

Regional Traffic Signal Synchronization Program Update

Program Overview

Program

- M2: Regional Traffic Signal Synchronization Program (Project P)
- OCTA has used M2 Project P funds to leverage external funding to enhance regional signal synchronization efforts through SB 1 (Chapter 5, Statutes of 2017), LPP, and SCCP grants

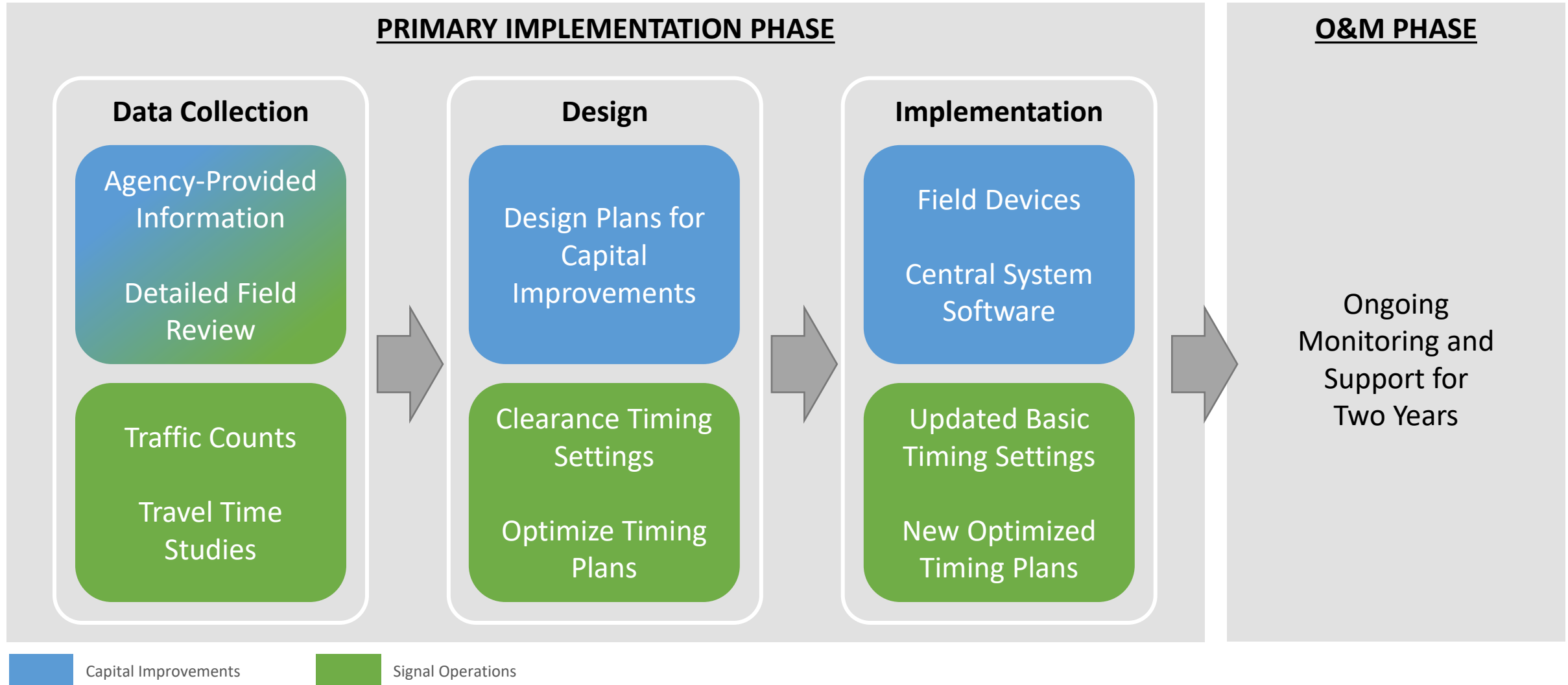
Goal

- Improve the flow of traffic by developing and implementing regional signal coordination across jurisdictional boundaries

Approach

- Target over 2,000 signalized intersections across the County
- Offer annual competitive funding for projects nominated by local cities and the County
- Cover 80 percent of project costs through Project P to deliver awarded projects

Typical Process









Recently Completed Projects

Implementation Completed Pending Reporting:

	Lead Agency	Project Limits	Number of Agencies	Length (miles)	Signalized Intersections
Red Hill Avenue	OCTA	Bryan Avenue to Bristol Street	3	6.65	28
Barranca Parkway*	City of Irvine	Magnolia Street to Bake Parkway	3	17.00	66
Tustin Avenue / Rose Drive*	City of Orange	First Street to Wabash Avenue	6	11.40	55
First Street / Bolsa Avenue*	OCTA	Bolsa Chica Street to Newport Avenue	5	13.10	60
MacArthur Boulevard / Talbert Avenue*	OCTA	Walmart Shopping Center to MacArthur Place	3	8.20	26

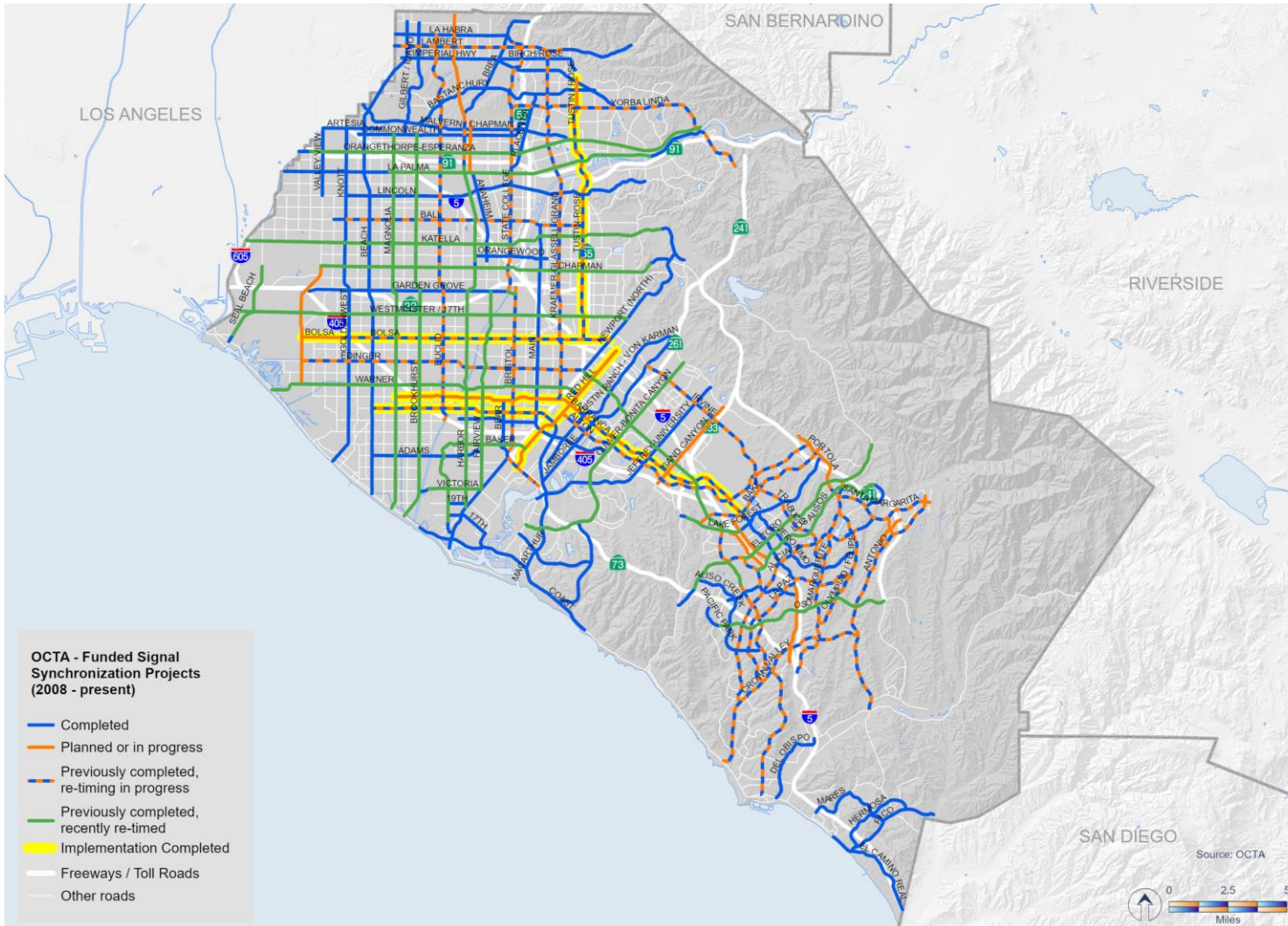
* Denotes a corridor that has been revisited

Implementation and Improvements Reported:

	Orangethorpe Avenue*	Lake Forest Drive*
Lead Agency	City of Fullerton	OCTA
Project Limits	Walker Street to New River Road	Portola Parkway to Romano/Hidden Canyon
Number of Agencies	7	3
Length (miles)	17.28	7.45
Signalized Intersections	57	27
Travel Time Improvement	13% 	13% 
Average Speed Improvement	15% 	15% 
Stops Improvement	26% 	29% 
GHG Savings (lbs.)	23,851,212	8,139,001

GHG – Greenhouse Gas
lbs. – pounds

Status of Synchronization Projects



Funded Signal Synchronization Projects (2008 – present)

109 COMPLETED

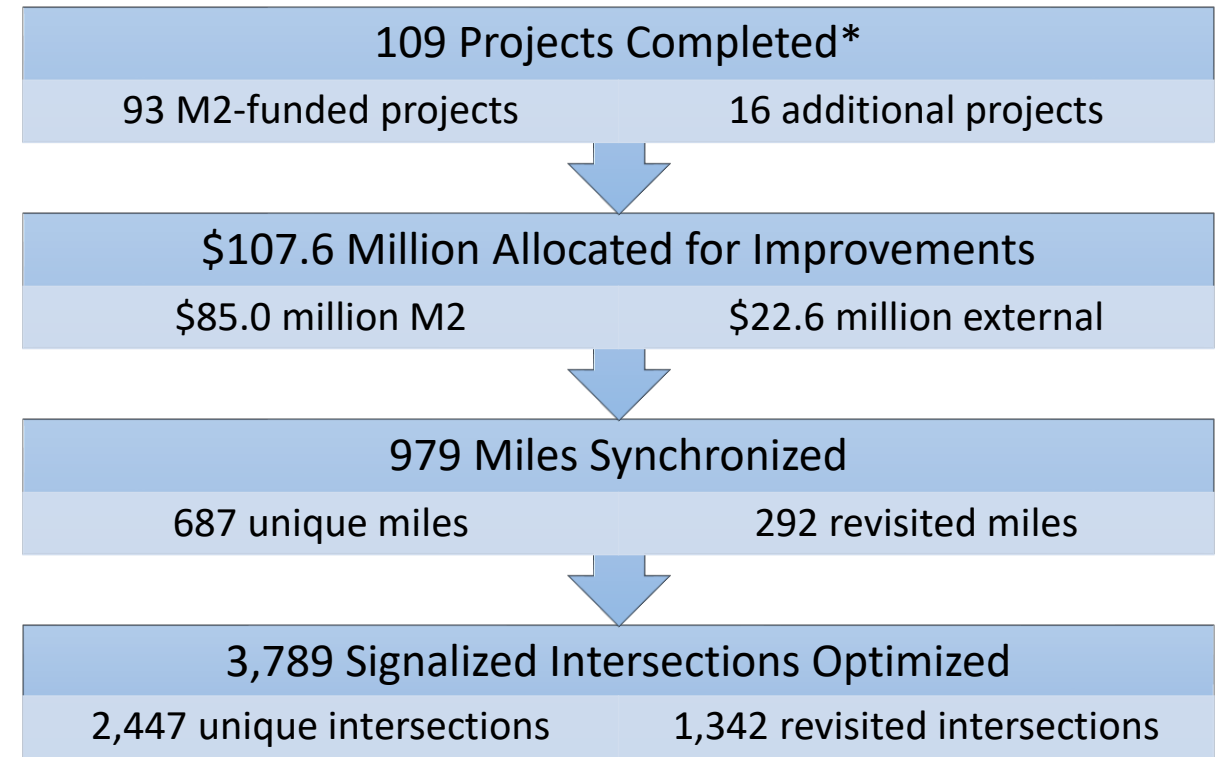
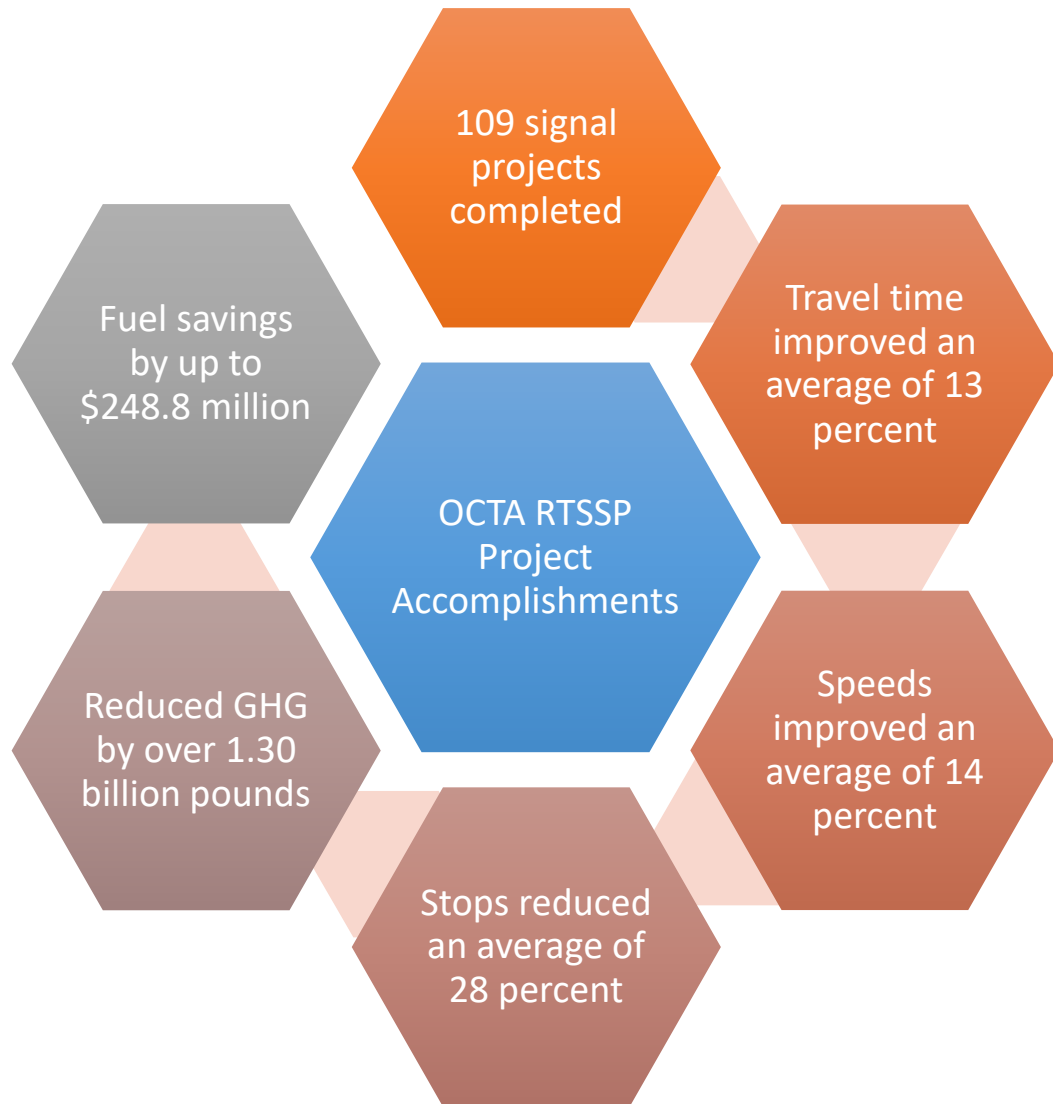
- 82 Completed
- 27 Previously completed, recently re-timed

30 UNDERWAY*

- Six In progress or planned
- 24 Previously completed, re-timing in progress

*Five of the 30 projects underway have completed timing implementation (highlighted in yellow) awaiting reporting

Results for All Completed Projects



* 27 projects involve a revisit of a previously completed corridor due to changing travel patterns
RTSSP – Regional Traffic Signal Synchronization Program

Countywide Signal Synchronization Baseline

Project Goals



Retime approximately 2,500 signalized intersections across Orange County



Evaluate corridor synchronization as a connected network to improve crossing coordination



Establish a new baseline to measure and track signal synchronization performance



Monitor corridor and network performance continuously using crowdsourced data



Make seasonal adjustments to keep the signal network responsive and efficient

Project Status

Retime

- Completed: Counts and field inventory
- Ongoing: Modeling existing conditions in preparation for the optimization and implementation in 2026

Performance Measures

- Completed: Data platform for stakeholders to view corridor and network performance
- Ongoing: Evaluating corridor performance metrics available through crowdsourced data

Continue Testing

- Will commence following the completion of all timing adjustments/implementation

Next Steps

- Continue to work with local agencies to identify corridors that are eligible for funding and would benefit from signal program funding as part of the annual call for projects.
- Implementation of a countywide signal synchronization baseline is currently underway. This project aims to begin the deployment of optimized timing plans in 2026 and will set the stage for the next phase of the signal program.