

October 4, 2016

TO: Members of the MAG Intelligent Transportation Systems Committee

FROM: Marshall Riegel, City of Phoenix, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Wednesday, October 12, 2016- **9:30 a.m.**  
MAG Office Building, 2<sup>nd</sup> Floor, **Chaparral Room**  
302 North First Avenue, Phoenix

The ITS Committee has been scheduled at the time and place noted above. Committee members or their proxies may attend **in person or by video conference or by telephone conference call**. Those attending by telephone conference call please contact MAG offices for conference call instructions.

Please park in the garage under the MAG building, bring your ticket, parking will be validated. For those using transit, Valley Metro/RPTA will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

In 1996, the Regional Council approved a simple majority quorum for all MAG advisory committees. If the ITS Committee does not meet the quorum requirement, members who have arrived at the meeting will be instructed a legal meeting cannot occur and subsequently be dismissed. Your attendance at the meeting is strongly encouraged.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Leila Gamiz at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

If you have any questions regarding the meeting, please contact Sarath Joshua at (602) 254-6300.

## TENTATIVE AGENDA

	<u>COMMITTEE ACTION REQUESTED</u>
<p>1. <u>Call to Order</u></p> <p>For the October 12, 2016 meeting, the quorum requirement is 10 committee members.</p>	
<p>2. <u>Approval of the September 7, 2016 ITS Committee Meeting Minutes</u></p>	<p>2. Review and approve minutes of the meeting held on September 7, 2016.</p>
<p>3. <u>Call to Audience</u></p> <p>An opportunity will be provided to members of the public to address the ITS Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the ITS Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity when the item is heard.</p>	<p>3. For information and discussion.</p>
<p>4. <u>Program Managers Report</u></p> <p>The following items will be discussed:</p> <ul style="list-style-type: none"><li>• City of Buckeye's ITS Strategic Plan</li><li>• ITS Arizona Annual Conference</li></ul>	<p>4. For information and discussion.</p>
<p>5. <u>FY2017 Traffic Signal Optimization Program - Call for Projects</u></p> <p>On September 13, 2016, a call for projects was announced to identify new TSOP projects for FY2017. A total of \$300,000 is available to be programmed for new projects. Project applications are due by the Noon on October 7<sup>th</sup>. A complete set of project applications will be forwarded via email to each committee member for review.</p> <p>Agencies that submit project applications</p>	<p>5. For information, discussion and possible action to recommend a list of TSOP projects for FY2017.</p>

will be requested to be present to answer any questions on the projects.

The committee will determine whether to make a recommendation or further evaluate projects with action to be taken at a Special Meeting that has tentatively been scheduled for 2pm on Monday October 17, 2016.

6. Test of Adaptive and Responsive Ramp Metering on SR51

The Arizona DOT is testing an adaptive and responsive ramp metering algorithm along the SR51 freeway. A brief overview of this test and its progress will be provided.

7. Regional Community Network Report

A status report on activities related to the Regional Community Network will be provided by MAG staff.

8. Reports by Committee Members

Members will be provided an opportunity to share information related to ongoing ITS activities in their jurisdictions.

9. Request for Future Agenda Items

Topics or issues of interest that members of the committee would like to have considered for discussion at a future meeting will be requested.

10. Next Meeting Date and Place

If it is deemed necessary, a Special Meeting will be held at 2:00 p.m. on October 17, 2016, in the Cholla Room. The next regular meeting is scheduled to be held at 9:30 a.m. on Wednesday, November 9, 2016. It will be held in the Chaparral Room on the 2<sup>nd</sup> Floor of the MAG office building. This meeting will be followed by a 10:30 am meeting of the Technical Advisory Group for the Systems Management and Operations Study.

11. Adjournment

6. For information and discussion.

7. For information and discussion.

8. For information and discussion.

9. For information and discussion.

10. For information.

**DRAFT MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
INTELLIGENT TRANSPORTATION SYSTEMS COMMITTEE**

September 7, 2016  
MAG Ironwood Room, 2nd Floor  
302 North First Avenue  
Phoenix, Arizona

MEMBERS ATTENDING

Reza Karimvand, ADOT	Luke Albert, City of Goodyear
# Yingyan Lou, ASU	Nicolaas Swart, Maricopa County
Chris Hamilton, City of Avondale	# Avery Rhodes, City of Mesa
* Tammy Valadez Paz, City of Buckeye	Steve McKenzie, City of Peoria
Mike Mah, City of Chandler	Marshall Riegel, City of Phoenix
Sergeant John Paul Cartier, DPS	# Leslie Bubke for Reginald Fitzpatrick, City of Scottsdale
Bryce Christo, City of El Mirage	Albert Garcia, City of Surprise
Edward Stillings for Jennifer Brown, FHWA	# David Lucas, City of Tempe
Rajnish Gupta, Town of Gilbert	* Jay Yenerich, Valley Metro
Allan Galicia, City of Glendale	

OTHERS PRESENT

Steve Ramsey, ADOT	Arnab Gupta, AECOM
Mark Poppe, ADOT	Scott Kelley, Amec Foster Wheeler
Vahid Goftar, ADOT	Saroja Devarakonda, HDR
Farzana Yasmin, ADOT	Krishna Anantuni, Gannett Fleming
Mike Sutton, City of Mesa	Cory Steele, Strand
Faisal Saleem, Maricopa County	Lisa Burgess, Kimley-Horn
Dan Hartig, Ayres	Deanna Haase, Kimley-Horn
Dave Chambers, TransCore	Felipe Ladron de Guevara, Kittelson
Torrin Smith, TransCore	Sandy Thoms, Jacobs
Jeff Jenq, OZ Engineering	Sanjay Paul, Lee Engineering
Skye Gentile, Parsons	Margaret Boone, MAG
Rumpa Dey, YSMA	Ryan Gish, MAG
Don Tappendorf, Michael Baker	Eric Nava, MAG
Natalie Carrick, Michael Baker	Sarath Joshua, MAG

- \* Not present or represented by proxy
- # Participated by teleconference
- + Participated by videoconference

1. Call to Order

Chair Marshall Riegel called the meeting to order at 9:30 a.m. and conducted introductions.

2. Approval of the August 10, 2016 ITS Committee Meeting Minutes

Chair Riegel requested approval of the meeting minutes from the August 10<sup>th</sup> ITS Committee meeting. **Reza Karimvand from ADOT moved, Albert Garcia from City of Surprise seconded, and it was unanimously carried to approve the minutes of the meeting held on August 10, 2016.**

3. Call to Audience

Chair Riegel made a call to the audience providing an opportunity for any members of the public to address the ITS Committee. Don Tappendorf with Michael Baker Inc, inquired on the recent changes to ramp metering operations. Reza Karimvand with ADOT stated that there is currently a before-and-after evaluation being conducted in connection with an adaptive ramp metering test on SR-51. Vahid Gofar with ADOT added that the adaptive ramp metering test is on northbound SR-51, and will be moving to the southbound SR-51 in the near future.

4. Program Manager's Report

Chair Riegel invited Sarath Joshua from MAG to present the Program Manager's Report. Mr. Joshua addressed the following items in the report:

➤ Upcoming ITS Planning Projects

Mr. Joshua detailed upcoming ITS planning projects. The I-10 Integrated Corridor Management Deployment Planning Project is being scoped to include the Concept of Operations and Analysis, Modeling, and Simulation Plan. The associated RFP is expected in the near future. The Regional Emergency Vehicle Preemption (EVP) Coordination for Unified Operations project will establish a regional EVP working group and will entail a series of workshops to generate consensus on standards for operations and future deployment. The budgeted amount is for \$80,000 for the ITS on-call task order. The City of Buckeye will be coordinating with MAG staff to develop the ITS Strategic Plan. The budgeted amount is for \$100,000 for the ITS on-call task order. MAG will be issuing a call for the next round of TSOP projects for FY2017. The available budget for projects is \$300,000, to be carried out through on-call task orders.

➤ Systems Management and Operations Plan

The 16-month project was initiated on August 10<sup>th</sup> with Kimley-Horn as the consultant. The Project Team is establishing the Technical Advisory Group for project oversight. All members of the ITS Committee have been invited to participate in the Technical Advisory Group (TAG) that will provide oversight to this study. Others invited to participate in the TAG include Chair and Vice Chair of the Transportation Review Committee, staff of the ADOT TSM&O division and MAG staff. Project meetings are coordinated with ITS Committee meetings, to be held at 10:30 AM following the committee meeting. Today's project meeting on best practices in Transportation Systems Management and Operations will include a webinar with nation experts and agencies with exemplary practices.

➤ Broadcasting of SPaT Data

Developments in the requests for Signal Phase and Timing (SPaT) data from member agencies have necessitated a discussion in current practices. MCDOT is preparing to launch a study, which will prompt the regional approach following its conclusion barring any future requests from member agencies. Nicolaas Swart with Maricopa County explained that the study will review guidelines, policies, and procedures. The study is expected to commence in October.

5. Benefit-Cost Evaluation of a TSOP Project

Chair Riegel invited Mark Poppe and Vahid Gofar with ADOT to present the Benefit-Cost Analysis performed for a recently completed MAG Traffic Signal Optimization Program (TSOP) project at I-17 & Camelback Road and I-17 & Indian School Road. Mr. Poppe thanked City of Phoenix, ADOT, and MAG staff for making the project a success. The corridors involved traffic signals controlled by both the City of Phoenix and ADOT. The project involved nine intersections on two parallel arterials. The new signal settings recommended by the project were implemented by both agencies and both sites were evaluated through a before-and-after study. Significant traffic flow improvements resulted at these two locations. Using the available data, including before- and after-travel times and vehicle counts, Mr. Gofar estimated the benefits using a \$20 per hour per vehicle travel time cost. The cost estimation included staff time for City of Phoenix, ADOT, and MAG, as well as the consultant fee for the project. General exclusions to the estimates included the potential increase in delay on side streets for the costs, and potential safety improvements, commercial vehicle travel time savings, and environmental reductions for benefits. These values were not measured for the study effort. The estimated \$6.2 million in annual savings due to reduced travel times, and the \$72,460 MAG project cost, resulted in a project benefit cost ratio of 86:1. Chair Riegel identified that the \$20 per hour value was developed under a previous study, which was adjusted for inflation from the 2014 value. Mr. Joshua with MAG identified the TTI study that produced national values for congestion costs. This figure is being used for the DPS Co-location study. The value accounts for the 1.14 occupancy rate for the region. Reza Karimvand with ADOT identified the Enterprise study that cites this figure as well.

6. Implementation Status of FY2016 TSOP Projects and Plans for FY2017

Chair Riegel invited Sarath Joshua with MAG to provide a status update for TSOP projects. A total of seven TSOP projects were carried out in FY2016, including the Synchro Workshop and before-and-after evaluations for three corridors. Eric Nava with MAG stated that the development of the Integrated Corridor Management (ICM) plan for the US-60 corridor for City of Mesa and Town of Gilbert was completed and under review. For the I-10 ICM project for a westbound incident scenario, the operators' playbook was created for a reference guide for TOC/TMC operators. These plans include diversion route maps, affected signals, timing plans, and barricade plans. Margaret Boone with MAG was the project manager for the TSOP for 99<sup>th</sup> Avenue and Union Hills Drive corridors. The TSOP was completed and the signal timings were implemented. Micah Henry with MAG stated that the TSOP for Glendale Avenue was completed and the signal timings were implemented. The concurrent before-and-after study was conducted, identifying the improved traffic flow. The TSOP for I-17 was already discussed. For the Synchro workshop at least 17 member agency representatives attended all three days. The evaluation of the workshop revealed a desire for splitting the workshop in beginner and advanced users. This will be considered for the next workshop.

In preparation for the next cycle of TSOP projects, the ITS Committee was presented with the current project application forms. Mr. Joshua identified the types of projects eligible for funding. Regional ICM projects must include at least two agencies with a scope limited to \$60,000. Single-agency TSOP projects are limited to a scope of \$30,000 and an agency may request one single-agency project. Multi-agency projects are limited to a scope of \$60,000 and there are no limits for project requests. Synchro network development TSOP projects must include implementation of signal timing and may be

subject to a before-and-after evaluation. The call for FY2017 TSOP projects will be on September 12<sup>th</sup>. Applications will be distributed to Committee members prior to the next meeting for presentation and discussion at the October 12<sup>th</sup> ITS Committee meeting. In response to a question by Chair Riegel if it was possible to expedite the initiation of TSOP projects, Sarath Joshua explained that project task orders cannot be developed until Regional Council approval of the list of projects. The Committee did not suggest any changes to the current TSOP project selection process and planned schedule.

7. Reports by Committee Members

Chair Riegel called on members to report items of interest to the committee. Reza Karimvand with ADOT stated that the I-10 Connect Project is a multi-state national coalition to study the I-10 corridor from California to Texas, and will be reviewing truck platooning with a seamless permitting process among other ITS features. Mr. Karimvand invited interested members to review the I-10 Concept of Operations being developed by TTI and Cambridge Systematics. He stated that ADOT has instituted new ramp metering throughout the Phoenix metropolitan area. The agency is also planning on updating the controller CPUs. Mr. Karimvand announced that he will be replaced by Steve Ramsey as the ADOT representative on the committee. Chairman Riegel thanked him for his participation and input. Sarath Joshua thanked him for his help for regional projects including the DPS Co-location Pilot Project. Nicolaas Swart with Maricopa County stated that there will be a vendor presentation for the connected vehicle testbed in Anthem to discuss updates to technology. Chair Riegel stated that the pre-bid conference for the 7<sup>th</sup> Street and 7<sup>th</sup> Avenue Travel Time Display project was well attended. There will be 100 days of testing associated with the project, and bid openings are set for September 13<sup>th</sup>. Mike Mah with Chandler stated that Google and Intel are testing automated vehicles. Intel is partnering with BMW, Ford, and Land Rover. Faisal Saleem with Maricopa County asked if any of these firms have asked for traffic signal data from Chandler. Mike Mah responded that there have been no such requests. Reza Karimvand with ADOT asked if there are any city ordinances related to automated vehicles. Mike Mah replied that there are no such local ordinances for City of Chandler. Sarath Joshua stated that regulation of vehicles comes under the state.

8. Request for Future Agenda Items

Chair Riegel called on members to request future agenda items. There were no requests.

9. Next Meeting Date and Place

Chair Riegel noted that the next meeting will be held at 9:30 a.m. on Wednesday, October 12, 2016, in the Chaparral Room (2<sup>nd</sup> floor) at MAG.

10. Adjournment

Chair Riegel adjourned the meeting at 10:25 a.m.