

August 24, 2010

TO: Members of the MAG Intelligent Transportation Systems Committee

FROM: Nicolaas Swart, Maricopa County, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Wednesday, September 1, 2010- **10:00 a.m.**  
MAG Office Building, 2<sup>nd</sup> Floor, Cholla Room  
302 North First Avenue, Phoenix

A meeting of the ITS Committee has been scheduled at the time and place noted above. Committee members or their proxies may attend **in person, by video conference or by telephone conference call**. Those attending by video conference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference call please contact MAG offices for conference call instructions.

Please park in the garage under the 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

COMMITTEE ACTION REQUESTED

- |  |  |
|--|--|
| 1. <u>Call to Order</u>                                |  |
| 2. <u>Approval of the July 7, 2010 Meeting Minutes</u> | 2. Review and approve minutes of the meeting held on July 7, 2010. |

A Voluntary Association of Local Governments in Maricopa County

3. Call to Audience

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.

4. Program Managers Report

The following items will be discussed:

- RCN Project Update
- Non-Recurring Congestion Study
- Update on FY2015 TIP Programming
- Next cycle of TSOP projects

5. Process for No-Cost Service Additions to the Regional Community Network (RCN)

At the July 7, 2010 meeting, the committee approved three specific types of no-cost service additions to the RCN. In a follow-up activity, the RCN Working Group has developed and recommended a No-Cost Service Addition Policy and an application form to be used in formalizing the application process for future add-on services (See Attachment One). This document has already been reviewed approved by the MAG Technology Advisory Group. Upon committee approval this becomes part of the formal MAG process for consideration of future RCN add-on services that may be requested by member agencies.

6. Ramp Meter Controllers and Central Control System Upgrade

When the Freeway Management System was

3. For information and discussion.

4. For information and discussion.

5. For information, discussion and possible action to recommend the RCN No-Cost Service Addition Policy and Application Form.

6. For information and discussion.

first designed and built by ADOT, model 179 controllers were installed to perform the ramp metering function. These controllers are now well past the end of their life cycle. The FMS Central Control System (CCS), as first configured, was unable to control or retrieve data from the 179 controllers, or support AZ511 and data archiving functions. To address this and other FMS related needs, ADOT initiated a project in 2008 to define the requirements for an upgraded CCS, with a central control module for ramp metering. Due to a recent breakdown of the old CCS, this project was expedited by ADOT and a new CCS, based on the TransSuite platform, installed utilizing FMS funds. The new CCS includes a ramp metering module. The addition of this particular functionality to the FMS addresses one of the recent FMS recommendations by the committee. A briefing on the functional changes due to the new CCS and other opportunities will be provided by ADOT.

7. Maricopa County TIP Project Change Request

In the FY 2011 TIP, Maricopa County is the lead agency for a joint project (Project No. MMA11-723) that also involves the City of Glendale and the City of Surprise. The original project scope planned to construct Dynamic Message Signs and install fiber conduit and cable along Bell Road from Loop 303 to 75<sup>th</sup> Avenue. The County is seeking a committee recommendation to approve a scope change that would replace two (2) DMSs with two (2) CCTV cameras, and also amend the project limits from 115<sup>th</sup> Avenue to 55<sup>th</sup> Avenue. This scope change would result in a reduction of total project cost from \$841,870 to \$546,000. The proposed change would keep the currently approved federal funding unchanged at \$382,200. The local share will be reduced from \$459,670 to \$163,800. The requested change would still meet the MAG requirement that all federally funded ITS projects show a 30 percent local match.

7. For information, discussion and possible action to recommend the changes to the TIP project MMA11-723 as requested by Maricopa County.

8. TIP Project Change Requested by the City of Surprise

The City of Surprise requests a committee recommendation for the approval of changes to projects: SUR12-818 and SUR13-901 programmed in the TIP for FY 2012 and FY 2013 respectively. The changes to SUR12-818 are necessary because conduit, pull boxes and optical fiber has already been installed as part of the Bell Road Resurfacing Project between Loop 101 and 195<sup>th</sup> Avenue. The City of Surprise seeks approval to add two (2) DMSs and shorten the project length along Bell Road. The proposed changes will reduce the local share from \$1,203,783 to \$426,950. The total project cost will be \$1,423,167.

For project SUR13-901, the original scope was to establish fiber communications along Cotton Lane from Peoria Avenue to Bell Road for the purpose of connecting traffic signals, CCTVs and DMSs. Close coordination with ADOT has resulted in the installation of conduit required for fiber along Loop 303 that could be utilized by the city. The City of Surprise is requesting committee recommendation to approve a change to the scope to install optical fiber in the conduit along Loop 303 from Peoria Avenue to Bell Road and along Bell Road from Loop 303 to Surprise TMC for no additional federal funding. The local share will be reduced from \$1,500,000 to \$322,901. The total cost of the project will be \$1,076,339.

9. Status Reports by Committee Members

Members will be provided the opportunity to report on-going ITS related activities in their jurisdictions.

10. Request for Future Agenda Items

Members will have the opportunity to suggest future agenda topics.

11. Next Meeting Date

8. For information, discussion and possible action to recommend the changes to the TIP projects SUR12-818 and SUR13-901 as requested by City of Surprise.

9. For information and discussion.

10. For information and discussion.

The next committee meeting is scheduled to be held at 10:00 a.m. on Wednesday, October 6, 2010.

12. Adjournment

11. For information and discussion.

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

July 7, 2010  
MAG Cholla Room, 2nd Floor  
302 North First Avenue  
Phoenix, Arizona

MEMBERS ATTENDING

|   |   |
|---|---|
| Scott Nodes, ADOT                       | Luke Albert, City of Goodyear                         |
| *Soyoung Ahn, ASU                       | Nicolaas Swart, Maricopa County                       |
| Margaret Boone-Pixley, City of Avondale | Derrick Bailey, City of Mesa                          |
| **Thomas Chlebanowski, Town of Buckeye  | Ron Amaya, City of Peoria                             |
| Mike Mah, City of Chandler              | Marshall Riegel, City of Phoenix                      |
| *Lt. Jenna Mitchell, DPS                | Bob Ciotti, Phoenix Public Transit                    |
| *Jerry Horacek, City of El Mirage       | Bill Birdwell, Town of Queen Creek                    |
| **Jennifer Brown, FHWA                  | * Bruce Dressel, City of Scottsdale                   |
| Kurt Sharp, Town of Gilbert             | **Tracy Eberlein for Nicholas Mascia City of Surprise |
| Debbie Albert, City of Glendale         | Cathy Hollow for Jim Decker, City of Tempe            |
|   | Arkady Bernshteyn, Valley Metro Rail                  |

OTHERS PRESENT

|                                      |  |
|--------------------------------------|--|
| **Lydia Warnick, ADOT                | Farzana Yasmin, ADOT                   |
| Christine Warren, Tempe              | Darrell Bingham, ADOT                  |
| Doug McCants, PBS&J                  | Smitha Kundur, Olsson Associates       |
| Art Brooks, Strand Associates        | Lisa Burgess, KHA                      |
| Lauren Neu, Strand Associates        | Vinay Vanapalli, Stantec               |
| Trent Thatcher, Horrocks Engineering | Brennan Kidd, Lee Engineering          |
| John Bustraan, Advanced Traffic      | Srinivas Goundla, Parsons Brinckerhoff |
| Paul Basha, EPS Group                | Dan Hartig, Ayres Associates           |
| Joe Spadafino, YSMA                  | Jay Yenerich, Telvent                  |
| Sarath Joshua, MAG                   | Bo Gao, TransCore ITS                  |
| Leo Luo, MAG                         | Kiran Guntupalli, MAG                  |
| Craig Chenery, MAG                   | Micah Henry, MAG                       |

\* Not present

\*\* Via teleconference

1. Call to Order

Chairman Nicolaas Swart called the meeting to order at 10:05 AM.

2. Approval of June 2, 2010 Meeting Minutes  
**Scotts Nodes moved, Debbie Albert seconded and it was unanimously carried to approve the minutes of the meeting held on June 2, 2010.**
3. Call to Audience  
Chairman Nicolaas Swart 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  
Sarath Joshua addressed the following items in his report:  
RCN Project Update – An RCN meeting held by ADOT with Chandler and Phoenix was successful. The connection between Chandler and RCN has been established. Once the connection with Phoenix is completed, the system will undergo a one-month testing period. The new video conferencing system will be installed following the testing. It is expected that the entire project will be completed by the end of this year. The RCN working group also discussed possible expansion of the RCN. A review of the RCN Phase 1B design as well as status of fiber connections among member agencies that are not currently connected to the RCN will be discussed at the next Working Group meeting. The uncertainty about the TIP programming process due to the EPA actions might also affect future funding allocations. An update on the RCN governance document will be provided.
  - **Non-Recurring Congestion Study**  
The non-recurring congestion study received several review comments regarding the proposed data collection plan. The consultant team has addressed the comments and started the data collection process. Brennan Kidd from Lee Engineering briefly presented the selected corridors and the data collection procedure. He also explained that the AWAM Bluetooth device that is used in the study for data collection. Sarath Joshua reported that MAG announced a press release regarding the project and the data collection effort.
  - **Traffic Signal Audit Project**  
A traffic signal audit project was conducted through MAG TSOP program. Bob Steele from Maricopa County was invited to provide an update of the project. The main purpose of the project is to improve safety and efficiency on isolated intersections with high speed approaches. The audit results are documented and presented to the committee.
5. 2010-2012 MAG ITS On-Call Consultant Qualification  
Sarath Joshua thanked the members of the selection panel for volunteering their time and effort in evaluating the consultant proposals. The unanimous recommendations from the selection panel were presented. A typing error was corrected in the consultant name. **Mike Mah moved, Scott Nodes seconded and it was unanimously carried to approve the recommended list of the consultants to the 2010-2012 MAG ITS On-Call contract.**
6. Freeway Ramp Meter Control Strategies  
Scott Nodes from ADOT made a brief presentation on ADOT's freeway ramp meter control strategies following the request of committee members at the last committee meeting. Currently all the 180 ramp meters in the state are located in the MAG region. They are operating during 6 – 9 a.m. in the morning and 3 to 7 p.m. in the evening from

Monday through Friday. A study was completed years ago to recommend the list of the ramps being metered. The metering rates varied from 10 to 22 vehicles per minute. Many of the meters are traffic responsive to the traffic on main lane and queue length on the ramps. ADOT is planning to install central control system to remotely control the ramp meters in the near future. Scott confirmed with Marshall Riegel from Phoenix that the central control system will bring ADOT's freeway operations to the next level, allowing the ability to change the operating hours of the ramp meters remotely at TOC based on needs. Mike Mah suggested that while the operation is not at the level of adaptive ramp metering, operating hours of each individual ramp should be studied since very few freeways in the region has a continuous 4-hour PM period of congestion. Scott mentioned that continuous studies of the operating hours of the ramp meters will be based on the corridors and provide the necessary inputs for adjustments. Scott confirmed with Debbie Albert from Glendale that HOV direct access on ramps do not have ramp meters and with the new system, ADOT can adjust the ramp meters during special events. He also confirmed with Derrick Bailey from Mesa that the queue detection will override the main lane detections to avoid traffic spill back on arterial streets. Sarath mentioned that a meeting involving ADOT, MAG and Arizona Republic was held regarding the ramp meter issues. The lack of capability in controlling the ramps from TOC is a key reason preventing other enhancement in freeway operations. Adaptive control and other features can be added later on with the new system in place. He also requested that ADOT establish a technical advisory group so that input from member agencies can be incorporated when determining the criteria to decide on the ramp meter operating hours. Scott concurred and stated that all the ramp meter controllers will be upgraded to 2070.

7. RCN No-Cost Service Addition

Three no-cost service additions to the RCN were proposed at the RCN working group. MAG TAG has already approved the addition. **Luke Albert moved, Margaret Boone-Pixley seconded and it was unanimously carried to approve the three no-cost service additions to the RCN.**

8. City of Tempe TIP Project Change Request

Cathy Hollow from Tempe invited Christine Warrant to make a brief presentation on the proposed changes to the scope of TIP project TMP13-902. The original scope of upgrading the traffic controller cabinets from 12 channels to 16 channels is no longer needed due to recent city projects. As a result, City of Tempe requested to change the scope to upgrade existing traffic signals to meet the MUTCD and US Access Board standards. Jennifer Brown from FHWA expressed concern regarding the benefits of air quality improvement and emission reduction of the proposed changes since the project is funded through CMAQ. City of Tempe agreed to bring back this item at the next committee meeting by providing additional information.

9. Status Reports by Committee Members

Margaret Boone-Pixley mentioned that interviews are underway for a traffic operation supervisor position in City of Avondale. Derrick Bailey mentioned that Mesa upgraded the central control system from ICONS to CENTRACS also from Econolite. He also mentioned that the Phase II fiber communications project on Country Club Drive as well as Santan Freeway is close to completion. Three other projects are expected to start construction, including the Mesa TMC upgrade, Adaptive signal control system in the Superstition Springs Mall area and Phase III downtown ITS project. Cathy Hollow from Tempe informed the committee that Jim Decker has retired from the city and she will be

representing Tempe on the ITS committee in the future. Jennifer Brown from FHWA mentioned that the deadline for federal funding obligation is September 17, 2010. Nicolaas Swart mentioned that for the Maricopa County TMC expansion project the DCR has been approved and the 99th Avenue project is pending the obligation of funds.

10. Request for Future Agenda Items

No agenda item requests were received from committee members.

11. Next Meeting Date

Next meeting date was announced at 10:00 a.m. on Wednesday, August 4, 2010 at MAG.

12. Adjournment

Chairman Nicolaas Swart adjourned the meeting at 11:00 a.m.

### No Cost Additions of Applications

**Policy:** The TAG and ITS committees will approve no cost additions of applications that respect the funding requirements, technical limitations, regional nature and equitable use of the RCN.

**Purpose:** This policy allows the timely addition of applications to the RCN while providing for fair accommodation to participating agencies.

**Applicability:** This policy applies only to no cost application additions by existing participants in the RCN.

**Evaluation Procedure:** The TAG and ITS committees will review all requests that seek to add additional applications based on the following criteria.

| Area                                    | Description  |
|---|--|
| Compatibility with funding requirements | Transportation uses must be given priority because construction of the facilities relies on federal transportation funding. Additional uses are permitted as long as they do not affect the transportation use. Projects must demonstrate that they are either compatible with the transportation use or that they will not impact that use in order to be considered. |
| Bandwidth Usage                         | The proposed use should be shown to not exceed the available bandwidth of the network, including burst traffic.  |
| Regional Use                            | Regional uses of the network for interagency communication should be given preference over individual use.   |
| Agency Distribution                     | The project should reflect a reasonable distribution of bandwidth among agencies.  |
| Cost                                    | Agencies should demonstrate that there will be no additional costs borne by the RCN for the implementation of the application. The agency will have the option of doing this by assuming the costs associated with implementation.   |

Requests for applications must include the understanding that non-transportation applications may have to be removed from the network in the future or may have to upgrade equipment to maintain the ability to execute transportation related applications.

A request must be approved by both committees before the additional application is added to the RCN.

**Draft Application Procedure:** Requesting agencies will complete the attached form and provide supporting information as necessary. The application should be reviewed by the RCN Working Group before going to the TAG and ITS committees for consideration.

# DRAFT Application for No-Cost Service Addition

|                                   |  |
|-----------------------------------|--|
| <b>Agency requesting service:</b> |  |
|-----------------------------------|--|

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| <b>Please describe the service being requested:</b> |
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|--|
| <b>Please describe the transportation use of this service:</b> |
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|   |  |
|---|--|
| <b>Estimated bandwidth required:</b>  |  |
| <b>Estimated peak bandwidth required:</b>   |  |
| <b>Method used to determine bandwidth (Please include relevant supporting documentation):</b> |  |
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|   |
|---|
| <b>Please describe the regional benefit associated with this service:</b> |
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|--|
| <b>Please list the agencies that will benefit from this use now and in the future:</b> |
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Please initial the following statements to affirm your understanding of the following RCN restrictions:

- \_\_\_\_\_ If this is not a transportation use, you understand that you may have to mitigate or terminate your use of the service if it impacts the core transportation use.
- \_\_\_\_\_ You acknowledge that the RCN does not have a guaranteed service level at this time and that the proposed use is consistent with this level of availability.
- \_\_\_\_\_ You agree that your agency will bear any costs associated with the implementation of this service and that if it results in additional network management costs, those costs will be borne by the applicant.

Applicant's Signature:

\_\_\_\_\_

Name

\_\_\_\_\_

Title

\_\_\_\_\_

Date