

November 3, 2015

TO: Members of the MAG Street Committee

FROM: Maria Angelica Deeb, Mesa, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

**Tuesday, November 10, 2015 - 1:00 p.m.**  
MAG Office, Suite 200, Ironwood Room  
302 North First Avenue, Phoenix

The next meeting of the MAG Street Committee will be held at the time and place noted above. Committee members or their proxies may attend in person, via 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 please contact MAG offices for conference call instructions.

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.

The next meeting of the MAG Street Committee will be held at the time and place noted above. If you have any questions or need additional information, please contact Teri Kennedy or Steve Tate at (602) 254-6300.

TENTATIVE AGENDA

	<u>COMMITTEE ACTION REQUESTED</u>
<p>1. <u>Call to Order</u></p> <p>For the November meeting, the quorum requirement is 13 committee members.</p>	
<p>2. <u>Introductions and Attendance</u></p> <p>An opportunity for new members to introduce themselves and record member attendance at the meeting will be provided.</p>	<p>2. For information.</p>
<p>3. <u>Approval of the October 13, 2015 Meeting Minutes</u></p>	<p>3. Review and approve the minutes from the October 13, 2015 meeting.</p>
<p>4. <u>Call to the Audience</u></p> <p>An opportunity will be provided to members of the public to address the Street 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 Street Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.</p>	<p>4. For information and discussion.</p>
<p>5. <u>Transportation Programming Manager's Report</u></p> <p>The MAG Transportation Programming Manager will review recent transportation programming and planning activities and upcoming agenda items for MAG Committees and other related regional transportation activities.</p>	<p>5. For information and discussion</p>
<p>6. <u>Programming of PM-2.5, and PM-10 Paving Unpaved Road Projects for MAG Federal Congestion Mitigation and Air Quality Improvement Funding for the Draft FY</u></p>	<p>6. Recommend approval of a programming scenario of FY 2018, 2019, and 2020 PM-2.5 and PM-10 Congestion Mitigation and Air Quality Improvement funded Paving Unpaved</p>

2017-2021 MAG Transportation Improvement Program

On September 21, 2015 applications for MAG Paving of Unpaved Roads to be funded from Congestion Mitigation and Air Quality (CMAQ) funds were due, and 17 applications were received, with one application being withdrawn. Project selection and review for this funding is to be guided by the [MAG Federal Fund Programming Guidelines & Procedures Competitive Project Selection Process for MAG Federal Funds](#), approved by the MAG Regional Council on June 24, 2015.

On October 22, 2015, the MAG Air Quality Technical Advisory Committee made a recommendation on a ranking of Proposed PM-10 and PM-2.5 Paving Unpaved Road Projects for FY 2018, 2019, and 2020 for CMAQ funding to the MAG Transportation Review Committee.

A total of \$14,022,139 CMAQ funding is available for the program years. The PM-2.5 allocation is \$2,022,139, and the PM-10 is \$12,000,000. All PM-2.5 projects are also eligible for PM-10 CMAQ funding. Programming scenarios for the projects will be discussed. Please see Attachments #1.

7. MAG Arterial Road and Bridge Applications, Proposed to be Funded with Surface Transportation Program (STP) Funds for Projects in Pinal County Within the MAG Planning Area

On August 10, 2015, MAG released applications for agencies to submit project requests to use Pinal County STP funding. Projects applications were due on September 21, 2015, and three applications were received. Project selection and review for this funding is guided by the MAG Federal Fund Programming Guidelines & Procedures Competitive Project Selection Process for MAG Federal Funds, approved by the MAG Regional Council on June 24, 2015.

Road Projects to be added to the FY 2014-2018 MAG Transportation Improvement Program, the 2035 Regional Transportation Plan, and the Draft FY 2017-2021 MAG Transportation Improvement Program as appropriate.

7. For information, discussion, and possible recommendation to forward the summary of the discussion from the meeting on Paving of Unpaved Road applications evaluated by the Street Committee, to the MAG Air Quality Technical Advisory Committee.

At the October 13, 2015 meeting, the MAG Street Committee reviewed the three project applications. It was deemed that one application was not eligible for funding under the Pinal County STP program. Additionally, there were questions concerning the data in the two remaining project applications.

Revised applications have been received, and updated data will be presented to the committee for review. Applications for review may be downloaded from the MAG website at:

<http://www.azmag.gov/Transportation/modalapplications.asp>

Please see Attachment #2 for a summary of data received and Attachment #3 for project rankings based on the updated data.

8. Transportation Improvement Program and MAG Model Network Update

It is anticipated that MAG will adopt a new FY 2017- FY 2021 Transportation Improvement Program (TIP) in June, 2016. This objective will require updating of existing TIP information, adding new projects to the TIP and updating MAG modeling networks for air quality conformity analysis.

To obtain the needed information, it is anticipated that MAG will distribute a spreadsheet for MAG member agencies to update and for MAG staff to follow up this distribution visits to member agencies to review MAG model networks and updated TIP information.

This TIP update will also be conducted in close coordination with the Sun Corridor Metropolitan (SCMPO) as the area to be modeled for the conformity analysis includes the SCMPO planning area. SCMPO is in the process of developing a TIP and Regional Transportation Plan and is required by applicable state and federal law and regulation

8. For information and discussion.

to complete this work by the end of March, 2016.

At the meeting the schedule, process for updating the TIP and spreadsheet to be used to collect the needed data will be discussed.

9. Next Meeting Date

The next regular Street Committee meeting will be scheduled for Tuesday, December 8, 2015 at 1:00 p.m. in the MAG Offices, Ironwood Room.

Adjournment

9. For Information.

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
STREET COMMITTEE

Tuesday October 13, 2015 10:00 a.m.  
MAG Offices, Suite 300,  
302 North First Avenue, Phoenix, Arizona 85003

MEMBERS ATTENDING

Maria Angelica Deeb, Mesa, Chair	Lee Jimenez, Maricopa County
Chris Hauser, El Mirage, Vice Chair	Mike Gillespie, Litchfield Park
Eric Boyles for Susan Anderson, ADOT	* James Shano, Paradise Valley
Emile Schmid, Apache Junction	Jenny Grote, Phoenix
David Janover, Avondale	Scott Bender, Pinal County
* Jose Heredia, Buckeye	Ben Wilson, Peoria
Kevin Lair, Chandler	* Janet Martin, Queen Creek
@Aryan Lirange, FHWA	Jennifer Jack, Salt River Pima-Maricopa Indian Community
Morris Taylor for Wayne Costa, Florence	* Phil Kercher, Scottsdale
Tim Oliver, Gila River Indian Community	Dana Owsiany, Surprise
* Greg Smith, Gilbert	German Piedrahita, Tempe
Patrick Sage, Glendale	* Jason Earp, Tolleson
# Luke Albert for Hugh Bigalk, Goodyear	Grant Anderson, Youngtown
Bill Fay, City of Maricopa	

\* Members neither present nor represented by Proxy  
# Members attending by phone  
@Ex-officio member, non voting member

OTHERS PRESENT

Paul Ward, Award Consulting	Bill Hahn, Maricopa County
Warren White, Chandler	Mark Glock, Phoenix
Alfonso Rodriguez, Fort McDowell Yavapai Nation	Chaun Hill, MAG
Erika McCalvin, Fort McDowell Yavapai Nation	Teri Kennedy, MAG
Gregory McDowell, Gila River Indian Community	David Massey, MAG
	Stephen Tate, MAG

1. Call to Order

Chair Maria Deeb called the meeting to order at 10:00 a.m.

2. Introductions and Attendance

A roll call of members attending the meeting was conducted. The following member agencies were not represented at the meeting: Buckeye, Gilbert, Paradise Valley, Queen Creek, Scottsdale and Tolleson.

3 Approval of the October 13, 2015 Meeting Minutes

Ms. Jenny Grote moved the approval of the minutes. Mr. Kevin Lair seconded the motion. All members present, except for Mr. Patrick Sage, voted to approve the minutes. Mr. Sage abstained from voting as he had not been present at September meeting.

4. Transportation Programming Manager's Report

Ms. Teri Kennedy began her report by welcoming new members: Mr. Michael Gillespie, Mr. Kevin Lair and Mr. Patrick Sage.

She then proceeded to brief the Committee on the process for reviewing project applications. She noted that the projects applications are grouped into street sweeper, paving and Pinal County Surface Transportation Program (STP) categories with each group to be addressed as a separate agenda item and as appropriate a Committee action to forward the application to the MAG Air Quality Technical Committee for evaluation.

She then identified funding levels for each group: \$1.08 million for street sweepers, \$13.08 million for paving and \$1.62 million for Pinal County STP projects. Funding for street sweepers is available in federal fiscal year (FFY) 2016 in non attainment areas for particulate matter. Funding for paving projects is available for FFY 2018, FFY 2019 and FFY 2020 in non attainment areas for particulate matter. Funding for Pinal County STP projects is available for FFY 2018 and FFY 2020 in parts of Pinal County that are part of the MAG planning area.

There will be no presentation on street sweeper applications, however staff will read off the name of the application and allow for Committee questions. A presentation of up to five minutes will be provided by member agency staff for each paving application. The presentation material used for these presentations will be based on material included in the applications as selected by MAG staff. Up to ten minutes will be available for questions on each application.

The Pinal County STP applications will be presented last. Up to five minutes will be provided for each presenter. The materials used for the presentation were prepared by the presenters. The Committee may ask questions after each presentation. The selection of projects for funding will be based on criteria and policies that were developed by the managers of member agencies in the Pinal County as approved by the Regional Council.

Prior to the meeting, members were requested to submit questions to help clarify applications and these questions have been compiled for the use of all members. Presenters are expected to respond to these questions in their presentations.

Ms. Kennedy ended by noting that after the meeting, member agencies may amend their applications to reflect the comments and input of the Committee. The November meeting will address the final applications. Application data from this meeting will be forwarded to the MAG Air Quality Technical Committee for use in developing and approving CMAQ cost effectiveness scores for project to be funded with CMAQ.

5. Review of MAG PM-10 Certified Street Sweeper Applications for Federal Funding

Ms. Kennedy noted that MAG received nine street sweeper applications and that MAG will have a little over one million dollars available. A summary of applications with clarifying questions.

Mr. Tate then started listing the sweepers and member responded to questions in the summary as follows:

Apache Junction application:

Mr. Emile Schmid indicated that the sweeper that is to be replaced meets requirements for replacements and that its relatively low mileage does not reflect heavy use of the sweeper to clear debris from storms. He added that the sweeper is 11 years old.

Added features on the sweeper to be purchased in the application are standard in the requested sweeper and their removal from the sweeper would increase the cost of the sweeper.

Chandler application.

Mr. Kevin Lair noted that the sweeper to be replaced is 9 years old, suffers from metal fatigue, has electrical issues and spends an excessive amount of time in the shed for repair. The sweeper is used to sweep both residential and arterial roadways.

It was noted that the application included training and that training is not eligible for federal reimbursement. In response, it was noted that manufacturers typically provide training free of charge and that the inclusion of training in the application is not intended as a cost item.

It was noted that the application does not indicate that it is used for sweeping collector and residential streets. It was indicated that the sweeper is used for only arterial streets.

Glendale application:

It was noted that the summary does not provide the ADT per lane. It was indicated that the ADT per lane is 1000.

It was also asked what the proposed sweeper frequency of the proposed sweeper will be. It was indicated that Glendale will provide an update after the meeting.

Mesa application:

The application indicates that the sweeper will sweep “other” facilities. A description of the “other” facilities was requested.

Chair Maria Deeb indicated that the sweeper is somewhat smaller than other sweepers and that in addition to sweeping roadways it would be used to sweep parking structures, special medians and the area from the light rail tracks to the travel lanes.

Peoria applications:

The application also indicates that the sweeper will sweep “other” facilities. A description of the “other” facilities was requested.

Mr. Ben Wilson indicated that he would need to provide a response after the meeting.

In response to a question concerning the sweeper to be replaced in the second Peoria application, Mr. Ben Wilson noted that the sweeper to be replaced would be eight years old by November and that it currently had 8,582 hours of service and 73,673 miles of service.

Phoenix applications:

There were no questions concerning the Phoenix applications.

It was requested by Mr. Grant Anderson that the summary table include information about sweepers to be replaced. Mr. Tate indicated he would include the information in the table.

Mr. Bill Fay asked if the Committee would rank applications for funding at the meeting.

Ms. Kennedy provided background information. She indicated that the role of the Committee today is to provide a technical review of the data provided for air quality scoring. This data would be provided to the MAG Air Quality Technical Advisory Committee (AQTAC) for use in calculating and approving air quality scores for the applications. Thereafter, the list of sweepers as scored by the AQTAC will be forwarded to MAG Management Committee for their review and recommendation for funding.

Ms. Jenny Grote suggested that some member agencies may desire to request additional sweepers and that Phoenix might desire to acquire a smaller format sweeper similar to that requested by Mesa. She noted that additional funding for the sweepers might be forthcoming from the MAG closeout.

It was noted by the Chair that MAG could not accept new applications at this time. Ms. Kennedy stated that MAG has only enough to fund about six sweepers this year, but that an additional round of funding for sweepers would be available next August.

Scottsdale Application.

There were no questions concerning this question.

It was noted that the ranking of sweepers for funding is based on the cost-effectiveness score of the sweeper.

The Chair noted that the Apache Junction sweeper application indicated a high frequency of sweeping, but that the Apache Junction description of the use of the sweeper stressed that it was used for storm events.

Mr. Schmid indicated that Apache Junction area was subject to frequent runoff from the Superstition Mountains that resulted in the high frequency of usage.

Mr. Grant Anderson moved to forward the summary of the discussion from the meeting on the PM-10 Certified Street Sweeper applications evaluated by the Street Committee to the MAG Air Quality Technical Advisory Committee. Ms. Grote seconded the motion.

6. Review of Paving of Unpaved Roads Applications for Federal Funding

Mr. Tate indicated that seventeen paving applications had been received and that one application had been withdrawn. Presentations are limited to five minutes each with up to ten minutes of questioning to follow. Each presentation will use a slide show developed by MAG staff from materials included in paving applications.

Chandler applications:

Mr. Kevin Lair presented all three Chandler paving applications as a single item. He indicated that the Chandler paving applications were for alleys and included removal of up to six inches of existing material with replacement by crushed asphalt which is then covered by a sealant.

Project costs include cuts and removal of unwanted material, compaction of the subgrade, placement and processing of crushed asphalt and the addition of a sealant. Chandler has roughly 130 miles of alleys with 65 miles paved. The Chandler applications request funding to pave 12.0 miles in 2018, 14.5 miles in 2019 and 12.0 miles in 2020.

The Chair noted that the cost per mile in the summary table for paving projects showed a large variance. Mr. Lair indicated that the variance could be due to inflation contingencies and other factors, but would need to provide a response after the meeting.

Mr. Bill Fay noted that a number of communities had closed off alleys rather than pave them. Ms. Grote noted that Phoenix had experienced problems with closing alleys as they tend to become dumping grounds for trash and the police see them as creating security problems for residents.

Mr. Grant Anderson asked how Chandler will address drainage issues from alley paving. Mr. Lair indicated that the natural ground on the side of the alleys is left undisturbed to allow for adequate drainage.

El Mirage application:

Vice Chair Chris Hauser presented the El Mirage application:

He noted that the application requested funding to pave alleys in El Mirage and two streets. All facilities to be paved are open to traffic. Paving would consist of two inches on native soil with millings on the shoulder to address drainage. The application includes removable bollards for alleys, but these may not be included if during design it is determined that their inclusion would make the paving project ineligible for federal funding.

The two streets to be paved are in an industrial area. Both were at one time paved, but the paving has deteriorated to loose gravel and dirt.

It was noted that the schedule only allowed one year to complete the design and clearance review process, but it was felt that the job so simple that the project could complete the process earlier. It was indicated that programming to a later year would be acceptable if it was felt that too little time was allotted for design.

Fort McDowell Yavapai Nation application:

Mr. Alfonso Rodriguez presented the application.

Mr. Rodriguez noted that the Nation, working closely with a number of partners, had successfully completed a number of paving projects using the FHWA/ADOT process.

The Nation's proposal was to pave twelve foot lanes with 3" on 4" AB on all three roads to be paved. A Maricopa edge would be used. A design concept report has been completed for the project and the project neither impacts the waters of the US nor is it anticipated to have major drainage issues.

The Chair noted that the cost estimate for the project was relatively high on a per mile basis. Mr. Rodriguez noted that the cost reflected initial cost estimates.

City of Maricopa applications:

Mr. Rob Dolson presented on all three applications:

He indicated that the sections to be paved are graded on a monthly basis and that the city proposed to double chip seal the roads on 10" of ABC. The roadways will have a three inch crown.

Mr. Anderson asked whether the treatment would stand up well to drainage issues in the area. Mr. Fay indicated that similar treatments had worked well in El Mirage and at ADOT.

Mr. Fay went on to indicate that the expected life of the roadways is at least ten years.

In response to a clarifying question about the time needed to design the project to obtain federal authorization, Mr. Fay indicated that he believed the schedule provided for adequate time.

It was noted that the third Maricopa application, the Farrell Road project, had a wrong cost sheet. Mr. Dolson indicated that he would check on the issue.

Maricopa County application:

Mr. Bill Hahn presented the application.

He indicated that the project was on Miller Road from Interstate 10 to an Army Reserve base on the north. The average daily traffic on the roadway is 505. The roadway meanders along a section line.

The project will realign the roadway on the section line. There are utility poles on the west that will be removed at the expense of the owning utility as the County has prior rights. The project will not impact two flood control structures in the project alignment as the roadway will be improved to be carried over the structures.

The roadway is included in the City of Buckeye's plans as a future principal arterial. The City of Buckeye supports the project.

Mr. Kraft asked whether the pavement would be sufficient to handle the type of traffic the facility is expected to carry. Mr. Hahn indicated that he believed that it is sufficient that it would consist of 2" AC on 6" aggregate.

Mr. Janover noted that the cost of the project seemed high. Mr. Hahn noted that the high cost was due to the need to elevate the road over a flood control structure and to address drainage issues. The cost estimate was developed by a consultant and cross checked by the County.

Mr. Fay noted that the roadway is used extensively by the Army Reserve on the weekends and that this generates huge clouds of dust.

Phoenix applications:

Mr. Mark Glock presented the Phoenix applications.

He noted that the City has three applications. The applications are for three years of funding and would pave 85 miles of alley, including 935 access points. The sections to be paved are selected based on citizen complaints and visual evidence of track out of dirt. The paving used is a rubberized chip seal. A 15 foot lane is paved with space on the side left unpaved to allow for drainage. The cost is \$36,400 per mile including soft costs and inflation contingency.

In response to clarifying questions, Mr. Glock indicated that the City is using four ADT as its estimate for traffic and that the design used is an in-house design that is very simple and has been used in the past to pave alleys.

The meeting adjourned for lunch at 11:40 AM and resumed at 12:20 PM.

Pinal County applications:

Mr. John Kraft presented the Pinal County applications.

He indicated that Pinal County was submitting three applications and that all are in the Stanfield area. The first application, Midway Road, would be double chip sealed with 8" ABC for two twelve foot lanes. There are no utility conflicts to be addressed. In response to a clarifying question, he indicated that if during design it was determined that a different pavement treatment proposed was inadequate changes in pavement treatment would be made to address the issue.

The second Pinal County application is to pave 3.5 miles of Stanfield Road. A double chip seal on 6" ABC would be used.

The third application was for Barns Road. This road will also be double chip sealed. This roadway is only four miles from the monitor for particulate matter.

He noted an error in the cost sheets for the projects and indicated that he would send in updated cost estimates.

Salt River Pima-Maricopa Indian Community application.

Ms. Jennifer Jack presented the application.

The project includes areas where paving will occur. The first is in the McDonald subdivision and the second is the Palm Lane subdivision in the Lehi area.

In the McDonald subdivision the residents have been trying for roughly twenty years to get their roads paved. Dust from road traffic has had adverse health consequences for residences.

Paving in the area will require the acquisition of right-of-way. Acquiring the needed right-of-way may be a challenge as the land to be purchased is owned by a large number of owners. The Community has changed its policies to allow the use of Community funds to purchase right-of-way and is in the process to acquire the needed land.

Three of the four roads in the McDonald subdivision and the roads in the Palm Lane subdivision will have a fifty foot right-of-way cross section. The other roads will have a thirty foot right-of-way cross section.

In response to clarifying questions, Ms. Jack indicated that drainage would be addressed by shallow swells along the roadway, that the environmental process through the BIA process

is underway for the right-of-way acquisitions, that the Community had 2011 traffic counts for the exterior roadway, but not the internal roads and that there is sufficient clear zones to keep objects out of the road.

Chair Chris Hauser moved to forward the summary of the discussion from the meeting on Paving of Unpaved Road applications evaluated by the Street Committee, to the MAG Air Quality Technical Advisory Committee. Mr. John Kraft seconded the motion. The motion carried unanimously.

7. MAG Arterial Road and Bridge Applications, Proposed to be Funded with Surface Transportation Program (STP) Funds for Projects in Pinal County Within the MAG Planning Area

Mr. John Bullen of MAG staff provided an overview. He indicated that the rules governing the programming of the Pinal County STP program were approved by the Regional Council in February. The amount available for programming is approximately \$1. 6 million and that the program has six goals as follows:

- Expand capacity on existing roadways or intersections of high demand
- Maintain and preserve the region’s transportation system
- Address safety concerns in the existing roadway/intersection conditions
- Promote connectivity between high demand/capacity roadways and activity centers to advance economic viability
- Maintain consistency with stated jurisdictional policy
- Achieve a significant reduction in congestion on the region’s transportation system

Evaluation criteria are based on the six goals.

Three applications were received. One application was deemed ineligible since it was for paving and the program does not provide for paving projects.

Per the PC-STP Programming and Evaluation Policy, the MAG Street Committee is responsible for evaluating project applications as follows: “The Streets Committee will assess the application and data provided to determine its reasonableness and accuracy relative to the evaluation criteria.”

Mr. Emile Schmid briefed the Committee on the application from Apache Junction. He indicated that the project will add one through lane and bicycle lanes in both directions . It will also add consistent curb, gutter and sidewalk throughout.

He noted that due to ADOT and MCDOT improvements it is anticipated that the section will have increased traffic. The section includes a High School and a Hospital.

In response to clarifying questions he indicated the following:

- He indicated that the pavement data for is based on visual inspection system that results in an estimate of the remaining service life of the pavement. The pavement for the section is estimated to have a remaining service life of ten years.
- The traffic estimate for the section is based on approach counts and was initially provided as 20,000 ADT, but should be revised downward to 10,000 ADT. A detailed traffic count was not conducted due to cost considerations so estimation of K and D factors are rough estimates.

Mr. Gregory McDowell briefed the Committee on the Gila River Indian Community application. He indicated that the roadway to be improved connects State Route 87 with the Hunt Highway and that it is an important route for the Gila River Indian Community. The route has high maintenance costs and its pavement is in bad condition with extensive alligator cracking. The route does not have a shoulder and three incapacitating crashes have occurred on the route.

The proposed improvements to the facility include rehabilitating the pavement and adding a bicycle lane.

In response to clarifying questions, he indicated the following:

- The pavement rating for the facility is a Pavement Condition Index (PCI) value and is based on a visual inspection of the facility.
- The traffic estimate is based on a traffic count for the facility.

Mr. Tate noted that in the site visit for the two applications, the quality of pavement for the Indian Community appeared worse than that for the Apache Junction project, yet the Apache Junction project had a lower pavement rating. He suggested that it might be desirable to convert the two ratings to remaining service life.

Mr. Schmid sought clarification of the differences between the two rating systems. He noted that the system used by Apache Junction was a visual based system that rated pavements in terms of remaining service life and asked for information on the system used by the Indian Community.

Mr. Oliver responded that the PCI was a rating of pavement quality based on visual inspection and is not based on remaining service life. Ms. Grote noted that a PCI rating of 70 is the national standard for pavement condition by agencies that use the PCI and that Phoenix used a van with special equipment to collect the data.

Mr. Kraft asked how much funding was needed by the projects. Mr. Bullen noted that each project required the majority of the funding.

Mr. Oliver moved to forward the project ranking tool to the Transportation Review Committee for project review and selection. Mr. Lair seconded the motion. The motion carried unanimously.

8. Next Meeting Date

The next regular Street Committee meeting will be scheduled for Tuesday, November 10, 2015 at 1:00 p.m. in the MAG Offices, Ironwood Room.

Adjournment

The meeting adjourned at 1:32 PM.

# **Attachment #1**

# MARICOPA ASSOCIATION OF GOVERNMENTS INFORMATION SUMMARY... for your review

**DATE:**

November 3, 2015

**SUBJECT:**

Programming of PM-2.5, and PM-10 Paving Unpaved Road Projects for MAG Federal Congestion Mitigation and Air Quality Improvement (CMAQ) Funding for the Draft Fiscal Year 2017-2021 MAG Transportation Improvement Program

**SUMMARY:**

The MAG Regional Transportation Plan (RTP) allocates MAG federal CMAQ funds to specific modes, and in some cases, identifies specific projects for the funds. The available CMAQ funding for the proposed PM-2.5 and PM-10 Paving Unpaved Road Projects that cover years 2018, 2019, and 2020 is \$ 14,022,139 including a small balance of unprogrammed Fiscal Year (FY) 2014 PM-2.5 funding. MAG relies on its competitive application process to program these funds. Applications were made available August 10, 2015, with a due date of September 21, 2015. There were seventeen complete project applications submitted on time, with one agency that requested their project be withdrawn. The programming of CMAQ Paving of Unpaved Road Projects will be discussed.

On October 13, 2015, the Street Committee conducted technical evaluations and review of the project applications. On October 22, 2015, the Air Quality Technical Advisory Committee made a recommendation on a ranking of the proposed PM-2.5, and PM-10 Paving Unpaved Road Projects for FY 2018, 2019, and 2020 to forward to the MAG Transportation Review Committee. It is expected that on December 17, 2015, the Transportation Review Committee will review the ranked projects and recommend a programming scenario to forward to the MAG Management Committee in January 2016.

For your review and discussion, three attachments are included. The attachments include the projects listed by rank order of cost effectiveness (Attachment #1), a proposed Programming Scenario 1 (Attachment #2), and a memorandum from the Chair of the MAG Air Quality Technical Advisory Committee that details the evaluation process used for ranking the list of projects, and a ranking of projects in order of cost effectiveness of PM-10 emission reductions by county (Attachment #3). Please note that all projects that were evaluated for PM-2.5 funding are also eligible for PM-10 funding.

**PUBLIC INPUT:**

None.

**PROS & CONS:**

**PROS:** Approval of the funding and programming for these projects will enable their inclusion in the Transportation Improvement Program (TIP) and will allow jurisdictions to develop their projects in a timely and integrated manner.

**CONS:** If these projects are not approved, the time to develop projects will be limited. Timely development of projects is needed to ensure that MAG federal funds are fully utilized each year, and to enhance opportunities for additional federal funds if available.

**TECHNICAL & POLICY IMPLICATIONS:**

TECHNICAL: The Paving Unpaved Road Projects will reduce particulate matter or emissions near air quality monitors in the West Central Pinal PM-2.5 Nonattainment Area, West Pinal PM-10 Nonattainment area, and in the Maricopa PM-10 Maintenance Area. Projects that wish to utilize transportation federal funds need to be shown in the TIP in the year that they expect to commence and may need to undergo an air quality conformity analysis or consultation. It is expected that the FY 2017-2021 TIP will be submitted for federal final approval in June of 2016. Additionally staff is requesting amendments to the current federally approved FY 2014-2018 TIP.

POLICY: The MAG federally funded program has been developed in accord with federal regulations and MAG policies. This process follows the MAG Federal Fund Programming Principles approved by the MAG Regional Council in June 2015. Air Quality Emission Reduction scores were presented at the modal committees and the program is fiscally balanced. The funding for the projects is based on a reasonable expectation that MAP-21 will be continued and/or extended through Federal Fiscal Year 2020, or that another surface transportation authorization will be enacted that continues the CMAQ program eligible activities.

**ACTION NEEDED:**

Recommend approval of a programming scenario of FY 2018, 2019, and 2020 PM-2.5 and PM-10 Congestion Mitigation and Air Quality Improvement funded Paving Unpaved Road Projects to be added to the FY 2014-2018 MAG Transportation Improvement Program, the 2035 Regional Transportation Plan, and the Draft FY 2017-2021 MAG Transportation Improvement Program as appropriate.

**PRIOR COMMITTEE ACTIONS:**

The project listings with October 13, 2015 Street Committee comments and the recommended Cost Effectiveness item was presented at the October 22, 2015, MAG Air Quality Technical Advisory Committee meeting. The Committee recommended forwarding the list of projects to the Transportation Review Committee for programming.

**MEMBERS ATTENDING**

- Tim Conner, Scottsdale, Chairman
- Jamie McCullough, El Mirage, Vice Chair
- Drew Bryck, Avondale
- Susan Avans for Robert van den Akker, Buckeye
- \* Jim Weiss, Chandler
- Jessica Koberna, Gilbert
- Megan Sheldon, Glendale
- \* Cato Esquivel, Goodyear
- # Kazi Haque, Maricopa
- Greg Edwards, Mesa
- William Mattingly, Peoria
- Joe Gibbs for Joe Giudice, Phoenix
- # Antonio DeLaCruz, Surprise
- Oddvar Tveit, Tempe
- \* Youngtown
- Ramona Simpson, Queen Creek
- # Walter Bouchard, American Lung Association of Arizona
- Kristin Watt, Salt River Project
- \* Jeanette Fish, Maricopa County Farm Bureau
- Steve Trussell, Arizona Rock Products Association
- \* Claudia Whitehead, Greater Phoenix Chamber of Commerce
- Amanda McGennis, Associated General Contractors
- \* Spencer Kamps, Homebuilders Association of Central Arizona
- \* Mannie Carpenter, Valley Forward
- Kai Umeda, University of Arizona Cooperative Extension
- Beverly Chenausky, Arizona Department of Transportation
- # Eric Massey for Arizona Department of Environmental Quality
- \* Environmental Protection Agency

- \* Rebecca Hudson-Nunez, Southwest Gas Corporation
- \* Michael Denby, Arizona Public Service Company
- \* Gina Grey, Western States Petroleum Association
- \* Robert Forrest, Valley Metro/RPTA
- \* Dave Berry, Arizona Motor Transport Association
- Heather Krause, Maricopa County Air Quality Department
- Scott DiBiase, Pinal County
- \* Michelle Wilson, Arizona Department of Weights and Measures
- @ Ed Stillings, Federal Highway Administration
- \* Judi Nelson, Arizona State University
- Stan Belone, Salt River Pima-Maricopa Indian Community

\* Members neither present nor represented by proxy.

# Participated via telephone conference call.

+ Participated via video conference call.

@ Ex-Officio member, non-voting member.

**CONTACT PERSON:**

Teri Kennedy or Stephen Tate, (602) 254-6300

## Paving Summary Data Sorted by Cost Effectiveness/1

### PM-10 and PM-2.5 Paving of Unpaved Road Projects for FYs 2018, 2019, 2020

Sorted by cost effectiveness, and rounding may occur.

PROJECT SPONSOR	PROJECT ID	PROJECT TITLE	FUNDING REQUEST (CONSTRUCTION)			UNIT COSTS MEASURES		CLARIFYING QUESTIONS	Street Committee Comments from 10-13-2015
			Year	2.5 Elig.	CMAQ	Emission Reduction Weighted Total (kg/day)	Cost Effectiveness (CMAQ \$/metric ton)		
Maricopa City	MAR-18-PAV-001	Porter Road Paving	2018	Y	\$ 707,896	1,681.11	\$ 78	<ul style="list-style-type: none"> <li>The application indicates that design would begin in 2017 and construction would occur in 2018. This may leave too little time to compete the design and environmental process through ADOT as the process typically requires 18 to 24 months or more to complete.</li> </ul>	RD: we grade this once a month. Primarily farm vehicles and some residential traffic. Q: Double Chip seal gets a lot of water, how are you going to handle? A: it is crowned with a 2" crown, we intend to get this at the true centerline and there will be drainage on either side. A: CQ: It is a temporary pavement that can be moved a bit faster. We believe we can get it through in that amount of time. Q: Not being a CA agency, you will need an IGA, which takes more time. A: we are not a CA but will take this under advisement. Q: you will need a Design and a Construction JPA, these take time. Admin fees also are in there. A year may be too short. A: Useful life is about 10 years minimum, then a developer would put in a permanent facility. We currently have a 2x chip seal that is 20 years.
Maricopa City	MAR-18-PAV-002	Farrell and Hartman Intersection Paving Phase 2	2018	Y	\$ 679,381	744.68	\$ 168	<ul style="list-style-type: none"> <li>The application indicates that design would begin in 2017 and construction would occur in 2018. This may leave too little time to compete the design and environmental process through ADOT as the process typically requires 18 to 24 months or more to complete.</li> <li>The applications appear to have the wrong cost sheet on the Farrel and Hartman Road applications</li> </ul>	RD: We do have a wash crossing in one spot on Hartman Rd, we will concrete this one area to address. Q: Review your cost sheet. A: thankyou we will.
Pinal County	PNL-19-PAV-001	Design & Pave Stanfield Road from Talla Rd to Miller Rd (3.5 mi)	2019	Y	\$ 2,143,017	339.04	\$ 332	<ul style="list-style-type: none"> <li>The applications include an estimate of over 40% truck traffic. Does Pinal County feel a double chip seal will hold up to this type traffic?</li> </ul>	Our agency grades Stanfield road regularly, busses, dairy trucks, etc. use this roadway. Double chip seal on 6", estimate is based on 8" if needed, will be determined during design.
Pinal County	PNL-19-PAV-002	Design & Pave Barnes Road from Fuqua Rd to Stanfield Rd (1.0 mi)	2019	Y	\$ 612,140	1,187.67	\$ 332	<ul style="list-style-type: none"> <li>The applications include an estimate of over 40% truck traffic. Does Pinal County feel a double chip seal will hold up to this type traffic?</li> </ul>	All of our projects are close to the air monitor. All projects are within 4 miles, Midway Rd is 5 miles.
Maricopa City	MAR-18-PAV-003	Farrell Road Paving Phase 1	2018	Y	\$ 679,381	287.01	\$ 436	<ul style="list-style-type: none"> <li>The application indicates that design would begin in 2017 and construction would occur in 2018. This may leave too little time to compete the design and environmental process through ADOT as the process typically requires 18 to 24 months or more to complete.</li> </ul>	RD: Used by farm vehicles and some residential. Also has a wash crossing on Farrel Rd. We have 22 miles of dirt roads and these apps are about 11 miles worth.
Maricopa County	MMA-19-PAV-001	Miller Road, Tonopah-Salome Highway to Van Buren Street.	2019	Y	\$ 979,331	313.81	\$ 575		Presenter: Quarry traffic and Federal Government (base), allot of dust. Shoulders will remain unpaved. ROW is half owned by Buckeye and MCDOTX. Q: Utility conflicts may arise, are you expecting costs? CMAQ per mile is high compared to other apps. A: Utility company will move the utilities at their cost. CMAQ \$ per mile paved is the cost we expect. Q: what is your structure? A: it will accommodate all the heavy base traffic. The technical group has determined 2.5 on 6" base, subgrade of 10". Q: Design cost looks high, could you speak to this? A: Estimated by our consultants and MCDOTX did a QC review to date. May be due to dam structure to work at the site and meet stopping distances. Concrete will be required for the portion at the dam. Nine driveways are present, six need concrete. Environmental review for drainage may also be higher. Q: This company (army) does allot of dust stirring when mobilizing. This seems like a good project to address the dust.
Pinal County	PNL-18-PAV-001	Design & Pave Midway Road from 0.5 mi south of SR 84 to Cornman Rd (2.5 mi)	2019	Y	\$ 1,569,630	453.82	\$ 637	<ul style="list-style-type: none"> <li>The applications include an estimate of over 40% truck traffic. Does Pinal County feel a double chip seal will hold up to this type traffic?</li> </ul>	No conflicts with utilities are anticipated. Paved shoulders. CQ: We have allot of trucks on this route. We'll verify the needed ABC on the geotechnical report. Q: any reason for the different cost per miles between projects. A: we will double check our cost sheets.
Phoenix	PHX-18-PAV-001	2018 CMAQ Alley Dust Proofing	2018	N	\$ 1,532,375	287.00	\$ 983	<ul style="list-style-type: none"> <li>Some applications state that no design is required or do not include design, however when dealing with federal aid funds, a design component is required. Has there been consideration of performing a reduced design to accommodate obtaining all certification/clearances and the review and approval of these projects?</li> </ul>	Presenter: Our applications are for three years of paving and covers 85 miles. Areas are identified by complaints, track out, or by staff evaluation. We propose chip sealing for these alleyways. We do minimal grading and apply at 11' wide. We do have challenges with alleys, some residents love and use, some have been closed. We do include a 3% cost increase per year. ADTs were dropped from 10 to 4, this will average out as some residents do use alley for access, some do not. We do have a simple straight forward design process.
Phoenix	PHX-19-PAV-002	2019 CMAQ Alley Dust Proofing	2019	N	\$ 1,621,960	221.75	\$ 1,347	<ul style="list-style-type: none"> <li>Some applications state that no design is required or do not include design, however when dealing with federal aid funds, a design component is required. Has there been consideration of performing a reduced design to accommodate obtaining all certification/clearances and the review and approval of these projects?</li> </ul>	Q: What is FAST? A: It is basically a rubber/asphalt chip seal, now we have local suppliers. Q: you are just putting it over native? A: yes.
Salt River Pima-Maricopa Indian Community	SRP-19-PAV-001	Pave McDonald Drive Sub-division and Palm Lane	2019	N	\$ 1,126,885	125.44	\$ 1,654	<ul style="list-style-type: none"> <li>Because the ROW acquisition process has started, one can assume that the alignment was set and that all environmental considerations have been taken. Is this correct?</li> <li>Regarding Segment 7 (Ranch Drive), what consideration has been given to drainage so it is not redirected to the nearby homes (per photo in page 62).</li> <li>Does the Community have the traffic count information available?</li> <li>Is the needed ROW tribal or allotted?</li> <li>The cross-section in the application indicates limited ROW. Will the Community be able to keep fixed objects outside the clear zone?</li> </ul>	Presenter: This is a two phase project. Subdivision portion has needed paving for many years. Acquisition of ROW has been an issue to accomplishing this. It is on allotted land. The tribe has recently changed its position to purchasing ROW. Now this is the first project that the tribe will pay to acquire ROW. One area is 50' ROW the other is 30' ROW which is a correction from the stated 25' ROW. ROW will be evenly split across the property line (centered). All ROW will go through the BIA and initial environmental. Drainage will be addressed with a shallow swill so it doesn't impact residents. Traffic counts in 2011 were completed by sections. Exterior road counts were taken. Land is mostly allotted land with some tribal interest.

## Paving Summary Data Sorted by Cost Effectiveness/1

### PM-10 and PM-2.5 Paving of Unpaved Road Projects for FYs 2018, 2019, 2020

Sorted by cost effectiveness, and rounding may occur.

PROJECT SPONSOR	PROJECT ID	PROJECT TITLE	FUNDING REQUEST (CONSTRUCTION)			UNIT COSTS MEASURES		CLARIFYING QUESTIONS	Street Committee Comments from 10-13-2015
			Year	2.5 Elig.	CMAQ	Emission Reduction Weighted Total (kg/day)	Cost Effectiveness (CMAQ \$/metric ton)		
Phoenix	PHX-20-PAV-003	2020 CMAQ Alley Dust Proofing	2020	N	\$ 1,414,500	147.70	\$ 1,764	• Some applications state that no design is required or do not include design, however when dealing with federal aid funds, a design component is required. Has there been consideration of performing a reduced design to accommodate obtaining all certification/clearances and the review and approval of these projects?	
Chandler	CHN-19-PAV-002	Alleyway PM-10 Stabilization	2019	N	\$ 944,954	41.71	\$ 4,172	• Under AC Mill and Overlay: What is included in this cost item?	A: Some agencies have considered closing alleys. Have you thought of this? A: We looked at this and spoke to our utilities. We spoke to our police reps and they would like to have the dumpsters removed for safety reasons.
Fort McDowell Yavapai Nation	FTM-18-PAV-001	FMYN Dirt Roads Paving Project	2018	N	\$ 841,940	29.97	\$ 5,174	• The application needs to address jurisdictional waters or permits and include minimal drainage infrastructure. Can you please clarify how this has been addressed?	A: Clarifying Q: 404 permits are not anticipated. We have the designer working on this. For the current 5 miles it has not been an issue. We have been able to address all drainage to date. We will use culverts, as designed by engineers under contract. Q: I see that CMAQ dollars seems high compared to others. A: difference in price is due to size and location. Distance to project dictates unit increase.
El Mirage	ELM-18-PAV-001	Unpaved Streets & Alleys	2018	N	\$ 526,963	12.98	\$ 7,478	• The application indicates that design would begin in 2017 and construction would occur in 2018. This may leave too little time to compete the design and environmental process through ADOT as the process typically requires 18 to 24 months or more to complete.	Q: Are the alleys open to traffic? A: yes, residents, utilities, etc. We are thinking about remove able ballards. We need to deter those that dump in the alleys who are not suppose to. Q: What is the amount of time on the design, 18 to 24 months with ADOT - which should be simple and straight forward. Q: Still there may be a schedule issue, it should not effect selection. A: we wouldn't oppose a future year if funded.
Chandler	CHN-18-PAV-001	Alleyway PM-10 Stabilization	2018	N	\$ 761,747	16.79	\$ 8,353	• Under AC Mill and Overlay: What is included in this cost item?	KL: The contractor comes in and clears and levels off old material, then paves. Q: what is the difference in cost? A: It may be due to location, or year increase. A: for the 2020 project I'll have to get back on this.
Chandler	CHN-20-PAV-003	Alleyway PM-10 Stabilization	2020	N	\$ 961,265	17.61	\$ 10,054	• Under AC Mill and Overlay: What is included in this cost item?	Q: Rain, what happens with the pervious surface to the citizens property? A: We do not go all the way to the ROW line, which allows drainage to occur.
					Total Requested	\$ 17,103,365			
					Total Available*	\$ 14,022,139			
					Unfunded	\$ 3,081,226			

\$ 14,011,450

\$10,689

#### PM-2.5: Eligible Projects

Year	Requested	Apportionment*
CF		\$ 28,249
2018	\$ 2,066,658	\$ 654,534
2019	\$ 5,304,118	\$ 669,678
2020	\$ -	\$ 669,678
<b>Total</b>	<b>\$ 7,370,776</b>	<b>\$ 2,022,139</b>

\* Note that Apportionment also includes matching Obligation Authority (OA)

#### PM-10: Eligible Projects

Year	Requested	Apportionment*
CF		\$ -
2018	\$ 5,729,683	\$ 4,000,000
2019	\$ 8,997,917	\$ 4,000,000
2020	\$ 2,375,765	\$ 4,000,000
<b>Total</b>	<b>\$ 17,103,365</b>	<b>\$ 12,000,000</b>

#### Total CMAQ Funding All Years: Eligible Projects

Requested	Apportionment*
\$ 17,103,365	\$ 14,022,139

# Paving Unpaved Roads Programming Scenario 1

## PM-10 and PM-2.5 Paving of unPaved Road Projects for FY 2018

Sorted by cost effectiveness, and rounding may occur.

PROJECT SPONSOR	PROJECT ID	PROJECT TITLE	Request ed Year	2.5 Elig.	Requested CMAQ	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	Program Year	CMAQ Award
Maricopa City	MAR-18-PAV-001	Porter Road Paving	2018	Y	\$ 707,896	1,681.11	\$78	2018	\$ 707,896
Maricopa City	MAR-18-PAV-002	Farrell and Hartman Intersect-ion Paving Phase 2	2018	Y	\$ 679,381	744.68	\$168	2018	\$ 679,381
Maricopa City	MAR-18-PAV-003	Farrell Road Paving Phase 1	2018	Y	\$ 679,381	287.01	\$436	2018	\$ 679,381
Pinal County	PNL-18-PAV-001	Design & Pave Midway Road from 0.5 mi south of SR 84 to Cornman Rd (2.5 mi)	2018	Y	\$ 1,569,630	453.82	\$637	2018	\$ 1,569,630
Phoenix	PHX-18-PAV-001	2018 CMAQ Alley Dust Proofing	2018	N	\$ 1,532,375	287.00	\$983	2018	\$ 1,532,375
<b>Total 2018</b>									\$ 5,168,663
<b>2018 Available</b>									\$ 4,682,783
<b>2018 Balance</b>									\$ (485,880)

## PM-10 and PM-2.5 Paving of UnPaved Road Projects for FY 2019

PROJECT SPONSOR	PROJECT ID	PROJECT TITLE	Request ed Year	2.5 Elig.	Requested CMAQ	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	Program Year	CMAQ Award
Pinal County	PNL-19-PAV-001	Design & Pave Stanfield Road from Talla Rd to Miller Rd (3.5 mi)	2019	Y	\$ 2,143,017	339.04	\$332	2019	\$ 2,143,017
Pinal County	PNL-19-PAV-002	Design & Pave Barnes Road from Fuqua Rd to Stanfield Rd (1.0 mi)	2019	Y	\$ 612,140	1,187.67	\$332	2019	\$ 612,140
Maricopa County	MMA-19-PAV-001	Miller Road, Tonopah-Salome Highway to Van Buren Street.	2019	N	\$ 979,331	313.81	\$575	2019	\$ 979,331
Phoenix	PHX-19-PAV-002	2019 CMAQ Alley Dust Proofing	2019	N	\$ 1,621,960	221.75	\$1,347	2019	\$ 1,621,960
<b>Total 2019 Prog'd</b>									\$ 5,356,448
<b>2019 Available</b>									\$ 4,669,678
<b>2019 Balance</b>									\$ (686,770)

## PM-10 and PM-2.5 Paving of UnPaved Road Projects for FY 2020

PROJECT SPONSOR	PROJECT ID	PROJECT TITLE	Request ed Year	2.5 Elig.	Requested CMAQ	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	Program Year	CMAQ Award
Salt River Pima-Maricopa Indian Community	SRP-19-PAV-001	Pave McDonald Drive Sub-division and Palm Lane	2019	N	\$ 1,126,885	125.44	\$1,654	2020	\$ 1,126,885
Phoenix	PHX-20-PAV-003	2020 CMAQ Alley Dust Proofing	2020	N	\$ 1,414,500	147.70	\$1,764	2020	\$ 1,414,500
Chandler	CHN-19-PAV-002	Alleyway PM-10 Stabil-ization	2019	N	\$ 944,954	41.71	\$4,172	2020	\$ 944,954
<b>Total 2020 Prog'd</b>									\$ 3,486,339
<b>2020 Available</b>									\$ 4,669,678
<b>2020 Balance</b>									\$ 1,183,339

# Paving Unpaved Roads Programming Scenario 1

Summary of Programming		CMAQ	
CMAQ 2.5	FY 2014, 2018-2020	\$	1,687,227
CMAQ 10	FY 2018-2020	\$	12,324,223
Total		\$	14,011,450

Total Funding	FY 2018-2020	\$	14,022,139
Balance CF 2021		\$	10,689

## PM-10 and PM-2.5 Paving of Unpaved Road Projects: No funding available\*\*

PROJECT SPONSOR	PROJECT ID	PROJECT TITLE	Request ed Year	2.5 Elig.	Requested CMAQ	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	Program Year	CMAQ Award
Fort McDowell Yavapai Nation	FTM-18-PAV-001	FMYN Dirt Roads Paving Project*	2018	N	\$ 841,940	29.97	\$5,174	-	0
El Mirage	ELM-18-PAV-001	Unpaved Streets & Alleys	2018	N	\$ 526,963	12.98	\$7,478	-	0
Chandler	CHN-18-PAV-001	Alleyway PM-10 Stabil-ization	2018	N	\$ 761,747	16.79	\$8,353	-	0
Chandler	CHN-20-PAV-003	Alleyway PM-10 Stabilization	2020	N	\$ 961,265	17.61	\$10,054	-	0

\*\*Project funding shortage

**\$3,091,915**



302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003  
Phone (602) 254-6300 ▲ FAX (602) 254-6490  
E-mail: mag@azmag.gov ▲ Web site: www.azmag.gov

October 23, 2015

TO: Members of the MAG Transportation Review Committee

FROM: Tim Conner, Scottsdale, Chair of the MAG Air Quality Technical Advisory Committee

SUBJECT: MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION ON A RANKING OF PROPOSED PM-10 PAVING UNPAVED ROAD PROJECTS FOR FY 2018, 2019, AND 2020 CMAQ FUNDING

On October 22, 2015, the MAG Air Quality Technical Advisory Committee (AQTAC) made a recommendation on a ranking of Proposed PM-10 Paving Unpaved Road Projects for FY 2018, 2019, and 2020 CMAQ funding to the MAG Transportation Review Committee (see attachment). The AQTAC considered the proposed projects listed in order of cost effectiveness and listed in order of PM-10 emission reductions. It is anticipated that the MAG Transportation Review Committee may make a recommendation on these projects for inclusion in the upcoming FY 2017-2021 MAG Transportation Improvement Program (TIP).

In the Maricopa County PM-10 nonattainment area, ten unpaved road and alley projects requesting approximately \$10.7 million in federal funds were evaluated. In the Pinal County PM-2.5 nonattainment area, six unpaved road projects requesting approximately \$6.3 million in CMAQ PM-2.5 funds were evaluated. Project applications were due by September 21, 2015. A combined amount of \$14 million in CMAQ funding is available to program PM-10 Paving Unpaved Road Projects for FY 2018, 2019, and 2020. This amount includes \$4,000,000 available each year from the Regional Transportation Plan funding that is allocated for Air Quality Projects. This amount also includes \$669,668 allocated annually by the Arizona Department of Transportation to MAG for projects that reduce PM-2.5 in portions of the West Central Pinal PM-2.5 Nonattainment Area located within the planning boundaries of both MAG and the Sun Corridor Metropolitan Planning Organization.

The paving of unpaved roads is a committed measure in the Revised MAG 1999 Serious Area Particulate Plan for PM-10 and is included in the MAG 2012 Five Percent Plan for PM-10. Also, the Regional Transportation Plan assumes the annual paving of at least ten miles of unpaved roads to reduce fugitive dust.

On October 13, 2015, the MAG Street Committee conducted a review of the PM-10 Paving Unpaved Road project applications for FY 2018, 2019, and 2020 CMAQ funding. Following the Street Committee meeting, MAG staff calculated the estimated emission reductions and corresponding cost-effectiveness of the proposed projects that included revised information received from member agencies.

If you have any questions, please contact Dean Giles, MAG, at (602) 254-6300.

Attachment



**OCTOBER 22, 2015 MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION**

**Proposed PM-10 Paving Unpaved Road Projects for FY 2018 CMAQ Funding Listed in Order of Cost Effectiveness  
\$4,000,000 available for FY 2018 for the Maricopa County PM-10 Nonattainment Area**

Project Number	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	CMAQ Funds Requested
PHX-18-PAV-001	Phoenix	2018 CMAQ Alley Dust Proofing (29.7 miles)	Pave Dirt Alleys	2018	29.70	0	0	287.00	287.00	\$983	\$1,532,375
FTM-18-PAV-001	Fort McDowell Yavapai Nation	FMYN Dirt Roads Paving Project	Pave Dirt Roads	2018	0.70	0	0	29.97	29.97	\$5,174	\$841,940
ELM-18-PAV-001	El Mirage	Unpaved Streets & Alleys	Pave Dirt Alleys	2018	0.60	0	0	12.98	12.98	\$7,478	\$526,963
CHN-18-PAV-001	Chandler	Alleyway PM-10 Stabilization	Pave Dirt Alleys	2018	11.80	0	0	16.79	16.79	\$8,353	\$761,747
										Subtotal	\$3,663,025
										Amount Available	\$4,000,000
										Balance	\$336,975

**Proposed PM-10 Paving Unpaved Road Projects for FY 2019 CMAQ Funding Listed in Order of Cost Effectiveness  
\$4,000,000 available for FY 2019 for the Maricopa County PM-10 Nonattainment Area**

Project Number	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	CMAQ Funds Requested
MMA-19-PAV-001	Maricopa County	Miller Road, Tonopah-Salome Highway to Van Buren Street.	Pave Dirt Roads	2019	1.00	0	0	313.81	313.81	\$575	\$979,331
PHX-19-PAV-002	Phoenix	2019 CMAQ Alley Dust Proofing (29.0 miles)	Pave Dirt Alleys	2019	29.00	0	0	221.75	221.75	\$1,347	\$1,621,960
SRP-19-PAV-001	Salt River Pima-Maricopa Indian Community	Pave McDonald Drive Subdivision and Palm Lane	Pave Dirt Roads	2019	2.13	0	0	125.44	125.44	\$1,654	\$1,126,885
CHN-19-PAV-002	Chandler	Alleyway PM-10 Stabilization	Pave Dirt Alleys	2019	14.50	0	0	41.71	41.71	\$4,172	\$944,954
										Subtotal	\$4,673,130
										Amount Available	\$4,000,000
										Balance	-\$673,130

**Proposed PM-10 Paving Unpaved Road Projects for FY 2020 CMAQ Funding Listed in Order of Cost Effectiveness  
\$4,000,000 available for FY 2020 for the Maricopa County PM-10 Nonattainment Area**

Project Number	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	CMAQ Funds Requested
PHX-20-PAV-003	Phoenix	2020 CMAQ Alley Dust Proofing (25.7 miles)	Pave Dirt Alleys	2020	25.70	0	0	147.70	147.70	\$1,764	\$1,414,500
CHN-20-PAV-003	Chandler	Alleyway PM-10 Stabilization	Pave Dirt Alleys	2020	15.70	0	0	17.61	17.61	\$10,054	\$961,265
										Subtotal	\$2,375,765
										Amount Available	\$4,000,000
										Balance	\$1,624,235

**OCTOBER 22, 2015 MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION**

**Proposed PM-10 Paving Unpaved Road Projects for FY 2018 CMAQ Funding Listed in Order of Cost Effectiveness  
\$669,668 available for FY 2018 for the Pinal County PM-2.5 Nonattainment Area**

Project Number	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	CMAQ Funds Requested
MAR-18-PAV-001*	Maricopa	Porter Road Paving	Pave Dirt Roads	2018	1.90	0	0	1,681.11	1,681.11	\$78	\$707,896
MAR-18-PAV-002*	Maricopa	Farrell and Hartman Intersection Paving Phase 2	Pave Dirt Roads	2018	1.38	0	0	744.68	744.68	\$168	\$679,381
MAR-18-PAV-003*	Maricopa	Farrell Road Paving Phase 1	Pave Dirt Roads	2018	1.45	0	0	287.01	287.01	\$436	\$679,381
<b>Subtotal</b>											<b>\$2,066,658</b>
<b>Amount Available</b>											<b>\$669,668</b>
<b>Balance</b>											<b>-\$1,396,990</b>

**Proposed PM-10 Paving Unpaved Road Projects for FY 2019 CMAQ Funding Listed in Order of Cost Effectiveness  
\$669,668 available for FY 2019 for the Pinal County PM-2.5 Nonattainment Area**

Project Number	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (CMAQ dollars/metric ton)	CMAQ Funds Requested
PNL-19-PAV-002*	Pinal County	Design & Pave Stanfield Road from Talla Rd to Miller Rd (3.5 mi)	Pave Dirt Roads	2019	3.50	0	0	1,187.67	1,187.67	\$332	\$2,143,017
PNL-19-PAV-001*	Pinal County	Design & Pave Barnes Road from Fuqua Rd to Stanfield Rd (1.0 mi)	Pave Dirt Roads	2019	1.00	0	0	339.04	339.04	\$332	\$612,140
PNL-18-PAV-001*	Pinal County	Design & Pave Midway Road from 0.5 mi south of SR 84 to Cornman Rd (2.5 mi)	Pave Dirt Roads	2019	2.50	0	0	453.82	453.82	\$637	\$1,569,630
<b>Subtotal</b>											<b>\$4,324,787</b>
<b>Amount Available</b>											<b>\$669,668</b>
<b>Balance</b>											<b>-\$3,655,119</b>

\* Denotes projects within the West Central Pinal PM-2.5 Nonattainment Area. Based on EPA AP-42 emission equation, weighted PM-2.5 emission reductions are ten percent of the weighted PM-10 emission reductions.



# Attachment #2



## Pinal County Surface Transportation Program – Call for Projects Evaluation Reference Sheet

Criteria		Southern Ave: Delaware Dr to Ironwood Dr	Gilbert Rd Reconstruction and Improvement Project	Bowlin Road Paving*
Overview	Type of Work	Roadway Widening	Roadway Improvement	Paving
	Segment Length	0.5 Miles	2.50 Miles	1 Mile
	Lanes Before	2	2	2
	Lanes After	4	2	2
Annual Average Daily Traffic (AADT)		10,747	6,115	2,200
Pavement/Bridge Condition (1-5 Scale)		2.50	0.5	N/A
Peak Period Speed Differential		1.111	1.182	0.88
Segment/Intersection Capacity (VPLPH)		349	25	1.02
Crash Rate per 100 million Vehicle-Miles of Travel		3,671	2,841	0
Number of Injuries/Fatalities (3-year average)		0	1	0
Does this project improve regional/multijurisdictional connectivity?		Yes	Yes	No
Distance from the nearest commercial/employment center		< 1 Mile	< 1 Mile	< 2 Miles
Does this project involve improvements that address throughput on an existing intersection?		Yes	Yes	Yes
Does this project involve improvements that address safety on an existing intersection?		Yes	Yes	Yes
Is this project identified in the jurisdiction General/Transportation Plan?		Yes	Yes	Yes
Has this project been requested through a neighborhood or community meeting or by council/board/commission outside of the budget process?		Yes	Yes	No

\*Paving is not an eligible activity per the MAG Pinal County Surface Transportation Program (STP) Programming and Evaluation Policy, approved on February 25, 2015

\*\*Changes from the original applications have been highlighted in yellow.

# Attachment #3



**EVALUATION TOOL FOR STP FUNDED PROJECTS IN PINAL COUNTY**



**Combined Results**

PROJECT # AND LIMITS		QUANTITATIVE SCORE	QUALITATIVE SCORE	BONUS POINTS	TOTAL SCORE
1	Southern Ave: Delaware Dr to Ironwood Dr	1.05	0.3		1.35
2	Gilbert Rd: Hunt Highway to SR-87	1.05	0.3		1.35
3					
4					
5					
6					
7					
8					
9					
10					