

DRAFT MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
TRANSPORTATION REVIEW COMMITTEE

February 25, 2016

Maricopa Association of Governments Office  
302 North First Avenue, Suite 200, Saguaro Room  
Phoenix, Arizona

MEMBERS ATTENDING

Avondale: Paul Lopez for David Janover	Litchfield Park: Woody Scoutten
ADOT: Mike Kies	*Maricopa (City): Paul Jepson
Apache Junction: Giao Pham	Maricopa County: Jennifer Toth
Buckeye: Scott Lowe	Mesa: Jeff Martin for Scott Butler
*Cave Creek: Ian Cordwell	*Paradise Valley: Jim Shano
Chandler: Dan Cook, Chair	Peoria: Andrew Granger
El Mirage: Jorge Gastelum	Phoenix: Jenny Grote for Ray Dovalina
*Florence: Jess Knudson	#Pinal County: Louis Andersen
*Fountain Hills: Randy Harrel	Queen Creek: Mohamed Youssef
*Gila Bend: Ernie Rubi	#Scottsdale: Todd Taylor for Paul Basha
Gila River Indian Community: Greg McDowell for Tim Oliver	Surprise: Mike Gent
Gilbert: Leah Hubbard	#Tempe: Shelly Seyler
Glendale: Debbie Albert, Vice Chair	Valley Metro: John Farry
Goodyear: Rebecca Zook	*Wickenburg: Vince Lorefice
	#Youngtown: Grant Anderson

EX-OFFICIO MEMBERS ATTENDING

*Street Committee: Chris Hauser, City of El Mirage	*Bicycle/Pedestrian Committee: Jim Hash, City of Mesa
*ITS Committee: Marshall Riegel, City of Phoenix	*Transportation Safety Committee: Dana Alvidrez, City of Chandler
*FHWA: Ed Stillings	
* Members neither present nor represented by proxy.	+ - Attended by Videoconference # - Attended by Audioconference

OTHERS PRESENT

John Bullen, MAG	Jenny Bixby, Jacobs
Bob Hazlett, MAG	Sgt. J. P. Cartier, DPS
Chaun Hill, MAG	Bill Cowdrey, AZTEC
Sarath Joshua, MAG	Cato Esquivel, Goodyear
Teri Kennedy, MAG	Kwi-Sung Kang, ADOT
Audra Koester Thomas, MAG	Christine McMurdy, Goodyear
David Massey, MAG	Steve Schwab, Sundt Construction
Nathan Pryor, MAG	
Stephen Tate, MAG	

1. Call to Order

Chair Dan Cook called the meeting to order at 10:00 a.m. Chair Cook noted that the quorum requirement for the February 25, 2016 Transportation Review Committee meeting was 14 committee members.

2. Approval of Draft January 28, 2016 Minutes

Chair Cook asked the committee if there were any comments on the draft January 28, 2016, meeting minutes. There were none. Mr. Jeff Martin moved to approve the minutes. Mr. Scott Lowe seconded the motion. The motion carried unanimously.

3. Call to the Audience

There were no public comments from the audience.

4. Transportation Director's Report

Chair Cook invited Mr. Eric Anderson, MAG Transportation Director, to provide the Transportation Director's Report.

Mr. Eric Anderson stated that January half-cent sales tax revenues showed 1.1% growth with a year-to-date growth rates of 3.9%. He stated that higher growth was expected with the lower fuel prices and December shopping season, but growth was not as high as estimated.

Mr. Eric Anderson stated that the Highway User Revenue Fund (HURF) revenues were doing well, with 3.9% growth over the previous month and 5.7% growth year-to-date. He stated that gasoline tax revenues had grown 5.3% year-to-date, diesel fuel tax revenues had grown 5.5% year-to-date, and Vehicle License Tax (VLT) revenues had grown 7.9% year to date.

Mr. Eric Anderson stated that there had been a good presentation on autonomous and connected vehicles at the Transportation Policy Committee. Mr. Doug Gettman from Kimley-Horn & Associates came in for part of the presentation and Mr. Bob Hazlett talked about the implications for planning. He stated that there is a great deal of uncertainty on what technology will be developed and how quickly it will be incorporated into the fleet. He stated that the drop in cost for battery storage technology, electric vehicles are more rapidly being incorporated into the fleet, and they are predicted to have equivalent cost to internal combustion engine vehicles in 2022.

Mr. Eric Anderson stated that ADOT will be releasing a press release on the South Mountain Freeway development contract and the cost savings associated with that contract. He stated that the savings will be in the low nine digit range and that a couple hundred million dollars budgeted for right of way may not be needed. He stated that once ADOT incorporates the final costs for the South Mountain Freeway into the cash flow model, MAG will start a reprogramming effort for the Regional Freeway and Highway Program.

Mr. Eric Anderson stated that the United States Department of Transportation released the Notification of Funding Opportunity for Fiscal Year 2016 TIGER grants online. He noted that applications are due April 29.

Chair Cook thanked Mr. Anderson for his report.

5. Consent Agenda

Chair Cook directed the Committee's attention to the consent agenda items.

Chair Cook asked the Committee if there were any questions or comments. There were none.

Mr. Jeff Martin moved to approve the consent agenda. Vice Chair Debbie Albert seconded the motion. The motion carried unanimously.

5A – Project Changes - Amendment and Administrative Modification to the FY 2014-2018 MAG Transportation Improvement Program, Fiscal Year 2016 Arterial Life Cycle Program, and, as appropriate, to the 2035 Regional Transportation Plan

The MAG Transportation Review Committee, by consent, recommended approval of amendments and administrative modifications to the FY 2014-2018 MAG Transportation Improvement Program, the Fiscal Year 2016 Arterial Life Cycle Program, and, as appropriate, to the 2035 Regional Transportation Plan.

6. Federal Fiscal Year 2016 Closeout Programming - Round Two - Amendment and Administrative Modification to the FY 2014-2018 MAG Transportation Improvement Program, and to the 2035 Regional Transportation Plan

Chair Cook invited Ms. Teri Kennedy to present this item.

Ms. Kennedy stated that there was \$1.5 million available for an extended call for funding design phases for 2018 construction projects. She stated that she received six requests for funding and one request for a project combination. She stated that she also received five requests for design funding for 2019 construction projects which are included in the listings. She noted that the base scenario for funding shows 2016 funding for design of 2018 construction projects. She stated that if the committee wishes to entertain requests beyond that, two scenarios are provided, one using the base plus the air quality cost effectiveness score and the other using the base plus the modal committee rank score.

Ms. Kennedy stated that the base option provides just over \$1 million in funding, which would leave \$436,000 left over that could be added into the current \$12.7 million being used in the ALCP to advance projects. She stated that if the Committee's recommendation uses the air quality score, this would fund the base option plus the two most cost effective projects: Pinal County's Stanfield Road project and Phoenix's Mountain View bicycle and pedestrian project. She stated that this would lead to a slight negative balance based on current estimates, but this could go up or down slightly depending on ADOT's final vouchers and if there are cost savings. She noted that there was one more request to defer a

project from 2016 to 2017.

Ms. Kennedy stated that the second option is to use the modal committee rank scores. She stated that the two highest ranked projects are Pinal County's Stanfield Road project and Phoenix's Roeser Road project. She noted that this would give a deficit of \$19,000, which would come off the ALCP's closeout and that this is a negligible amount.

Ms. Kennedy stated that final vouchers and project cost savings occur all the time, and that a certain amount programmed in the TIP does not mean the project will authorize for that amount exactly. She stated that the project could authorize lower, but that there will not be additional funds authorized.

Ms. Kennedy stated that all projects that receive Federal design funding must be obligated at ADOT by June 1st. She noted that if an agency uses the ADOT on-call list for design, there is a higher chance of the project obligating by June 1st. She stated that if an agency wants more information on self-administering a project or on the ADOT on-call list, to contact Mr. Eric Boyles at ADOT.

Mr. Mike Gent noted that the two options only differed by which project Phoenix would receive funding for and asked which project Phoenix preferred. Ms. Jenny Grote responded that the Mountain View project is preferred, as it has a combination of Safe Routes to School, added connectivity, and other factors.

Chair Cook noted that for the committee rankings, a smaller number is better, and that the Apache Junction project has a higher number but is in the base scenario. Ms. Kennedy responded that the Apache Junction project was the second of two projects evaluated. Chair Cook stated that this is not necessarily a perfect ranking, as it is done by each individual mode. Ms. Kennedy stated that projects were ranked by each individual modal committee and were never ranked mode against mode.

Mr. Jeff Martin moved to approve the second option for the recommended priority list of projects as presented. Ms. Leah Hubbard seconded the motion. Chair Cook asked for a clarification of the motion, noting that this option was presented as the base scenario plus air quality score option. Mr. Martin clarified his motion. Ms. Hubbard concurred with the clarification.

There being no further discussion of the motion, Chair Cook called for a vote. The motion carried unanimously.

7. First Year Evaluation Results from the Co-location of DPS Officers at the ADOT Traffic Operations Center

Chair Cook invited Mr. Sarath Joshua to present this item.

Mr. Joshua noted that he would be jointly presenting this item with Sergeant J. P. Cartier from the Department of Public Safety (DPS).

Mr. Joshua stated that this item is about a pilot project jointly funded by ADOT and MAG to co-locate DPS officers at ADOT's Traffic Operations Center (TOC). He stated that this

project began in 2014, with three months of training before the project was underway. He stated that in January, DPS gathered crash data using its recording system for an evaluation comparing January-September 2014 to January-September 2015. Mr. Joshua invited Sgt. Cartier to discuss the evaluation.

Sgt. Cartier presented slides comparing average response time, roadway clearance time, incident clearance time, and total incident duration before and after the project for freeway crashes with and without injuries, fatal crashes, and all crashes. He noted a substantial reduction in all measures except for response times for all four measures. He noted that for all freeway crashes, there has been a 63% reduction in roadway clearance times, noting an average 54 minute reduction in the time it takes to clear lanes on the freeway system. He added that there is a substantial reduction in incident clearance and incident duration times.

Sgt. Cartier stated that the increased incident response time is due to increased average traffic volumes. He stated that thousands more cars are using the infrastructure daily, so the propensity for crashes is increasing. He noted an increase in collisions in the Phoenix metropolitan area over the last year, consistent with nationwide rates. He stated that there has not been an increase in troopers available to respond to increased volumes and crashes.

Sgt. Cartier stated that because of this project, DPS officers are able to verify incidents on camera and can slow down responders for minor scenes which were called in as major. He stated that this reduction in response speed when warranted reduces added risk to both the responders and public.

Sgt. Cartier stated that the 54 minute reduction in roadway clearance times means less congestion, fewer secondary crashes, and increased economic benefits.

Sgt. Cartier stated that from January to September 2014 there were 11,243 crashes cleared by DPS and that from January to September 2015, there were 13,862 crashes cleared by DPS, which is a 23% increase in incidents. He stated that there has been a nationwide increase in road deaths by 19% and noted that the increase in calls for service and severity of incidents may contribute to the increased response times.

Sgt. Cartier expressed his appreciation for MAG's support and stated that this project has made the DPS troopers a force multiplier. He stated that DPS is providing a more efficient service to citizens using this infrastructure.

Mr. Joshua stated that, regarding the increase in road deaths, ADOT has released more recent numbers, showing a 15% increase in road deaths for the entire year.

Mr. Joshua stated that a media event was held on January 19 at the TOC to announce the results. He stated that ADOT, MAG, FHWA, and DPS were present. He also stated that MAG published an article in the MAGAZine which can be provided.

Mr. Joshua stated that MAG performed an evaluation of the economic benefits of this project, using a model based on the one used for Traffic Signal Optimization Program projects. He stated that this model estimates traffic delay on the regional road system, freeways, and parallel arterials. He noted that the total delay was reduced by 8.4 million vehicle hours, which corresponded to a \$165 million saving in productivity. He stated that

this evaluation does not include the reduction in secondary crashes.

Mr. Joshua presented the cost of the project, noting that the project costs \$450,000 in the first year and \$425,000 in the second and third years. He stated that the project has shown a benefit-cost ratio of 368 to 1. He stated that despite a 23% increase in crashes, the time to clear all freeway lanes at crash sites has been reduced by nearly one hour.

Mr. Eric Anderson stated that this project has been a “home run” for the region. He congratulated ADOT and DPS for taking the challenge on. He stated that people look at it and say that we probably should have done this earlier, but it is great that we have done it. He stated that the region is shifting emphasis into traffic operations, and that ADOT has embraced this with the new Transportation Systems Management and Operations (TSMO) division. He stated that this project shows the benefits that we can achieve if we operate the system more efficiently. He stated that dealing with non-reoccurring congestion is a big deal. He stated that the 368 to 1 benefit/cost ratio is probably understated, as it does not include reductions in secondary crashes, property damage savings, and long-term insurance savings. He stated that the project also increases efficiency for DPS troopers on the system and provides a safer environment for them. He stated that reducing response times for non-critical incidents makes total sense. He noted that one issue has been wrong way drivers.

Sgt. Cartier stated that over the last year, ADOT has been testing vendors for different applications in the field for wrong way detection. He stated that radar and loop detectors have been installed on ramps which can pick up a vehicle entering the system in the wrong direction. He stated that equipment will transmit immediate alerts to TOC which will alert camera operators, who will immediately start verification. He stated that operators would use mainline camera to verify incident further and immediately start a response. He stated that the technology has been refined and advanced as it is implemented throughout the system. He stated that they used to be that we would be notified when a citizen called, and at that point it is reliant on a call taker in a dispatch center to relay information. He stated that this would lead to time delay and delayed response. He stated that they are trying to get instantaneous detection to verify if a vehicle entered the system.

Sgt. Cartier stated that he doesn't want to say colocation is a magic bullet but that they have mitigated five wrong way incidents which were verified on camera and the operators communicated with officers in the field to take the most tactical and safe method to intercept drivers. He stated that these five incidents were not crash incidents. He stated that the system ADOT has put in place has helped detect wrong way drivers faster, and that mainline technology will help detect once the driver is onto the mainline. He stated that decisions have to be made very fast at freeway system speeds. He stated that this technology is not a cure but is a big help in adding safety.

Mr. Joshua stated that there are thirteen locations where technology is being tested, but there is not a conclusion on which technology should be used. Sgt. Cartier added that they are working on the existing technology and that they have to work with false alarms, slow traffic, and scheduled construction vehicles traveling the wrong way on ramps. He stated that these issues need to be responded to.

Mr. Mike Gent asked if there are lessons learned that could translate to local agencies. Sgt. Cartier responded that the biggest impact seen from the project is proactively managing incidents. He stated that at the county and city level, this can help clear incidents faster. He stated that traffic cameras give officers a scene sizeup before responders arrive, but does not sacrifice the quality of the investigation. He stated that if resources can be activated faster, the incident can block the roadway for less time. He stated that there has to be proactive management of incidents and noted the importance of staffing local traffic operations and traffic management centers and allowing authorities to proactively initiate resources to manage responses. He stated that communications with field responders is critical, and that it cannot go through several centers, but needs to go directly to the field operations.

Mr. Eric Anderson stated that one of the issues at the TOC prior to funding the placement of DPS officers is that ADOT did not have access to the computer-aided dispatch system. He asked if a sworn officer is required to access a city's dispatch system. Sgt. Cartier responded that this does require a sworn officer because criminal information is on those systems as people are looking at non-traffic information for incidents that may have started as traffic incidents. He stated that non-officers cannot be looking at that information due to the presence of personal and criminal history information. He stated that it is critical to have the sworn officer presence to continually update the response, as operators cannot see further information.

Ms. Leah Hubbard stated that she would like to see some takeaways for local governments near the end of the pilot program.

Chair Cook stated that he was thinking the same thing. He stated that he would like to know how Chandler could implement this to a different extent for incidents on local streets. He noted that there is a tie-in to the local police department but that he is not sure they are using it exactly as intended. He requested a potential discussion next year or in a different venue with different police agencies on how this project may translate to local use.

Ms. Debbie Albert asked if the model also looks at increased capacity on the freeway system. She asked if this means we could defer additional lane miles and see cost savings from being able to operate the existing system better. Mr. Joshua responded that it may be possible to determine how much capacity was saved by the quick response. He stated that in this round MAG only looked at travel time. He stated that the same volumes were simulated in the model with incidents in the network and that any capacity improvements would have been captured in shorter travel times.

Mr. Eric Anderson stated that this is one piece of a bigger strategy that the region is working on to recover underutilized assets. He stated that he thinks there is 20% effective capacity that is unused because of incidents and other operational issues. He stated that MAG is studying how we can incorporate technology and operational strategies to recover this latent capacity, which is always cheaper than building new lane miles. He stated that with autonomous and connected vehicles, some people say that maybe there is an eightfold increase in effective capacity. He noted that he thinks this is pretty ambitious but even with a 50% increase in capacity; there would be a tremendous amount of savings in capital and operations.

Mr. Jeff Martin asked if there could be a presentation to the Committee about driverless vehicles. He stated that at the Friends of Transit conference, a speaker was discussing how they might reduce the need for additional capacity. He stated that MAG should consider having a speaker or a consultant study.

Mr. Eric Anderson responded that a consultant study may not be feasible but there could be a presentation at the next meeting. He stated that automakers and technology companies are investing money and advances in technology are coming every day. He stated that some people are saying that by 2035 autonomous and connected vehicles will be a significant part of the fleet and that 2035 is within the MAG long range planning horizon. He stated that this was emphasizes to the Transportation Policy Committee and that MAG is looking at scenario planning.

Chair Cook thanked Mr. Joshua and Sgt. Cartier for their presentation.

8. Request for Future Agenda Items

Mr. Jeff Martin requested a presentation on the TIGER grant process. He stated that he had discussed this with Valley Metro and was starting to get questions if cities should develop their own TIGER grant applications. He noted that some applications were submitted before the region was ready to support them.

9. Member Agency Update

There were no updates from member agencies.

10. Next Meeting Date

The next regular Transportation Review Committee meeting will be scheduled for Thursday, March 31, 2016 at 10:00 a.m. in the MAG Office, Saguaro Room.

The meeting was adjourned at 10:48 a.m.