

April 30, 2014

TO: Members of the MAG Intelligent Transportation Systems Committee

FROM: Catherine Hollow, City of Tempe, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Wednesday, May 7, 2014- **10:00 a.m.**  
MAG Office Building, 2<sup>nd</sup> Floor, Ironwood 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 Jason Stephens 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>
1. <u>Call to Order</u>  The May 7, 2014 meeting, the quorum requirement is 10 committee members.	
2. <u>Approval of the April 2, 2014 Meeting Minutes</u>	2. Review and approve minutes of the meeting held on April 2, 2014.
3. <u>Call to Audience</u>  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.	3. For information and discussion.
4. <u>Program Managers Report</u>  The following items will be discussed: <ul style="list-style-type: none"><li>• Status of TSOP Projects</li><li>• FMS Recommendation</li><li>• Emergency Vehicle Pre-emption Study</li><li>• Reallocation of FY2016 funds</li></ul>	4. For information and discussion.
5. <u>Comprehensive FMS Study</u>  At the previous meeting the committee recommended approval of the proposed budget and schedule for completion of the FMS, along with a recommendation that MAG conduct a comprehensive re-evaluation of the life-cycle of current FMS-related technology infrastructure. The Transportation Review Committee recommended the MAG	5. For information and discussion.

study and also requested that details of the study scope and estimated budget be presented to them at a future meeting. Attachment One provides a tentative list of topics that could be part of this study. The committee will discuss and identify potential topics to be covered by the study and possibly assign the task of refining the study scope to a working group.

6. Priorities for Next Cycle of Traffic Signal Optimization Program

The proposed FY2015 MAG Work Program includes \$300,000 for the next cycle of TSOP projects. These projects are geared to deliver technical assistance directly to local agencies, utilizing MAG on-call consultants. The committee will review current TSOP project priorities and identify any new focus areas that might be incorporated in the next call for TSOP projects for FY2015.

7. Reports by Committee Members

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

8. 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.

9. Next Meeting Date and Place

The next committee meeting is scheduled to be held at 10:00 a.m. on Wednesday, June 4, 2014. It will be held in the Ironwood Room on the 2<sup>nd</sup> Floor of the MAG office building.

Adjournment

6. For information and discussion.

7. For information and discussion.

8. For information and discussion.

9. For information.

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

April 2, 2014

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

**MEMBERS ATTENDING**

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| <ul style="list-style-type: none"><li>* Reza Karimvand, ADOT<br/>Chris Hamilton, City of Avondale</li><li>+ Thomas Chlebanowski, Town of Buckeye<br/>Mike Mah, City of Chandler<br/>Captain Burley Copeland, DPS<br/>Bryce Christo, City of El Mirage</li><li>+ Toni Whitfield, FHWA</li><li>* Leslie Bubke for Erik Guderian, Town of Gilbert<br/>Allan Galicia for Debbie Albert, City of Glendale<br/>Luke Albert, City of Goodyear</li></ul> | <ul style="list-style-type: none"><li>* Faisal Saleem for Nicolaas Swart, Maricopa County<br/>Avery Rhodes, City of Mesa</li><li>* Ron Amaya, City of Peoria<br/>Marshall Riegel, City of Phoenix</li><li>* Steve Ramsey, City of Scottsdale</li><li>* Albert Garcia for Jason Mahkovtz, City of Surprise<br/>Catherine Hollow, City of Tempe<br/>Ratna Korepella, Valley Metro</li></ul> |
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**OTHERS PRESENT**

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| <ul style="list-style-type: none"><li>Arthur Dock, City of Mesa</li><li>Deanna Haase, KHA</li><li>Cory Steele, Strand</li><li>Joe Spadafino, CivTech</li><li>Jeff Jenq, OZ Engineering</li><li>Dan Hartig, Ayres Associates</li><li>Jothan Samuelson, Wilson</li><li>Joey Paskey, Atkins</li></ul> | <ul style="list-style-type: none"><li>Tim Wolfe, Dibble</li><li>Arnab Gupta, PB</li><li>Jason Watson, Stantec</li><li>Ryan Gish, MAG</li><li>Micah Henry, MAG</li><li>Sarath Joshua, MAG</li><li>Eric Nava, MAG</li></ul> |
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- + Not present
- \* Teleconference

1. Call to Order  
Chair Catherine Hollow called the meeting to order at 10:00 a.m.
  
2. Approval of the March 4, 2014 Meeting Minutes  
**Reza Karimvand from ADOT moved, Bryce Christo from Avondale seconded and it was unanimously carried to approve the minutes of the meeting held on March 4, 2014.**
  
3. Call to Audience  
Chair Hollow made a call to the audience providing an opportunity for any members of the public to address the ITS Committee. No comments were received.
  
4. Program Manager's Report  
Mr. Sarath Joshua from MAG addressed the following items in his report:

➤ Status of TSOP Projects:

- The list of TSOP projects for FY2014:
  - Recommended by ITS Committee on 11/05/2013
  - Recommended by Transportation Review Committee on 12/12/2013
  - Recommended by Management Committee on 01/08/2014
  - Approved by Regional Council on 01/29/2014
- The planned completion of all TSOP projects is before June 30, 2014
- The FY2015 Work Plan includes \$300,000 for TSOP
  - Work Program approval in May 2015
  - Call for new projects in June 2015
- Status of current TSOP projects
  - Three projects are ready for kick-off meetings (Maricopa County & City of Mesa, Pinal County, MAG)
  - Three projects are under review to be finalized for task orders (Two concurrent ICM projects with the City of Phoenix, Two concurrent signal timing projects with City of Tempe, and signal timing project with City of Surprise)
  - City of Mesa Turning Movement Counts Project has been deferred until fall 2014.

➤ RCN Update:

Sarath Joshua invited Ryan Gish from MAG to give an update for the RCN Working Group and latest developments. Mr. Gish detailed the working groups discussion regarding the ITS on-call contracts to assess availability for projects related to network assessment and connectivity. The group is reviewing three requests from local agencies and will be drafting a scope of work. Mr. Gish had not received any responses for IT training and solicited agenda topics to be discussed. He also stated that the video management software pilot project is moving forward. The group planned on testing server-to-server ties in the coming months to connect several of the agencies. The group discussed the fiber mapping project. Chair Hollow reiterated the solicitation for agenda items for the IT training. Mr. Gish confirmed that the presentation will include field devices, including the basics on network connectivity and IP interaction with Layer 2 and Layer 3 networks. Mr. Gish has a training agenda based up previous training efforts. Mr. Gish plans on requesting the number of people anticipated for the IT training. Sarath Joshua provided a brief overview of the Regional Community Network (RCN) as the fiber backbone connecting all of the cities in the region for traffic management purposes. The backbone supports other applications included the 9-1-1 back-up system. The RCN Working Group is a joint effort between the MAG ITS Committee and the MAG Technology Advisory Group (TAG), co-chaired by Catherine Hollow and the chair of the TAG Committee. Discussions held by the RCN Working Group are reported back to both committees. Once both committees are in agreement any recommendations advance in the process for implementation. Faisal Saleem requested that Jordan Lamoreaux be included in the training effort in order to utilize his knowledge and training in IT. Mr. Gish confirmed that Mr. Lamoreaux will be included in the IT training effort.

➤ MAG Staff Update:

Sarath Joshua introduced Micah Henry. Mr. Henry will be working with Mr. Joshua under the ITS & Safety Group, acting as project manager for upcoming

task orders. Chair Hollow welcomed Mr. Henry.

5. Emergency Vehicle Pre-emption Study

Chair Hollow identified the current draft scope for the Emergency Vehicle Pre-emption (EVP) Study finalized by the committee in May 2013. Chair Hollow identified the East Valley Working Group that meets once or twice a year. This group includes fire department staff as well as transportation staff. Recently the group discussed EVP operations in the East Valley. Chair Hollow identified the need to review and update the current scope in view of this discussion. Chair Hollow invited Arthur Dock from the City of Mesa to provide a recap of the East Valley EVP Working Group.

Arthur Dock stated that the working group convened in early March 2014 to address interoperability issues as well as personnel changes in the committee. Discussion centered on the primary components of EVP strategies: coding, traffic signal operations, and interoperability between the agencies. Representatives of the fire department are planning to coordinate with their regional group to derive a consensus. Mr. Dock reviewed the scope of work document for the EVP Best Practices study and endorsed the project approach to determine valley-wide issues and how to address them.

Chair Hollow solicited questions or comments from the Committee. Mike Mah from Chandler expressed surprise that the project has not been initiated. Mr. Mah recounted the process to date, describing the presentation of need to the ITS Committee by a representative from Litchfield. There was concern there wasn't valley-wide uniformity in operations, how the signals operate. He recalled how the Litchfield representative described how different EVP operations resulted in an accident with a fire truck. This led to the goal of uniform traffic operations from city to city as emergency vehicles cross agency boundaries. Sarath Joshua stated that the scope of work was finalized in May 2014, but that the expiration of MAG on-call contracts necessitated a delay in the start of this project. Within the next month the process for this task order will be started.

Sarath Joshua presented the brief summary of the EVP project to the Committee. The project itself originated from committee discussion. The goals include a comprehensive review of current EVP practices, identification of best EVP practices, and recommendations for practices in the MAG region. The scope includes five tasks as presented in the handout with a budget of \$60,000. MAG is currently in the process of identifying a number of consultants who might be eligible to submit a fee proposal and project approach for this proposed scope of work. This process is to be finalized within a month with the next step to issue a task order. Mr. Joshua will update the Committee at the next meeting on the progress of this project. Mr. Joshua requested volunteers from the ITS Committee members, including Arthur Dock who is the resident expert on EVP, to review proposals.

Mike Mah with Chandler was alerted to changes in staff in the fire department. Mr. Mah asked Arthur Dock if the working group wanted to review the issue of traffic signal operations or take a different direction. Prior to the March 2014 meeting of the East Valley working group, all of the participating agencies (Tempe, Gilbert, Chandler, and Mesa) had agreed to the preferred traffic operations during the pre-emptive state of the signal. The direction of the approaching emergency vehicle would receive a green indication as well as the opposing through movement. Arthur Dock stated that there was a review particularly for the new members of the working group. Follow-up information

was also requested for the new members. There is an existing agreement for most of the cities for the through-movements operation, with the exception of Gilbert, as well as the common coding. There was an issue with the City of Mesa where there was a miscommunication with the emergency vehicle operators that the change was being enacted. City of Mesa is halfway through the change to the agreed upon operations, but the conversion process has been halted until uniform consensus is achieved. Mr. Dock's perception is that there is no longer consensus within emergency services. The East Valley Working Group is looking for direction from emergency services along with a statement endorsing preferred signal operations.

Sarath Joshua asked Arthur Dock to clarify the regional emergency services group and the East Valley Working Group. Both Mr. Dock and Mike Mah of Chandler stated that the groups are separate yet both are informal. Mr. Mah recalled that the East Valley Working Group started many years ago with a project to code all of the signals. The transportation and fire departments of the four cities began to meet to work on the project. Following the conclusion of the coding project, City of Tempe requested that an informal group continue to meet on an informal basis.

Mr. Dock stated that the regional emergency services group is under the Chiefs Association. He recommended seeking clarification from Kasey Beal who is the fire department representative for the East Valley Working group. With regards to the larger regional group Mr. Dock stated he will provide the identification of the group to MAG staff. Mr. Joshua identified two related MAG committees: 9-1-1 Oversight Team and Public Safety Answering Point Managers Group. Coordinating the identification of appropriate committees and agencies will be included in a task of the proposed scope of work for the EVP project.

Sarath Joshua will continue coordinating with the East Valley Working Group and Arthur Dock. Mike Mah with Chandler suggested adding to the scope a requirement to coordinate with fire departments and interested working groups. Mr. Joshua assured that the EVP best practices task will include language identifying the effort to develop coordination with interested groups and consensus among agencies.

Chair Hollow requested an estimated timeframe for accomplishing this effort. Mr. Joshua stated that following this change to the scope, it will be finalized and a request for fee proposal will be issued to up to three consultants. Once fee proposals have been submitted the Technical Advisory Group (TAG) for the project will help select the preferred consultant. The task order will then be finalized and the project can be initiated with a notice to proceed. Members for the TAG will be identified off-line.

6. East Valley Congestion Map Project – Proposed Scope Change

Chair Hollow asked Sarath Joshua to introduce the East Valley Congestion Map Project. Mr. Joshua identified the ITS project slated for 2016 in TIP listed under City of Mesa. The project entails installing 91 blue-tooth detection devices across the arterial network in the east valley. At the time this project was proposed the City of Mesa had partnering agencies including City of Tempe, City of Chandler, and the Town of Gilbert. City of Chandler has requested to be removed from the project. The monies allocated for the work to be performed in the City of Chandler include \$206,735. This money will be released because of the reduced scope. Mr. Joshua requested possible action that the ITS Committee recommend this change in scope because it requires a TIP amendment. Mr.

Joshua stated that the money is now available to be allocated in the program. The ITS Committee can allocate these funds for a new project for any of the local agencies.

Mike Mah with Chandler stated that the additional funds could be added to the scope for the other three cities involved in the project. New locations could be identified for the size of the project to remain the same. Mr. Joshua requested Avery Rhodes input on the potential change in scope of the project. Mr. Rhodes stated that the scope can be changed to add locations. The project stakeholders are developing the Intergovernmental Agreement (IGA) between the three jurisdictions with the design stage to follow. The number of sensors originally allocated for City of Chandler was around thirty. Mr. Mah confirmed this number. The reallocation of funds can be identified on a future agenda for the ITS committee.

Faisal Saleem identified another potential change in scope to integrate the data with RADS. Mr. Joshua stated that this component is included in the scope.

Mr. Mah suggested that the ITS Committee motion to remove City of Chandler from the project. He stated that the additional time between committee meetings will allow the member agencies to review prior submissions of potential projects, as well as potential changes to the current scope for this project. These items can be discussed at a future meeting.

Mr. Joshua presented the programmed 2016 ITS projects to be discussed at an upcoming meeting. Regarding the identification of locations, and possible new locations, for the Congestion Map project, Mr. Rhodes stated that the locations are identified as an appendix to the IGA that can be amended. The IGA identifies the location as a proposed list, not a final list. City of Mesa is conducting a concurrent study and does not intend on adding any new locations to the scope, yielding the option to Tempe and Gilbert.

Chair Hollow inquired about changes to the locations affecting the design cost. Mr. Rhodes stated that the impacts would affect the RADS integration effort as well as the software component of the project. The cost would be impacted by the loss of Chandler as the other three agencies would account for the discrepancy. Additional right-of-way clearance for the prior thirty locations in Chandler will not be necessary, but any additional locations would offset this cost. Chair Hollow stated that the changes would affect the local match that needs to be accounted for in the individual agency budgets. Mr. Rhodes identified a potential opportunity for close-out for design as an option.

Leslie Bubke with Gilbert stated that their agency has the same concerns regarding changes to the project. Town of Gilbert may be interested in additional locations for the project. Mr. Joshua stated that this must be a part of the ITS Committee discussion and identified in the agenda. Reallocation of funds must be a committee recommendation, regardless of whether it is for this project or any new projects. This will be an item on the agenda of the next committee meeting.

**Mr. Avery Rhodes from Mesa made a motion to approve the removal of City of Chandler from the proposed scope and modification of funding for the project. Mr. Mike Mah from the City of Chandler seconded. It was unanimously carried to approve the motion.**

7. Reports by Committee Members

Chair Hollow made a call to members of the committee to report items of interest to the committee. Avery Rhodes with City of Mesa reported on the previously mentioned blue-tooth project. The City has already kicked off the construction effort. Contractors West is the contractor and the contractor proposed Iteris as the provider. The second project that has kicked off the construction effort is City of Mesa's second adaptive traffic control system around the Fiesta District including Mesa Community College. The system to be implemented is called Cadence by Kimley-Horn and will include about eighteen locations. Because it is an adaptive system the City is able to continue to use Centrac. Mike Mah with City of Chandler reported that they are starting the implementation of the city's new controller software and signal system software. The controller software is called D4 and the signal system software is called TransSuite. Mr. Mah reported initial success with the effort. Chris Hamilton with City of Avondale reported that the city has completed an ITS project on McDowell with the traffic signals being reported to the TOC. Allan Galicia from City of Glendale reported that the city is looking into three design projects, including data collection, 51<sup>st</sup> Avenue ITS, and reversible lane control signs for the stadium area for mega events. Steve Ramsey with City of Scottsdale reported that the transfer to the new TMC is complete and identified multiple tours that have already been scheduled. Mike Mah with Chandler requested notices regarding the planned tours. Mr. Ramsey identified, and Faisal Saleem with MCDOT confirmed, the schedules have already been posted by the AZTech Operations Committee. Mr. Ramsey provided an open invite for a tour of the facilities. The address of the new TMC is 9191 E. San Salvador. Leslie Bubke with Town of Gilbert reported that the town is near the final System Acceptance Testing for the new Centrac implementation project. The town is ready with a preliminary RADS interface with impending testing. Reza Karimvand with ADOT reported that the agency is working on the expansion of regional travel time under three phases, adding about forty signs with travel time displays in the valley. The expected completion time is end of December 2014. Sarath Joshua inquired on the particular corridors planned for the expansion. Mr. Karimvand stated that all of the major corridors in the Valley are included in the project. Faisal Saleem with MCDOT reported that the agency is progressing on the design of the Bell Road Adaptive Signal Project. MCDOT has completed the DCR and are currently working on the IGAs for the project. Chair Hollow with City of Tempe reported that the city is finalizing communications with the next batch of traffic signal controllers and cameras, bringing the total to about sixty-eight cameras. The city is also about to kick-off the design phase of fiber optic communications on Elliot Road, which will complete the fiber loops through the city. Another developing project will complete connections to the traffic interchanges at Broadway and Rio Salado.

8. Request for Future Agenda Items

The ITS Committee will discuss the reallocation of funds for the 2016 TIP with respect to City of Chandler's withdrawal from the East Valley Congestion Map Project, amounting to \$206,735.

9. Next Meeting Date and Place

Next meeting date was announced at 10:00 a.m. on Wednesday, May 7, 2014, in the Ironwood Room (2<sup>nd</sup> floor) at MAG.

10. Adjournment

Chair Catherine Hollow adjourned the meeting at 10:47 a.m.

## **Comprehensive FMS Study**

### Goal:

Perform a comprehensive re-evaluation of the life-cycle of current FMS technology infrastructure. This study will serve as the basis for planning ahead for future traffic management infrastructure on the freeways and adjacent arterial corridors where integrated operations are planned.

The study may also include the following:

- A state of the practice review of urban FMSs and a comparison of key functions
- Recommendations for Active Traffic Management Phase 1
- New traffic data sources including detection technology, probe vehicles and private sector sources
- Refinements to Freeway-Arterial Operations for Integrated Corridor Management
- Staffing needs and tools for complex traffic operations
- Additional features to improve safety such as a system to reduce wrong-way entry at ramps
- Vehicle-to-Vehicle (V2V) communications
- Vehicle-to-Infrastructure (V2I) communications