

Annual Regional Traffic Signal Synchronization Program Update

Program

- M2: Regional Traffic Signal Synchronization Program (Project P)
- OCTA has used M 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 M2 to deliver awarded projects

M2 – Measure M2

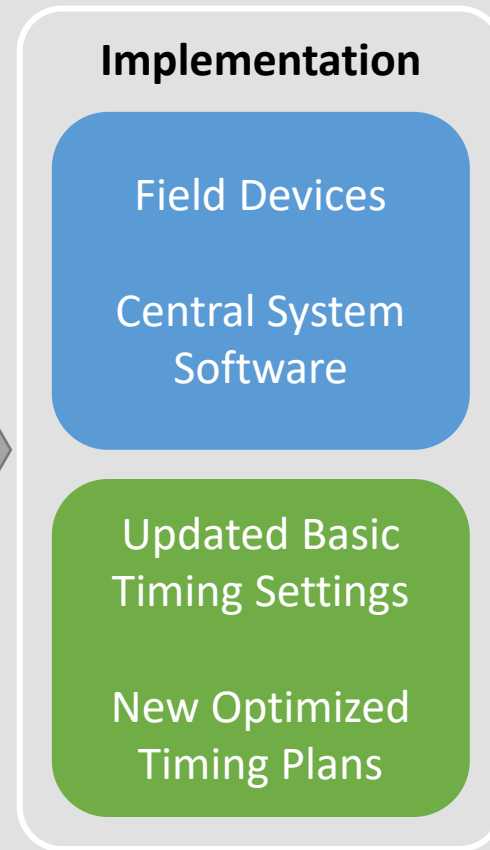
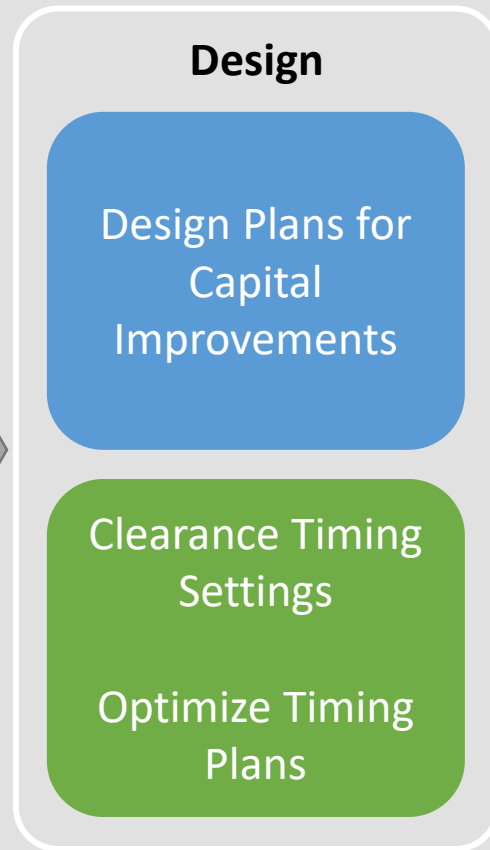
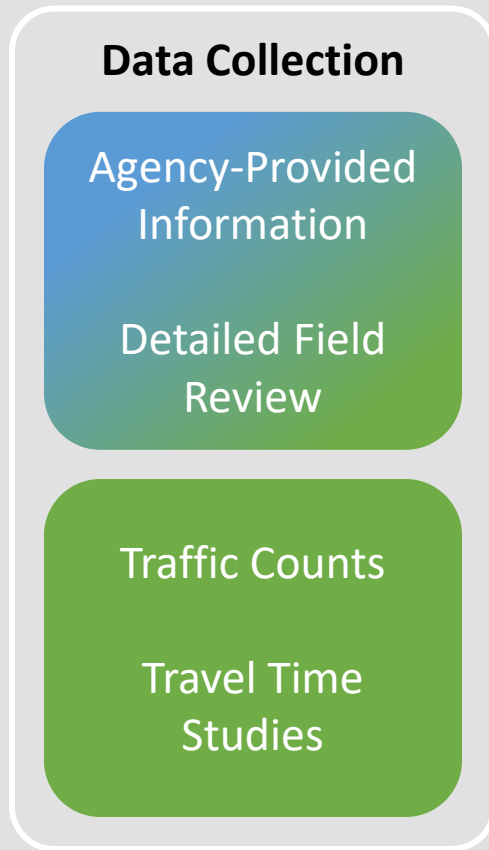
LPP – Local Partnership Program

SCCP – Solutions for Congested Corridors Program



















Typical Process

PRIMARY IMPLEMENTATION PHASE

O&M PHASE

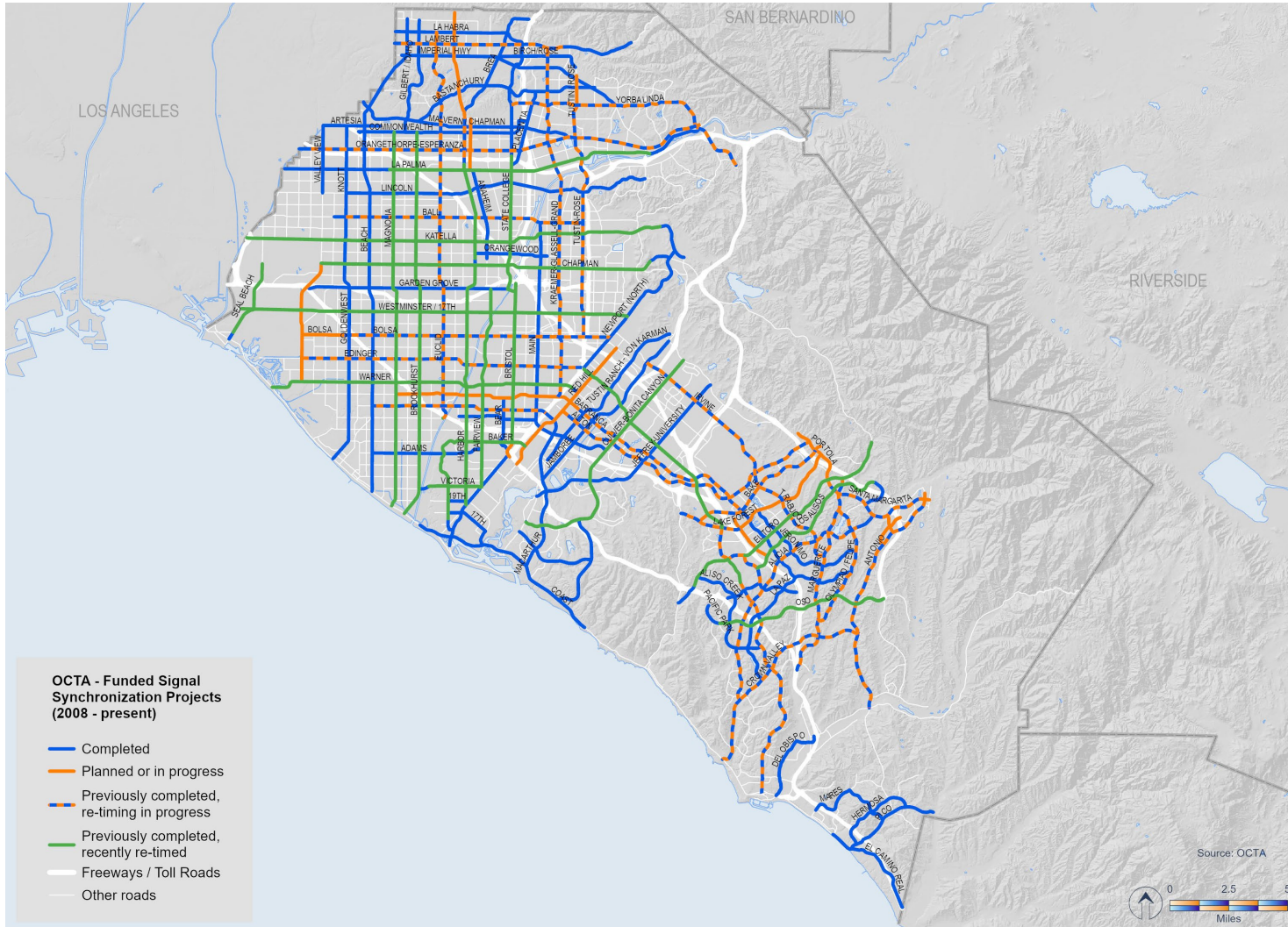


Recently Completed Projects

| | Baker Street-Placentia Avenue/Victoria Street/19 th Street* | Culver Drive/Bonita Canyon Drive/Ford Road* | Gilbert Street/Idaho Street | MacArthur Boulevard | Seal Beach Boulevard* | Warner Avenue* |
|--------------------------------------|---|---|--|---|---|---|
| Lead Agency | City of Costa Mesa | City of Irvine | City of Fullerton | City of Irvine | City of Seal Beach | OCTA |
| Project Limits | Red Hill Avenue to 16 th Street/Valley Road to Newport Boulevard/Pomona Avenue to Harbor Boulevard | Portola Parkway to Jamboree Road | Whittier Boulevard to Commonwealth Avenue | SR-55 Southbound Off-Ramps to Coast Highway | Bradbury Drive to Pacific Coast Highway | Pacific Coast Highway to Pullman Street |
| Number of Agencies | 2 | 3 | 2 | 3 | 4 | 3 |
| Length (miles) | 10.20 | 9.32 | 5.26 | 7.29 | 5.00 | 14.40 |
| Signalized Intersections | 41 | 39 | 19 | 22 | 20 | 42 |
| Travel Time Improvement | 10%  | 9%  | 3%  | 14%  | 27%  | 10%  |
| Average Speed Improvement | 8%  | 11%  | 2%  | 17%  | 39%  | 12%  |
| Stops Improvement | 24%  | 28%  | 8%  | 36%  | 53%  | 24%  |
| Greenhouse Gas Savings (lbs.) | 8,366,544 | 16,506,620 | 1,275,085 | 15,683,782 | 21,713,587 | 16,642,680 |

* Denotes a corridor that has been revisited
OCTA – Orange County Transportation Authority

Status of Synchronization Projects



Funded Signal Synchronization Projects (2008 – present)

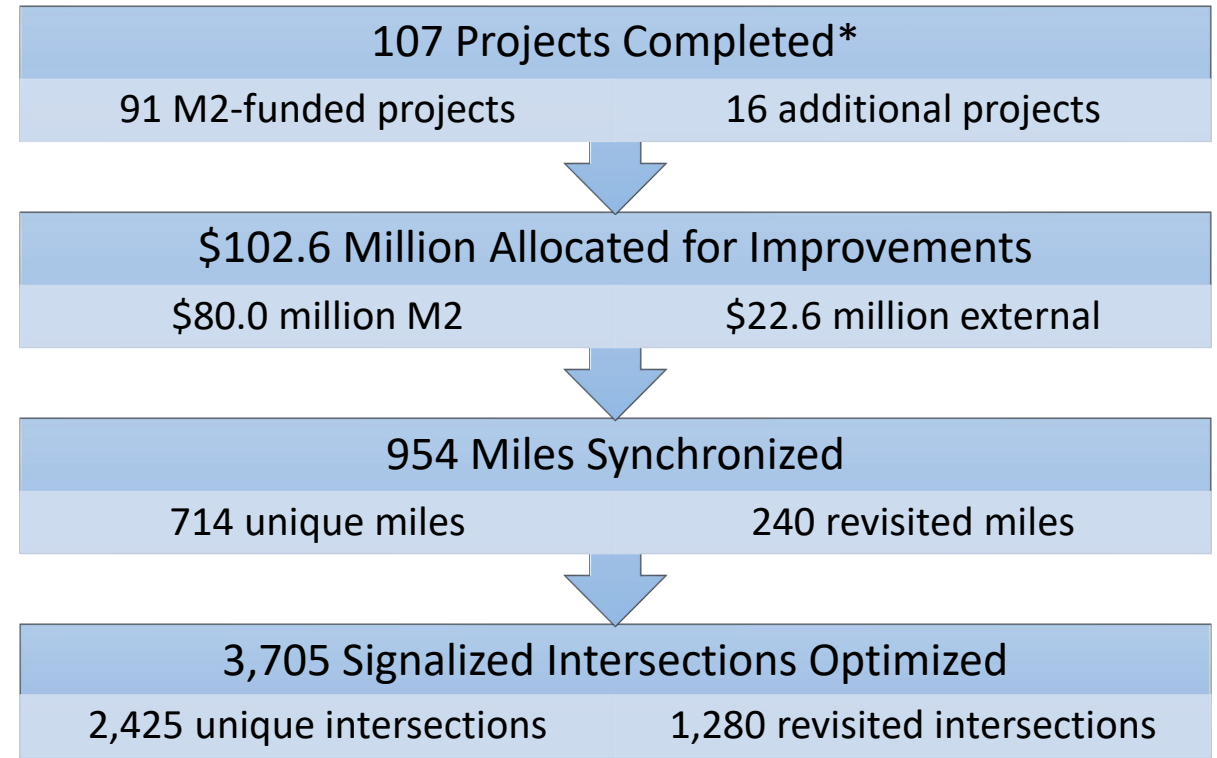
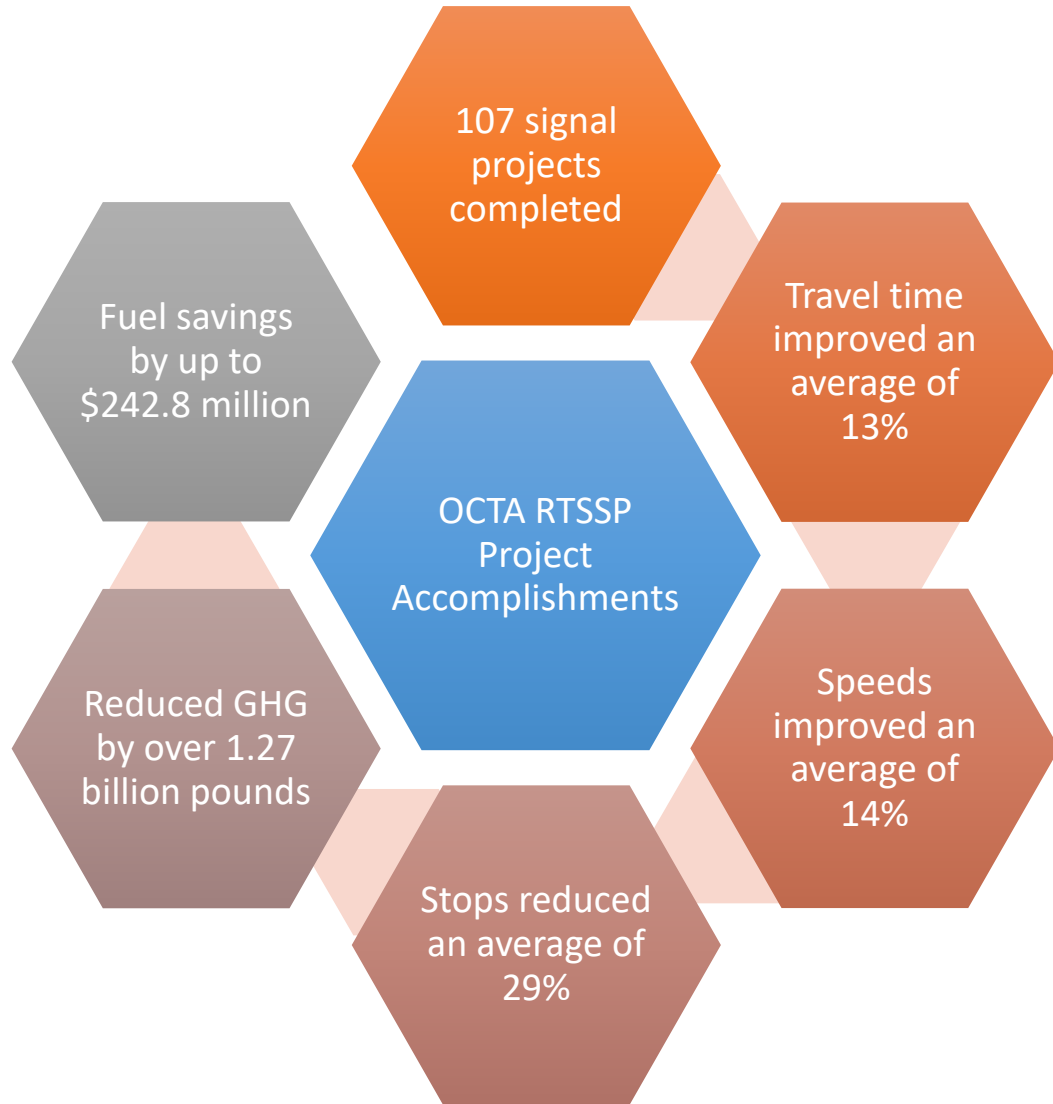
107 COMPLETED

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

26 UNDERWAY

- 3 In progress or planned
- 23 Previously completed, re-timing in progress

Results for All Completed Projects



* 25 projects are a revisit of a previously completed corridor due to changing travel patterns

GHG – Greenhouse Gas

RTSSP – Regional Traffic Signal Synchronization Program

Countywide Signal Synchronization Plan Study



Corridors that were recently timed perform well while in continuous monitoring



Many timed corridors have not or do not come through the program as frequently



Corridor approach worked well but is seeing conflicts with crossing corridors

Countywide Signal Synchronization Baseline Project



Secured external funds and cooperation from agency operators of signalized intersections



Will retime approximately 2,500 signalized intersections in Orange County



Evaluate corridor synchronization as a network to improve crossing coordination



Establish a new baseline for signal synchronization performance

- 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 complete the deployment of optimized timing plans by the end of 2026 and will set the stage for the next phase of the signal program.