

MARICOPA ASSOCIATION OF GOVERNMENTS

INFORMATION SUMMARY... for your review

DATE:

November 30, 2010

SUBJECT:

Recommended Projects for MAG FY 2011 Traffic Signal Optimization Program

SUMMARY:

A formal request for projects for the FY 2011 Traffic Signal Optimization Program (TSOP) was announced by MAG on September 21, 2010. The available TSOP budget in the MAG Work Program for FY 2011 is \$430,000, including an estimated \$30,000 carried over from FY 2010. Fifteen (15) project applications have been received requesting a total of \$395,500 to improve operations at 476 intersections in 14 jurisdictions. A regional workshop to provide training on signal timing software has also been included in the list of projects at an estimated cost of \$10,000, based on the need identified by local agencies. The recommended projects will be carried out using ten (10) qualified on-call consultants under contract with MAG.

Since its inception in 2004, the MAG Traffic Signal Optimization Program (TSOP) has successfully completed fifty projects that improved traffic signal timing at more than 500 intersections across the region. Projects launched through this program provide technical assistance to member agencies for improving traffic signal coordination, optimization and review of operations through simulation modeling. Technical assistance is provided by consultants under contract with MAG for on-call consulting services.

Traffic signal optimization is one of the most cost-effective ways to improve traffic movement and make our streets safer and efficient. Signal optimization is performed for any or all of the following reasons:

- To adjust signal timing to account for changes in traffic patterns due to new developments and traffic growth
- To reduce motorist frustration and unsafe driving by reducing stops and delay
- To improve traffic flow through a group of signals, thereby reducing emissions and fuel consumption
- To postpone the need for costly long-term road capacity improvement by improving the traffic flow using existing resources

Signal optimization projects have been found to produce benefit to cost ratios as high as 40 to 1. This program, enthusiastically championed by the Intelligent Transportation Systems Committee, provides traffic engineering assistance for refining signal operations across the MAG region. A typical TSOP project costs around \$25,000. These projects do not require a local match.

PUBLIC INPUT:

None.

PROS & CONS:

PROS: The proposed TSOP projects, when implemented, will result in improved traffic operations and reductions in gasoline consumption and vehicular emissions.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: It is essential that local agency technical staff assist in coordinating the execution of these projects by the designated MAG on-call consultant. This will require staff participation.

POLICY: None.

ACTION NEEDED:

Approval of the list of FY 2011 Traffic Signal Optimization Program projects.

PRIOR COMMITTEE ACTIONS:

MAG Management Committee: On November 10, 2010, the Management Committee recommended approval of the proposed list of TSOP projects.

MEMBERS ATTENDING

- | | |
|--|--|
| Carl Swenson, Peoria, Chair | Bill Hernandez, Guadalupe |
| Charlie Meyer, Tempe, Vice Chair | Sonny Culbreth for Darryl Crossman, |
| # George Hoffman, Apache Junction | Litchfield Park |
| Charlie McClendon, Avondale | Christopher Brady, Mesa |
| Stephen Cleveland, Buckeye | Jim Bacon, Paradise Valley |
| * Gary Neiss, Carefree | Ed Zuercher for David Cavazos, Phoenix |
| * Usama Abujbarah, Cave Creek | John Kross, Queen Creek |
| Patrice Kraus for Rich Dlugas, Chandler | * Bryan Meyers, Salt River Pima-Maricopa |
| Pat Dennis for Rick Flaaen, El Mirage | Indian Community |
| * Phil Dorchester, Fort McDowell Yavapai | David Richert, Scottsdale |
| Nation | Michael Celaya for Mark Coronado, Surprise |
| Rick Davis, Fountain Hills | * Reyes Medrano, Tolleson |
| Rick Buss, Gila Bend | Gary Edwards, Wickenburg |
| * David White, Gila River Indian Community | * Lloyce Robinson, Youngtown |
| Collin DeWitt, Gilbert | Rob Samour for John Halikowski, ADOT |
| Brent Stoddard for Ed Beasley, Glendale | * David Smith, Maricopa Co. |
| Mark Gaillard for John Fischbach, Goodyear | David Boggs, Valley Metro/RPTA |

* Those members neither present nor represented by proxy.
Participated by telephone conference call. + Participated by videoconference call.

MAG Transportation Review Committee: On October 28, 2010, the MAG Transportation Review Committee recommended approval of the proposed list of TSOP projects.

MEMBERS ATTENDING

- | | |
|-------------------------------------|--------------------------------------|
| Peoria: David Moody | Chandler: RJ Zeder for Patrice Kraus |
| ADOT: Steve Hull for Floyd Roehrich | El Mirage: Lance Calvert |
| Avondale: Shirley Gunther for David | Fountain Hills: Randy Harrel |
| Fitzhugh | * Gila Bend: Eric Fitzer |
| Buckeye: Scott Lowe | * Gila River: Doug Torres |

Gilbert: Tami Ryall
Glendale: Cathy Colbath for Terry Johnson
Goodyear: Cato Esquivel
* Guadalupe: Gino Turrubiarres
Litchfield Park: Paul Ward for Woody
Scoutten
Maricopa County: Clem Ligocki for John
Hauskins
Mesa: Scott Butler
Paradise Valley: Bill Mead
Phoenix: Rick Naimark

Queen Creek: Tom Condit
RPTA: Bryan Jungwirth
Scottsdale: Dave Meinhart
Surprise: Bob Beckley
Tempe: Jyme Sue McLaren for Chris
Salomone
Valley Metro Rail: John Farry
* Wickenburg: Rick Austin
Youngtown: Grant Anderson for Lloyce
Robinson

EX-OFFICIO MEMBERS ATTENDING

Street Committee: Dan Cook, City of
Chandler
* ITS Committee: Nicolaas Swart, Maricopa
County

* Bicycle/Pedestrian Committee: Peggy
Rubach, RPTA
* Transportation Safety Committee: Julian
Dresang, City of Tempe

* Members neither present nor represented by proxy. + Attended by Videoconference
Attended by Audioconference

MAG Intelligent Transportation Systems Committee: On October 19, 2010, the MAG Intelligent
Transportation Systems Committee recommended approval of proposed list of TSOP projects.

MEMBERS ATTENDING

* ADOT: Reza Karimvand
+ ASU: Soyoung Ahn
+ Avondale: Bennie Robinson
+ Buckeye: Thomas Chlebanowski
+ Chandler: Mike Mah
* DPS: Jenna Mitchell
* El Mirage: Jorge Gastelum
+ FHWA: Jennifer Brown
+ Gilbert: Kurt Sharp
+ Glendale: Debbie Albert
+ Goodyear: Luke Albert

Maricopa County, Nicolaas Swart, Chair
+ Mesa: Derrick Bailey
+ Peoria: Ron Amaya
Phoenix: Marshall Riegel
* Phoenix Public Transit: Bob Ciotti
+ Queen Creek: Bill Birdwell
Scottsdale: Jennifer Bohac for Bruce Dressel
+ Surprise: Nicholas Mascia
Tempe: Cathy Hollow
+ Valley Metro Rail: Arkady Bernshteyn

* Members neither present nor represented by proxy.
+ Attended by Videoconference # Attended by Audioconference

CONTACT PERSON:

Sarath Joshua (602) 254-6300.

FY2011 TSOP Project List

	Lead Agency	Other Agencies	Project Descriptions	# Intx	Estimated Cost	Contact	SYNCHRO workshop
1	Avondale		Implement and adjust the signal timing that was developed by a previous TSOP project	28	\$8,000.00	Bennie Robinson	
2	Chandler		Collection of Turning Movement Counts at 50 intersections for AM, Midday and PM (2 hours each) - city staff will develop new signal timing based on the data	50	\$25,000.00	Debra Bieber	1
3	Gilbert		Collection of Turning Movement Counts at 51 intersections for AM, Midday and PM (2 hours each) - city staff will develop new signal timing based on the data	51	\$25,000.00	Erik Guderian	1
4	Glendale	ADOT	Collection of Turning Movement Counts at 24 intersections around the Glendale sports facilities on a typical day and different event days - city staff will develop new signal timing based on the data	24	\$25,000.00	Debbie Albert	
5		ADOT, Peoria	Turning Movement Counts collection at 9 intersections along 75th Avenue and Union Hills Drive - city staff will develop new signal timing based on the data	9	\$5,000.00		
6	Goodyear		Turning Movement Counts collection at 63 intersections for AM, Midday and PM - city staff will develop new signal timing based on the data	63	\$25,000.00	Hugh Bigalk	
7	MAG		Regional SYNCHRO software training workshop		\$10,000.00	Leo Luo	
8	Maricopa County	Surprise, Glendale, Peoria, ADOT	Saturday AM, PM, mid-day and Sunday all day timing plans for Bell Road, 37 intersections across 5 jurisdictions, approximately 13 miles.	37	\$95,000.00	Bob Steele	5
9	Mesa		Approach counts at 96 locations - city staff will develop the signal timing based on the data		\$25,000.00	Derrick Bailey	6
10	Phoenix		Develop the SYNCHRO Model for Phoenix West Core and input existing timing and Turning Movement Counts	28	\$12,500.00	Marshall Riegel	
11			Develop signal timing for McDowell Rd and Van Buren St; Evaluate the impact of pedestrian requirements in the 2009 MUTCD	32	\$25,000.00		
12			Develop SYNCHRO model for Phoenix North Central Core and input existing timing and Turning Movement Counts	120	\$25,000.00		
13	Scottsdale	ADOT, SRPMIC	Optimization of 8 freeway-arterial interchanges along Loop 101 Pima Freeway	8	\$25,000.00	Paul Porell	1
14	Surprise		Optimization of 8 intersections along Bell, Greenway and Litchfield Roads	8	\$25,000.00	Allan Galicia	3
15	Tempe		Update signal timing along University Drive for AM, PM and off-peak	18	\$25,000.00	Cathy Hollow	1
16			Update citywide SYNCHRO network and input existing data		\$25,000.00		
			Total Amount	476	\$405,500.00	Est # workshop attendees	18

Available this year	\$400,000.00
Estimated balance from previous TSOP cycle	\$30,000.00
Total available	\$430,000.00