)	
3. Project Design Criteria. Select one: - Volume-based BMP (24-hour rainfall volume) - Flow-based BMP (design 1-hour intensity)	
4. Project Site Map	Provide as attachment (provide as geographic information service (GIS) file or in Google Earth format)
5. Project Tributary Drainage Area	Provide as attachment (provide as GIS file or in Google Earth format)

iii. Project Priority

If submitting an application for more than one project, is this project your agency's priority?

Yes _____ No _____

iv. Funding Cycle

If awarded funding, in which funding cycle would you like to receive funds? (Check one)

_____ FY 2013-14 (contract must be awarded by June 30, 2014 and funds would be available July 1, 2014)

_____ FY 2014-15 (contract must be awarded by June 30, 2015 and funds would be available July 1, 2015)

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

Part Two: Project Specific Information (scored)

Each proposal can receive up to 105 points, inclusive of five bonus points associated with overmatch commitment. Tier 2 selection criteria includes both technical scoring criteria (70 percent weighting) and non-technical scoring criteria (30 percent weighting)

1) Transportation Priority Index (5/100 pts – Coordination with OCTA required to determine points)

   The Transportation Priority Index (TPI) is developed based on density of roadway lane miles within pre-defined catchment areas. OCTA will provide geospatial information (through ArcGIS and/or Google Earth) that will allow applicants to establish this point score based solely on project location/address.

   ☐ Points (5 max)

   (To be completed by OCTA)

2) Water Quality Need Analysis (40/100 pts – Coordination with OCTA required to determine points)

   a) *The Environmental Cleanup Allocation Committee (ECAC) agreed upon criteria upon which water quality Catchment Prioritization Index (CPI) scores were established. CPI scores quantify water quality need using the GIS-based Structural BMP Prioritization and Analysis Tool (SBPAT) and Orange County land use and receiving water data. OCTA will provide geospatial information (through ArcGIS and/or Google Earth) that will allow applicants to establish this point score based solely on project location/address.*

   ☐ Points (30 max)

   (To be completed by OCTA)

   b) *The OCTA team reviewed County monitoring data and regulatory (303d) impairment lists to establish indices of water quality need based on receiving water quality. OCTA will provide geospatial information (through ArcGIS and/or Google Earth) that will allow applicants to establish this point score based solely on project location/address.*

   ☐ Points (10 max)

   (To be completed by OCTA)

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

3) BMP Performance (25/100 pts – **Coordination with OCTA required to determine points**)

a) For Wet Weather (25 pts), develop water quality load reduction index (WQLRI)

A	B	C *	D *
Pollutant Family	Relative Contribution to CPI Score from SBPAT Prioritization Output	Avg. Annual Load Reduction from SBPAT Analysis Output (units vary, max 100)	Weighted Load Reduction (B x C)
Volume	___%		
Metals	___%		
Bacteria	___%		
Nutrients	___%		
TSS	___%		
	___%	dimensionless WQLRI (sum)	

* OCTA to complete

WQLRI/Total Project Cost **(to be completed by OCTA)**: _____

Wet Weather Project Quantile (**to be completed by OCTA**): _____

Wet-Weather Points Allocated (**to be completed by OCTA**): _____

b) For Dry Weather (25 pts), estimate total dry-weather volume mitigated (include supplemental calculation package, including basis for estimates)

Proposed BMP Technology	
Estimated Total Dry Weather Flow Rate (cfs)	
Estimated Total Dry Weather Flow Rate Mitigated (cfs)	
Estimated Percentage of Dry-Weather Flow Removed or Avoided (MG/yr)	
Estimated Percentage of Dry-Weather Flow Treated to Water Quality Standards (MG/yr)	
Estimated Total Dry Weather Flow Volume Fully Mitigated (MG/year)	

Mitigated Dry Weather Volume/Total Project Cost
(**to be completed by OCTA**): _____

Dry-Weather Project Quantile (**to be completed by OCTA**): _____

Dry-Weather Points Allocated (**to be completed by OCTA**): _____

c) Total BMP Performance Score (**all to be completed by OCTA**)

Wet-Weather Points Allocated (from a) _____

Dry-Weather Points Allocated (from b) _____

Total Points Allocated (max 25 points) _____

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

4) Multiple-Benefits (semi-qualitative analysis) (10/100 pts max from subcategories *a, b, c, d, e*) Any benefit above and beyond water quality improvement (load reduction benefit) should be addressed in these questions. All subcategories may not apply to your project.

a) Drainage (5 points maximum)
How does the project increase levels of protection or mitigate a flooding problem?

b) Recreational (5 points maximum)
How does the project provide a recreational benefit to the community?

c) Habitat (5 points maximum)
How does the project provide a habitat benefit?

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

d) Water Resources (5 points maximum)

Is there a potential water resources sustainability benefit? Describe.

e) Other (5 points maximum)

Describe any other benefit your project provides not previously addressed in a *through* d*.*

5) Project Readiness (10 points maximum)

Describe the project's readiness (i.e., how far along is the project with regard to concept development, cost estimates, design, environmental compliance, construction documents).

Exhibit 12-3 *(continued)*

ECP Tier 2 Grant Application

6) Policy (10/100 points maximum from subcategories *a* and *b*)
   a) Multi-Jurisdictional Project with Regional Benefit (maximum 10 points)
      If the project is multi-jurisdictional, describe how it would provide a regional benefit.

   b) Community Support and Benefit (maximum 5 points)
      Community support could include but not be limited to third parties who are either directly or indirectly involved with the project. For example, if a project is located adjacent to a private development, the homeowners' association could write a letter of support for the project. Likewise, community organizations may also write letters of support for the project. Does the project have community support and how will it provide a benefit?

7) BONUS POINTS: Ability to Leverage Funding (5 points maximum, 1 point per 5%, maximum 25%)
   Will your agency provide matching funds above the minimum?

Part Three: Funding

Project Title: _____	**Phone:** _____
Contact: _____	**Email:** _____
Agency: _____	

Local Match Detail

Cash Contribution		_____
In-Kind Services *		_____
Other Grants		_____
	Total Match Commitment	$ -

Source(s) of Local Match

1. ***In-Kind Services (excluding O&M):** Salaries and benefits for employees who will perform work on the proposed project are eligible as a matching requirement. Please provide details on how in-kind services are calculated. Identify the Fiscal Year(s) of In-Kind expenditure and amount for each year. Do not use acronyms.

2. **Other grants and/or funding:** This may include fair share funds, non-ECP state or federal grant funds, local city funds, general funds, developer fees, etc. Please list the name and amount of any respective non-ECP grants that are proposed as a match. If there are other grant type(s), include the status of each.

Part Four: Tier 2 Grant Program Resolution

SAMPLE AGENCY RESOLUTION REQUESTING FUNDS FOR PROPOSED PROJECT

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL/BOARD OF THE CITY/COUNTY OF _____ AUTHORIZING AN APPLICATION FOR FUNDS FOR THE ENVIRONMENTAL CLEANUP, TIER 2 GRANT PROGRAM UNDER ORANGE COUNTY LOCAL TRANSPORTATION ORDINANCE NO. 3 FOR

(NAME OF PROPOSAL) PROJECT.

WHEREAS, Orange County Local Transportation Ordinance No.3, dated July 24, 2006, and is known and cited as the Renewed Measure M Transportation Ordinance and Investment Plan makes funds available through the Environmental Cleanup Program to help protect Orange County beaches and waterways from transportation-generated pollution (urban runoff) and improve overall water quality.

WHEREAS, the Environmental Cleanup, Tier 2 Grant Program consists of funding regional, potentially multi-jurisdictional, capital-intensive projects, such as constructed wetlands, detention/infiltration basins and bioswales, which mitigate pollutants including litter and debris, heavy metals, organic chemicals, sediment, and nutrients.

WHEREAS, OCTA has established the procedures and criteria for reviewing proposals; and

WHEREAS, (ADMINISTERING AGENCY) possesses authority to nominate water quality improvement projects that have a transportation pollution nexus to finance and construct the proposed project; and

WHEREAS, by formal action the (GOVERNING BODY) authorizes the nomination of (NAME OF PROPOSAL), including all understanding and assurances contained therein, and authorizes the person identified as the official representative of the (ADMINISTERING AGENCY) to act in connection with the nomination and to provide such additional information as may be required; and

WHEREAS, the (ADMINISTERING AGENCY) will maintain and operate the equipment acquired and installed; and

WHEREAS, the (ADMINISTERING AGENCY) will give OCTA's representatives access to and the right to examine all records, books, papers or documents related to the funded Tier 2 Grant Project; and

WHEREAS, the (ADMINISTERING AGENCY) will cause work on the project to be commenced within a reasonable time after receipt of notification from OCTA and that the project will be carried to completion with reasonable diligence; and

WHEREAS, the (ADMINISTERING AGENCY) will comply where applicable with provisions of the California Environmental Quality Act, the National Environmental Policy Act, the American with Disabilities Act, and any other federal, state, and/or local laws, rules and/or regulations;

NOW, THEREFORE, BE IT RESOLVED that the City/County of _____, hereby authorizes (NAME OF AGENCY REPRESENTATIVE) as the official representative of the (ADMINISTERING AGENCY) to accept funds for the Environmental Cleanup, Tier 2 Grant Program for (NAME OF PROPOSAL).

BE IT FURTHER RESOLVED that the City/County of _____, agrees to fund its share of the project costs and any additional costs over the identified programmed amount.

Tier 2 Checklist

Mandatory Application Items (check all items included in this package)

_____ Application (Parts 1 - 3)

_____ Environmental Document (if applicable)

_____ Preliminary Cooperative Agreement (if applicable)

_____ Project Cost Estimate

_____ Maps

_____ Design / Concept Drawing

_____ Digital Project Site Photos

_____ Project Schedule

_____ Draft Resolution

_____ Applicable Exhibits (refer to Tier 2 Guidelines)

OCTA

COMMITTEE TRANSMITTAL

August 14, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Measure M2 Environmental Cleanup Program - 2017 Tier 1 Water Quality Grant Funding Allocations

Regional Planning and Highways Committee Meeting of August 7, 2017

Present: Directors Delgleize, Do, M. Murphy, Nelson, Spitzer, and Steel
Absent: Director Donchak

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Approve the 2017 Tier 1 Environmental Cleanup Program funding recommendations to fund 16 projects, in an amount totaling $3,130,251.

OCTA

August 7, 2017

To: Regional Planning and Highways Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Measure M2 Environmental Cleanup Program – 2017 Tier 1 Water Quality Grant Funding Allocations

Overview

The Orange County Transportation Authority's Environmental Cleanup Program provides Measure M2 funding for water quality improvement projects to address transportation-generated pollution. The fiscal year 2017-18 Tier 1 Grant Program call for projects was issued on March 16, 2017. Evaluations have been completed, and a list of projects is presented for review and approval of funding allocations.

Recommendation

Approve the 2017 Tier 1 Environmental Cleanup Program funding recommendations to fund 16 projects, in an amount totaling $3,130,251.

Background

In May 2010, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved a two-tiered approach to fund the Measure M2 (M2) Environmental Cleanup Program (ECP). The funding plan called for up to $19.5 million in Tier 1 grants on a "pay-as-you-go" basis through seven funding cycles. Approximately $2.8 million has been available for each cycle of Tier 1 calls for projects (call). The fiscal year (FY) 2017-18 call is the seventh cycle.

The Tier 1 Grant Program is designed to remove the more visible forms of pollutants, such as litter and debris, which collect on roadways and in catch basins, or "storm drains", prior to being deposited in waterways and the ocean.

These funds are available for Orange County eligible local agencies to purchase equipment and upgrades for existing catch basins and other related best management practices (BMP) that supplement current requirements.

Examples include screens, filters, and inserts for catch basins, as well as other devices designed to remove the above mentioned pollutants. Proposed projects must demonstrate a direct nexus to the reduction of transportation-related pollution as developed and defined by the Environmental Cleanup Allocation Committee (ECAC).

The Board has approved funding for 138 projects through six Tier 1 calls, totaling approximately $17 million. Staff has estimated that over one million cubic feet of trash has been captured as a result of the installation of Tier 1 devices since the inception of the Tier 1 Program in 2011.

Discussion

The Board issued the FY 2017-18 Tier 1 call on March 16, 2017. Twenty-four applications were submitted from 21 cities and the County of Orange prior to the May 17, 2017 deadline (Attachment A). Applications were reviewed and evaluated by the Chairman of ECAC, an ECAC member, as well as OCTA staff. The applications were ranked based on the following Board-approved criteria:

- Proposed project's effectiveness at removing trash and debris;
- Identification of the affected waterway(s) and the pollutant(s) treated by the proposed BMP;
- Operations and maintenance plan adequate to maintain the efficiency of the proposed BMP for regularly scheduled inspections, maintenance, and cleaning/disposal of pollutants;
- Clear and detailed work plan with a specific implementation period;
- Project readiness.

The evaluation team recommends 16 projects for funding based on total points earned (Attachment B). The Tier 1 proposals recommended for funding consist primarily of catch basin and screen projects. A brief summary is provided below.

- Catch basin inserts and other debris screens or inserts (14 projects): These screens or insert units prevent debris from entering the storm drain system;
- Underground storm water detention and infiltration system (one project): Install an underground, pre-manufactured detention and infiltration system, and repave the lot utilizing pervious surfaces. Reinforced concrete storm water conveyance pipes will direct visible trash and debris to the detention system;

- Hydrodynamic separator (one project): A hydrodynamic separator is a manhole type concrete and steel structure that is effective in capturing pollutants such as trash, sediment, nutrients, and more.

As part of this grant program, local agencies agree to contribute a minimum cash match of 20 percent of the project cost. Given the amount of funding available for each call cycle and the competitive nature of this program, applications are evaluated and scored based upon the thoroughness of the responses to application questions related to water quality benefits of the proposed project. Attachment A also includes projects that were beyond the funding capacity of this cycle. Staff will continue outreach efforts to the sponsor agencies and offer assistance on how their applications can be strengthened.

Staff will also work with the ECAC to evaluate and recommend changes to the funding guidelines for the 2018 call. Guideline changes are expected to return to the Board for approval by December 2017.

Summary

The proposed programming recommendations for the M2 ECP Tier 1 Water Quality Grant Program are presented for approval. Funding for 16 projects, totaling $3,130,251, in M2 funds is proposed. Staff is seeking Board approval of the programming recommendations presented.

Attachments

A. 2017 M2 Environmental Cleanup Program Tier 1 Call for Projects – Applications Received
B. 2017 M2 Environmental Cleanup Program Tier 1 Call for Projects – Programming Recommendations

Prepared by:

Sam Kaur
Section Manager III, Local Programs
(714) 560-5673

Approved by:

Kia Mortazavi
Executive Director, Planning
(714) 560-5741

2017 M2 Environmental Cleanup Program Tier 1 Call for Projects - Applications Received

Agency	Project	Final Score	Funding	Cumulative
Placentia	Catch Basin Inserts Project - Phase IV	97	$ 160,000	$ 160,000
Buena Park	Buena Park Full Capture Catch Basin Insert Project	92	$ 302,165	$ 462,165
Yorba Linda	Arterial Roadway CPS Project	92	$ 70,400	$ 532,565
Anaheim	Modjeska Park Underground Storm Water Detention and Infiltration System	92	$ 500,000	$ 1,032,565
Tustin	City of Tustin Catch Basin Retrofit Program	87	$ 169,556	$ 1,202,121
Aliso Viejo	Aliso Viejo Stormwater Litter Control Project - Phase V	86	$ 423,396	$ 1,625,517
La Habra	Installation of Full Capture Trash Inserts in Catch Basins	85	$ 177,288	$ 1,802,805
Cypress	Catch Basin Inserts Project - CPS	84	$ 107,912	$ 1,910,717
Laguna Hills	Laguna Hills ARS Screen Project - Phase VI	82	$ 120,000	$ 2,030,717
Orange	Orangewood Avenue BioClean Unit Installation	82	$ 300,000	$ 2,330,717
Villa Park	Catch Basin Enhacement Project - Round 3	80	$ 175,000	$ 2,505,717
Lake Forest	CPS and ARS Catch Basin Retrofit - Phase VII	80	$ 106,800	$ 2,612,517
Irvine	Irvine Spectrum Catch Basin CPS Installation	77	$ 30,720	$ 2,643,237
Costa Mesa	Costa Mesa CPS Installation	76	$ 43,544	$ 2,686,781
Mission Viejo	Mission Viejo TRAP: Crown Valley to South City Limit	73	$ 278,235	$ 2,965,016
Laguna Niguel	Laguna Niguel Catch Basin Installation Project	72	$ 165,235	**$ 3,130,251**
UNFUNDED (Insufficient funding)				
Newport Beach	Polaris Drive Trash Mitigation Project	69	$ 500,000	$ 3,630,251
County of Orange	Bandalong Litter Trap and Boom System, Bolsa Chica Channel, Phase II	66	$ 500,000	$ 4,130,251
San Clemente	Trafalgar Canyon Runoff Treatment Project	65	$ 11,176	$ 4,141,427
Westminster	Beach Boulevard Median and Curb Inlet Improvement	59	$ 374,000	$ 4,515,427
UNFUNDED (Projects ineligible to receive M2 funds)				
Westminster	Premier and Barney Storm Drain System	0	$ 140,000	$ 4,655,427
San Juan Capistrano	Storm Water Treatment Project (Camino Capistrano)	0	$ 193,000	$ 4,848,427
UNFUNDED (Projects withdrawn by applicant)				
Santa Ana	Bristol Street Phase IIIA - Civic Center Drive to Washington Avenue	0	$ 240,000	$ 5,088,427
Santa Ana	Bristol Street Phase IV - Warner Avenue to Saint Andrew Place	0	$ 240,000	$ 5,328,427

Total M2 Funds Requested: $ 5,328,427

M2 - Measure M2
CPS - Connector Pipe Screen
ARS - Automatic Retractable Screen
TRAP - Trash and Runoff Abatement Project

ATTACHMENT A

2017 M2 Environmental Cleanup Program Tier 1 Call for Projects - Programming Recommendations

Agency	Project	Project Description	Final Score	Funding	Cumulative
Placentia	Catch Basin Inserts Project - Phase IV	Install automatic retractable screens and and connector pipe screens in 95 catch basins.	97	$ 160,000	$ 160,000
Buena Park	Buena Park Full Capture Catch Basin Insert Project	Install 218 catch basin inserts.	92	$ 302,165	$ 462,165
Yorba Linda	Arterial Roadway Connector Pipe Screens Project	Install 184 connector pipe screens.	92	$ 70,400	$ 532,565
Anaheim	Modjeska Park Underground Storm Water Detention & Infiltration System	Install an underground, pre-manufactured detention and infiltration system.	92	$ 500,000	$ 1,032,565
Tustin	City of Tustin Catch Basin Retrofit Program	Install 108 round curb inlet basket inserts.	87	$ 169,556	$ 1,202,121
Aliso Viejo	Aliso Viejo Stormwater Litter Control Project - Phase V	Install 290 round catch basin inserts.	86	$ 423,396	$ 1,625,517
La Habra	Installation of Full Capture Trash Inserts in Catch Basins	Install 343 connector pipe screens.	85	$ 177,288	$ 1,802,805
Cypress	Catch Basin Insterts Project - CPS	Install 218 catch basin inserts.	84	$ 107,912	$ 1,910,717
Laguna Hills	Laguna Hills ARS Screen Project - Phase VI	Install automatic retractable screens in 76 catch basins.	82	$ 120,000	$ 2,030,717
Orange	Orangewood Avenue BioClean Unit Installation	Install a hydrodynamic separator unit.	82	$ 300,000	$ 2,330,717
Villa Park	Catch Basin Enhacement Project - Round 3	Install 109 catch basin insterts.	80	$ 175,000	$ 2,505,717
Lake Forest	CPS & ARS Catch Basin Retrofit - Phase VII	Retrofit 55 catch basins with connector pipe screens and automatic retractable screens.	80	$ 106,800	$ 2,612,517
Irvine	Irvine Spectrum Catch Basin Connector Pipe Screen Installation	Install 100 connector pipe screens.	77	$ 30,720	$ 2,643,237
Costa Mesa	Costa Mesa Connector Pipe Screen Installation	Install 142 connector pipe screens.	76	$ 43,544	$ 2,686,781
Mission Viejo	Mission Viejo Trash and Runoff Abatement Project (TRAP): Crown Valley to South City Limit	Install automatic retractable screens and connector pipe screens in 54 catch basins, and conversion from spray to drip irrigation.	73	$ 278,235	$ 2,965,016
Laguna Niguel	Laguna Niguel Catch Basin Installation Project	Install 149 automatic retractable screens.	72	$ 165,235	**$ 3,130,251**

M2 - Measure M2

CPS - Connection Pipe Screen

ARS - Automatic Retractable Screen

TRAP - Trash and Runoff Abatement Project

ATTACHMENT B

August 10, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Regional Rail and Facilities Engineering Quarterly Report

Overview

The Regional Rail and Facilities Engineering departments are responsible for the Orange County Transportation Authority's rail project development, rail capital programs, rail operations, and transit facilities engineering projects. This report provides an update on rail and facilities engineering programs through the fourth quarter (April, May, and June) of fiscal year 2016-17.

Recommendation

Receive and file as an information item.

Background

The Regional Rail and Facilities Engineering departments (Departments) are responsible for implementing the Orange County Transportation Authority's (OCTA) railroad capital projects, including station parking enhancements and expansions, new station developments, expanded rail services, OC Streetcar, and transit facilities engineering. Additionally, the Departments are responsible for improved and expanded operations of Orange County's rail system by providing rail service that supports and matches the growth and development patterns of Orange County and the region.

Discussion

The report provides an update on the Departments' programs and the projects including rail capital, transit extensions to Metrolink, Regional Rail, and transit facilities engineering.

Rail Capital

Rail Capital projects include a wide range of projects necessary to sustain existing passenger rail service and support future increases in service. This includes new station developments, station parking expansions and enhancements, grade separations and grade crossing enhancements, and various other track and infrastructure projects.

Station Improvements

The Laguna Niguel/Mission Viejo Metrolink Station Improvements project provides Americans with Disabilities Act-(ADA) compliant access ramps that will replace the existing elevators. The station elevators were previously routinely out of service, requiring buses to transport passengers from one side of the station to the other. The elevator rooms are being converted to a restroom, a vending machine room, and storage rooms. The project scope also includes additional benches, shade structures, and relocation of Moulton Niguel Water District's 33-inch sewer line which is in conflict with the project. The construction notice to proceed (NTP) was issued on February 23, 2016. The contractor has completed the relocation of the sewer main and completed major concrete work including ADA ramps, walls, and stairs on both sides of the pedestrian underpass. Work continues with wall finishing, handrails and railings, restroom and vending machine room. ADA ramps are anticipated to open to the public by mid-August 2017 and complete construction by end of August 2017, with a final closeout in October 2017.

The Orange Transportation Center (OTC) parking structure project represents a long-standing effort between the City of Orange and OCTA to increase the parking capacity to accommodate future growth in ridership of the Metrolink system. Per a cooperative agreement between OCTA and the City of Orange, the city is the lead on the design phase, and OCTA is the lead on the construction phase of the project. OCTA has awarded a contract to Hill International to provide construction management services for the OTC project. On June 12, 2017, the OCTA Board of Directors (Board) awarded a contract to Bomel Construction, in the amount of $18.4 million, for the construction of the project. A ground breaking ceremony was held on July 26, 2017. Completion of the OTC parking structure is anticipated to be early 2019.

The proposed Placentia Metrolink Station will be located on the BNSF Railway (BNSF) and City of Placentia-owned right-of-way (ROW). The station will include platforms, parking, a new bus stop, and passenger amenities. OCTA is the lead for design and construction of the project. Previously completed design plans are being revised to include a parking structure in lieu of surface parking. The project will also include a third track which will assist with

the efficiency and on-time performance of train operations and provide operational flexibility for both freight and passenger trains. BNSF will be the lead on the rail construction, so a construction and maintenance agreement with BNSF for the work will need to be in place before the invitation for bids (IFB) for construction can be released. The plans are anticipated to be complete and will be advertised for bid in October 2017 with an anticipated completion date of September 2019, pending the BNSF agreement is in place.

The Anaheim Canyon Metrolink Station Improvement project includes the addition of a second station track, platform, the extension of the existing platform to accommodate longer train consist, and associated passenger amenities including ticket vending machines, benches, canopies, and signage. OCTA is the lead agency on all phases of project development including construction. Preliminary engineering (30 percent plans) and California Environmental Quality Act (CEQA) clearance was obtained in January 2017 and National Environmental Policy Act (NEPA) clearance was obtained in June 2017. A request for proposal was released for final plans, specification and estimates on April 10, 2017, and final selection of the consultant will be presented to the Board in August 2017. Construction is expected to begin in June 2019 and be completed in August 2020.

The City of Fullerton is the lead agency on a project to add an elevator tower to each side of the existing railroad pedestrian bridge at the Fullerton Transportation Center and modify the restrooms to bring them into compliance with ADA. The City of Fullerton issued the construction NTP in January 2016, and renovations to the restrooms have been completed. The contractor has experienced significant delays on the elevator work due to subcontractor issues and dry utility conflicts. The City of Fullerton is now estimating the completion of the project to be September 2018.

Rail Corridor Improvements

Rail corridor improvements consist of capital and rehabilitation projects that improve the safety, operations, or reliability of the rail infrastructure. OCTA owns over 45 miles of operating railroad.

There are currently six grade separation projects along the Los Angeles – San Diego – San Luis Obispo (LOSSAN) rail corridor that have completed the project study reports or environmental clearance and are not currently advancing due to lack of funds.

The 17th Street Grade Separation project is progressing through the environmental clearance phase. The project report equivalent document was reviewed and approved by the stakeholders. The City of Santa Ana, upon review of the project documents, provided a CEQA statutory exemption determination for the project.

The Office of Historic Preservation (OHP) reviewed the Historical Property Survey Report submitted by the California Department of Transportation (Caltrans) and determined that one of the properties impacted by the project is eligible for listing in the National Register of Historical Places. Caltrans and OHP has reviewed the exhibits from the draft Finding of Effects (FOE) documentation and provided feedback that the project may have adverse effects on the eligible property. The project team is currently revising the FOE and supporting documents to address the comments and resubmit to Caltrans to clarify and support the draft conclusion of no adverse effects. If OHP agrees with the FOE's conclusion, Caltrans will complete the NEPA determination, currently projected to be eligible for Categorical Exclusion. The environmental phase is anticipated to be completed in October 2017, bringing any protracted reviews.

The Laguna Niguel to San Juan Capistrano passing siding project will add approximately 1.8 miles of new passing siding railroad track adjacent to the existing mainline track. The project will enhance operational efficiency of passenger services within the LOSSAN rail corridor. Proposed modifications to the existing Rancho Capistrano private grade crossing, associated with the addition of passing track, were discussed with all the stakeholders including the California Public Utilities Commission (CPUC). Alternatives to address concerns raised by CPUC have been developed in coordination with the stakeholders. Staff met with the CPUC to discuss concerns regarding the grade crossing and recently received concurrence to proceed with the proposed design. The project design schedule has been impacted by an additional six months extending to December 2017 and the anticipated advertisement for construction to February 2018. All advance San Diego Gas & Electric power pole relocation activities were completed in June 2017.

The San Juan Creek railroad bridge in the City of San Juan Capistrano was built in 1917. The existing 300-foot long bridge carries a single mainline track for passenger and freight rail traffic over San Juan Creek and is in need of replacement. The replacement bridge will be constructed adjacent to the existing bridge to minimize disruption of rail traffic. Additionally, the new railroad bridge will incorporate a future bikeway underpass on the south end of the track along the creek. OCTA and the Southern California Regional Rail Authority (SCRRA) are working with the County of Orange to develop a cooperative agreement to identify the roles, responsibilities, and funding to design and construct the additional bikeway underpass to enhance the county's network of trails and bikeways. SCRRA is the overall project lead, and OCTA is the leader for ROW. SCRRA has advanced the design to 60 percent completion where the cost of construction has increased by approximately $2.5 million due to further development and refinement of the bridge structure. The associated project support costs and contingencies have also increased by $1.6 million. The total increase is $4.1 million making the new project budget $38.3 million. A programming action was approved by the Board on July 10, 2017 to add the

necessary funds to the project. The draft Documented Categorical Exclusion was submitted to Federal Transit Administration (FTA) for review and concurrence in compliance with NEPA. The project received revised CEQA clearance in May 2017. The Board approved the authority to obtain the necessary ROW for the project in June 2017. The preliminary ROW acquisition schedule is anticipated to be 18 months and construction ready by the third quarter 2018.

The Control Point (CP) Fourth project is located in the City of Santa Ana between Fourth Street and Chestnut Avenue, between mile posts 175.45 and 175.80. Metrolink operations utilize Centralize Traffic Control (a train traffic control system) in which a dispatcher controls the railroad traffic through the use of signal blocks. A CP is a set of railroad signals and switches controlled by the dispatcher and authorizes a train to proceed or stop within the block of track it controls. The project includes installation of a turnout to a Union Pacific Railroad spur track along with related civil, signal, and communication modifications and improvements. The project will provide rail operational efficiencies and improve on-time performance. On June 13, 2016, the Board approved a cooperative agreement with SCRRA to define the roles and responsibilities and the funding requirements of the project. SCRRA began removal of existing spur track and installation of new track up to the new CP. Signal materials are being received at the warehouse and new signal house is expected next quarter. SCRRA is working with Union Pacific Railroad to agree on future maintenance responsibilities. A new turnout will be installed during the weekend of August 4-6, 2017. The project is expected to be complete by the second quarter of 2018.

The railroad ROW Slope Stabilization project includes eight locations within the OCTA-owned LOSSAN rail corridor that have been identified for improvements to prevent future erosion and slope instability. OCTA's consultant has provided a 90 percent design submittal. Design exceptions for areas 4B, 5B, and 6B were given preliminary approval from SCRRA, waiting for final documentation. Consultant is scheduled to provide 100 percent PS&E first week of August 2017.

Metrolink continues the implementation of positive train control (PTC) throughout the system. In September 2016, Metrolink achieved a significant milestone, becoming the first commuter railroad in the nation to receive approval of conditional PTC system certification from the Federal Railroad Administration (FRA). In December 2016, Metrolink staff submitted a response to the conditions in FRA's letter of conditional certification in hopes of achieving full PTC system certification in 2017.

<u>Transit Extensions to Metrolink: OC Streetcar</u>

The Transit Extensions to Metrolink Program is intended to broaden the reach of Orange County's backbone rail system to key employment, population, and activity centers. The OC Streetcar project will serve the Santa Ana Regional

Transportation Center (SARTC) through downtown Santa Ana, and the Civic Center to Harbor Boulevard in the City of Garden Grove.

90 percent design plans for the streetcar infrastructure and facilities were submitted by the designer in April and June 2017, and are under review by OCTA and the cities of Garden Grove and Santa Ana. Work is proceeding on preparation of the procurement documents for the construction IFB which is scheduled to be released in the fall 2017.

Based upon a risk assessment workshop that was held in March 2017 to finalize the project scope, schedule and budget, FTA recommended minor changes to the project cost estimate, increasing the cost by less than one half of one percent from the 30 percent design cost estimate prepared in July 2016. The updated cost estimate and funding plan were approved by the OCTA Board at the May 22, 2017 Board meeting. The Board also authorized submission of the Full Funding Grant Agreement Application to FTA at the meeting.

The funding request as well as extensive project readiness documents required for the application were submitted to FTA in late May 2017. Staff are coordinating with FTA and its consultants on the federal reviews of the documents.

Staff continued meetings with utility owners to identify conflicts and assist with the response to relocation claim letters. Additionally, negotiations continued regarding acquisition of properties required for the maintenance and storage facility and relocation assistance for the residential and commercial tenants. Staff continued to coordinate with representatives of the Orange County Flood Control District and the Army Corp of Engineers to obtain the permits required for the Santa Ana River Bridge.

In late April 2017, the CPUC approved the Project's Safety and Security Certification Plan, which outlines the detailed procedures that will be followed to obtain the critical safety and security approvals of the project. Staff continued to coordinate with CPUC to discuss the grade crossing applications.

The vehicle manufacturing and delivery procurement was extended to early July 2017 in response to a proposer request. Proposals will be reviewed and the contract award recommendations are scheduled to be presented to the Transit Committee in December 2017 and the OCTA Board in January 2018. Work commenced on development of the scope of services for the operation and maintenance service procurement which is scheduled to be released in fall 2017.

Construction agreements with the cities of Garden Grove and Santa Ana were approved by the OCTA Board and the city councils in April 2017, in addition to

the agreement with the City of Santa Ana for incorporation of streetcar elements at the SARTC.

An environmental analysis for minor design modifications was completed, and staff is coordinating with FTA to obtain approval on the Section 130(c) determination, completing the federal environmental review process. In June 2017, the State Historic Preservation Office concurred that the project could not have an adverse impact on historic properties.

The OCTA Board approved the award of a public awareness campaign contract to Katz Associates. The firm will be assisting with the development and implementation of a public awareness campaign during the pre-construction and construction phases of the project.

Rail Operations

As one of five member agencies that comprise Metrolink, OCTA participates in the design and operation of Metrolink service in Orange County. Rail Operations staff serve as the liaison with Metrolink and are involved in route and service planning, funding, and implementation. In addition to coordination of daily Metrolink operations, the team coordinates the StationLink service, special trains, promotional activities, and outreach.

- The Metrolink Angels Express service continues for the 2017 season, serving 54 weekday home games on the OC Line, including 15 Friday night games on the Inland Empire – Orange County (IEOC) Line, with an extension from Perris Valley. In July and August 2017, kids 18 and under ride free on Angels Express trains. To date, ridership is down by 24 percent, compared to the same period last year.

- Metrolink has received the first of 40 new Tier 4 clean emissions locomotives, with 11 units on site. On June 1, 2017, the FRA gave Metrolink approval to begin non-revenue testing of the new locomotives. Testing is expected to take approximately three months and is currently taking place in Orange County (Irvine).

- Mobile ticketing is completely functional and is available via the Metrolink app, with over 20 percent of Metrolink passenger's systemwide as users. Almost half of the passengers on the IEOC Line use the app exclusively, mainly because there is no transfer in Los Angeles. Metrolink plans to fully integrate transfers through Los Angeles County Metropolitan Transportation Authority (Metro) transit access pass system with the installation of optical readers by October 2017. The installation of optical readers should significantly increase the use of mobile ticketing since 44 percent of riders going to the Los Angeles Union Station transfer to Metro.

Metrolink performance data (ridership and revenue) for the fourth quarter of fiscal year (FY) 2016-17 will be made available in the annual report to the Board this fall 2017.

Rail Operations staff also represent OCTA's interests in the LOSSAN Joint Powers Authority, including the ongoing coordination and service integration efforts on the LOSSAN rail corridor.

Transit Facilities Engineering

Transit Facilities Engineering is responsible for the development and implementation of capital rehabilitation, facility modifications, and new capital projects for all OCTA transit facilities, including the five bus bases and seven park-and-ride lots. Design is underway on six projects, including minor rehabilitation of the bus dock platform at the Fullerton Park-and-Ride, facility modifications for hydrogen buses at the Santa Ana Bus Base, video surveillance system replacement at the Garden Grove and Santa Ana bus bases, bus wash building metal framing and siding repairs at the Irvine Construction Circle Bus Base, liquid hydrogen fueling station at the Santa Ana Bus Base, and preliminary engineering and environmental clearance for the proposed Transit Security Operations Center started this period.

There are three projects in the bid phase for construction, including removal of liquefied natural gas underground storage tanks at the Anaheim and Garden Grove bus bases, bus yard pavement striping and markings at the Garden Grove Bus Base, and hydrogen gas detection upgrades at the Santa Ana Bus Base for the single hydrogen bus demonstration project.

Five projects were under construction this period, including the vehicle inspection station equipment canopy at the Garden Grove Bus Base, bus wash water run-off mitigation modifications at all bus bases, construction started on two new projects including replacement of heating and ventilation units at the Garden Grove Bus Base maintenance shop, and fence repair and bus parking stall wheel stops at the Anaheim Bus Base. The bridge repair at the Laguna Beach Transportation Center was completed on May 19, 2017.

Summary

The Departments are responsible for OCTA's rail project development, rail capital improvement programs, rail operations, and transit facilities engineering projects. For the period covering the third quarter of FY 2016-17, projects generally progressed consistent with scope and schedule.

Attachment

None.

Prepared by:

Jennifer Bergener
Director, Rail Programs and Facilities Engineering
(714) 560-5462

Approved by:

James G. Beil, P.E.
Executive Director, Capital Programs
(714) 560-5646

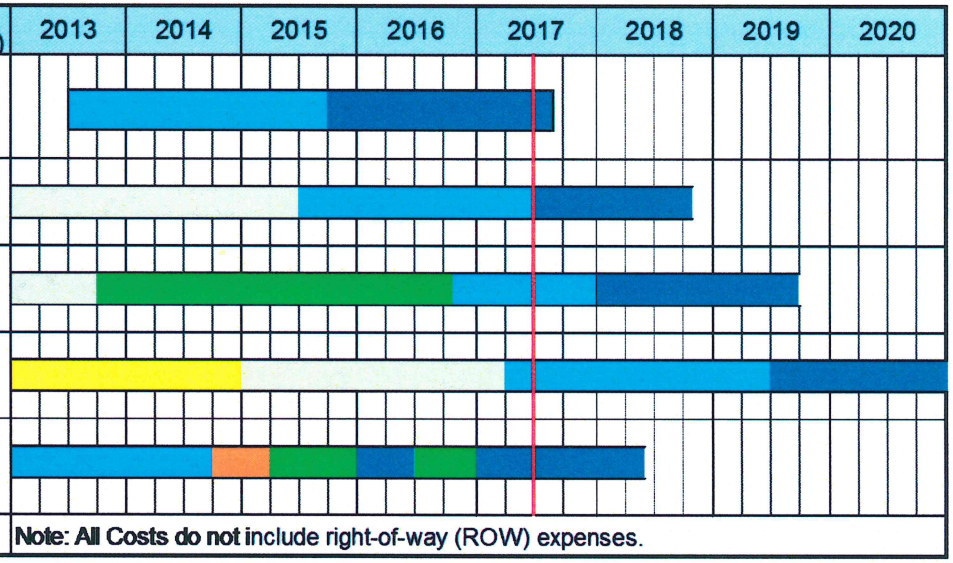
SUPPLEMENTAL INFORMATION

Regional Rail and Facilities Engineering Quarterly Report

OCTA

Station Improvements

Project	Cost (millions)
Laguna Niguel/Mission Viejo Metrolink Station/Americans with Disabilities Act Ramp Improvements	$8.52
Orange Metrolink Station Parking Structure	$29.07
Placentia Metrolink Station	$31.20
Anaheim Canyon Metrolink Station Improvements	$20.05
Fullerton Transportation Center Elevator Upgrades	$4.00
Total	$92.84



Project Definition Report

Project Approval/Environmental Document (PA/ED)

Final Design

Construction

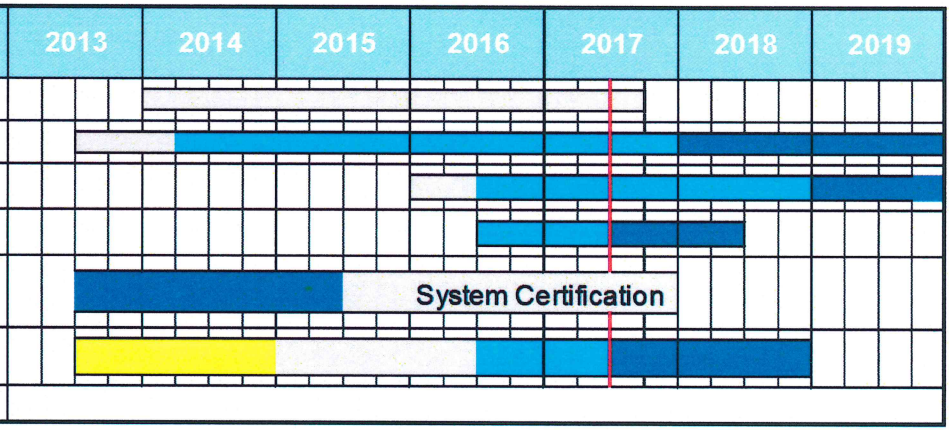
Funding Approval

Project On Hold At City's Request

Rail Corridor Improvements

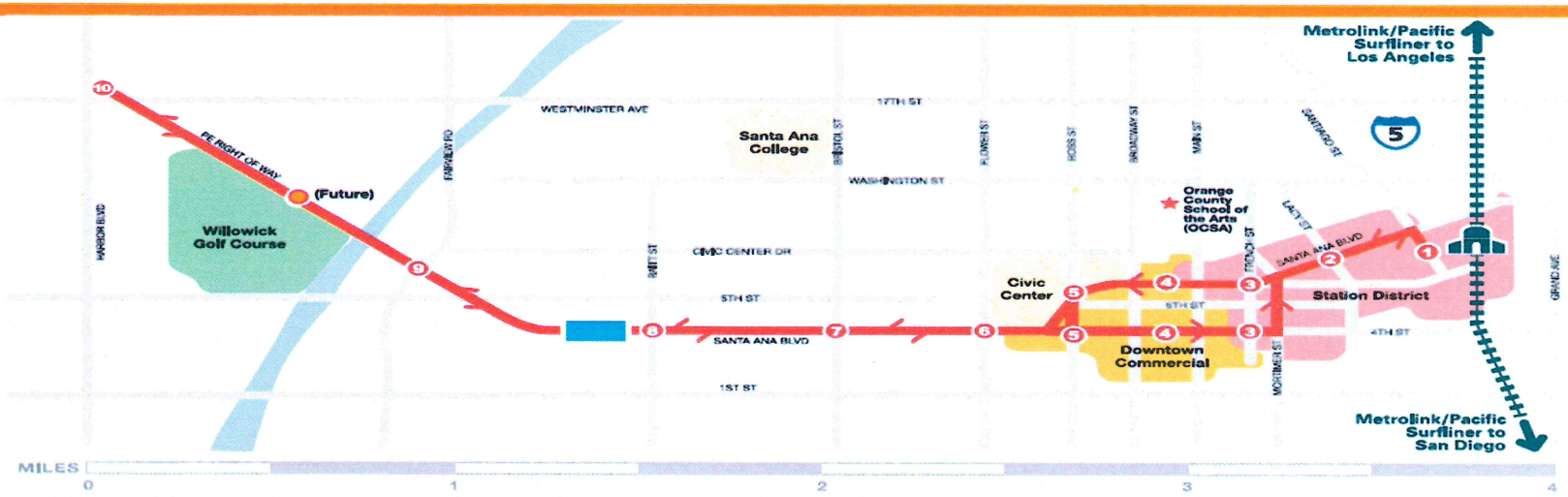
Schedule / Cost

Project	Cost (millions)
17th Street Grade Separation	$ 158.32
Laguna Niguel-San Juan Capistrano Passing Siding	$ 30.83
San Juan Creek Bridge Replacement	$ 38.33
Control Point Fourth	$ 8.51
Positive Train Control Program (Orange County Transportation Authority (OCTA) Share)	$ 39.92
Rail ROW Slope Stabilization	$ 2.00
Total	$ 277.91



PA/ED Final Design Construction Planning

Transit Extensions to Metrolink: Santa Ana/Garden Grove Fixed-Guideway



LEGEND

- Streetcar Route
- Stop
- Willowick: Potential Future Stop
- Santa Ana Regional Transportation Center
- Operations and Maintenance Facility
- LOSSAN Rail Corridor

STOPS

1. Santa Ana Regional Transportation Center
2. Lacy Street
3. French Street
4. Sycamore Street
5. Ross Street
6. Flower Street
7. Bristol Street
8. Raitt Street
9. Fairview Street
10. Harbor Boulevard

NORTH

Schedule	2013	2014	2015	2016	2017	2018	2019	2020
Alternatives Analysis, state/federal environmental clearance, and conceptual engineering								
Project Development/Preliminary Engineering/Engineering*								
Construction**								

* Phases partially funded (Future programming and budget action subject to Board of Directors' approval)

** Pursuing federal New Starts

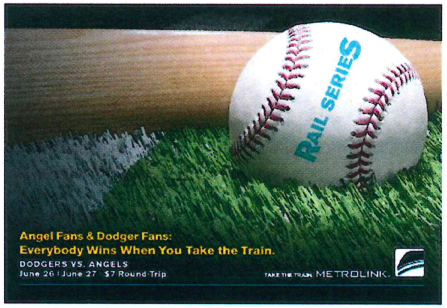
Rail Operations

Angels Express

- Special Metrolink service to 54 home games from March 30 to September 29, 2017.
- OCTA received a Mobile Source Air Pollution Reduction Review Committee (MSRC) grant for operation of Metrolink trains with Tier 2 clean emissions locomotives.
- Kids 18 and under ride free in July and August 2017; adult tickets are $7 round trip.

Rail Series

- A combination of regular and special Metrolink service on the Orange County Line for two Dodgers vs. Angels games at Dodger Stadium June 26 - 27, 2017.
- Passengers took regular service to L.A. Union Station, and transferred to the free Dodgers Express bus, and returned to Orange County on the special Metrolink train following the game.
- Ridership neared 150 each night on the return trip to Orange County.
- Special train and bus shuttle was funded by Los Angeles County Metropolitan Transportation Authority's MSRC grant.



New Sunday Service on Holidays

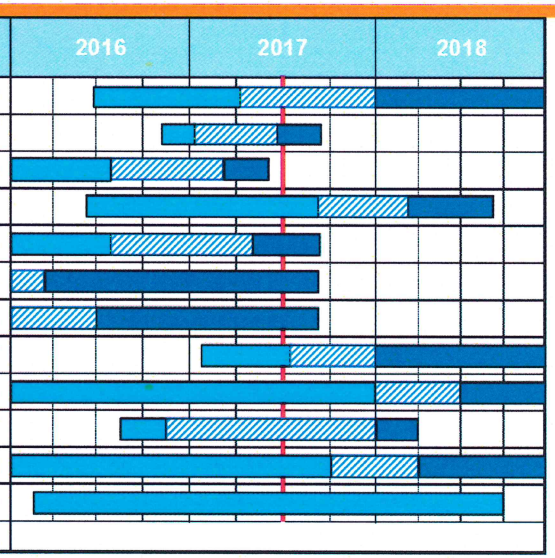
- Metrolink now offers a Sunday train schedule on holidays, on all lines with weekend service.
- The three lines serving Orange County operated a Sunday schedule on May 29 and July 4, 2017.

Tier 4 Locomotives

- Metrolink ordered 40 Tier 4 clean emissions locomotives and delivery has begun.
- With 11 Tier 4 units on site, testing of the new locomotives started on June 1, 2017 and will last up to three months.
- Metrolink expects to operate Tier 4 locomotives in revenue service as early as October 2017.

Facilities Engineering

Project	Cost (millions)
Ana, GG Bases - LNG Underground Storage Tanks Removal	$ 1.50
Ana Base - Fence Repair and Bus Parking Stall Wheel Stops	$ 0.07
LBTC - Bridge Assessment and Repair	$ 0.20
FPNR - Bus Dock Platform Minor Rehabilitation	$ 0.25
GG Base - Maintenance Building HV Unit Replacement	$ 0.29
GG Base - Vehicle Inspection Station Equipment Canopy	$ 0.26
All Bases - Bus Wash Run-Off Mitigation	$ 0.65
SA Base - Liquid Hydrogen Fueling Station	$ 4.77
SA Base - Facility Modifications for Hydrogen Buses	$ 1.13
GG Base - Bus Yard Pavement Striping	$ 0.07
SA, GG Bases - Video Surveillance System	$ 1.20
TSOC - Preliminary Engineering and Environmental Clearance	$ 0.92
TOTAL	$ 11.31



OCTA Facility Legend:

Ana	Anaheim Bus Base
FPNR	Fullerton Park-and-Ride
GG	Garden Grove Bus Base
Irv CC	Irvine Construction Circle Bus Base
Irv SC	Irvine Sand Canyon Bus Base
BPNR	Brea Park-and-Ride
GWTC	Golden West Transportation Center
NPTC	Newport Transportation Center
LBTC	Laguna Beach Transportation Center
SA	Santa Ana Bus Base
TSOC	Transit Security Operations Center

GG Maintenance Building HV Unit Replacement

GG Bus Wash Water Run-Off Mitigation

COMMITTEE TRANSMITTAL

September 11, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Environmental Mitigation Program Endowment Fund Investment Report for June 30, 2017

Finance and Administration Committee Meeting of August 23, 2017

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

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.

OCTA

August 23, 2017

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Environmental Mitigation Program Endowment Fund Investment Report For June 30, 2017

Overview

The Orange County Transportation Authority has developed a Natural Community Conservation Plan/Habitat Conservation Plan; acquired conservation properties; and funded habitat restoration projects to mitigate the impacts of Measure M2 freeway projects. California Community Foundation manages the non-wasting endowment required to pay for the long-term management of the conservation properties. Each quarter, the California Community Foundation publishes a comprehensive report detailing the composition of the pool and the performance. Attached is the quarterly investment report for the Endowment Pool for the period ending June 30, 2017. The report has been reviewed and is consistent with the pool objectives.

Recommendation

Receive and file as an information item.

Background

On September 26, 2016, the Board of Directors approved the selection of the California Community Foundation (CCF) as an endowment fund manager for the Measure M2 Freeway Environmental Mitigation Program. Approximately $2.9 million on an annual basis will be deposited in the endowment. On March 1, 2017, Orange County Transportation Authority wired $2,877,000 to CCF to be deposited in the Endowment Pool. These annual deposits are expected to continue for ten to 12 years, or until the fund totals approximately $46.2 million.

Discussion

As of June 30, 2017, total pool assets in the CCF Endowment Pool were $923.6 million. Total foundation assets were $1.66 billion. Performance for the Endowment Pool was 0.1 percent for the month, while the benchmark was flat for the month; 2.2 percent for the quarter, exceeding the customized benchmark by 0.5 percent. The one year return was 13.1 percent, exceeding the benchmark by 3.9 percent.

At the end of each fiscal year, staff will report on the funding status relative to the amounts projected when the Endowment Fund was established. The actual balance as of June 30, 2017 is $2,964,823. The number exceeds the projected balance of $2,912,711 due to higher than projected investment earnings and lower than projected fees. The projected annualized cost for endowment services was 0.75 percent based on indications received during the due diligence process. The program is currently paying 0.39 percent fee on a sliding scale. That fee will continue to be reduced as assets grow.

Summary

The Orange County Transportation Authority is submitting a copy of the California Community Foundation Investment Report to the Finance and Administration Committee. The report is for the quarter ending June 30, 2017.

Attachments

A. CCF Fund Statement - June 30, 2017
B. CCF Endowment Pool Investments – June 30, 2017

Prepared by:

Rodney Johnson
Deputy Treasurer
Treasury/Toll Roads
714-560-5675

Approved by:

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

ATTACHMENT A

California COMMUNITY Foundation

Fund Name: OCTA - Measure M2 Environmental Mitigation Program Fund

Fund Start Date: 2/28/2017

Investment Pool(s): Endowment Pool

FUND STATEMENT

OCTA - Measure M2 Environmental Mitigation Program Fund (V398)

4/1/2017 - 6/30/2017

Fund Summary

	This Period 04/01/2017 - 06/30/2017	Calendar YTD 1/1/2017 - 6/30/2017
Opening Fund Balance	$2,899,059.23	$0.00
Contributions	0.00	2,877,000.00
Investment Activity, net	65,763.96	87,823.19
Net Changes to Fund	65,763.96	2,964,823.19
Ending Balance	**$2,964,823.19**	**$2,964,823.19**

Investment Pool Performance as of 06/30/2017

	This Qtr.	1 - Year	3 - Years	5 - Years	10 - Years
Endowment Pool	2.2%	13.1%	2.9%	7.4%	4.2%
Social Impact Endowment Pool	2.5%	9.6%	4.8%	8.1%	4.2%
Conservative Balanced Pool	1.4%	5.4%	3.7%	n/a	n/a
Short Duration Bond Pool	0.6%	0.1%	n/a	n/a	n/a
Capital Preservation Pool	0.2%	0.5%	0.3%	0.2%	1.0%

Endowment Pool - invested for long-term growth and appreciation while providing a relatively predictable stream of distributions that keeps pace with inflation over time. The target asset allocation is 50% equities, 30% alternatives, 10% fixed income and 10% real assets. Investment management fees are 85 basis points.

Social Impact Endowment Pool - invested in a diversified pool aiming for capital growth for long-term grantmaking; underlying instruments undergo rigorous environmental and social analysis, with an asset allocation of approximately 60%-75% equities and 25%-40% fixed income. Investment management fees are 66 basis points.

Conservative Balanced Pool - designed to aim for moderate growth and to offer diversified exposure to the U.S. equity market and to investment grade fixed income with maturities from one to five years and an asset allocation of 70% fixed income and 30% equities investments. Investment management fees are 9 basis points.

Short Duration Bond Pool - invested to offer diversified exposure to investment grade fixed income with maturities from one to five years for the purposes of grants over a near-term one to four year horizon. Investment management fees are 10 basis points.

Capital Preservation Pool - designed to preserve principal and provide liquidity for present grantmaking needs through investment in short-term fixed income and cash instruments. Investment management fees are 10 basis points.

Definition of Terms

Opening Fund Balance - Your fund's balance at the beginning of the statement period.

Contributions - Irrevocable financial additions to your fund.

Grants - Grants you recommended to IRS-qualified public charities that have been approved and distributed from your fund. This also includes refunds and voids of grants made.

Administrative Fee - CCF charges administrative fees to cover general operating activities. These activities could include gift establishment, receipt of assets and contributions, grants and fund administration, research on nonprofit agencies and issue areas, and other charitable purposes.

Investment Activity, net – This represents the financial returns from the CCF investment pool(s) in which your fund is invested, including interest, dividends and gains/losses as well as the deduction of any investment-related fees.

Fund Balance Transfer - Money transferred to or from another CCF fund.

Other Expenses - Permissible expenses (i.e., legal, phone charges, etc.) related to the administration of your fund.

Net Changes to Fund - The net amount of your fund after contributions, income, grants, administration and grant management fee, investment managers' fees, fund balance transfers, and other expenses.

Ending Fund Balance - The fund's balance at the end of the statement period reported on this statement. This amount includes any contributions, grant distributions, fund balance transfers, and increase or decrease in market value.

Meet Our Team

John E. Kobara
Chief Operating Officer
jkobara@calfund.org

Steve Cobb
Chief Financial Officer
scobb@calfund.org

Grants and Fund Specialists
(213) 239-2320

Marilu Guzman
Scholarships Administrator & Grants Specialist
mguzman@calfund.org

Erin Grimes
Grants & Fund Operations Specialist
egrimes@calfund.org

Vanessa Meier
Grants & Fund Operations Specialist
vmeier@calfund.org

Cheng Ung
Grants & Fund Operations Specialist
cung@calfund.org

Emily Zietlow
Director of Grants Management
ezietlow@calfund.org

Development and Donor Relations
(213) 239-2300

Paul Schulz
Vice President, Development & Donor Relations
pschulz@calfund.org

Terri Mosqueda
Director of Donor Relations
tmosqueda@calfund.org

William Strickland
Senior Development Officer
wstrickland@calfund.org

Tammy Johnson
Senior Donor Relations Officer
tjohnson@calfund.org

Lorene Chandler
Donor Relations Officer
lchandler@calfund.org

Carol A. Bradford, JD
Senior Counsel & Charitable Advisor
cbradford@calfund.org

Summer Moore
Director of Development & Donor Operations
smoore@calfund.org

Don Gottesman
Senior Development Officer
dgottesman@calfund.org

Celina Santiago
Donor Relations Officer
csantiago@calfund.org

Stephanie Talavera
Development & Donor Relations Specialist
stalavera@calfund.org

California COMMUNITY Foundation

Endowment Pool
June 2017

ATTACHMENT B

The Endowment Pool returned 0.1% for the month of June 2017, 10 basis points ahead of its benchmark. For the trailing year, the pool returned 13.1%, 390 basis points ahead of its benchmark.

Total Pool Assets

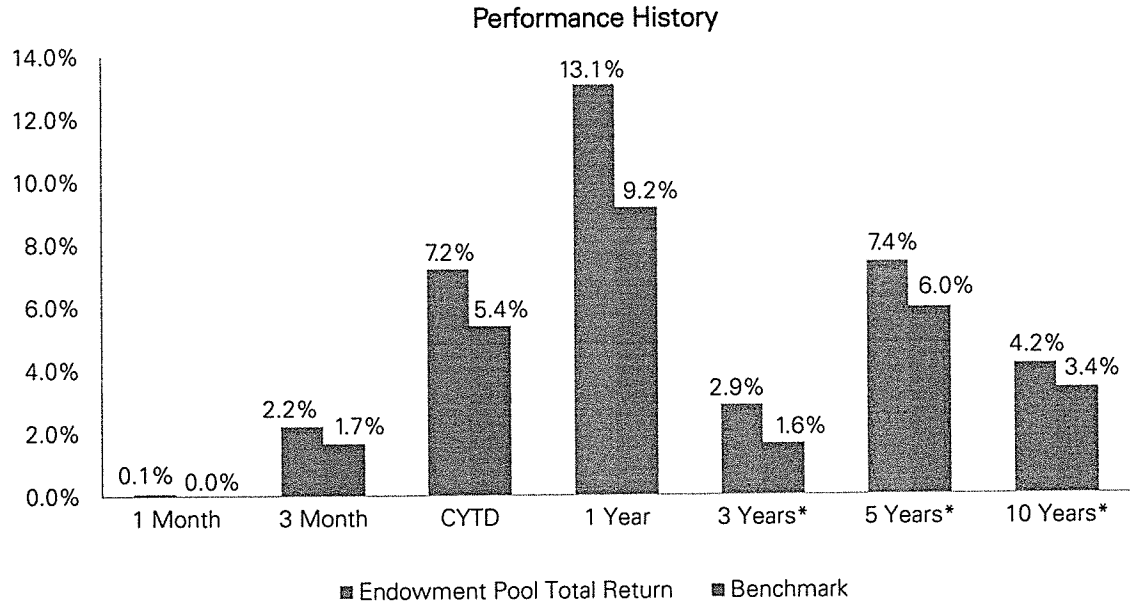
$923.58 million (Endowment Pool), $1.66 billion (total foundation assets) as of June 30, 2017.

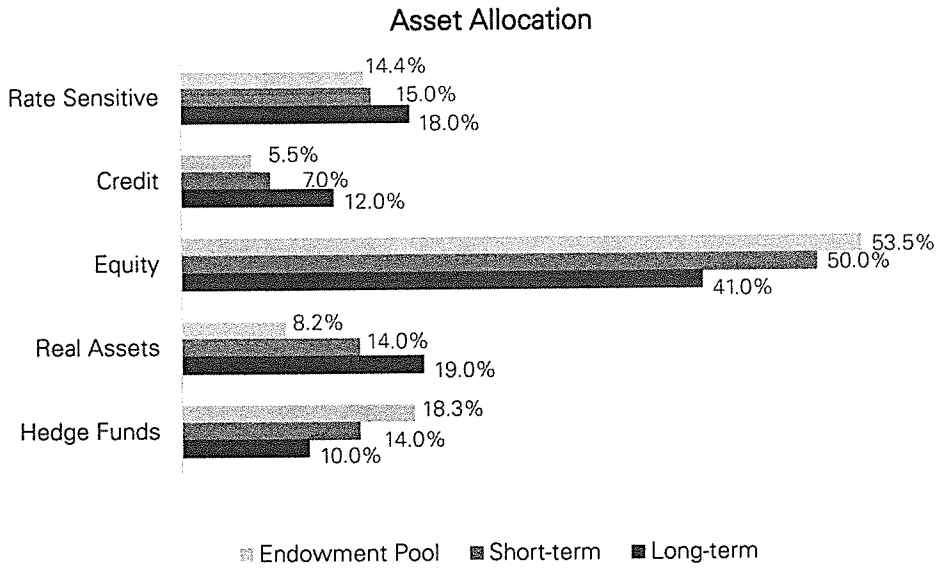
Pool Objective

Preserve the real (i.e., inflation-adjusted) purchasing power of the investment pool net of annual distributions for grants and expenses. An additional objective is to provide a relatively predictable, stable stream of distributions for grants and expenses that keep pace with inflation over time.

Investment Consultant

Meketa Investment Group





**Represents annualized returns.*

1) Investment performance is presented net of investment management fees. These fees vary across investment managers and asset classes, amounting to an annual average range of approximately 0.77% to 0.81% for the Endowment Pool. This includes fees paid to Meketa for investment consulting and portfolio advisory services. (Hedge fund manager incentive fees are not included.)

2) Total Fund Benchmark is a combination of:45% MSCI ACWI / 25% HFR FOF Index/ 10% Custom Asset Wtd. Inflation Hedge Benchmark / 10% BC Interm Gov't. / 5% BC Agg / 5% Citi Non-US$ GBI.

Updated 7/24/2017

COMMITTEE TRANSMITTAL

September 11, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Measure M2 Performance Assessment Report Update

Executive Committee Meeting of September 7, 2017

Present: Chairman Hennessey, Vice Chair Bartlett, and Directors Do, Donchak, and Shaw
Absent: Directors Murray and Nelson

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.

September 7, 2017

To: Executive Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Measure M2 Performance Assessment Report Update

Overview

Measure M2 includes a requirement for a performance assessment to be conducted every three years to evaluate the efficiency, effectiveness, economy, and program results of the Orange County Transportation Authority in delivering Measure M2. The third of these performance assessments, covering the period of July 1, 2012 through June 30, 2015, *w*as completed and presented to the Board of Directors on August 8, 2016. This report is the final update on the action items from the findings in the performance assessment.

Recommendation

Receive and file as an information item.

Background

On November 7, 2006, the voters of Orange County approved the Measure M2 (M2) Transportation Investment Plan (Plan) with a 69.7 percent vote. The Plan provides a revenue stream, from April 1, 2011 through March 30, 2041, to fund a broad range of transportation improvements. The M2 Ordinance specifies specific safeguards and requirements that are to be followed.

Ordinance No. 3 states: "A performance assessment shall be conducted at least once every three years to evaluate the efficiency, effectiveness, economy, and program results of the Authority in satisfying the provisions and requirements of the investment summary of the Plan, the Plan, and the ordinance."

The third triennial performance assessment, covering the time period of July 1, 2012 through June 30, 2015, was presented to the Orange County Transportation Authority (OCTA) Board of Directors (Board) on August 8, 2016, as well as to the Taxpayers Oversight Committee on June 14, 2016.

The performance assessment included nine findings, and staff provided the Board with an action plan to implement in response to the findings, with a commitment to be completed by the end of the 2017 calendar year.

Discussion

The key objectives of the third assessment were as follows: to evaluate the status of findings from the second M2 performance assessment and the effectiveness of changes implemented, assess the performance of OCTA on the efficient delivery of M2 projects and programs, and identify and evaluate any potential barriers to success, including opportunities for process improvements.

Overall, the fiscal year (FY) 2012-13 thorough FY 2014-15 assessment commended OCTA's commitment to the effective and efficient management and delivery of the M2 Program. In general, the assessment report found that OCTA has made significant progress in the implementation of the M2 Program on all plan elements over the last three years.

As part of the report, there were nine findings related to the execution of the elements outlined in the scope of work. The findings either commented on appropriateness of actions to date or provided recommendations for improvements. There were no major recommendations that suggested there should be a change in the direction of OCTA's actions.

Below are the key areas the recommendations focused on, along with a summary of the action that staff has implemented.

- To ensure successful freeway program delivery, the assessment identified a need for OCTA and the California Department of Transportation (Caltrans) to work together on a mutually agreed upon freeway delivery schedule. The assessment recommended seeking inclusion of local measure projects in Caltrans annual Contract for Delivery. Caltrans views the Contract for Delivery arrangement as an internal mechanism to ensure timely delivery of state-funded projects and, as such, not the appropriate tool to address delivery of Measure-funded projects. Accordingly, OCTA, neighboring self-help counties, and Caltrans have agreed to work together to create a master agreement demonstrating the commitment of the state to support the delivery of sales tax-funded program of projects.

- The assessment also recommended language should be developed to define “betterments” within freeway project cooperative agreements. Staff has included language related to betterments in the Interstate 405 project cooperative agreement between Caltrans and OCTA. In addition, staff has incorporated a step in the development of cooperative agreements with third party agencies to include a discussion on betterments. When possible, the cooperative agreement will define betterments and what is and is not included in the project scope.

- To continue to engage in discussions increasing awareness of M2, staff has made enhancements to the M website to provide more comprehensive information. Additionally, staff has launched the development of a new identity for M2 to increase awareness of our local sales tax measure. The proposed OC Go logo, as well as cohesive color scheme across all projects and modes within the M Program, is intended to increase awareness and promote a better understanding of how the transportation sales tax measure is put to use.

- To continue to monitor ongoing expenditures for administrative expenses, staff continues to closely monitor the one percent administrative salaries and benefits charges on a quarterly basis and takes corrective action as needed. Additionally, administrative salaries and benefits expenses are reported in the M2 quarterly reports to ensure transparency and management of the one percent cap. This level of ongoing monitoring will continue throughout the life of M2.

A table outlining the overall M2 Performance Assessment findings, as well the completed action, can be found in Attachment A.

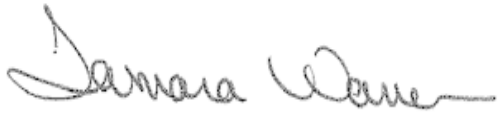
Summary

The third Measure M2 Performance Assessment, as required by Ordinance No. 3, was completed and presented to the Board on August 8, 2016. Nine findings/recommendations were made to which staff responded and developed an action plan. Since then, all nine findings have been addressed and completed. A summary of all findings and action items is included in Attachment A.

Attachment

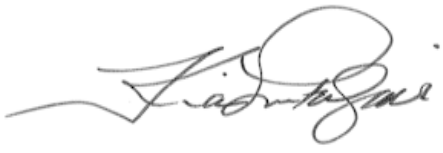
A. July 2012 – June 2015 Measure M2 Performance Assessment Response to Findings

Prepared by:



Tamara Warren
Manager, Program Management Office
(714) 560-5590

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741

ATTACHMENT A

July 2012 – June 2015 M2 Performance Assessment Response to Findings

	Summary of Findings/Recommendations	OCTA Action
1.	Conflicts between OCTA's commitment to its constituents and the state's priorities (e.g., greenhouse gas reductions) have led to delays in project definition and environmental processes. Continuing to partner with Caltrans at the technical level for system planning and modeling, and throughout all project phases can identify projects where advance coordination could help mitigate schedule delays while the agencies reconcile goals and objectives. An example of this partnership is for OCTA to work with Caltrans and explore the possibility of including OCTA projects on Caltrans list of approved projects in the fiscal year contract for delivery.	Underway - Staff continues to partner with Caltrans District 12 at all levels during project delivery. To ensure successful freeway program delivery, staff initiated discussions with Caltrans to create a Local Contract for Delivery. Caltrans believes that Contract for Delivery is not suited for this purpose. As a result, neighboring self-help counties and Caltrans agreed to work together to create a master agreement, demonstrating a commitment from both agencies to deliver local measure freeway projects.
2.	Increasing occurrences of changes and/or growth in a project's scope have been issues during the design and development phases. Sometimes, requests for modification to constructed elements were requested during the final Caltrans safety and maintenance walk through. Include language that defines the term "betterment" in project-specific third-party agreements with relevant agencies. Particular agreements may define how betterments will be negotiated, if appropriate.	Complete - Staff included language related to "betterments" in the recently completed I-405 project cooperative agreement between Caltrans and OCTA. Staff has incorporated a step in the development of cooperative agreements with third party agencies to include a discussion on betterments. As appropriate, cooperative agreements will define betterments and what is, and is not, included in the project scope.
3.	The M2 PMO performance has matured and continued to perform at a high degree of professionalism and responsiveness. With the arrival of two new program analysts, OCTA is poised to oversee the growing program more fully, such as with more comprehensive (recently redesigned) quarterly reports and through deeper involvement in project management review and analysis. OCTA should communicate PMO staff member roles and responsibilities, which should define backup and mutual support activities. Clear roles should be communicated across divisions to help promote coordination and communication.	Complete - With the addition of staff, this has allowed the PMO department to expand its role within the organization. The PMO reached out to each of the Executive Directors to seek input on how the department can further assist them in their M2 delivery goals. Additionally, communication with partner agencies has taken place and is ongoing to ensure lessons learned are shared. While PMO staff roles and responsibilities are defined, PMO staff is also cross trained to allow flexibility and respond to fluctuating workflows.

	OCTA should broaden the PMO by expanding participation with external stakeholder groups, think strategically about building awareness, build stronger relationships with other self-help county partner agencies, and increase collaboration with Caltrans.	
4.	PMO staff have a strong base of skills to administer the M2 Program, including work experience across other OCTA divisions and history dating back to the early days of the PMO. Periodic training could enhance the PMO and key stakeholders, strengthening OCTA commitment to its broad mission. OCTA should implement the program management academy in the short term. Such a program will benefit new staff and strengthen collaboration between the PMO, Finance and Administration Division, and the respective project/program managers. The M2 Ordinance and policy administration strategies should be shared as part of the training. In addition, OCTA should consider project management professional training for all PMO staff.	Underway - The most recent program management academy took place in late 2013 and is designed to be conducted every few years based on need due to staff and/or policy changes. Following discussion with the Executive Directors, the PMO intends to conduct the next academy in spring 2018. The PMO staff continues to look for training opportunities to keep up with current program management techniques and tools. Staff is enrolled in a project management academy course in fall 2017.
5.	OCTA should continue to monitor ongoing expenditures for administrative expenses, including labor charges by project, and determine whether any changes are required in the future.	Ongoing - The PMO and Executive Directors from each of the divisions meet quarterly and review labor charges to ensure that project-specific administrative costs are charged appropriately. Additionally, administrative expenses are reported in the M2 quarterly reports to ensure transparency and management of the one percent administrative cap. This level of ongoing monitoring will continue throughout the life of M2.
6.	OCTA regularly evaluates the optimum level of debt financing and the timing of debt issuance required to deliver the M2 Program in a cost-effective manner. OCTA continues to seek alternate sources of funding to supplement M2 funds when available and has processes in place to periodically update its cash-flow needs for the M2 Program. In addition to evaluating the optimum level of debt to issue and timing of debt issuance to deliver the M2 Program, OCTA should continue efforts to seek alternate sources of funding to supplement M2 funds.	Ongoing - The M2 cash flows are updated annually in response to the ever-changing social, political, economic environment, and most important to ensure the program is financially sustainable to be delivered as promised to the voters of Orange County. Reviewing and reporting on current and future needs for debt financing is part of these updates, along with separate plans of finance taken to the Board for consideration whenever new debt is required. Annual updates are done through the Comprehensive Business Plan updates, as well as through M2 Plan updates such as the Next 10 Plan.

7.	Since three local agencies failed to request timely use of funds during the semi-annual review process, they did not receive their full allocation. Overtime, OCTA should work to identify patterns developing by local agencies neglecting to request timely use of funds extensions and address the underlying root causes.	Complete - Staff continues to ensure cities are aware of the impending deadline well in advance of expiration. Enhancements to the OC Fundtracker database has enabled the Local Programs' staff to closely monitor and track the progress of over 400 projects. Standard operating procedures were developed, and a new deadline tracking process was implemented in time for fall 2017 semi-annual review. Notifications to local agencies of at-risk projects goes out 180 days or more prior to the semi-annual review.
8.	Some external stakeholders noted that there is a lack of association of M2 with its projects, programs, and funding within their organizations, and among the general public. Guidelines or a media toolkit can help standardize and coordinate branding and awareness efforts to educate the general public and stakeholders to better highlight M2 projects and programs at project sites.	Underway - Staff has made enhancements to the M website to provide more comprehensive information on the program. Additionally, staff is working on a new identity for M2 to increase awareness of our local sales tax measure. The new identity, once approved, as well as cohesive color scheme across all projects and modes within the M Program, is intended to increase awareness and a better understanding of how the transportation sales tax measure is put to use.
9.	Small cities reported not having sufficient staff to review all M2 materials and documents. To make it more easy and accessible for constituents and city staff to be informed, OCTA can develop an information card for each M2 program and project.	Complete - Staff created new pages related to funding, project/program fact sheets and webpages on the OCTA website. Staff also reorganized existing content and added new pages and/or information to make it easier for cities and constituents to understand and obtain information from a cohesive source. Additionally, Staff performs regular quality control checks on M2 project pages, fact Sheets, and Measure M overview pages. OCTA continues to conduct regular workshops to ensure local agencies are equipped with all the necessary tools and to maintain their eligibility for funding, as well as apply for new project grants.

M2 – Measure M2
OCTA – Orange County Transportation Authority
Caltrans – California Department of Transportation
I-405 – Interstate 405
PMO – Program Management Office

COMMITTEE TRANSMITTAL

September 11, 2017

To: Members of the Board of Directors

From: Laurena Weinert, Clerk of the Board

Subject: Measure M2 Quarterly Progress Report for the Period of April 2017 Through June 2017

Executive Committee Meeting of September 7, 2017

Present: Chairman Hennessey, Vice Chair Bartlett, and Directors Do, Donchak, and Shaw
Absent: Directors Murray and Nelson

Committee Vote

This item was passed by the Members present.

Committee Recommendation

Receive and file as an information item.

OCTA

September 7, 2017

To: Executive Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Measure M2 Quarterly Progress Report for the Period of April 2017 Through June 2017

Overview

Staff has prepared a Measure M2 quarterly progress report for the period of April 2017 through June 2017, for review by the Orange County Transportation Authority Board of Directors. This report highlights progress on Measure M2 projects and programs and will be available to the public via the Orange County Transportation Authority website.

Recommendation

Receive and file as an information item.

Background

On November 7, 2006, Orange County voters, by a margin of 69.7 percent, approved the Renewed Measure M Transportation Investment Plan (Plan) for the Measure M2 (M2) one half-cent sales tax for transportation improvements. The Plan provides a 30-year revenue stream for a broad range of transportation and environmental improvements, as well as a governing ordinance which defines all the requirements for implementing the Plan. Ordinance No. 3 designates the Orange County Transportation Authority (OCTA) as responsible for administering the Plan and ensuring that OCTA's contract with the voters is followed.

OCTA is committed to fulfilling the promises made in M2. This means not only completing the projects described in the Plan, but adhering to numerous specific requirements and high standards of quality called for in the measure, as identified in the ordinance. Ordinance No. 3 requires that quarterly status reports regarding the major projects detailed in the Plan be brought to the OCTA Board of Directors (Board). All M2 progress reports are posted online for public review.

Discussion

This quarterly report reflects current activities and progress across all M2 programs for the period of April 1, 2017 through June 30, 2017 (Attachment A).

The quarterly report is designed to be easy to navigate and user friendly, reflecting OCTA's Strategic Plan transparency goals. The report includes budget and schedule information included in the Capital Action Plan, Local Fair Share Program, and Senior Mobility Program payments made to cities this quarter, as well as total distributions from M2 inception through June 2017.

Additionally, Attachment A includes a summary of the Program Management Office activities that have taken place during the quarter. Two areas in particular are highlighted below.

Next 10 Delivery Plan

On November 14, 2016, the Board adopted the Next 10 Delivery Plan, which provides guidance to staff on delivery of M2 projects and programs between 2017 and 2026. During the Next 10 time period, more than $6 billion in transportation improvements promised to the voters in M2 are to be completed or underway by 2026. Pages three through six of Attachment A (in every M2 quarterly report) include OCTA's progress on delivering the ten objectives identified in the Next 10 Plan. In summary, all ten objectives are moving forward toward delivery as adopted by the Board.

Also part of the Next 10 Plan adoption, the Board directed staff to conduct a market analysis to analyze current resource demands and provide information on the impact on OCTA's delivery of M2 projects. Staff will receive a draft report in August 2017, and results of the analysis will be presented to the Board next quarter.

Next 10 Sales Tax Forecast Update

OCTA is currently receiving presentations from our contracted agencies who provide an annual Orange County sales tax forecast update. During the quarter, MuniServices and the University of California, Los Angeles presented updates on the annual forecast and economic outlook to the Finance and Administration Committee. To date, sales tax revenues appear to be lower than was forecasted last year when the Next 10 Plan was adopted. Once all presentations are complete and the fourth quarter sales tax actuals are finalized, an updated forecast will be provided to the Board. This will likely require a Next 10 Plan update which will be brought to the Board for consideration in the fall.

Progress Update

The following highlights M2 Program accomplishments that occurred during the fourth quarter:

- Final design plans for Interstate 5 (I-5) between State Route 55 (SR-55) and State Route 57 were completed, and the California Department of Transportation (Caltrans) is preparing the bid package to list. (Project A)

- The 95 percent design plans for I-5 between State Route 73 (SR-73) and Oso Parkway/Avery Parkway interchange were submitted to Caltrans on June 14, 2017. Staff expects to submit funding documents to Caltrans in July 2017. (Project C and Project D)

- Construction activities on I-5 between Avenida Vista Hermosa and Pacific Coast Highway are wrapping up. While construction is scheduled to be complete by the end of July 2017, the added carpool lanes will open in early 2018, after project segments on either side are complete. (Project C and Project D)

- Environmental work began in May 2017 for the I-5, El Toro Road Interchange. (Project D)

- The supplemental draft project report and environmental document for the SR-55 between Interstate 405 (I-405) and I-5 was completed and circulated for public review and comment. A public hearing took place on April 20, 2017. On June 12th, the Board executed a cooperative agreement with Caltrans and issued a request for proposals for the design phase. (Project F)

- On June 26, the Board approved the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan agreement between OCTA and the United States Department of Transportation (USDOT) for the I-405 Improvement Project between SR-73 and Interstate 605. On June 29, the USDOT Build America Bureau, Federal Credit Council on Finance recommended the TIFIA loan for approval by the Secretary of Transportation. (Project K)

- On April 10, 2017, the Board approved funding for 13 Regional Capacity projects, in an amount totaling $32.24 million, and approved funding for five Regional Traffic Signal Synchronization projects, totaling $2.5 million. (Project P)

- The Lakeview Avenue Grade Separation Project was opened to motorists on June 5, 2017. (Project O)

- The Board awarded the construction contract on June 12, 2017, for the Orange Metrolink Station Parking Structure. (Project R)

- Design plans for the Placentia Station have been completed at 90 percent and are being reviewed. A contract for construction management services is expected to be in place by August 2017, so a required constructability review can occur. (Project R)

- Based on a Risk Workshop, and recommendations by the Federal Transit Administration (FTA) for the OC Streetcar, an updated cost estimate and funding plan were presented to and approved by the Board on May 22, 2017. The funding request, as well as extensive project readiness documents required for the application, were submitted to FTA in late May 2017. (Project S)

- On June 19, 2017, the United States Fish and Wildlife Service and the California Department of Fish and Wildlife finalized the issuance of their respective biological opinion, findings, and associated permits, as well as signed the OCTA M2 Natural Community Conservation Plan/Habitat Conservation Plan Implementing Agreement. This significant milestone was achieved following years of collaboration. (Environmental Mitigation Program)

- The Taxpayer Oversight Committee unanimously found that OCTA is proceeding in accordance with the M2 Transportation Ordinance and Investment Plan, and that Measure M is being delivered as promised to voters for the 26th consecutive year.

Caltrans and OCTA continue to work together to move projects forward. Looking ahead, Caltrans' strategic policy direction now includes a focus on enhancements of high-occupancy vehicle lanes. This policy shift needs to be closely coordinated with the remaining M2 freeway projects. OCTA continues to advise Caltrans that new state policies need to take voter commitments into consideration and be implemented as additive projects to M2 improvements where appropriate.

Another challenge that the program has faced is the delay in previously programmed M2 projects. With the passage of the state transportation funding bill, SB 1 (Chapter 5, Statutes of 2017), staff is working with the California Transportation Commission (CTC) to bring funding for M2 projects back to the original schedule and also to understand how M2 projects and programs may benefit from SB 1.

Staff is currently preparing the 2018 State Transportation Improvement Program (STIP) application to the CTC. First priority of all funding sources is to fulfill commitments to M2/Next 10 projects, and to maintain OCTA's existing 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. The 2018 STIP funding application will be brought to the Board in September.

A critical factor in delivering M2 freeway projects is to ensure project scope, schedules, and budgets remain on target. Project scope increases, schedule delays, and resulting cost increases can quickly affect project delivery and have a cascading effect on other activities. In light of the recent reduction in the sales tax revenue forecast, this factor is even more significant.

To address this issue, staff worked with our regional partners and gained support from the Director of Caltrans, Malcolm Doughtery, in the creation of a master agreement between regional transportation planning agencies (OCTA) and Caltrans. The master agreement is intended to acknowledge the importance and commitment by both agencies to the delivery of local measure projects focusing on maintaining budget and schedule. Development of the agreement is under way, and staff will report on the progress next quarter.

Project delivery is monitored closely, and progress, as well as challenges, are presented to the Board through these quarterly staff reports, individual project staff reports, as well as through the Capital Action Plan quarterly performance metrics reports from the Capital Programs Division.

Summary

As required by the M2 Ordinance No. 3, a quarterly report covering activities from April 2017 through June 2017 is provided to update progress in implementing the Plan. The above information and the attached details indicate significant progress on the overall M2 Program. To be cost-effective and to facilitate accessibility and transparency of information available to stakeholders and the public, the M2 quarterly progress report is presented on the OCTA website. Hard copies are available by mail upon request.

Attachment

A. Measure M2 Progress Report – Fourth Quarter of Fiscal Year 2016-17 – April 1, 2017 through June 30, 2017

Prepared by:

Tamara Warren
Manager, Program Management Office
(714) 560-5590

Approved by:

Kia Mortazavi
Executive Director, Planning
(714) 560-5741

ATTACHMENT A

Wildlife Agencies issued the biological permits and signed the Conservation Plan Implementing Agreement for the freeway projects.

FOURTH QUARTER HIGHLIGHTS:

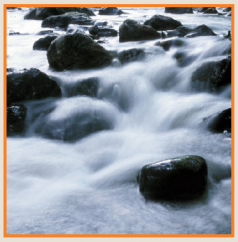
- Freeway Projects
- Streets and Roads
- Environmental Cleanup & Water Quality
- Freeway Mitigation Program
- Finance Matters
- Program Management Office
- Summary

Measure M2

Progress Report

Fourth Quarter of Fiscal Year 2016-17
April 1, 2017 through June 30, 2017



Measure M2
Progress Report

SUMMARY

As required by the Measure M2 (M2) Ordinance No. 3, a quarterly report covering activities from **April 1, 2017 through June 30, 2017** is provided to update progress in implementing the M2 Transportation Investment Plan.

To be cost effective and to facilitate accessibility and transparency of information available to stakeholders and the public, the M2 progress report is presented on the Orange County Transportation Authority (OCTA) website. Hard copies are mailed upon request.

Cover photo shown is the cake created to celebrate with the environmental community a major milestone for the Freeway Program. On June 19, 2017, the Wildlife Agencies issued the biological permits and signed the Conservation Plan Implementing Agreement. Receipt of these permits represent the culmination of years of collaboration.

Measure M2
Progress Report
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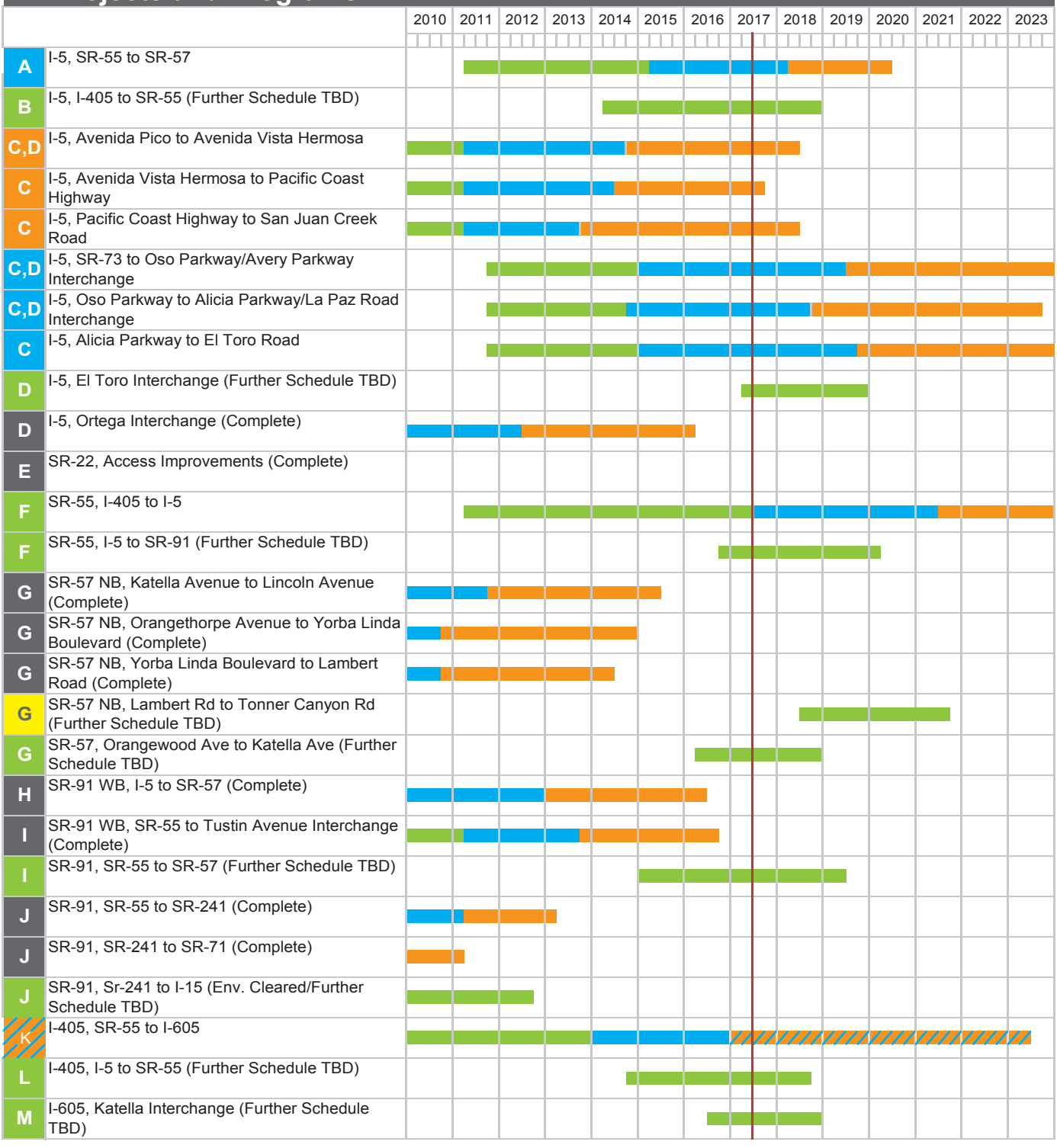
M2 Project Schedules

Conceptual | Environmental | Design, Advertise, & Award | Design-Build | Construction | Completed

M2 Projects and Programs



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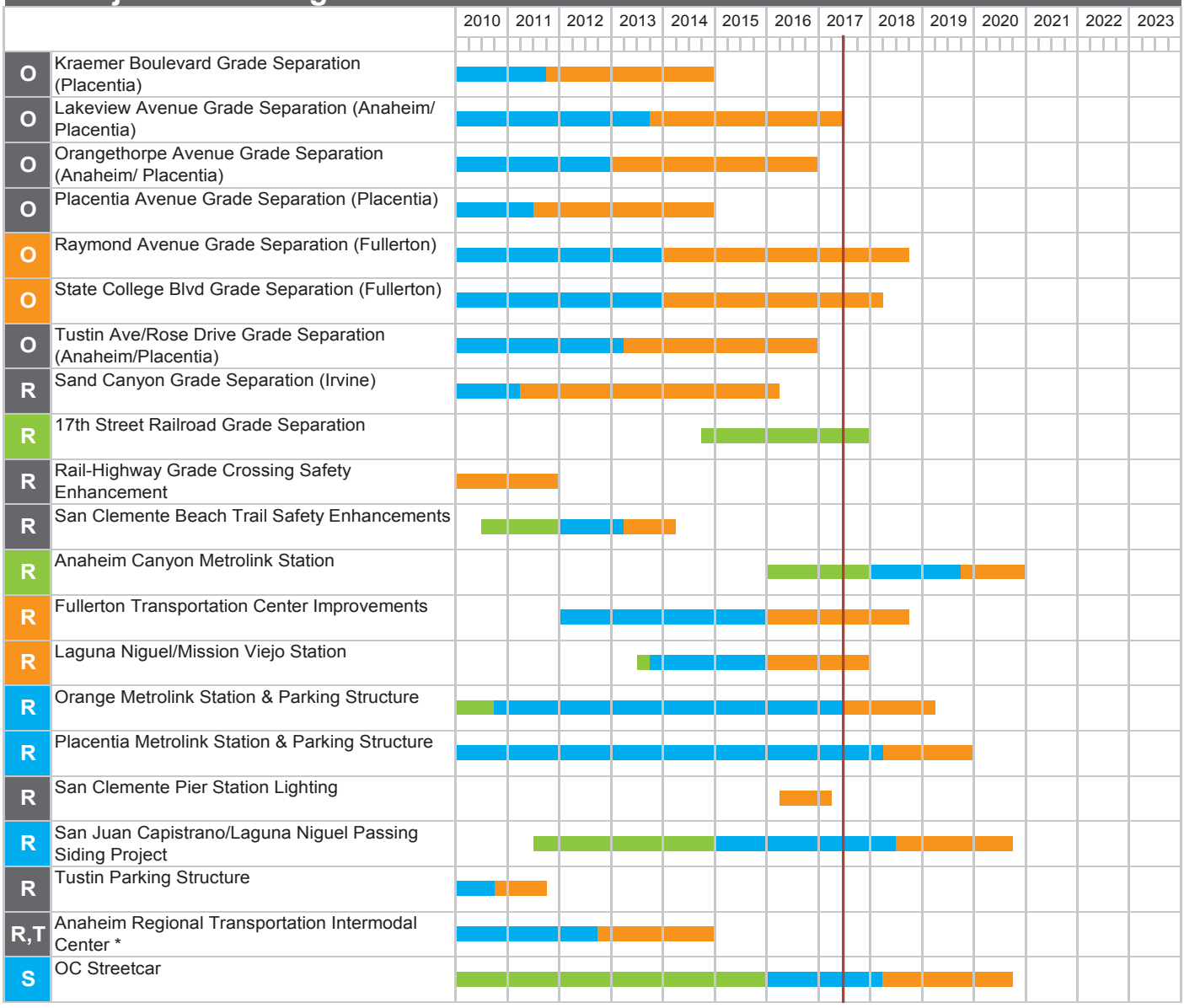
M2 Projects and Programs



*Projects managed by local agencies.

Project K is a Design-Build project, with some overlap in activities during phases. Phase work can be concurrent.

Shown schedules are subject to change.

Key:

- One to Watch
- At Risk

M2 Delivery Risk Update

This section discusses the risks and challenges related to overall Measure M2 and Next 10 Plan delivery that the Measure M Program Management Office is watching – complete with associated explanations and proposed actions. The below risks have been identified in the Board-adopted Next 10 Delivery Plan.

	Delivery Risk	Explanation	Proposed Action
Financial			
1	Continuation of a lower-than-projected M2 revenue forecast or a reduction in external revenue assumptions would impact delivery.	The original 2005 projection was $24.3 billion. The Next 10 Plan is based on the 2016 Board-adopted forecast of $14.2 billion which has a significant reliance on external funding. The data collection for the 2017 revenue forecast is underway.	Continue to actively pursue all available state and federal revenue including Senate Bill 1 (SB 1) funding. Staff is currently reviewing the Next 10 Plan to include updated revenue and costs. A Board update is planned in fall 2017.
2	The inability to scale the Freeway Program to available revenue with large freeway capital projects moving forward in the Next 10 timeframe.	Management of project scopes and schedules is key to the successful delivery of the overall Freeway Program. Given the magnitude of upcoming projects (e.g. Project K), scope changes and any length of delay with associated cost escalation can be impactful and will need to be tightly managed.	Staff will work closely with project managers and Caltrans to seek cost-saving measures on freeway projects through changes in design parameters where possible. Tight monitoring of project schedules and scopes will be required to ensure delivery of the entire Freeway Program. OCTA and other neighboring self-help counties are working with Caltrans to create a Master Agreement stating the importance of local project delivery and delivery schedules.
3	Rising cost of operating Metrolink train service.	Operational cost of Metrolink service continues to grow as new regulations are imposed, such as Positive Train Control, track-sharing arrangements with Burlington Northern Santa Fe, and new locomotive requirements.	The passage of SB 1 provides a small source of additional revenues to help fund Metrolink Operations. In addition, Project R revenues will be reevaluated as part of the Next 10 Plan Update. Staff will continue to work closely with Metrolink and our partners to ensure cost increases are minimized while service is optimized.
4	Timeframe for establishment of an endowment fund for long-term management of seven conservation properties (Preserves), as part of the Freeway Environmental Mitigation Program (EMP), may be extended.	A portion of the annual revenues for the EMP will be dedicated to the endowment deposits. If sales tax revenues continue to decline, it may take longer to establish the endowment.	Staff will continue to engage state and federal resource agencies to minimize management costs for the Preserves. Timing for the establishment of the endowment in the prescribed ten-to-twelve year period will be reevaluated as part of the Next 10 Plan Update. The first deposit of $2.9 million to the endowment was made in March 2017.

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	Delivery Risk	Explanation	Proposed Action
Organizational			
5	Availability of specialized staff, given the scope of Right-of-Way (ROW) activities for various freeway construction activities.	Timely ROW acquisition and utility clearance has proven to be a key factor in reducing risk on construction projects. Early acquisition is challenged by the heavy demand on Caltrans' ROW resources. This is further challenged by a change in meeting frequency by the California Transportation Commission, a necessary step in ROW settlement.	Expert and timely coordination between OCTA and Caltrans is imperative to manage this risk. Staff is currently working with Caltrans to ensure ROW resource needs are met through determing project lead responsibility for projects as they move forward. If resource issues become a problem, OCTA could consider taking full responsibility for ROW activities.
6	New operational responsibilities with both the I-405 Express Lanes and OC Streetcar	With the implementation of both the I-405 Express Lanes and the OC Streetcar service, OCTA will be increasing its overall role in operations.	OCTA holds a strong track record in operating various transportation systems including the 91 Express Lanes and both a fixed and demand-based bus network. Additionally, OCTA will look to augment staff's capabilities to provide guidance for operating the OC Streetcar.
Policy			
7	New statewide directives creating additional hurdles for the Freeway Program in particular.	With new statewide directives focused on greenhouse gas reductions, it will be more difficult to environmentally clear the remaining M2 general purpose lane projects. Additionally, within the recently completed Caltrans managed lanes study, inclusion of managed lanes is suggested for M2 project corridors where the promise to the voters is the addition of a general purpose lane. Projects currently in the environmental phase are potentially at risk.	OCTA will need to ensure that when freeway improvement projects are reviewed for environmental clearance, they are viewed as part of a larger suite of transportation improvements. OCTA staff will work closely with Caltrans to emphasize the importance of keeping the promise to the voters.
Market			
8	Major capital work underway in the Southern California region impacting OCTA's ability to secure resources needed for project and program delivery.	Competition for available resources for capital projects in the Southern California region has increased with the major capital work currently underway in Riverside, Los Angeles, and San Diego County. For future projects going forward, engineers, ROW experts, and materials will be in higher demand.	A market research analysis is currently underway. The analysis will evaluate staffing and resource needs to implement the Next 10 Plan and help guide OCTA in navigating the bidding environment. Any recommendations, as a result of the analysis, requiring modifications to the delivery plan will be brought to the Board for action.

Next 10 Plan Update

Contact: Tami Warren, PMO Manager
(714) 560-5590

On November 14, 2016, the Board of Directors (Board) approved the Next 10 Delivery Plan, a ten-year plan that outlines projects and programs for all modes of transportation to be delivered on an expedited schedule between 2017 and the year 2026. The plan identified ten deliverables for what is to be accomplished, with the overarching goal of successfully delivering the M2 Program by 2041 as promised.

Next 10 revenue, expense, and schedule sequencing assumptions have been incorporated into the M2 cash flow model. Tight monitoring of cash flow assumptions versus actual revenue, expense, and schedule activity is underway using a tracking mechanism created for this purpose. This quarter, OCTA's contracted forecasting agencies began providing their 2017 Measure M2 30-year economic outlook for taxable sales presentations. Presentations to the Finance Committee by each agency are scheduled to conclude in August. While final sales tax receipts for FY 2016-17 have not been received, the forecasting agencies' economic outlook provided to date, indicate further decline in sales tax collections. Staff is currently reviewing the Next 10 Plan and preparing an update planned to go to the Board in the fall of 2017.

Next 10 Plan Deliverables

1. Deliver $3 billion of freeway improvements promised in M2020 (Projects A-M).

The M2 freeway program currently consists of 27 projects or project segments. At the point of Next 10 adoption, nine were already complete, and another nine designated to be complete within the Next 10 time-frame. Together, the nine segments designated for completion make up the $3 billion delivery promise. Segments to be complete by 2026 include: three segments of I-5 between Avenida Pico and San Juan Creek Road (Project C) which are currently in construction, one project on I-405 between SR-55 and I-605 (Project K) in the Design-Build phase, another four segments on I-5 (one between SR-55 and SR-57 and the other three between SR-73 and El Toro Road) that are in design, and one segment on SR-55 (between I-405 and I-5) that is in the environmental phase. For more details, see previous page (Project Schedules) and the project updates contained in the following pages.

2. Invest approximately $1.2 billion more in revenues, bringing the completed Freeway Program improvements to $4.2 billion (Projects A-M).

The final nine remaining project segments (of the 27 total) are on track to be environmentally cleared by 2020, making them "shelf ready" for future advancement as revenues become available. The Next 10 Plan designated another $1.2 billion (in addition to the $3 billion promised above) toward moving one or two projects from the nine into construction by 2026. Congestion levels, readiness, and cost risk are factors that will determine which environmentally cleared projects will be recommended to the Board to advance into the construction phase. Project I (between SR-55 and SR-57) meets the above criteria and was designated as a priority project by the Board in the

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Next 10 Plan.

3. Allocate $1 billion, with $400 million in competitive funding to local jurisdictions to expand roadway capacity and synchronize signals (Project O and P) and $630 million in flexible funding to local jurisdictions to help maintain aging streets or for use on other transportation needs, as appropriate (Project Q).

Since M2 inception, OCTA invested approximately $263 million in M2 funds into the Regional Capacity Program (Project O), $72.5 million in Regional Traffic Signal Synchronization Program (Project P), and $288.5 million in the Local Fair Share Program (Project Q). Since the adoption of the Next 10 Plan, a total of $44.3 million in Local Fair Share funds have been distributed to local agencies. Final funding recommendations for the 2017 Project O and P call for projects were presented to the Board on April 10, 2017.

a. Complete the remaining three grade separation projects (Project O).

When the Next 10 was adopted, grade separation projects under construction included: Raymond Avenue, State College Boulevard, and Lakeview Avenue. Lakeview Avenue grade separation was completed in June 2017. Construction on Raymond and State College is expected to be complete in summer 2018. To date, the Board has approved $664 million in committed M2 and external funds for all seven of the OC Bridges Program grade separation projects.

4. Expand Metrolink service between Orange County and Los Angeles County, contingent upon cooperation and funding participation from route partners; complete six rail station improvements (Project R).

The Riverside County Transportation Commission (RCTC), Los Angeles County Metropolitan Transportation Authority (Metro), and OCTA continue to work together to secure approval of a Memorandum of Understanding (MOU) with Burlington Northern Santa Fe (BNSF) Railway, which is necessary to operate train service on BNSF-owned tracks. Metrolink is the lead in the discussions with the BNSF Railway to evaluate the current shared use and indemnification/liability agreements that govern the use of each agency's respective railroad rights of way. Special counsel has been brought in to assist in these discussions.

Within this program, funding is provided for rail corridor and station improvements to accommodate increased train service and commuter use - including station upgrades, parking expansions, and safety enhancements. The Next 10 Plan identifies six projects to be completed by 2026, which include: Laguna Niguel/Mission Viejo Metrolink station Americans with Disabilities Act (ADA) ramps (construction 78% complete), Orange Metrolink station parking structure (construction to begin July 2017), Placentia Metrolink station (construction to begin spring 2018), Anaheim Canyon Metrolink station improvement project (construction to begin late 2019), Fullerton Transportation Center elevators (construction 5% complete), and San Clemente Pier Metrolink/Amtrak station lighting (completed March 2017). For more details, see the project updates contained in the following pages.

5. Complete design, construction and begin operating the OC Streetcar (Project S) and complete the Orange County Transit Vision and the Harbor Corridor Transit Study to guide development of future transit connections (Project S).

<u>OC Streetcar</u>

To date, the Board has approved up to $306.4 million for the OC Streetcar project, including preliminary studies, environmental, project development and construction. The Federal Transit Administration (FTA) has shown strong

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support for this project, as show by ascribing an overall medium-high rating to it in their Fiscal Year 2018 Annual New Starts Report. The full Notice to Proceed for design was issued in February 2016. Approval for entry into the New Starts Engineering phase was obtained from the FTA in January 2017. On May 22, 2017, the Board directed staff to enter into a Full Funding Grant Agreement with the FTA for the OC Streetcar project.

OC Transit Vision

During this quarter the Transit Investment Framework was completed. This document will be used through the remaining steps of the Transit Master Plan process to develop and evaluate recommendations. Also in this quarter, a "Build Your Own System" survey was used to solicit investment priorities from the public and stakeholders. In the next quarter, the project will focus on developing "Transit Opportunity Corridors" and recommendations for short-term bus route changes. Completed project documents can be downloaded from the project website at www.octa.net/octransitvision. The complete OC Transit Vision Plan is expected to be presented to the Board in November 2017.

Harbor Corridor Transit Study

During the quarter, the Harbor Study team completed outreach activities on the draft alternatives and began the final study phase, the evaluation of alternatives. On April 5th the team held the second and final open house and on April 16th the team provided an update to the Santa Ana City Council. The project development team (PDT) held monthly coordination meetings in April and May to finalize the definition of alternatives and discuss the modeling assumptions. In order to provide additional time to finish the model runs, complete the alternatives evaluation, and prepare the draft final report, the schedule for the OCTA Board update was moved from July to September 2017, and the June PDT meeting was rescheduled to August.

6. Provide up to $120 million in funding to expand mobility choices for seniors and persons with disabilities (Project U).

Since M2 inception, more than $48 million in Project U funds has been provided for the Senior Mobility Program (SMP), the Senior Non-emergency Medical Transportation Program (SNEMT), and the Fare Stabilization Program. Included in this amount, approximately $8.4 million has been provided for the SMP, SNEMT, and Fare Stabilization programs since the Next 10 Plan adoption.

7. Support local agency efforts to deliver Board-approved community transit projects and provide grant opportunities for local agencies to implement effective local transit services (Project V).

Since 2013, the Board has approved approximately $36.86 million to fund 29 community-based transit service projects (22 capital and operations grants and 7 planning grants). Approved projects service areas in 19 cities and the County of Orange: Anaheim, Costa Mesa, County of Orange, Dana Point, Fountain Valley, Garden Grove, Huntington Beach, Irvine, La Habra, Laguna Beach, Laguna Niguel, Lake Forest, Mission Viejo, Newport Beach, Placentia, Rancho Santa Margarita, San Clemente, San Juan Capistrano, Tustin, and Westminster. OCTA receives ridership reports from local agencies on a regular basis to monitor the success of these services against performance measures adopted by the Board. Staff continuously monitors these services to ensure the performance standards are met and provide reports to the Board on a regular basis. Projects that don't meet the standards are brought before the Board with recommendations that include discontinuing service. For more details on program performance and service see page 30.

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8. Allocate $9 million in funding to improve the top 100 busiest bus stops in Orange County and support the modernization of the bus system to enhance the customer experience (Project W).

Between M2 inception and Next 10 Plan adoption, the Board approved up to $1,205,666 for supporting 51 city-initiated improvements and $370,000 for OCTA-initiated improvements. The City of Anaheim postponed development of eight stops and will move forward in a future funding cycle. Of the remaining 43 stops, 10 stops have been completed to date and the remainder are underway. The $370,000 contribution was invested towards a mobile ticketing application to make it more convenient for bus customers to purchase bus passes, obtain trip information, and board buses by enabling riders to use smart phone devices to display bus passes as proof of payment. Following implementation of the existing projects, staff will work with local agencies to assess future funding needs. Future funding recommendations will be brought to the Board.

9. Ensure the ongoing preservation of purchased open space (Preserves), providing comprehensive mitigation of the environmental impacts of freeway improvements and higher-value environmental benefits in exchange for streamlined project approvals (Projects A-M).

The Freeway Mitigation Program is proceeding as planned, with seven properties (Preserves) acquired (1,300 acres), and 12 restoration projects approved for funding by the Board, totaling approximately 350 acres. These Preserves and restoration projects are folded into the OCTA Natural Community Conservation Plan/Habitat Conservation Plan (Conservation Plan), which contributes mitigation to streamline the permitting process for M2 freeway projects. The program's Conservation Plan and Final Environmental Impact Report and Environmental Impact Statement (EIR/ EIS) were approved by the Board in November 2016. The final permits were approved by the Wildlife Agencies in June 2017. As part of the Conservation Plan process, an endowment is required to be established to pay for the long-term management of the Preserves. As anticipated, the first deposit for the endowment was made in early 2017. Staff will continue to oversee and manage the Preserves until a long-term manager(s) is established. Management of the Preserves includes the development and release of Preserve specific resource management plans. Additionally, staff will monitor the progress of all restoration projects and provide status updates to the Environmental Oversight Committee until each project is implemented.

10. Work with the Environmental Cleanup Allocation Committee (ECAC) to develop the next tiers of water quality programs, with a goal of providing $40 million in grants to prevent the flow of trash, pollutants, and debris into waterways from transportation facilities. In addition, focus on improving water quality on a regional scale that encourages partnerships among the local agencies as part of the Environmental Cleanup Program (Project X).

Prior to Next 10 adoption, the Board awarded approximately $45 million for 138 Tier 1 and 22 Tier 2 projects. On March 13, 2017, the Board approved the FY 2017-18 Environmental Cleanup Program Tier 1 call for projects, totaling approximately $3.1 million. The FY 2017-18 Tier 1 recommendations for funding projects to the Board is anticipated in August 2017. Staff is working with the ECAC and the County of Orange to determine the best timing for the next Tier 2 call based on projected cash flow and local jurisdictions' interest in potential viable Tier 2 projects.

Interstate 5 (I-5) Projects

Project A

I-5, SR-55 to SR-57

Contact: Rose Casey, Highways
(714) 560-5729

Status: 100% Design complete. Caltrans is preparing the Bid package to be Ready to List for Advertisement, expected in the second quarter of Fiscal Year 2017-18

Summary: This project will increase HOV capacity by adding a second HOV lane in both directions along I-5 between SR-55 and SR-57 in Santa Ana. This quarter, the OCTA consultant submitted the 100 percent final design Plans, Specifications, and Estimates (PS&E). Staff is working with the California Department of Transportation (Caltrans) to obtain Office Engineer Acceptance, expected in July 2017.Due to the STIP funding reduction, staff is working with the California Transportation Commission (CTC) as well as evaluating alternative funding to keep this project on schedule and move directly into construction. The OCTA Board is scheduled to approve the OCTA/Caltrans Construction Cooperative Agreement and authorize the release of the Request for Proposals (RFP) for consultant construction management services in July 2017.

Project B

I-5, I-405 to SR-55

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 64% Complete

Summary: This project will add one general purpose lane in each direction of the I-5 corridor and improve the interchanges in the area between SR-55 and SR-133 (near the El Toro "Y" and I-405) in Tustin and Irvine. The environmental study will consider the addition of one general purpose lane on I-5 between just north of I-405 to SR-55. Additional features of Project B include improvements to various interchange ramps. Auxiliary lanes could be added in some areas and re-established in other areas within the project limits. During the quarter, the consultant continued working on technical studies and obtained approval on a number of technical studies. The final Environmental Document is expected to be complete in October 2018.

Project C & Part of Project D

I-5, Avenida Pico to Avenida Vista Hermosa/Avenida Pico Interchange

Contact: Rose Casey, Highways (714) 560-5729

Status: Construction Underway - 69% Complete

Summary: This segment adds a carpool lane in each direction on I-5 between Avenida Pico and Avenida Vista Hermosa in San Clemente, and also includes major improvements to the Avenida Pico Interchange (part of Project D), which will also add bicycle lanes in both directions of Avenida Pico. Construction began in February 2015. During the quarter, construction of the bridge and the Avenida Pico retaining wall were completed, and construction of the main line roadway section is ongoing. Construction is scheduled to be 100 percent complete in mid-2018.

I-5, Avenida Vista Hermosa to Pacific Coast Highway

Contact: Rose Casey, Highways (714) 560-5729

Status: Construction Underway - 99% Complete

Summary: This segment adds a carpool lane in each direction of I-5 between Avenida Vista Hermosa and Pacific Coast Highway (PCH) in San Clemente, and also includes reconstructing on and off ramps at Avenida Vista Hermosa and Camino de Estrella. Construction began in September 2014. During the quarter, landscaping work continued, and signage and electrical systems were installed throughout the project. Construction is scheduled to be 100 percent complete by the end of July 2017. The added carpool lanes will be open to traffic when the segments at either side of this improvement are complete in early 2018. Due to numerous rain delays and some construction related work, this project is marked “red ” in the Capital Action Plan, signifying a delay of over three months beyond the original schedule.

I-5, Pacific Coast Highway to San Juan Creek Road

Contact: Rose Casey, Highways (714) 560-5729

Status: Construction Underway - 92% Complete

Summary: This segment will add one carpool lane in each direction of the I-5 between PCH and San Juan Creek Road in the cities of San Clemente, Dana Point, and San Juan Capistrano. Project improvements also include reconstructing on and off ramps at PCH/Camino Las Ramblas. Construction began in March 2014. During the quarter, traffic in both directions was shifted to the outside lanes and work on the median began. In the fall of 2015, the Board was informed that a soil issued was identified, which would delay project completion. As a result, this project is marked “red” in the Capital Action Plan, signifying a delay of more than three months, with a revised completion date extending at least 19 months past the original schedule (September 2016). Construction work is scheduled to be 100 percent complete in early 2018.

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Project C & Part of Project D continued from previous page...

I-5, SR-73 to Oso Parkway/Avery Parkway Interchange (Segment 1)

Contact: Rose Casey, Highways (714) 560-5729

Status: Design Phase Underway - 95% Complete

Summary: This project will make improvements along I-5 between SR-73 and Oso Parkway in the cities of Laguna Hills, Laguna Niguel, and Mission Viejo. The proposed improvements include the addition of a general purpose lane in each direction and reconstruction of the Avery Parkway Interchange (part of Project D). During the quarter, comments were received from Caltrans on ROW maps. All comments were addressed and maps were re-submitted for final review. Staff continued to work with Caltrans regarding ROW support services and funding. With 95 percent PS&E submitted to Caltrans on June 14, 2017, the plans identify a higher cost estimate. Project costs increased due to unit price increases, rise in Caltrans support costs, and schedule changes to address bird nesting season restrictions. Staff is working with the CTC to keep the project on schedule and move directly into construction. Design work is anticipated to be complete in 2018. Due to extended ROW coordination, this project is marked "red" in the Capital Action Plan, signifying a delay of over three months beyond the original schedule.

I-5, Oso Parkway to Alicia Parkway/La Paz Road Interchange (Segment 2)

Contact: Rose Casey, Highways (714) 560-5729

Status: Design Phase Underway - 90% Complete

Summary: This project will make improvements along I-5 between Oso Parkway and Alicia Parkway in the cities of Mission Viejo, Laguna Hills, and Lake Forest. The proposed improvements include the addition of a general purpose lane in each direction and reconstruction of the La Paz Road Interchange. The design phase is currently underway. Major activities this quarter included working on responses to Caltrans' comments on the 95 percent PS&E submittal, continued coordination on the aesthetics concept plan, off-site sound walls, service contract with Southern California Rail Road Association (SCRRA) and Metrolink, and with Caltrans on ROW and utilities. Federal authorization to begin work on the ROW phase was granted in December 2016. Due to extended ROW coordination, this project is marked "red " in the Capital Action Plan, signifying a delay of over three months beyond the original schedule.

I-5, Alicia Parkway to El Toro Road (Segment 3)

Contact: Rose Casey, Highways (714) 560-5729

Status: Design Phase Underway - 85% Complete

Summary: This project will make improvements along I-5 between Alicia Parkway to El Toro Road in the cities of Lake Forest, Laguna Hills, Laguna Woods and Mission Viejo, including the extension of the second HOV lane from Alicia Parkway to El Toro Road. Major activities this quarter included coordinating with Caltrans regarding the planned work at Aliso Creek and the continued development of a plan to address potential impacts to Avenida De La Carlota and Southern California Edison power lines therein. Meetings have been held with other utility agencies to determine the need, extent and schedules for third party relocations/protection. Due to extended ROW coordination, this project is marked "red " in the Capital Action Plan, signifying a delay of over three months beyond the original schedule.

Project D

This project will update and improve key I-5 interchanges at Avenida Pico, Ortega Highway, Avery Parkway, La Paz, and at El Toro Road. Three interchange improvements at La Paz, Avery Parkway, and Avenida Pico are part of Project C.

I-5, El Toro Road Interchange

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 10% Complete

Summary: This project includes four different alternatives that consider modifications to the existing interchange, which range from a I-5 southbound direct connector to El Toro Road to modifications in how existing off ramp intersections operate. The Cooperative Agreement for the Environmental Phase between OCTA and Caltrans was approved by the Board on October 10, 2016. The E-76 package to allow Caltrans to begin work was approved in April 2017 by Federal Highway Administration (FHWA) and work began in May 2017. An update by Caltrans on this project was presented to the OCTA Board in May 2017. The Environmental Phase is anticipated to be completed in late 2019.

I-5, Ortega Highway Interchange

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: Construction began in February 2013 to reconstruct the SR-74 Ortega Highway Bridge over I-5, and improve local traffic flow along SR-74 and Del Obispo Street in the City of San Juan Capistrano. All lanes on the new bridge were opened to traffic on September 4, 2015. A dedication ceremony was held on October 1, 2015. The project was officially completed on January 15, 2016.

State Route 22 (SR-22) Project

Project E

SR-22, Access Improvements

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: Completed in 2008, Project E made improvements at three key SR-22 interchanges (Brookhurst Street, Euclid Street, and Harbor Boulevard) in the City of Garden Grove to reduce freeway and street congestion in the area. This M2 project was completed early as a “bonus project” provided by the original Measure M (M1).

State Route 55 (SR-55) Projects

Project F

SR-55, I-405 to I-5

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 95% Complete

Summary: This project will widen SR-55 in the cities of Irvine, Santa Ana, and Tustin. The PDT has updated all technical studies and completed the Supplemental Draft Project Report and Environmental Document (SDPR & ED). The SDPR & ED were circulated for public review from April 3 to May 3 and a public hearing was held on April 20, 2017. Activities this quarter include geometric refinement, and draft Fact Sheet and draft Relocation Impact Statement development. The project is on schedule to obtain SPR and ED approval by the end of September 2017. During the quarter, staff received the ROW assumptions for this project. The review resulted in a project cost increase to address potential ROW risk. Additionally, on June 12th the Board executed a Cooperative Agreement with Caltrans and released the RFP for PS&E. The project is marked “red” in the Capital Action Plan, signifying a delay of more than three months. This project has been delayed by more than four years from its original schedule, due to differences in project determination between OCTA and Caltrans.

SR-55, I-5 to SR-91

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 5% Complete

Summary: This project will add capacity between I-5 and SR 22, and provide operational improvements between SR-22 and SR-91 in the cities of Orange, Santa Ana, Tustin, and Anaheim. The environmental study will consider the addition of one general purpose lane in each direction to SR-55 between SR-22 and the I-5, and provide operational improvements on SR-55 between SR-22 and SR-91. During the quarter, focus meetings with Caltrans and cities were held and the PDT approved to move forward with 1 build alternative with design options. The traffic methodology memo has been approved and the consultant initiated the traffic study. The Environmental Phase is anticipated to be complete in 2020.

State Route 57 (SR-57) Projects

Project G

SR-57 NB, Katella Avenue to Lincoln Avenue

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: This project increased capacity and improved operations on northbound SR-57 between Katella Avenue and Lincoln Avenue in the City of Anaheim with the addition of a new 3-mile general purpose lane, on- and off-ramp improvements, and sound walls. Bridges at Katella Avenue and Douglas Road were also widened in the northbound direction. The project opened to traffic on November 19, 2014 and completed on April 21, 2015.

SR-57 NB, Orangethorpe Avenue to Yorba Linda Boulevard

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: This project increased capacity and improved operations on northbound SR-57 with a new 2.5-mile northbound general-purpose lane between Orangethorpe Avenue in the City of Placentia to Yorba Linda Boulevard in the City of Fullerton. In addition to the new lane, capital improvements include reconstruction of northbound on- and off-ramps, widening of seven bridges, and the addition of soundwalls. The new general purpose lane was opened to traffic on April 28, 2014. The project was completed on November 6, 2014.

SR-57 NB, Yorba Linda Boulevard to Lambert Road

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: Completed on May 2, 2014, this project improved capacity, operations, and traffic flow on SR-57 with the addition of a new 2.5-mile northbound general-purpose lane between Yorba Linda Boulevard in the City of Fullerton and Lambert Road in the City of Brea. Additional project benefits include on- and off-ramp improvements, the widening and seismic retrofit (as required) of six bridges in the northbound direction and the addition of soundwalls. Existing lanes and shoulders were also widened to standard widths, enhancing safety for motorists. The new general purpose lane was opened to traffic on September 23, 2013.

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Project G continued from previous page...

SR-57 NB, Lambert Road to Tonner Canyon Road

Contact: Rose Casey, Highways
(714) 560-5729

Status: Conceptual Phase Complete, Further Schedule TBD

Summary: Caltrans previously completed a Project Study Report/Project Development Support document for the Lambert Road to Tonner Canyon Road segment, which will add a truck-climbing lane from Lambert Road to Tonner Canyon Road in the City of Brea. The segment will be cleared environmentally by 2020. Future work will be planned so that it coincides with related work by LA Metro across the county line. Funding for environmental phase for this project was proposed to be included in the 2016 STIP but was removed due to funding constraints. Staff will evaluate alternative funding sources.

SR-57 NB, Orangewood Avenue to Katella Avenue

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 15% Complete

Summary: This project will add capacity in the northbound direction of SR-57 from Orangewood Avenue to Katella Avenue in the cities of Anaheim and Orange. Improvements under study include adding a northbound general purpose lane to join the northbound general purpose lane which was opened to traffic in 2014 between Katella Avenue and Lincoln Avenue. During the quarter, technical studies continued and an initial public information meeting was held in the City of Orange on June 22, 2017. The Environmental Phase is anticipated to be complete in late 2018.

State Route 91 (SR-91) Projects

Project H

SR-91 WB, I-5 to SR-57

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: This project increased capacity in the westbound direction of SR-91 by adding an additional general purpose lane in the westbound direction between Anaheim and Fullerton, and provided operational improvements at on and off-ramps between Brookhurst Street and State College Boulevard. Construction is 100 percent complete, as of June 23, 2016. Consultant-supplied construction management services ended on September 29, 2016. The general purpose lane was opened to traffic on March 7, 2016.

Project I

SR-91, SR-55 to Tustin Avenue Interchange

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: This project improved traffic flow at the SR-55/SR-91 interchange by adding a westbound auxiliary lane beginning at the northbound SR-55 to westbound SR-91 connector through the Tustin Avenue interchange in the City of Anaheim. The project was intended to relieve weaving congestion in the area and included reconstruction of the westbound side of the Santa Ana River Bridge to accommodate the additional lane. The bypass lane was open to traffic on May 14, 2016. Construction is 100 percent complete. Contract Acceptance was granted on October 31, 2016.

SR-91, SR-55 to SR-57

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 40% Complete

Summary: This project will improve traffic flow and operations along SR-91 within the cities of Fullerton and Anaheim. The study will look at the addition of one general purpose lane eastbound between SR-57 and SR-55, and one general purpose lane westbound from Glassell Street to State College Boulevard. Additional features of this project include improvements to various interchanges. Auxiliary lanes will be added in some segments and re-established in others within the project limits. This quarter, the consultant continued working on technical documents. M2 and federal funds would pay for the mainline freeway improvements and future funding would need to be identified for connector portions of the project. Due to Caltrans requiring extra work for the unfunded study, the project is marked “red” in the Capital Action Plan with a delay of more than one year from its original schedule. The project is being re-baselined and the environmental phase is expected to be complete in mid-2019.

Project J

SR-91, SR-55 to SR-241

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: This completed Project J segment added six miles in the westbound and eastbound direction to a key stretch of SR-91 between SR-55 and SR-241 in the cities of Anaheim and Yorba Linda. In addition to adding 12 lane miles to SR-91, the project also delivered a much needed second eastbound exit lane at the Lakeview Avenue, Imperial Highway and Yorba Linda Boulevard/Weir Canyon Road off-ramps. Beyond these capital improvements, crews completed work on safety barriers, lane striping and soundwalls. Completion of this project in March 2013 means a total of 18 lane miles have been added to SR-91 since December 2010.

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Project J continued from previous page...

SR-91 EB, SR-241 to SR-71

Status: **PROJECT COMPLETE**

Contact: Rose Casey, Highways
(714) 560-5729

Summary: Completed in January 2011, this segment added six miles through a key stretch of SR-91 between Orange County's SR-241 and Riverside County's SR-71. The project improves mobility and operations by reducing traffic weaving from traffic exiting at SR-71 and Green River Road. An additional eastbound general purpose lane on SR-91 was added and all existing eastbound lanes and shoulders were widened. Because this project was shovel-ready, OCTA was able to obtain American Recovery and Reinvestment Act (ARRA) funding for this M2 project, saving M2 revenues for future projects.

SR-91, SR-241 to I-15

Contact: Rose Casey, Highways
(714) 560-5729

Status: RCTC's Design-Build - Initial Phase Complete March 20, 2017

Summary: The purpose of this project is to extend the 91 Express Lanes eastward from its current terminus in Anaheim to I-15 in Riverside County. This project will also add one general purpose lane in each direction of SR-91, from SR-71 to I-15, and construct various interchange and operational improvements. On March 20, 2017, the RCTC contractors completed a $1.3 billion freeway improvement project. While the portion of this project between SR-241 and the Orange County/Riverside County line is part of OCTA's M2 Project J, the matching segment between the county line and SR-71 is part of RCTC's Measure A. With RCTC's first project effort to extend the 91 Express Lanes and add a general purpose lane east of SR-71, construction of the final additional general purpose lane between SR-241 and SR-71 will take place post-2035. The ultimate project widens all SR-91 general purpose lanes to standard lane and shoulder widths from SR-241 to SR-71 (RCTC is responsible for the lane improvements between Green River and SR-71 while OCTA will be responsible for the lane improvements west of Green River to SR-241). To maintain synchronization, these general purpose lanes improvements, which span both counties, will be scheduled to ensure coordinated delivery of both portions of the project, and will provide a continuous segment that stretches from SR-241 to SR-71. This action is consistent with the 2017 SR-91 Implementation Plan.

Interstate 405 (I-405) Projects

Project K

I-405, SR-55 to I-605

Contact: Rose Casey, Highways
(714) 560-5729

Status: Design-Build Contract Underway

Summary: OCTA and Caltrans are working together to widen I-405 through the cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Seal Beach, and Westminster. These improvements will add one

Continues on the next page...

Project K continued from previous page...

general purpose lane, add a second HOV lane to be combined with the existing HOV lane providing a dual express lane facility, and improve the local interchanges along the corridor from SR-73 to I-605. *

On May 8, staff provided a project update to the Board. On June 12, the Board approved a reimbursement agreement between OCTA and the West Orange County Water Board for the relocation of a water line impacted by the project. On June 26, the Board approved the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan agreement between OCTA and the USDOT. On June 29, the USDOT Build America Bureau, Federal Credit Council on Finance recommended the TIFIA loan for approval by the Secretary of Transportation.

During the quarter, work continued on ROW acquisition, utility coordination, environmental permitting and re-validations, TIFIA loan pursuit, and development of the toll lanes system integrator procurement documents. Other work includes review of design builder submittals including the draft baseline schedule, quality management plan, transportation management plan, and preliminary design submittals. Construction is expected to be complete in May 2023.

*On July 25, 2014, despite OCTA's Board recommendation to select Alternative 1 (the Measure M, single general purpose lane alternative) Caltrans informed OCTA that Alternative 3 (general purpose lane and second HOV lane to be combined with existing HOV lane providing dual tolled express lane facility) would be the project preferred alternative. To ensure local control over how the express lane facility would be operated, the Board decided that OCTA would lead this project with the clear understanding that Measure M would only fund the general purpose lane portion of the project and that the second HOV lane/Express lane facility would be funded separately.

Project L

I-405, I-5 to the SR-55

Status: Environmental Phase Underway - 78% Complete

Summary: This project will add one general purpose lane in each direction of the I-405 corridor and improve the interchanges in the area between I-5 and SR-55 in Irvine. Additional features of Project L include improvements to various interchanges, auxiliary lanes and ramps. During the quarter, the consultant continued working on technical studies and obtained approval on all of the environmental technical studies and a number of engineering technical studies. The final Environmental Document is expected to be complete in July 2018.

Interstate 605 (I-605) Project

Project M

I-605, I-605 and Katella Interchange Improvements

Contact: Rose Casey, Highways
(714) 560-5729

Status: Environmental Phase Underway - 48% Complete

Summary: This project will improve freeway access and arterial connection to I-605 at Katella Avenue in the City of Los Alamitos and the County of Orange. Improvements under this project may include enhancements at the on-ramps and off-ramps in addition to operational improvements on Katella Avenue at the I-605 Interchange. With Alternative 4 removed from further consideration, the remaining two build alternatives include modification of interchange ramps and lane configurations on Katella Avenue from Coyote Creek Channel to Civic Center Drive. During the quarter, the consultant continued working on technical studies and an initial public information meeting was held in the City of Los Alamitos on June 29, 2017. The final Environmental Document is anticipated to be completed in November 2018.

Freeway Service Patrol

Project N

Freeway Service Patrol

Contact: Sue Zuhlke, Motorist Services
(714) 560-5574

Status: Service Ongoing

Summary: M2's Freeway Service Patrol (FSP) began operation in June 2012 and provides tow truck service for motorists with disabled vehicles on the freeway system to help quickly clear freeway lanes and minimize congestion. During the quarter, the midday service provided assistance to 2,047 motorists, weekend service provided assistance to 996 motorists, and construction service provided assistance to 374 motorists. Since inception, M2 and construction-funded FSP has provided a total of 59,512 assists to motorists on the Orange County freeway system.

Project O

Regional Capacity Program

Contact: Sam Kaur, Planning
(714) 560-5673

Status: 2017 Call for Projects Completed

Summary: This program, in combination with required local matching funds, provides funding for improvements on Orange County's Master Plan of Arterial Highways. On August 8, 2016, the Board approved the release of the seventh call for projects. The 2017 seventh Call for Projects allocated approximately $32 million available to fund additional road improvements throughout the County. OCTA received 16 applications for a total of $50.3 million in funding requests. On April 10, 2017, the OCTA Board approved funding for 13 projects, in an amount totaling $32.24 million. Since 2011, 135 projects totaling more than $263 million have been awarded by the Board to date.

OC Bridges Railroad Program

This program will build seven grade separations (either under or over passes) where high volume streets are impacted by freight trains along the BNSF Railroad in North County. A status for each of the seven projects is included below. As of the end of this quarter, five are complete (Kraemer, Placentia, Orangethorpe, Tustin/Rose, and Lakeview), and the two remaining projects are scheduled to be completed in 2017 and 2018.

Kraemer Boulevard Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: The project located at Kraemer Boulevard railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the City of Placentia by building an underpass for vehicular traffic. The grade separation was opened to traffic on June 28, 2014, and an event was held on July 8, 2014 to commemorate the opening. Project acceptance by the City of Anaheim and the City of Placentia, respectively, occurred in December 2014 and the cities assumed full maintenance responsibilities. In December 2015, the one-year warranty period expired with no issues or repairs identified.

Lakeview Avenue Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: The project located at Lakeview Avenue railroad crossing grade separated the local street from railroad tracks in the cities of Anaheim and Placentia by building a bridge for vehicular traffic over the railroad crossing and reconfiguring the intersection of Lakeview Avenue and Orangethorpe Avenue. Construction began on July 1, 2014. The deck for the new Atwood Channel Bridge was poured and completed in late February 2017. Lakeview Avenue

Continues on the next page...

Project O continued from previous page...

(north of Orangethorpe Avenue) was closed to traffic on February 25, 2015, and was reopened with the connector road in late July 2016. Project activities this quarter continued included irrigation, landscaping, parking lots restoration, lighting, signals, pilasters, metal railing, and asphalt paving. Lakeview Avenue (south of Orangethorpe Avenue) was closed to through traffic on March 13, 2015, and reopened on June 5, 2017. Construction acceptance from the cities of Anaheim and Placentia was obtained on June 5, 2017 and OCTA has turned over the maintenance responsibilities to the cities and commenced the one year warranty. Minor construction punchlist items are ongoing and close-out activities were initiated.

Orangethorpe Avenue Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: The project located at Orangethorpe Avenue railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the cities of Placentia and Anaheim by building a bridge for vehicular traffic over the railroad tracks. On May 17, 2016, a joint-grand opening event was held to commemorate the opening to traffic for the Orangethorpe and Tustin/Rose Grade Separation projects. OCTA oversaw construction of the project which was completed during the quarter. Final construction activities included landscaping, irrigation, survey monumentation, and construction close-out activities. Construction was completed in October 2016 and construction acceptance was obtained from the cities of Anaheim and Placentia on October 25, 2016. OCTA has turned over the maintenance responsibilities to the cities and commenced the one-year warranty.

Placentia Avenue Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: The project located at Placentia Avenue railroad crossing is grade separated and open to traffic. This project separated the local street from railroad tracks in the city of Placentia by building an underpass for vehicular traffic. An event was held on March 12, 2014, to commemorate the opening to traffic. Project acceptance by the City of Anaheim and the City of Placentia, respectively, occurred in December 2014, and the cities assumed full maintenance responsibilities. In December 2015, the one-year warranty period expired with no issues or repairs identified.

Raymond Avenue Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: Construction Underway - **82% Complete**

Summary: The project located at Raymond Avenue railroad crossing will grade separate the local street from railroad tracks in the City of Fullerton by taking vehicular traffic under the railroad crossing. The City of Fullerton is managing construction and OCTA is providing construction oversight, public outreach, railroad coordination, and ROW support. Construction began on June 2, 2014. Activities this quarter continue to include retaining walls and

Continues on the next page...

Project O continued from previous page...

Valencia Drive bridge barrier railing, pump station, storm drain, waterline, street lighting, roadway pavement, and mass excavation. Construction is expected to be 100 percent complete by summer 2018.

State College Boulevard Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: Construction Underway - **85% Complete**

Summary: The project located at State College Boulevard railroad crossing will grade separate the local street from railroad tracks in the City of Fullerton by taking vehicular traffic under the railroad crossing. The City of Fullerton is managing the construction and OCTA is providing construction oversight, public outreach, railroad coordination, and ROW support. Construction activities this quarter continue to include retaining walls, pump station, mass excavation, electrical, storm drain, street lighting, traffic signal, and sacrificial beams placement on the bridge. State College Boulevard, north of the railroad bridge, was re-opened to vehicular traffic on January 4, 2017. Construction is expected to be completed by early 2018.

Tustin Avenue/ Rose Drive Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: The project located at Tustin Avenue/Rose Drive railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the cities of Placentia and Anaheim by building a bridge over the railroad crossing for vehicular traffic. On May 17, 2016, a joint-grand opening event was held to commemorate the opening to traffic for the Orangethorpe and Tustin/Rose Grade Separation projects. OCTA oversaw construction of the project, which was completed during the quarter. Final construction activities included traffic signal controller, landscaping, irrigation, survey monumentation, and construction close-out and warranty activities. Construction was completed in October 2016 and construction acceptance was obtained from the cities of Anaheim and Placentia on October 25, 2016. OCTA has turned over the maintenance responsibilities to the cities and commenced the one-year warranty.

Project P

Contact: Anup Kulkarni, Planning
(714) 560-5867

Regional Traffic Signal Synchronization Program (RTSSP)

Status: Ongoing (See current RTSSP projects' statuses illustrated on the map on the next page)

Summary: This program provides funding and assistance to implement multi-agency signal synchronization. The target of the program is to regularly coordinate signals for 2,000 intersections along 750 miles of roadway as the basis for synchronized operation across Orange County. The program will enhance the efficiency of the street grid and reduce travel delay.

On April 10, 2017, the Board approved funding for five projects totaling $2.5 million as part of the 2017 RTSSP Call for Projects.

To date, OCTA and local agencies have synchronized more than 2,000 intersections along more than 540 miles of streets (or 59 projects). There have been seven rounds of funding to date, providing a total of 84 projects with more than $72.5 million in funding awarded by the Board.

Project Q

Contact: Vicki Austin, Finance
(714) 560-5692

Local Fair Share Program

Status: Ongoing

Summary: This program provides flexible funding to help cities and the County of Orange keep up with the rising cost of repairing the aging street system. This program is intended to augment, not replace, existing transportation expenditures of the cities and the County. All local agencies have been found eligible to receive Local Fair Share funds. On a bi-monthly basis, 18 percent of net revenues are allocated to local agencies by formula. Approximately $288.5 million in Local Fair Share payments have been provided to local agencies as of the end of this quarter.

See pages 47-48 for funding allocation by local agency.

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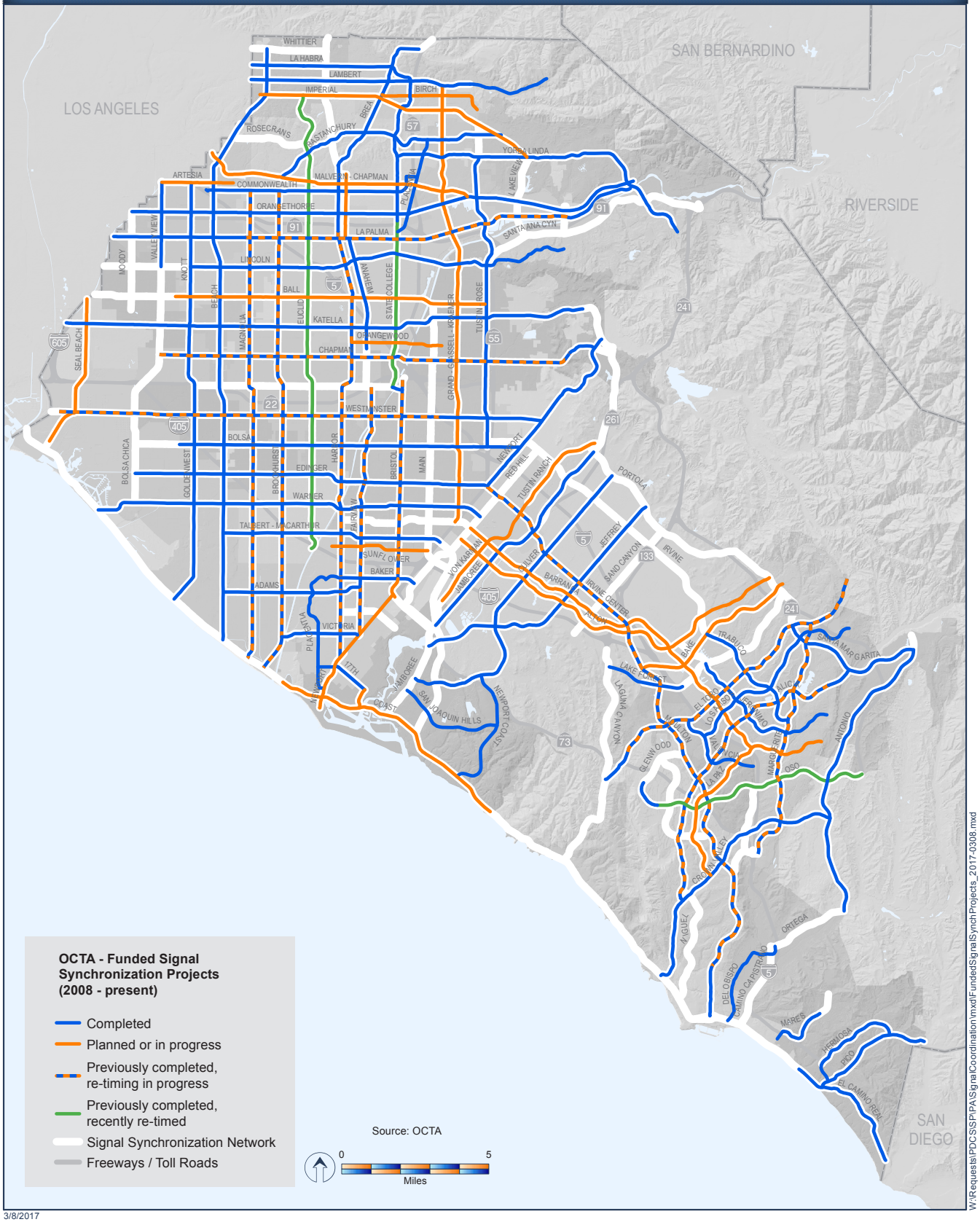
OCTA - Funded Signal Synchronization Projects (2008 - present)



OCTA - Funded Signal Synchronization Projects (2008 - present)

- Completed
- Planned or in progress
- Previously completed, re-timing in progress
- Previously completed, recently re-timed
- Signal Synchronization Network
- Freeways / Toll Roads

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Project R

High Frequency Metrolink Service

Project R will increase rail services within the County and provide additional Metrolink service north of Fullerton to Los Angeles. The program will provide for track improvements, the addition of trains and parking capacity, upgraded stations, and safety enhancements to allow cities to establish quiet zones along the tracks. This program also includes funding for grade crossing improvements at high volume arterial streets, which cross Metrolink tracks.

Metrolink Grade Crossing Improvements

Contact: Jennifer Bergener, Rail
(714) 560-5462

Status: **PROJECT COMPLETE**

Summary: Enhancement of the designated 52 Orange County at-grade rail-highway crossings was completed as part of the Metrolink Service Expansion Program (MSEP) in October 2012. Completion of the safety improvements provided each corridor city with the opportunity to establish a "quiet zone" at their respective crossings. Quiet zones are intended to prohibit the sounding of train horns through designated crossings, except in the case of emergencies, construction work, or safety concerns identified by the train engineer. The cities of Anaheim, Dana Point, Irvine, Orange, Santa Ana, San Clemente, San Juan Capistrano, and Tustin have established quiet zones within their communities.

Metrolink Service Expansion Program

Contact: Jennifer Bergener, Rail
(714) 560-5462

Status: Service Ongoing

Summary: Following the completion of the Metrolink Service Expansion Program (MSEP) improvements in 2012, OCTA deployed a total of ten new Metrolink intra-county trains operating between Fullerton and Laguna Niguel/ Mission Viejo, primarily during midday and evening hours. Efforts to increase ridership through a redeployment of the trains without significantly impacting operating costs have been underway since 2014. In April 2015, several schedule changes added a connection between the 91 Line and the intra-county service at Fullerton to allow a later southbound peak evening departure from Los Angeles to Orange County. Staff continues to monitor ridership on these trains, with data showing that boardings have increased by 15 percent over the last three years.

Part of OCTA's re-deployment plan involves providing new trips from Orange County to Los Angeles. Staff continues to work with BNSF, RCTC, and Metro to address track-sharing issues, operating constraints and funding that will impact the options for redeployment. Metrolink is the lead in the discussions with the BNSF Railway to evaluate the current shared use and indemnification/liability agreements that govern the use of each agencies respective railroad rights of way. These discussions are ongoing and special counsel has been brought in to assist. Operation of

Continues on the next page...

Project R continued from previous page...

additional Metrolink trains to Los Angeles is contingent on addressing indemnification and liability agreements and the completion of a triple track project on the BNSF Railway between Fullerton and Los Angeles, which is currently anticipated to be in late 2017. Metrolink is the lead agency responsible for the negotiations.

Rail Corridor & Station Improvements

Additionally under the Metrolink Service Expansion Program, funding is provided for rail line and station improvements to accommodate increased service. Rail station parking lot expansions, better access to platforms, among other improvements have been made or are underway. For schedule information on station improvement projects, please see the Capital Action Plan pages at the back of this report.

Anaheim Canyon Metrolink Station

This OCTA-led project will include construction of a second main track and platform to lengthen the existing platform for improved pedestrian circulation, and add of benches, shade structures, and Ticket Vending Machines at the Anaheim Canyon Metrolink Station. During this quarter, a RFP for final design (PS&E) was released by the Board in April and final selection of the consultant will be presented to the Board in August. Additionally, preliminary plans are complete and the project is now environmentally cleared. Construction of the project is expected to begin in October 2019 and take 15 months.

Fullerton Transportation Center Improvements - 5% Complete

Completed early on, a new 5-level parking structure, was constructed to provide additional transit parking at the Fullerton Transportation Center for both intercity rail service and commuter rail passengers. This City-led project was completed on June 19, 2012. After completion, an elevator upgrade project was proposed with leftover savings. The elevator project will modify the existing pedestrian bridge to add two new traction elevators, one on each side. The City of Fullerton is the lead on this project as well. Notice to Proceed was issued in January 2016 and improvements to the public restrooms were completed; however, the elevator portion of the project has experienced several delays due to sub-contractor issues and utility conflicts. The City of Fullerton is now projecting the completion of the project to be in September of 2018. This project is marked “red” in the Capital Action Plan, signifying a delay of more than three months.

Laguna Niguel/Mission Viejo Station - 78% Complete

The Laguna Niguel/Mission Viejo station accessibility improvements project is currently in the construction phase. Improvements include new ADA-compliant access ramps on either side of the pedestrian undercrossing and a unisex ADA-compliant restroom. The contractor has substantially completed major concrete work related to the ramps. The contractor will continue wall finishes, installation of handrails and guardrails, restroom, vending machine room, and completing the passenger canopies. Due to various submittal requirements taking longer than expected and weather delays, staff is anticipating the project will be completed three months beyond the original schedule. As a result, this project is marked “red” in the Capital Action Plan. The project is expected to be complete in October 2017.

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Project R continued from previous page...

Orange Parking Structure

This project will include a 611-space, 5-level shared use parking structure that will be located on Lemon Street between Chapman Avenue and Maple Street in Orange. The City of Orange is the lead for the design phase. OCTA is the lead for the construction phase of this project. A construction contract was awarded by the OCTA Board on June 12, 2017. Construction will begin the end of July with a ground breaking ceremony scheduled for July 26th. The project is expected to be completed in early 2019. This project is marked "red" in the Capital Action Plan, signifying a delay of more than three months.

Placentia Station

Plans for the proposed Placentia Metrolink Station Project were near completion when the City of Placentia requested to modify them to include a parking structure to be built where surface parking had been designed. On June 27, 2016, the Board approved a new Cooperative Agreement with the City that revised the scope of the project and budget. There will now be a parking structure as part of the project and the City will contribute towards the cost. Design plans at 90% have been completed and are being reviewed. An RFP for construction management services was released in August 2016 and a selection was approved by the Board in December 2016. A contract for these services is expected to be in place in August 2017 so a constructability review can be done. The project is anticipated to begin construction in spring 2018 and is anticipated to be complete in fall 2019. This project's ability to move into construction is subject to finalizing a track sharing agreement with BNSF.

San Clemente Pier Station Lighting - 100% Complete

This project was completed on March 17, 2017, and is in the closeout phase. OCTA was the lead for design and installation of this project which added lighting to the existing platform and new decorative hand rails at the San Clemente Pier Station.

San Juan Capistrano/Laguna Niguel Passing Siding Project

Currently in the design phase, this project will add approximately 1.8-miles of new passing siding railroad track adjacent to the existing mainline track, which will enhance operational efficiency of passenger services within the LOSSAN rail corridor. The 90 percent design plans have been reviewed by SCRRA and the City of San Juan Capistrano (City). The design will remain at 90 percent as OCTA continues to work with the California Public Utilities Commission and the City to resolve the at-grade crossing status. The overall project cost impacts are currently estimated at $5.6 million above the original project budget of $25.3 million, which was based on a preliminary design in 2013. The project cost increase due to necessary changes to the specified retaining wall type, height, and length to account for site constraints, removal of Control Point Avery, replacement of an existing 1940 wooden trestle bridge, and other adjustments covering project support costs and construction cost escalations. Completion of the design phase is expected in December 2017 and construction is expected to begin in late-2018 due to continued discussion to resolve the crossing issue. Project completion is expected in late 2020. The project team continues to reduce the overall schedule impact wherever possible. This project is marked "red" in the Capital Action Plan, signifying a delay of more than three months.

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Project R continued from previous page...

Tustin Parking Structure - 100% Complete

Also completed early on, this project provided additional parking at the Tustin Metrolink Station to meet increased requirements associated with the MSEP by constructing a new 4-story parking structure with approximately 735 spaces, plus on-site surface parking. The parking structure was opened to the public on September 22, 2011.

Additional rail corridor improvements include: completion of the San Clemente Beach Trail Audible Warning System (AWS) project, which provides additional safety improvements and AWS devices at seven pedestrian grade crossings along the beach trail (AWS activation occurred on June 24, 2016); completed Project Study Reports or environmental clearance for six potential grade separation projects along the LOSSAN corridor (State College Avenue, Ball Road, 17th Street, Santa Ana Boulevard, Grand Avenue, and Orangethorpe Avenue); replacement of the San Juan Creek railroad bridge in the City of San Juan Capistrano, which will also accommodate a future bike trail on the south end along the creek (design is 60 percent complete); the Control Point project at Fourth Street in the City of Santa Ana, which will provide rail operational efficiencies; the Railroad ROW Slope Stabilization project, which includes eight locations within the OCTA-owned LOSSAN rail corridor that have been identified for improvements to prevent future erosion and slope instability; video surveillance, and continued implementation of Positive Train Control.

Sand Canyon Grade Separation

Contact: Rose Casey, Highways
(714) 560-5729

Status: **PROJECT COMPLETE**

Summary: The project located at Sand Canyon Avenue railroad crossing is grade separated and open to traffic. The project separated the local street from railroad tracks in the City of Irvine by constructing an underpass for vehicular traffic. The westbound lanes were opened to traffic on June 12, 2014, and the eastbound lanes were opened to traffic on July 14, 2014. A road opening ceremony was held on August 11, 2014. The project is completed and construction acceptance was obtained from the City of Irvine on January 15, 2016. The project completed the one-year warranty period and no repairs were identified. The project was closed out in mid-January 2017.

Project S

Transit Extensions to Metrolink

In order to broaden the reach of Metrolink to other Orange County cities, communities, and activity centers, Project S includes a competitive program which allows cities to apply for funding to connect passengers to their final destination via transit extension. There are currently two areas of this program: a fixed guideway program (street car) and a rubber tire transit program.

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Project S continued from previous page...

OC Streetcar Project

Contact: Jennifer Bergener, Rail
(714) 560-5462

Status: Design Phase Underway - 89% Complete

Summary: OCTA is serving as the lead agency for the OC Streetcar project. The FTA formally advanced the project into the Project Development phase of the federal New Starts program in May 2015. The FTA has shown strong support for this project by ascribing an overall medium-high rating to it in their Fiscal Year 2018 Annual New Starts Report, which was released in May 2017. The full Notice to Proceed for design was issued in February 2016, and a consultant team was selected to prepare design plans (PS&E) for the project.

Based upon a Risk Workshop that was held in March 2017 to finalize the project scope, schedule and budget, the FTA recommended minor changes to the project cost estimate, increasing the cost by less than one half of one percent from the 30% design cost estimate prepared in July 2016. The updated cost estimate and funding plan were approved by the OCTA Board at their May 22, 2017 meeting. The Board also authorized submission of the Full Funding Grant Agreement Application to the FTA at this meeting. The funding request as well as extensive project readiness documents required for the application were submitted to the FTA in late May 2017. Staff is coordinating with the FTA and their consultants on the federal review of the documents.

During this quarter, the OCTA Board approved additional agreements with the City of Santa Ana and City of Garden Grove's City Councils, which included: construction agreements with the City of Santa Ana and City of Garden Grove and the agreement with the City of Santa Ana for incorporation of streetcar elements at the Santa Ana Regional Transportation Center. The OCTA Board also awarded the Public Awareness Campaign (PAC) contract to Katz Associates. The firm will be assisting with the development and implementation of a PAC during the pre-construction and construction phases of the project.

An environmental analysis for minor design modifications was completed, and staff is coordinating with FTA to obtain approval on the Section 130(c) determination, completing the federal environmental review process. In June, the State Historic Preservation Office concurred that the project would not have an adverse impact on historic properties.

OCTA, and the Cities of Santa Ana and Garden Grove expect all documents pertaining to 90% design plans to be submitted by HNTB Engineering by July 2017. Work is proceeding on preparation of the procurement documents for the Construction Invitation for Bid (IFB) which is scheduled to be released in fall 2017.

The vehicle manufacturing and delivery procurement was extended to early July 2017 in response to a proposer request. Work commenced on the development of the scope of services for the Operation and Maintenance service procurement, which is scheduled to be released in fall 2017.

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Project S continued from previous page...

Bus and Station Van Extension Projects

Contact: Sam Kaur, Planning
(714) 560-5673

Status: Service Ongoing for Oakley Vanpool and Anaheim Canyon Metrolink Bus Connection

Summary: Bus and Station Van Extension projects help enhance the frequency of service in the Metrolink corridor by linking communities within the central core of Orange County. To date, the Board has approved one round of funding for bus and van extension projects, totaling over $730,000. Four projects located within the cities of Anaheim and Lake Forest were approved for funding by the Board on July 23, 2012. Two projects have implemented service, one has been revised with a scope change, and the other has been cancelled. The vanpool connection from the Irvine Metrolink Station to the Oakley employment center in the City of Lake Forest began in December 2012, and the Anaheim Canyon Metrolink Station Bus Connection began service in February 2013. Following detailed discussions with OCTA staff, the Board approved a scope change submitted by the City on behalf of Panasonic Avionics in December 2015, which utilizes the City's established shuttle program to provide trips between the Irvine Metrolink Station and the Panasonic employment center as an alternative to providing vanpool services. Service associated with Invensys Incorporated in the City of Lake Forest was cancelled at the request of the participant, and the funds have been returned to the program for use in future calls for projects. Service provided in the City of Anaheim carries approximately 90 passengers per day between the station and Anaheim Resort area.

Project T

Convert Metrolink Stations to Regional Gateways that Connect Orange County with High-Speed Rail Systems

Contact: Jennifer Bergener, Rail
(714) 560-5462

Status: **PROJECT COMPLETE**

Summary: This project constructed the Anaheim Regional Transportation Intermodal Center (ARTIC) located at 2626 East Katella Avenue in the City of Anaheim. In addition to providing transit connections for OCTA bus service, Metrolink and Amtrak service, shuttle and charter bus service, taxis, bikes, and other public and private transportation services, ARTIC also accommodates future high-speed rail trains. The City of Anaheim, which led the construction effort, opened the facility to rail and bus service on December 6, 2014. A ribbon-cutting ceremony was held on December 8, 2014, with a grand opening celebration hosted on December 13, 2014. This facility replaced the former Anaheim Station that was located on the opposite side of the freeway in the Angel Stadium parking lot.

Project U

Project U expands mobility choices for seniors and persons with disabilities, and includes the Senior Mobility Program (SMP), the Senior Non-emergency Medical Transportation Program (SNEMT), and the Fare Stabilization Program. Since inception, a total of approximately $48.7 million in Project U funding has been provided under M2.

Senior Mobility Program (SMP)

Contact: Curt Burlingame, Transit
(714) 560-5921

Status: Ongoing

Summary: This program provides one percent of net M2 revenues to continue and expand local community transportation service for seniors under the SMP. Since inception, more than $14.6 million and 1,772,000 boardings have been provided for seniors traveling to medical appointments, nutrition programs shopping destinations, and senior and community center activities. This quarter, approximately $900,000 was paid out to the 31 participating cities during the month of May*.

**Payments are made every other month (January, March, May, July, September, and November). The amount totaled for one fiscal year quarter either covers one or two payments, depending on the months that fall within that quarter.*

Senior Non-emergency Medical Transportation Program (SNEMT)

Contact: Curt Burlingame, Transit
(714) 560-5921

Status: Ongoing

Summary: This program provides one percent of net M2 revenues to supplement existing countywide senior non-emergency medical transportation services. Since inception, more than $16.0 million and 578,929 SNEMT boardings have been provided. This quarter, approximately $950,000 in SNEMT funding was paid to the County of Orange*.

**Payments are made every other month (January, March, May, July, September, and November). The amount totaled for one fiscal year quarter either covers one or two payments, depending on the months that fall within that quarter.*

Fare Stabilization Program

Contact: Sean Murdock, Finance
(714) 560-5685

Status: Ongoing

Summary: Between years 2011-2015, one percent of net M2 revenues was dedicated to stabilize fares and provide fare discounts for bus services and specialized ACCESS services for seniors and persons with disabilities. Effective January 28, 2016, an amendment to the M2 Ordinance No. 3, adjusted this amount to 1.47 percent of net M2 revenues to be dedicated to the Fare Stabilization Program.

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Project U continued from previous page...

Approximately $1.4 million in revenue was allocated this quarter to support the Fare Stabilization Program. The amount of funding utilized each quarter varies based on ridership. Throughout the quarter, approximately 3,224,986 program-related boardings were recorded on fixed route and ACCESS services. Since inception of the program, more than $18 million and 79,225,000 program-related boardings have been provided.

Project V

Contact: Sam Kaur, Planning
(714) 560-5673

Community Based Transit/Circulators

Status: 2012 Call for Projects Service Ongoing, 2016 Call for Projects Service Begun

Summary: This project establishes a competitive program for local jurisdictions to develop local bus transit services such as community based circulators and shuttles that complement regional bus and rail services, and meet needs in areas not adequately served by regional transit. On June 24, 2013, the Board approved the first round of funding for $9.8 million to fund five funding proposals from the cities of Dana Point, Huntington Beach, La Habra, Laguna Beach, and Lake Forest. Funding was approved to implement vanpool services from local employment centers to transportation hubs, special event and seasonal services that operate during heavy traffic periods, and local community circulators that carry passengers between various shopping, medical, and transportation-related centers. Prior to the second Call for Projects, Project V Guidelines were revised in 2015, per Board direction, to encourage more local agency participation. On June 13, 2016 the Board approved $26.7 million in Project V funds for 17 Capital and Operations grants and $323,780 for seven planning grants. OCTA staff has completed agreements with the local agencies to implement these projects. Services for the Cities of Westminster, Mission Viejo and San Clemente started in October 2016. OCTA receives ridership reports from local agencies on a regular basis to monitor the success of these services against performance measures adopted by the Board. In general, special event services are performing at high productivity levels. Since fixed route services are struggling to meet the ridership target, OCTA made recommendations to local agencies to conduct outreach efforts and route changes that can help improve the ridership. In April 2017, the City of Westminster sent a letter to OCTA to discontinue the Project V service. Staff will continue to monitor these services to ensure the performance standards are met and will provide reports to the Board on a regular basis. OCTA staff provided a ridership report update to the Board at their June 2017 meeting which showed lower than desirable ridership on some of the routes.

Project W

Contact: Sam Kaur, Planning
(714) 560-5673

Safe Transit Stops

Status: City-Initiated Improvements Underway or Complete; Mobile Ticketing in Use

Summary: This project provides funding for passenger amenities at the 100 busiest transit stops across the County, determined by average daily weekday passenger boardings. Stop improvements will be designed to ease transfers between bus lines and provide passenger amenities such as improved shelters and lighting. On July 14, 2014, the Board determined that 80 percent of available Project W funding ($4.47 million) would be designated for supporting city-initiated projects, and the remaining 20 percent ($1.12 million) would be directed towards the development and implementation of regional, customer-facing technologies that benefit the 100 busiest stops. On the same date, the Board approved up to $1,205,666 for city-initiated improvements and $370,000 for OCTA-initiated improvements in fiscal year 2014-15.

According to October 2012 ridership data, 15 cities (containing at least one of the 100 busiest stops) are eligible for Safe Transit Stops funding. Seven cities applied for funds, and 51 projects were approved for funding per the July 2014 Board approval. The City of Anaheim was not able to initiate the improvements for their projects and will reapply for funds through the next Call for Projects. The remaining 43 projects have been moving forward. The Cities of Irvine, Westminster, Costa Mesa, Orange, and Brea have completed their projects. The City of Santa Ana awarded their contract in April 2016 and installation of the shelters and other amenities started in June 2017. Staff will continue to monitor progress and report completion in the future.

For OCTA-initiated improvements, the $370,000 investment has been contributed towards a mobile ticketing application (app) that will make it more convenient for bus customers to purchase bus passes, obtain trip information, and board buses by allowing riders to use their smart phones to display proof of payment or “mobile ticketing.” The smart phone app was launched on June 15, 2016, for OC Fair and Express Bus users and received positive reviews. It is planned to be expanded to include regular fixed route and college pass purchases next quarter, and reduced fare purchases (for Seniors and Persons with Disabilities) early next year.

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Project X

Environmental Cleanup

Contact: Dan Phu, Planning
(714) 560-5907

Status: Ongoing

Summary: This program implements street and highway-related water quality improvement programs and projects that assist agencies countywide with federal Clean Water Act standards for urban runoff. It is intended to augment, not replace existing transportation-related water quality expenditures and to emphasize high-impact capital improvements over local operations and maintenance costs. The Environmental Cleanup Allocation Committee (ECAC) is charged with making recommendations to the Board on the allocation of funds for the Environmental Cleanup Program (ECP). These funds are allocated on a countywide, competitive basis to assist agencies in meeting the Clean Water Act standards for controlling transportation-related pollution.

Project X is composed of a two-tiered funding process focusing on early priorities (Tier 1), and a second program designed to prepare for more comprehensive capital investments (Tier 2). To date, there have been six rounds of funding under the Tier 1 grants program. A total of 138 projects, amounting to nearly $17 million, have been awarded by the Board since 2011. There have been two rounds of funding under the Tier 2 grants program. A total of 22 projects in the amount of $27.89 million have been awarded by the Board since 2013. To date, 33 of the 34 Orange County cities plus the County of Orange have received funding under this program. Board approval of the seventh Tier 1 Call for Projects funding recommendations is anticipated in August 2017 in the amount of approximately $3.1 million.

Staff continues to work with the ECAC and the County of Orange to recommend the appropriate timing of a third Tier 2 Call for Projects.

Part of Projects A-M

Freeway Mitigation Program

Contact: Dan Phu, Planning
(714) 560-5907

Status: Biological Permits Issued and Conservation Plan Implementing Agreement Signed by the Wildlife Agencies

Summary: The Freeway Mitigation Program provides higher-value environmental benefits such as habitat protection, wildlife corridors, and resource preservation in exchange for streamlined project approvals and greater certainty in the delivery of Projects A-M. The program is proceeding as planned, with seven properties (Preserves) acquired (1,300 acres), and 12 restoration projects approved for funding by the Board, totaling approximately 350 acres. The restoration project plans have been approved by the wildlife agencies and are currently at various stages of implementation. The Board has authorized $42 million (inclusive of setting aside funds for long-term land

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Part of Projects A-M continued from previous page...

management) for property acquisitions, $10.5 million to fund habitat restoration activities, and $2.5 million for conservation plan development and program support, for a total of approximately $55 million.

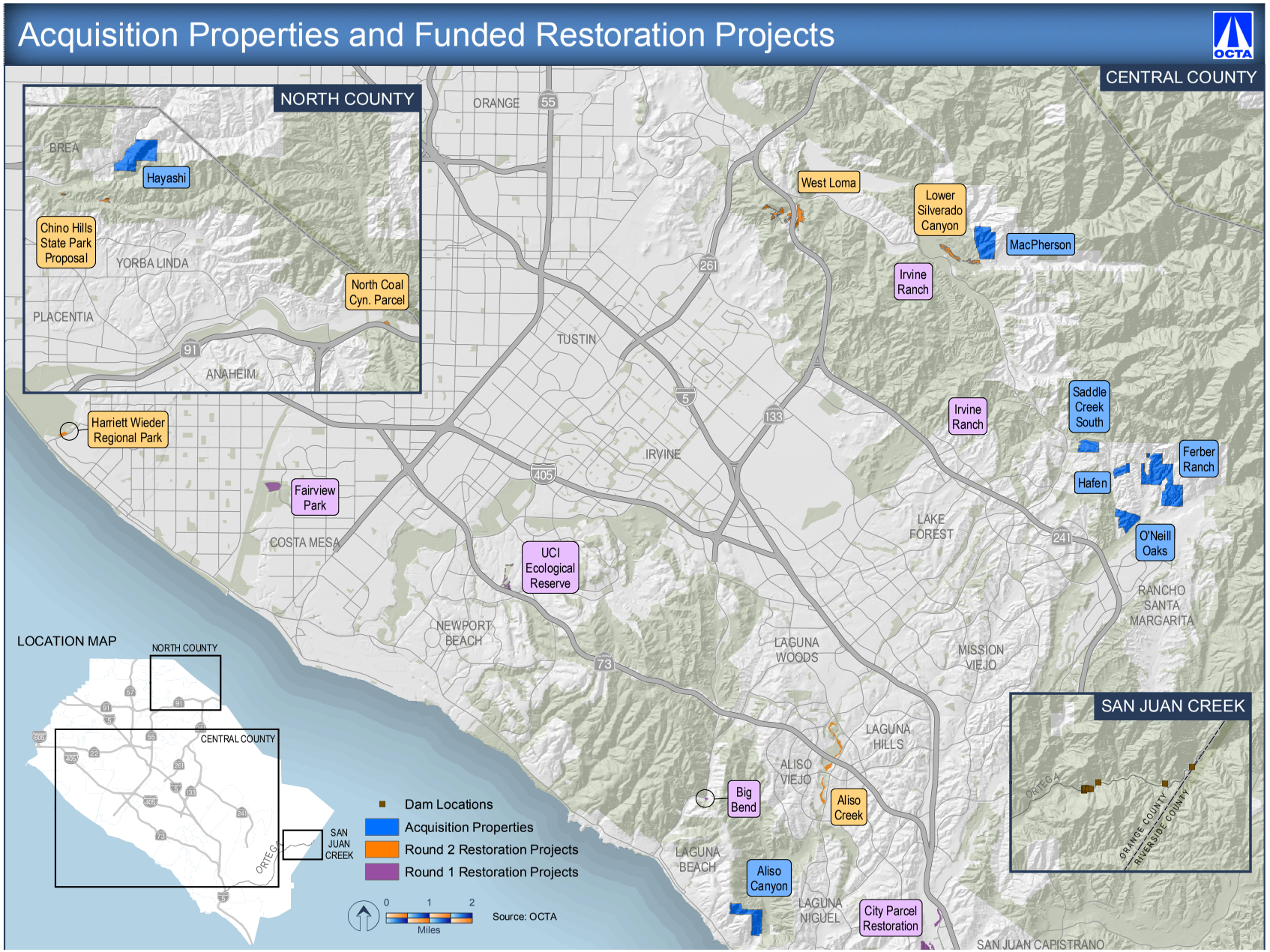
On June 19, 2017, the United States Fish and Wildlife Service and the California Department of Fish and Wildlife (Wildlife Agencies) finalized the issuance of their respective biological opinion, findings, and associated permits, as well as signed the Conservation Plan Implementing Agreement. Receipt of these permits represent the culmination of years of collaboration and support by the Board, environmental community, and Wildlife Agencies. As a result, the M2 environmental process will be streamlined allowing OCTA to move forward with the M2 freeway projects (as described in the Conservation Plan) with little additional coordination from the Wildlife Agencies. The Conservation Plan also includes a streamlined process for coordination with CDFW for streambed alteration agreements will also be reduced. This is needed for portions of freeway projects that cross through streams and riverbeds. The OCTA Conservation Plan is unique as it is only the second state/federal conservation plans approved in Orange County.

As part of the Conservation Plan process, an endowment is required to be established to pay for the long-term management of the Preserves. It is estimated that it will take up to fifteen years to fully fund the endowment. As anticipated, the first deposit of $2.9 million for the endowment was made in early 2017. Staff will continue to oversee and manage the Preserves until a long-term manager(s) is established.

To date, five of the seven Preserve resource management plans (RMPs) have been completed. These RMPs guide the management of the Preserves as outlined within the Conservation Plan. OCTA anticipates on releasing the remaining two RMPs to the public by the end of summer 2017. The five previously released RMPs are being finalized and expected to be completed on a similar timeline. Additionally, staff will monitor the progress of all restoration projects and provide status updates to the Environmental Oversight Committee until each project is implemented. A list of scheduled 2017 wilderness Preserve hiking and equestrian riding tours is available on the M2 website at www.PreservingOurLegacy.org.

As part of the safeguards in place for the M2 Program, a 12-member Environmental Oversight Committee (EOC) makes funding allocation recommendations to assist OCTA in acquiring land and restoring habitats in exchange for streamlined project approvals for the M2 freeway improvement projects (A-M). The EOC has led efforts with policy recommendations to the Board and has operated in an open and transparent manner that has garnered the trust of stakeholders, ranging from the environmental community to the recreational community to Orange County citizens.

See map of Preserves and funded restoration properties on the following page.


Acquisition Properties and Funded Restoration Projects
OCTA
NORTH COUNTY
CENTRAL COUNTY
SAN JUAN CREEK
LOCATION MAP
BREA
Hayashi
Chino Hills State Park Proposal
YORBA LINDA
North Coal Cyn. Parcel
PLACENTIA
ANAHEIM
ORANGE
TUSTIN
IRVINE
COSTA MESA
NEWPORT BEACH
LAGUNA WOODS
LAGUNA HILLS
LAGUNA BEACH
LAGUNA NIGUEL
MISSION VIEJO
LAKE FOREST
RANCHO SANTA MARGARITA
SAN JUAN CAPISTRANO
ALISO VIEJO
ORTEGA
ORANGE COUNTY
RIVERSIDE COUNTY
Harriett Wieder Regional Park
Fairview Park
UCI Ecological Reserve
Big Bend
Aliso Creek
Aliso Canyon
City Parcel Restoration
West Loma
Lower Silverado Canyon
MacPherson
Irvine Ranch
Irvine Ranch
Saddle Creek South
Hafen
Ferber Ranch
O'Neill Oaks
Dam Locations
Acquisition Properties
Round 2 Restoration Projects
Round 1 Restoration Projects
0 1 2
Miles
Source: OCTA

Program Management Office

Contact: Tami Warren, PMO Manager
(714) 560-5590

The Measure M (M1 and M2) Program Management Office (PMO) provides interdivisional coordination for all M-related projects and programs. To ensure agency-wide compliance, the PMO also holds a bi-monthly committee meeting comprised of executive directors and key staff from each of the divisions, who meet to review significant issues and activities within the Measure M programs. This quarter, the focus of the PMO has been on several major items, including the following.

Next 10 Delivery Plan

Staff continues to monitor the progress of the Next 10 Delivery Plan adopted by the Board in November 2016. Tight monitoring of cash flow assumptions versus actual revenue, expense, and schedule activity is underway using a tracking mechanism created for this purpose. This quarter, OCTA's contracted forecasting agencies began their 2017 Measure M2 30-year economic outlook for taxable sales presentations. Presentations to the Finance Committee by each agency are scheduled to conclude in August. While final sales tax receipts for Fiscal Year 2016-17 have not yet been received, the forecasting agencies' economic outlook provided to date indicate further decline in sales tax collections. Staff is currently reviewing the Next 10 Plan and preparing an update planned to go to the Board in the fall of 2017.

2012-2015 M2 Performance Assessment Update

Measure M2's Ordinance No. 3 requires that a M2 performance assessment be conducted every three years. To date there have been two prior performance assessments and the most recent assessment reviewed the time period of July 1, 2012 through June 30, 2015. The final report and findings were presented to the Board on August 8, 2016 for approval. Overall, the FY 2012-13 through FY 2014-15 assessment commends OCTA's commitment to the effective and efficient management and delivery of the M2 Program. While there were no significant findings, recommendations for improvements were made. A total of nine recommendations were identified and staff has been working to address and close out all recommendations. As planned, staff is on track to bring a closeout item to the Board in September.

M2 Awareness and Signage

M2 Signage Guidelines are being developed in response to Performance Assessment findings regarding M2 awareness and public perception. These uniform guidelines will document signage procedures to follow for each of the M2 programs (Freeway, Streets & Roads, Transit, and Environmental projects) and will be designed to create a common brand across all modes. The effort was stalled due to concern over the continued use of Measure M in Orange County. With the passage of LA Metro's "Measure M" staff shared with the Board that a proposal will be brought forward to change the measure's logo. With the most common and visible use of the Measure M logo being on freeway funding signs and local street funding signs, staff has been working on some concepts. An initial concept is scheduled to be brought to the Legislative and Communications Committee and the Board in July for discussion.

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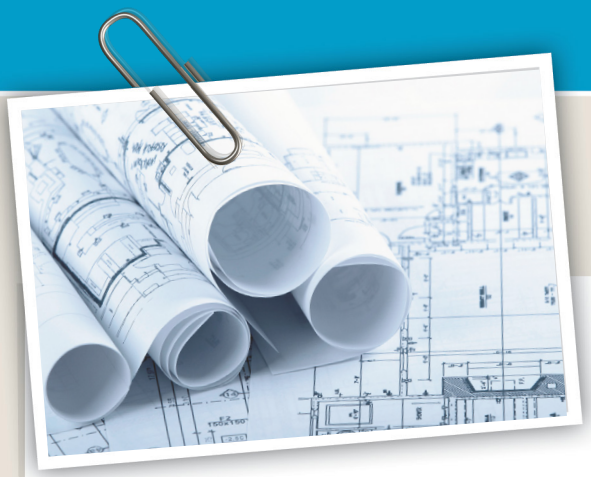

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OCTA Monitoring Structure for Federal Compliance

As a recipient and a "passed-through" agency of FTA and FHWA funding, OCTA is responsible for complying with agreements and regulations. Involved in agency-wide coordination and ensuring compliance with M2, the PMO has taken the lead in this effort. In June, OCTA selected Sjoberg Evashenk, Inc. to conduct a review of OCTA's monitoring structure for federal compliance. Though not required of M2, this evaluation is important to M2 projects and programs that are funded with federal monies, ensuring compliance requirements are met and internal protocols are completed efficiently. In the coming months, the consultant will conduct onsite visits, an analysis of OCTA's structure, and a peer review of similar agencies. The goal is to determine a preferred structure that works in OCTA's environment.

M2 Administrative Cost Safeguards

M2 includes a one percent cap on administrative expenses for salaries and benefits of OCTA administrative staff on an annual basis. In a legal opinion on M2, it was determined that in years where administrative salaries and benefits are above one percent, only one percent can be allocated with the difference borrowed from other, non-Measure M fund sources. Conversely, in years where administrative salaries and benefits are below one percent, OCTA can still allocate the full one percent for administrative salaries and benefits but may use the unused portion to repay the amount borrowed from prior years in which administrative salaries and benefits were above one percent.

Based on the original M2 revenue projections, OCTA expected to receive $24.3 billion in M2 funds, with one percent of total revenues available to fund administrative salaries and benefits over the life of the program. As M2 revenue projections declined (currently projected to be 41.6 percent) as a result of economic conditions, the funds available to support administrative salaries and benefits have also declined from the original expectations. While revenue has declined, the administrative effort needed to deliver M2 remains the same. Additionally, the initiation of the Early Action Plan (EAP) in 2007 required administrative functions four years prior to revenue collection. While the EAP resulted in project savings and significant acceleration of the program, administrative functions were required during this time with associated administrative costs.

As a result of the aforementioned factors, OCTA has incurred higher than one percent administrative costs. OCTA currently has Board approval to use funds from the Orange County Unified Transportation Trust (OCUTT) fund to cover costs above the one percent, with the understanding that those funds will be repaid with interest in future years that OCTA administrative costs fall below the one percent cap. As of June 30, 2012, OCTA had borrowed approximately $5.2 million from OCUTT. Over the last few years, OCTA has experienced underruns in the one percent administration cap and has made payments to OCUTT to reduce the outstanding balance. As of the most recent March 2017 Taxpayer Oversight Committee Report, the outstanding balance was $2.2 million.

Staff continues to meet quarterly to review all labor costs to ensure proper cost allocation under M2. During the quarter, Staff met on July 19, 2017, to review labor reports for this quarter to ensure costs attributed to the one percent cap were accurately reported and there were no misplaced project related costs, as well as to ensure project costs were applied to the correct projects. Staff will meet again on May 4, 2017, to conduct this quarterly review.

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PMO continued from previous page...

Taxpayer Oversight Committee

The M2 Ordinance requires a Taxpayer Oversight Committee (TOC) to oversee the implementation of the M2 plan. With the exception of the elected Auditor/Controller of Orange County who in Ordinance No. 3 is identified as the chair of the TOC, all other members are not elected or appointed officials. Members are recruited and screened for expertise and experience by the Orange County Grand Jurors Association, and are selected from the qualified pool by lottery. The TOC meets every other month. The TOC upholds the integrity of the measure by monitoring the use of Measure M funds and ensuring that all revenue collected from Measure M is spent on voter-approved transportation projects. The responsibilities of the 11-member Measure M TOC are to:

- Ensure all transportation revenue collected from Measure M is spent on the projects approved by the voters as part of the plan
- Ratify any changes in the plan and recommend any major changes go back to the voters for approval
- Participate in ensuring that all jurisdictions in Orange County conform with the requirements of Measure M before receipt of any tax monies for local projects
- Hold annual public meetings regarding the expenditure and status of funds generated by Measure M
- Review independent audits of issues regarding the plan and performance of the Orange County local Transportation Authority regarding the expenditure of Measure M sales tax monies
- Annually certify whether Measure M funds have been spent in compliance with the plan.

Two subcommittees have been formed to assist the TOC with their safeguard responsibilities: the Annual Eligibility Review (AER) Subcommittee and the Audit Subcommittee. The AER Subcommittee meets a few times per year, as needed, to ensure local jurisdictions have submitted the following documents in order to be deemed eligible to receive M2 funding: Congestion Management Program, Mitigation Fee Program, Local Traffic Signal Synchronization Plan, Pavement Management Plan, and an Expenditure Report. The Audit Subcommittee meets bi-monthly and is responsible for reviewing the quarterly M2 Revenue and Expenditure Reports and the Annual Measure M Audit, as well as any other items related to Measure M audits.

The TOC met on April 11, 2017 to hold its annual Measure M public hearing, vote on the Measure M Compliance Findings and Local Jurisdictions Eligibility Findings, and hear updates on the Regional Traffic Signal Synchronization Program and the Environmental Cleanup Program. The committee unanimously found that OCTA is proceeding in accordance with the M2 Transportation Ordinance and Investment Plan, and that Measure M is being delivered as promised to voters for the 26th consecutive year.

The TOC also met on June 13, 2017 to receive updated financial information on the M2 Quarterly Revenue & Expenditure Report (Mar. 17) and hear program/project updates on the Project V Community-Based Transit Circulators Program, Comprehensive Transportation Funding Programs, OC Streetcar, and Measure M2 Quarterly Progress Report. OCTA staff also provided the committee with updated information on funding for the I-405 Improvement Project.

M2 Financing and Schedule of Funding

Contact: Sean Murdock, Finance
(714) 560-5685

Revenue Forecast and Collection

OCTA contracts with three universities (Chapman University; University of California, Los Angeles; and California State University, Fullerton) to provide a long-range forecast of taxable sales to forecast Measure M2 revenues for purposes of planning projects and program expenditures. In the past, OCTA has taken an average of the three university taxable sales projections to develop a long-range forecast of Measure M2 taxable sales. On March 28, 2016, as part of the FY 2016-17 budget development process, the Board approved a new sales tax forecast methodology. This methodology includes a more conservative approach by utilizing a five-year forecast from MuniServices, Inc. Historically, MuniServices, Inc. has been more conservative than the three universities over the first five years of M2 revenue collection (2011-2016).

Revenue forecast information is updated quarterly based on the actual revenues received for the previous quarter. As required by law, OCTA pays the State Board of Equalization a fee to collect the sales tax. The M2 Ordinance estimated this fee to be 1.5 percent of the revenues collected over the life of the program.

Current Forecast

Based on long term forecasts received in July 2016, OCTA staff forecasts total nominal sales tax collections over the life of M2 to be approximately $14.2 billion. Original projections in 2005 estimated total nominal M2 sales tax collections at $24.3 billion. Based on the current estimated forecast of $14.2 billion, sales tax revenue will run approximately $10.1 billion (41.6 percent) less than the original 2005 projection. The revenue forecast for the life of the M2 Program will vary as actual sales tax revenue data is incorporated.

Final sales tax receipts through the third quarter of fiscal year 2016-17 (March 31, 2017) were received in June 2017, and reflected a growth in sales tax revenue of 2.29 percent over the same period of the prior fiscal year. The growth, while positive, is less than the budgeted sales tax growth rate of 4.4 percent for fiscal year 2016-17. In addition, Staff is currently evaluating the impact of this year's updated forecasts while waiting for final fourth quarter receipts. It is anticipated that the result of the updated forecasts will result in a change to the current M2 program sales tax revenue estimate of $14.2 billion. Staff will be providing the Finance and Administration Committee as well as the Board an update on sales tax in the first quarter of fiscal year 2017-18.

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Schedule 1

Measure M2
Schedule of Revenues, Expenditures and Changes in Fund Balance
as of June 30, 2017
(Unaudited)

($ in thousands)	Quarter Ended June 30, 2017	Year to Date June 30, 2017 *(A)*	Period from Inception to June 30, 2017 *(B)*
Revenues:			
Sales taxes	$ 79,173	$ 309,861	$ 1,760,170
Other agencies' share of Measure M2 costs:			
Project related	19,205	76,224	552,419
Non-project related	(34)	15	454
Interest:			
Operating:			
Project related	91	126	128
Non-project related	(303)	4,840	21,922
Bond proceeds	-	6,482	42,479
Debt service	16	47	123
Commercial paper	-	-	393
Right-of-way leases	10	93	907
Proceeds on sale of assets held for resale	-	6,804	6,804
Miscellaneous:			
Project related	-	-	270
Non-project related	-	-	100
Total revenues	98,158	404,492	2,386,169
Expenditures:			
Supplies and services:			
State Board of Equalization (SBOE) fees	903	3,603	19,491
Professional services:			
Project related	16,809	38,509	311,358
Non-project related	673	1,890	16,933
Administration costs:			
Project related	1,725	7,997	52,537
Non-project related :			
Salaries and Benefits	591	2,365	19,805
Other	1,170	4,679	31,317
Other:			
Project related	45	3,171	4,849
Non-project related	69	92	3,892
Payments to local agencies:			
Project related	30,065	120,976	728,872
Capital outlay:			
Project related	57,394	86,876	633,369
Non-project related	-	-	31
Debt service:			
Principal payments on long-term debt	-	7,475	34,560
Interest on long-term debt and commercial paper	6	21,342	136,879
Total expenditures	109,450	298,975	1,993,893
Excess (deficiency) of revenues over (under) expenditures	(11,292)	105,517	392,276
Other financing sources (uses):			
Transfers out:			
Project related	(2,792)	(6,972)	(29,631)
Transfers in:			
Project related	-	3,964	79,508
Non-project related	-	(3,964)	1,973
Bond proceeds	-	-	358,593
Total other financing sources (uses)	(2,792)	(6,972)	410,443
Excess (deficiency) of revenues over (under) expenditures and other sources (uses)	$ (14,084)	$ 98,545	$ 802,719

Schedule 2

Measure M2
Schedule of Calculations of Net Revenues and Net Bond Revenues (Debt Service)
as of June 30, 2017
(Unaudited)

($ in thousands)	Quarter Ended June 30, 2017 (actual)	Year to Date June 30, 2017 (actual)	Period from Inception through June 30, 2017 (actual)	Period from July 1, 2017 through March 31, 2041 (forecast)	Total
		(C.1)	*(D.1)*	*(E.1)*	*(F.1)*
Revenues:					
Sales taxes	$ 79,173	$ 309,861	$ 1,760,170	$ 12,402,132	$ 14,162,302
Operating interest	(303)	4,840	21,922	201,484	223,406
Subtotal	78,870	314,701	1,782,092	12,603,616	14,385,708
Other agencies share of M2 costs	(34)	15	454	-	454
Miscellaneous	-	-	100	-	100
Total revenues	78,836	314,716	1,782,646	12,603,616	14,386,262
Administrative expenditures:					
SBOE fees	903	3,603	19,491	186,107	205,598
Professional services	673	1,890	13,157	84,985	98,142
Administration costs :					
Salaries and Benefits	591	2,365	19,805	124,001	143,806
Other	1,170	4,679	31,317	214,025	245,342
Other	69	92	3,892	21,385	25,277
Capital outlay	-	-	31	-	31
Environmental cleanup	2,422	10,095	28,245	248,003	276,248
Total expenditures	7,553	22,724	115,938	878,506	994,444
Net revenues	$ 71,283	$ 291,992	$ 1,666,708	$ 11,725,110	$ 13,391,818
		(C.2)	*(D.2)*	*(E.2)*	*(F.2)*
Bond revenues:					
Proceeds from issuance of bonds	$ -	$ -	$ 358,593	$ 1,450,000	$ 1,808,593
Interest revenue from bond proceeds	-	6,482	42,479	6,405	48,884
Interest revenue from debt service funds	16	47	123	3,874	3,997
Interest revenue from commercial paper	-	-	393	-	393
Total bond revenues	16	6,529	401,588	1,460,279	1,861,867
Financing expenditures and uses:					
Professional services	-	-	3,776	12,340	16,116
Bond debt principal	-	7,475	34,560	1,768,010	1,802,570
Bond debt and other interest expense	6	21,342	136,879	877,953	1,014,832
Total financing expenditures and uses	6	28,817	175,215	2,658,303	2,833,518
Net bond revenues (debt service)	$ 10	$ (22,288)	$ 226,373	$ (1,198,024)	$ (971,651)

Schedule 3

Measure M2
Schedule of Revenues and Expenditures Summary
as of June 30, 2017
(Unaudited)

Project	Description	Net Revenues through June 30, 2017	Total Net Revenues
	(G)	*(H)*	*(I)*
	($ in thousands)		
	Freeways (43% of Net Revenues)		
A	I-5 Santa Ana Freeway Interchange Improvements	$ 65,693	$ 527,840
B	I-5 Santa Ana/SR-55 to El Toro	41,960	337,144
C	I-5 San Diego/South of El Toro	87,639	704,161
D	I-5 Santa Ana/San Diego Interchange Upgrades	36,062	289,751
E	SR-22 Garden Grove Freeway Access Improvements	16,773	134,768
F	SR-55 Costa Mesa Freeway Improvements	51,157	411,041
G	SR-57 Orange Freeway Improvements	36,159	290,537
H	SR-91 Improvements from I-5 to SR-57	19,568	157,229
I	SR-91 Improvements from SR-57 to SR-55	58,216	467,756
J	SR-91 Improvements from SR-55 to County Line	49,228	395,543
K	I-405 Improvements between I-605 to SR-55	149,949	1,204,823
L	I-405 Improvements between SR-55 to I-5	44,686	359,044
M	I-605 Freeway Access Improvements	2,795	22,461
N	All Freeway Service Patrol	20,966	168,460
	Freeway Mitigation	35,834	287,924
	Subtotal Projects	716,685	5,758,482
	Net (Bond Revenue)/Debt Service	-	-
	Total Freeways	$ 716,685	$ 5,758,482
	%		
	Street and Roads Projects (32% of Net Revenues)		
O	Regional Capacity Program	$ 166,673	$ 1,339,199
P	Regional Traffic Signal Synchronization Program	66,666	535,656
Q	Local Fair Share Program	300,007	2,410,527
	Subtotal Projects	533,346	4,285,382
	Net (Bond Revenue)/Debt Service	-	-
	Total Street and Roads Projects	$ 533,346	$ 4,285,382
	%		

Continues on following page...

Schedule 3

Measure M2
Schedule of Revenues and Expenditures Summary
as of June 30, 2017
(Unaudited)

	Expenditures through June 30, 2017 (J)	Reimbursements through June 30, 2017 (K)	Net M2 Cost (L)
	$ 5,890	$ 1,930	$ 3,960
	6,784	4,194	2,590
	101,531	40,708	60,823
	1,819	527	1,292
	4	-	4
	9,010	23	8,987
	46,081	10,820	35,261
	33,488	824	32,664
	18,860	2,262	16,598
	6,947	5,294	1,653
	120,513	8,211	112,302
	7,471	4,893	2,578
	1,310	16	1,294
	289	-	289
	48,901	1,800	47,101
	408,898	81,502	327,396
	35,748	-	35,748
	$ 444,646	$ 81,502	$ 363,144
			30.5%
	$ 666,925	$ 393,652	$ 273,273
	35,963	4,879	31,084
	289,873	77	289,796
	992,761	398,608	594,153
	39,706	-	39,706
	$ 1,032,467	$ 398,608	$ 633,859
			53.3%

Continues on following page...

Schedule 3

Measure M2
Schedule of Revenues and Expenditures Summary
as of June 30, 2017
(Unaudited)

Project	Description	Revenues through June 30, 2017	Total Revenues
	(G)	*(H.1)*	*(I.1)*
	($ in thousands)		
	Transit Projects (25% of Net Revenues)		
R	High Frequency Metrolink Service	$ 153,641	$ 1,335,635
S	Transit Extensions to Metrolink	147,132	1,182,187
T	Metrolink Gateways	26,874	68,449
U	Expand Mobility Choices for Seniors and Persons with Disabilities	52,027	464,363
V	Community Based Transit/Circulators	33,325	267,765
W	Safe Transit Stops	3,678	29,555
	Subtotal Projects	416,677	3,347,954
	Net (Bond Revenue)/Debt Service	-	-
	Total Transit Projects	$ 416,677	$ 3,347,954
	%		
	Measure M2 Program	$ 1,666,708	$ 13,391,818
	Environmental Cleanup (2% of Revenues)		
X	Clean Up Highway and Street Runoff that Pollutes Beaches	$ 35,642	$ 287,714
	Net (Bond Revenue)/Debt Service	-	-
	Total Environmental Cleanup	$ 35,642	$ 287,714
	%		
	Taxpayer Safeguards and Audits		
	Collect Sales Taxes (1.5% of Sales Taxes)	$ 26,403	$ 212,435
	%		
	Oversight and Annual Audits (1% of Revenues)	$ 17,821	$ 143,857
	%		

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Schedule 3

Measure M2
Schedule of Revenues and Expenditures Summary
as of June 30, 2017
(Unaudited)

	Expenditures through June 30, 2017 (J)	Reimbursements through June 30, 2017 (K)	Net M2 Cost (L)
	$ 164,643	$ 96,087	$ 68,556
	13,496	2,133	11,363
	98,214	60,956	37,258
	50,151	88	50,063
	3,963	344	3,619
	245	26	219
	330,712	159,634	171,078
	22,206	-	22,206
	$ 352,918	$ 159,634	$ 193,284
			16.2%
	$ 1,830,031	$ 639,744	$ 1,190,287
	$ 28,245	$ 292	$ 27,953
	-	-	-
	$ 28,245	$ 292	$ 27,953
			1.6%
	$ 19,491	$ -	$ 19,491
			1.1%
	$ 19,805	$ 1,984	$ 17,821
			1.0%

M2 Funds		
ENTITY	4rd Quarter FY 2016/17	FUNDS TO DATE
ALISO VIEJO	$210,063.10	$3,592,390.11
ANAHEIM	$1,881,872.38	$31,224,189.23
BREA	$305,081.95	$5,222,178.34
BUENA PARK	$454,349.44	$8,309,398.54
COSTA MESA	$791,159.43	$13,146,979.86
CYPRESS	$282,176.34	$4,870,374.15
DANA POINT	$171,162.00	$2,969,584.94
FOUNTAIN VALLEY	$328,157.77	$5,684,114.15
FULLERTON	$694,570.73	$11,839,316.44
GARDEN GROVE	$797,836.61	$13,567,769.95
HUNTINGTON BEACH	$1,030,145.94	$17,662,292.84
IRVINE	$1,480,625.19	$24,023,636.60
LAGUNA BEACH	$137,753.90	$2,315,973.72
LAGUNA HILLS	$180,408.88	$3,103,390.76
LAGUNA NIGUEL	$355,386.38	$6,102,954.30
LAGUNA WOODS	$67,060.48	$1,169,643.01
LA HABRA	$278,472.54	$4,817,293.96
LAKE FOREST	$429,950.82	$7,140,261.41

ENTITY	4rd Quarter FY 2016/17	FUNDS TO DATE
LA PALMA	$81,511.63	$1,561,485.79
LOS ALAMITOS	$69,593.41	$1,179,457.45
MISSION VIEJO	$500,709.78	$8,542,631.72
NEWPORT BEACH	$587,822.34	$9,994,461.39
ORANGE	$890,339.72	$14,961,878.54
PLACENTIA	$256,355.40	$4,322,357.30
RANCHO SANTA MARGARITA	$225,311.30	$3,862,143.28
SAN CLEMENTE	$302,333.48	$5,065,474.82
SAN JUAN CAPISTRANO	$200,011.64	$3,456,680.05
SANTA ANA	$1,504,041.27	$25,255,335.61
SEAL BEACH	$129,707.58	$2,324,301.00
STANTON	$160,268.84	$2,742,325.77
TUSTIN	$485,994.81	$8,086,756.01
VILLA PARK	$28,075.05	$475,098.67
WESTMINSTER	$461,125.86	$7,780,997.70
YORBA LINDA	$322,004.93	$5,455,253.92
COUNTY UNINCORPORATED	$1,020,181.48	$16,719,785.92
TOTAL M2 FUNDS	**$17,101,622.40**	**$288,548,167.25**

Measure M2
Progress Report
CAPITAL ACTION PLAN

Grey = Milestone achieved
Green = Forecast milestone meets or exceeds plan
Yellow = Forecast milestone is one to three months later than plan
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Capital Projects*	Cost Budget/ Forecast (in millions)	Schedule Plan/Forecast			
		Begin Environmental	Complete Environmental	Complete Design	Complete Construction
FREEWAY PROJECTS					
I-5, SR-55 to SR-57	$37.1	Jul-11	Jun-13	Mar-17	Feb-20
Project A	$39.6	**Jun-11**	**Apr-15**	Oct-17	Jun-20
I-5, I-405 to SR-55	TBD	May-14	Aug-18	TBD	TBD
Project B	TBD	**May-14**	Oct-18	TBD	TBD
I-5, Avenida Pico to Avenida Vista Hermosa	$113.0	Jun-09	Dec-11	Oct-13	Aug-18
Project C	$89.5	**Jun-09**	**Oct-11**	**Oct-13**	May-18
I-5, Avenida Vista Hermosa to Pacific Coast Highway	$75.6	Jun-09	Dec-11	Feb-13	Mar-17
Project C	$71.4	**Jun-09**	**Oct-11**	**May-13**	**Jul-17**
I-5, Pacific Coast Highway to San Juan Creek Road	$70.7	Jun-09	Dec-11	Jan-13	Sep-16
Project C	$71.2	**Jun-09**	**Oct-11**	**Jan-13**	Apr-18
I-5, Ortega Interchange	$90.9	Sep-05	Jun-09	Nov-11	Sep-15
Project D	$75.1	**Sep-05**	**Jun-09**	**Dec-11**	**Jan-16**
I-5, Ortega Interchange (Landscape)	N/A	N/A	N/A	N/A	N/A
Project D	N/A	N/A	N/A	**Oct-14**	**Sep-16**
I-5, SR-73 to Oso Parkway	$151.9	Sep-11	Jun-14	Jan-18	Apr-22
Project C & D	$190.5	**Oct-11**	**May-14**	Jan-19	Sep-24
I-5, Oso Parkway to Alicia Parkway	$196.2	Sep-11	Jun-14	Jun-17	Mar-22
Project C & D	$191.0	**Oct-11**	**May-14**	May-18	Jul-23
I-5, Alicia Parkway to El Toro Road	$133.6	Sep-11	Jun-14	Jun-18	Sep-22
Project C	$166.5	**Oct-11**	**May-14**	May-19	Dec-23
I-5, El Toro Road Interchange	TBD	TBD	TBD	TBD	TBD
Project D	TBD	May-17	Apr-20	TBD	TBD

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Progress Report
CAPITAL ACTION PLAN

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Capital Projects*	Cost Budget/ Forecast (in millions)	Schedule Plan/Forecast			
		Begin Environmental	Complete Environmental	Complete Design	Complete Construction
SR-55, I-405 to I-5	TBD	Feb-11	Nov-13	TBD	TBD
Project F	$410.9	**May-11**	Sep-17	Nov-20	Jun-25
SR-55, I-5 to SR-91	TBD	Dec-16	Jan-20	TBD	TBD
Project F	TBD	**Dec-16**	Jan-20	TBD	TBD
SR-57 Northbound (NB), Orangewood Avenue to Katella Avenue	TBD	Apr-16	Dec-18	TBD	TBD
Project G	$0.0	**Apr-16**	Dec-18	TBD	TBD
SR-57 (NB), Katella Avenue to Lincoln Avenue	$78.7	Apr-08	Jul-09	Nov-10	Sep-14
Project G	$40.5	**Apr-08**	**Nov-09**	**Dec-10**	**Apr-15**
SR-57 (NB), Katella Avenue to Lincoln Avenue (Landscape)	N/A	N/A	N/A	N/A	N/A
Project G	N/A	N/A	N/A	**Jul-10**	Nov-18
SR-57 (NB), Orangethorpe Avenue to Yorba Linda Boulevard	$80.2	Aug-05	Dec-07	Dec-09	May-14
Project G	$52.6	**Aug-05**	**Dec-07**	**Jul-09**	**Nov-14**
SR-57 (NB), Yorba Linda Boulevard to Lambert Road	$79.3	Aug-05	Dec-07	Dec-09	Sep-14
Project G	$55.4	**Aug-05**	**Dec-07**	**Jul-09**	**May-14**
SR-57 (NB), Orangethorpe Avenue to Lambert Road (Landscape)	N/A	N/A	N/A	N/A	N/A
Project G	N/A	N/A	N/A	Nov-17	May-19
SR-57 (NB), Lambert Road to Tonner Canyon	TBD	TBD	TBD	TBD	TBD
Project G	TBD	Aug-18	Jul-21	TBD	TBD
SR-91 Westbound (WB), I-5 to SR-57	$78.1	Jul-07	Apr-10	Feb-12	Apr-16
Project H	$59.6	**Jul-07**	**Jun-10**	**Apr-12**	**Jun-16**
SR-91 Westbound (WB), I-5 to SR-57 (Landscape)	N/A	N/A	N/A	N/A	N/A
Project H	N/A	N/A	N/A	**Aug-16**	May-18

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Capital Projects*	Cost Budget/ Forecast (in millions)	Schedule Plan/Forecast			
		Begin Environmental	Complete Environmental	Complete Design	Complete Construction
SR-91, SR-57 to SR-55	TBD	Jan-15	Oct-18	TBD	TBD
Project I	TBD	**Jan-15**	May-19	TBD	TBD
SR-91 (WB), Tustin Interchange to SR-55	$49.9	Jul-08	Jul-11	Mar-13	Jul-16
Project I	$43.3	**Jul-08**	**May-11**	**Feb-13**	**Jul-16**
SR-91, SR-55 to SR-241	$128.4	Jul-07	Jul-09	Jan-11	Dec-12
Project J	$79.6	**Jul-07**	**Apr-09**	**Aug-10**	**Mar-13**
SR-91, SR-55 to SR-241 (Landscape)	N/A	N/A	N/A	N/A	N/A
Project J	N/A	N/A	N/A	**Feb-13**	**Feb-15**
SR-91 Eastbound, SR-241 to SR-71	$104.5	Mar-05	Dec-07	Dec-08	Nov-10
Project J	$57.8	**Mar-05**	**Dec-07**	**Dec-08**	**Jan-11**
I-405, SR-55 to I-605 (Design-Build)	$1,900.0	Mar-09	Mar-13	Nov-15	Apr-23
Project K	$1,900.0	**Mar-09**	**May-15**	**Nov-15**	May-23
I-405, I-5 to SR-55	TBD	Dec-14	Jul-18	TBD	TBD
Project L	TBD	**Dec-14**	Jul-18	TBD	TBD
I-605, I-605/Katella Interchange	TBD	Aug-16	Nov-18	TBD	TBD
Project M	TBD	**Aug-16**	Nov-18	TBD	TBD
GRADE SEPARATION PROJECTS					
Sand Canyon Avenue Railroad Grade Separation	$55.6	N/A	Sep-03	Jul-10	May-14
Project R	$61.8	N/A	**Sep-03**	**Jul-10**	**Jan-16**
Raymond Avenue Railroad Grade Separation	$77.2	Feb-09	Nov-09	Aug-12	Aug-18
Project O	$124.8	**Feb-09**	**Nov-09**	**Dec-12**	Aug-18
State College Boulevard Railroad Grade Separation (Fullerton)	$73.6	Dec-08	Jan-11	Aug-12	May-18
Project O	$97.0	**Dec-08**	**Apr-11**	**Feb-13**	Jan-18

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Progress Report
CAPITAL ACTION PLAN

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Capital Projects*	Cost Budget/ Forecast (in millions)	Schedule Plan/Forecast			
		Begin Environmental	Complete Environmental	Complete Design	Complete Construction
Placentia Avenue Railroad Grade Separation	$78.2	Jan-01	May-01	Mar-10	Nov-14
Project O	$64.6	**Jan-01**	**May-01**	**Jun-10**	**Dec-14**
Kraemer Boulevard Railroad Grade Separation	$70.4	Jan-01	Sep-09	Jul-10	Oct-14
Project O	$63.5	**Jan-01**	**Sep-09**	**Jul-10**	**Dec-14**
Orangethorpe Avenue Railroad Grade Separation	$117.4	Jan-01	Sep-09	Dec-11	Sep-16
Project O	$108.6	**Jan-01**	**Sep-09**	**Oct-11**	**Oct-16**
Tustin Avenue/Rose Drive Railroad Grade Separation	$103.0	Jan-01	Sep-09	Dec-11	May-16
Project O	$98.3	**Jan-01**	**Sep-09**	**Jul-11**	**Oct-16**
Lakeview Avenue Railroad Grade Separation	$70.2	Jan-01	Sep-09	Oct-11	Mar-17
Project O	$107.4	**Jan-01**	**Sep-09**	**Jan-13**	**Jun-17**
17th Street Railroad Grade Separation	TBD	Oct-14	Jun-16	TBD	TBD
Project R	TBD	**Oct-14**	Oct-17	TBD	TBD
RAIL AND STATION PROJECTS					
Rail-Highway Grade Crossing Safety Enhancement	$94.4	Jan-08	Oct-08	Sep-08	Dec-11
Project R	$90.4	**Jan-08**	**Oct-08**	**Sep-08**	**Dec-11**
San Clemente Beach Trail Safety Enhancements	$6.0	Sep-10	Jul-11	Apr-12	Jan-14
Project R	$5.0	**Sep-10**	**Jul-11**	**Jun-12**	**Mar-14**
San Juan Capistrano Passing Siding	$25.3	Aug-11	Jan-13	May-16	Jan-19
	$30.8	**Aug-11**	**Mar-14**	Dec-17	Aug-20
OC Streetcar	$309.0	Aug-09	Mar-12	Sep-17	Apr-20
Project S	$310.4	**Aug-09**	**Mar-15**	Sep-17	Jul-20
Placentia Metrolink Station and Parking Structure	$34.8	Jan-03	May-07	Jan-11	TBD
Project R	$34.8	**Jan-03**	**May-07**	**Feb-11**	Oct-19

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Capital Projects*	Cost Budget/ Forecast (in millions)	Schedule Plan/Forecast			
		Begin Environmental	Complete Environmental	Complete Design	Complete Construction
Anaheim Canyon Station	$27.9	Jan-16	Dec-16	TBD	TBD
	$27.9	**Jan-16**	**Jun-17**	Apr-19	Dec-20
Orange Station Parking Expansion	$33.2	Dec-09	Dec-12	Apr-13	Jun-18
	$32.3	**Dec-09**	May-16	**Apr-16**	Jan-19
Fullerton Transportation Center - Elevator Upgrades	$3.5	N/A	N/A	Dec-13	Mar-17
	$4.0	N/A	N/A	**Dec-13**	Sep-18
Laguna Niguel/Mission Viejo Station ADA Ramps	$3.5	Jul-13	Jan-14	Aug-14	Apr-17
	$5.1	**Jul-13**	**Feb-14**	**Jul-15**	Oct-17
Anaheim Regional Transportation Intermodal Center	$227.4	Apr-09	Feb-11	Feb-12	Nov-14
Project R & T	$230.4	**Apr-09**	**Feb-12**	**May-12**	**Dec-14**

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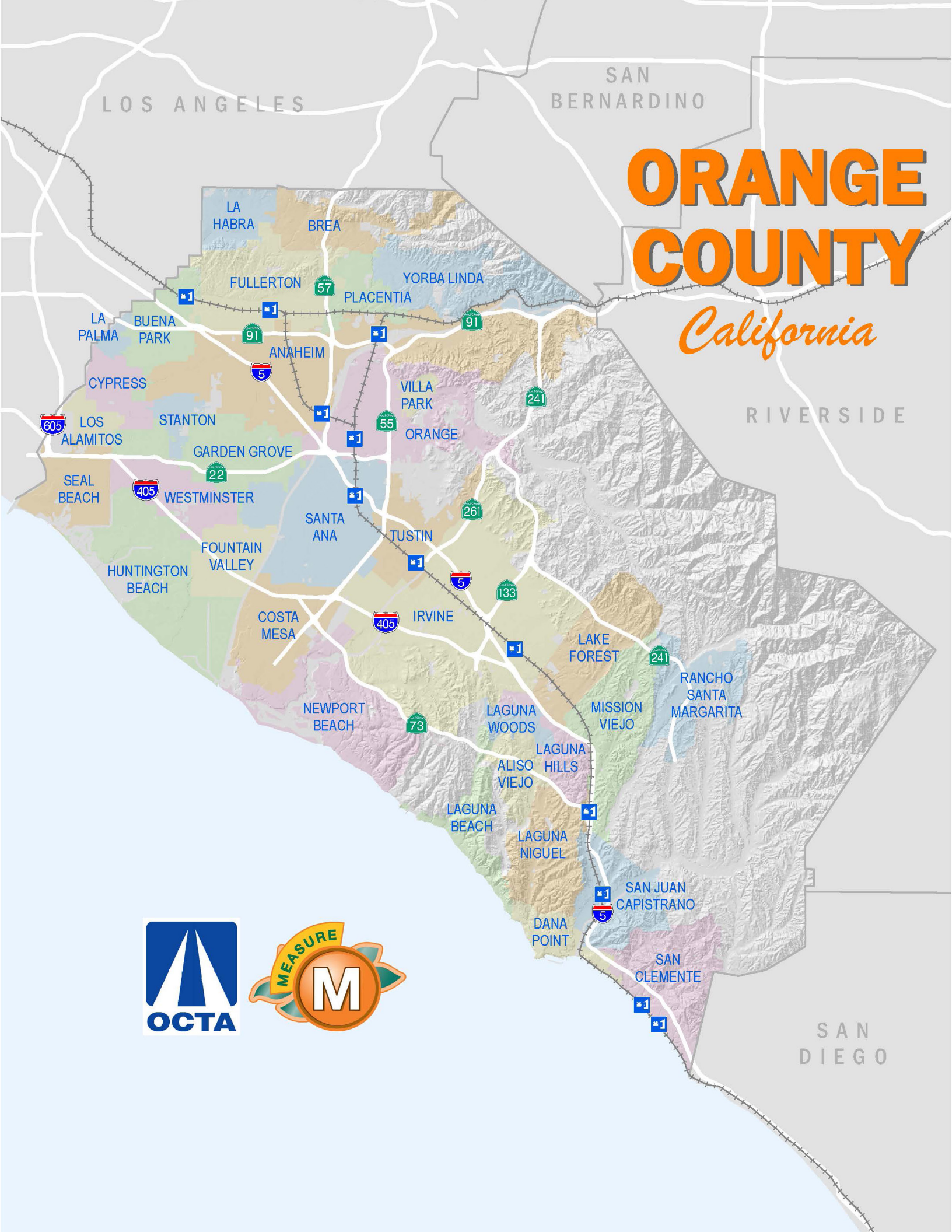
ORANGE COUNTY
California
LOS ANGELES
SAN BERNARDINO
RIVERSIDE
SAN DIEGO
LA HABRA
BREA
FULLERTON
YORBA LINDA
PLACENTIA
LA PALMA
BUENA PARK
ANAHEIM
CYPRESS
VILLA PARK
LOS ALAMITOS
STANTON
ORANGE
GARDEN GROVE
SEAL BEACH
WESTMINSTER
SANTA ANA
TUSTIN
FOUNTAIN VALLEY
HUNTINGTON BEACH
COSTA MESA
IRVINE
LAKE FOREST
RANCHO SANTA MARGARITA
NEWPORT BEACH
LAGUNA WOODS
MISSION VIEJO
LAGUNA HILLS
ALISO VIEJO
LAGUNA BEACH
LAGUNA NIGUEL
SAN JUAN CAPISTRANO
DANA POINT
SAN CLEMENTE
OCTA
MEASURE M