October 18, 2012

TO: Members of the MAG Transportation Review Committee

FROM: David Meinhart, City of Scottsdale, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, October 25, 2012, 10:00 a.m.
MAG Office, Suite 200, Saguaro Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Transportation Review Committee (TRC) will be held at the time and place noted above. **Please park in the garage under the building. Bring your ticket to the meeting as parking will be validated. Bicycles can be locked in the rack at the entrance to the parking garage.**

The next meeting of the MAG Transportation Review Committee will be held at the time and place noted above. Committee members or their proxies may attend **in person, via videoconference or by telephone conference call**. Those attending 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.

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 Christina Hopes or Jason Stephens at the MAG Office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures adopted by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum in order to conduct business. A quorum is a simple majority of the membership or fourteen people for the MAG TRC. If the Transportation Review 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. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction to represent you. Please contact Eric Anderson or Alice Chen at (602) 254-6300 if you have any questions or need additional information.

TENTATIVE AGENDA

		COMMITTEE ACTION REQUESTED
	Call to Order	
1.	Approval of Draft June 28, 2012 Minutes	1. Approve Draft minutes of the June 28, 2012 meeting.
2.	Approval of Draft August 23, 2012 Minutes	2. Approve Draft minutes of the August 23, 2012 meeting.
3.	Call to the Audience An opportunity will be provided to members of the public to address the Transportation Review 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. Citizens 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 Transportation Review Committee requests an exception to this limit.	3. For information and discussion.
4.	Transportation Director's Report Recent transportation planning activities and upcoming agenda items for the MAG Management Committee will be reviewed by the Transportation Director.	4. For information and discussion.
5.	Consent Agenda Consent items are marked with an asterisk (*). Committee members may request that an item be removed from the consent agenda to be heard.	5. Recommend approval of the Consent Agenda.

CONSENT AGENDA*

5a.	Project Changes - Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program*	5a. Approval of amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, Arterial Life Cycle Program, and as appropriate, to the

The Fiscal Year (FY) 2011-2015 Transportation Improvement Program(TIP) and Regional Transportation Plan (RTP) 2010 Update were approved by the MAG Regional Council on July 28, 2010 and have been modified twenty times with the last modification approved by the MAG Regional Council on September 26, 2012. Since then, there is a need to modify projects in the programs. The requested project changes include freeway, highway safety, roadway, and transportation enhancements. The changes included may be categorized as exempt from conformity determinations, and administrative modifications do not require a conformity determination. Please refer to Attachment One.

Regional Transportation Plan 2010 Update.

ITEMS TO BE HEARD

6. Arterial Life Cycle Program Project Removal and Gilbert Road Light Rail Extension

The City of Mesa is requesting to remove Federal Surface Transportation Program (STP) funds from sixteen (16) Arterial Life Cycle Program (ALCP) projects and use the funding to design, purchase right-of-way, and construct a 1.9 mile light rail transit (LRT) extension on Main Street from Mesa Drive to Gilbert Road. Since the funding stream that is associated with the 16 street projects does not align with the timing needed for the light rail construction, Mesa would provide interim funding using Transportation Project Advancement Notes (T-PAN), which would be paid back with federal STP funds. The addition of the light rail extension meets the requirements for a Major Amendment which requires agency consultation. This agenda item started with the October 17, 2012 meeting of the Transportation Policy Committee. Please refer to Attachment Two.

6. Support for the changes to the project as described, and for the related amendments and modifications to the FY 2011-2015 MAG Transportation Improvement Program, and as appropriate, to the Regional Transportation Plan 2010 Update.

7. Salt River Pima-Maricopa Indian Community Project Change Request

The Salt River Pima-Maricopa Indian Community (SRPMIC) requests to reprogram their FY 2013 PM-10 dirt road paving project due to external factors not within their control. The SRP-MIC request includes revisions to the location of some sections to be paved to address actions taken by the Salt River Project, to divide the project into right-of-way and construction phases to address right-of-way actions that were not discovered in the scoping of the project at ADOT when the Community made its initial deferral request, and to defer the construction phase of the project to FY 2015 to address time required by the BIA to review right-of-way actions. This is the second request to defer the construction of the project since the adoption of the MAG Federal Fund Programming Guidelines and Procedures (Guidelines) on October 26, 2011. The Guidelines allow for only one project deferral, but through Section 900 Appeals Process, offer relief to allow the project sponsor to present their request through the MAG committee process. The Street Committee heard this item on September 11, 2012 and recommended approval of the Community's request to revise the sections to be paved, and to defer the project to FY 2015. A clarification on MAG right-of-way policy was requested before the recommendation to reduce $1 million from the construction phase and program $1 million on the right-of-way phase of the project. For additional information, please see Attachment Three.

7. Approval of the changes to the project as described, and for the related amendments and modifications to the FY 2011-2015 MAG Transportation Improvement Program, and as appropriate, to the Regional Transportation Plan 2010 Update.

8. 2012 Intelligent Transportation Systems (ITS) Strategic Plan

In May 2012, the ITS Committee launched a consultant project to update the region's ITS Strategic Plan, that was previously updated in 2001. The project has been

8. For information, discussion and possible recommendation to approve the 2012 MAG ITS Strategic Plan.

successfully completed with the development of the final report (See Attachment Four). This project was carried out for MAG by the on-call consultant Kimley-Horn and Associates, Inc., with oversight provided by the ITS Committee.

The primary purpose of the Plan is to provide guidance for making strategic investments in regional infrastructure related to transportation technology on the freeway, arterial and the transit systems. The Plan identifies the region's ITS goals and strategic priorities and how they align with the Regional Transportation Plan. Resource allocation goals are established in the Plan to help guide the TIP infrastructure programming process. The key changes from the previous plan are the transition from "projects" to "programs" and the introduction of ITS applications for improving safety.

The Final Report was recommended for approval by the ITS Committee on October 3, 2012. A brief overview of the key features of the Plan will be provided by MAG staff.

9. <u>Grand Canyon State Logo Sign Program</u>

The Arizona Department of Transportation (ADOT), through the Grand Canyon State Logo Signs program (GCSLS), has transitioned the rural logo sign program from a private vendor to ADOT administration. GCSLS is launching a similar program in urban locations (population greater than 50,000) in the third quarter of calendar year 2013. Research is underway to define the number of qualified businesses and locations suitable for sign placement. Benefits include improving motorist information about travel-related services and business identification along urban area highways. Also this program can

9. For information and discussion.

provide additional financing to the state highway fund.

10. 2012 Annual Report on Status of the Implementation of Proposition 400

A.R.S. 28-6354 requires that MAG issue an annual report on the status of regional transportation projects included in Proposition 400, which was approved by the voters in Maricopa County in November 2004. The 2012 Annual Report is the eighth report in this series and covers the status of the Life Cycle Programs for Freeways/Highways, Arterial Streets, and Transit. MAG staff will present a briefing on key findings and issues.

10. For information and discussion.

11. Request for Future Agenda Items

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

11. For information and discussion.

12. Member Agency Update

This section of the Agenda will provide Committee members with an opportunity to share information regarding a variety of transportation-related issues within their respective communities.

12. For information.

13. Next Meeting Date

The next regular Transportation Review Committee meeting will be scheduled Thursday, December 13, 2012 at 10:00 a.m. in the MAG Office, Saguaro Room.

13. For information.

DRAFT ATTENDANCE OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TRANSPORTATION REVIEW COMMITTEE

June 28, 2012
Maricopa Association of Governments Office
302 North First Avenue, Suite 200, Saguaro Room
Phoenix, Arizona

MEMBERS ATTENDING

Scottsdale: David Meinhart, Chair
Avondale: David Fitzhugh, Vice-Chair
ADOT: Kwi-Sung Kang for Floyd Roehrich
Buckeye: Scott Lowe
Chandler: Patrice Kraus
El Mirage: Jorge Gastelum for Lance Calvert
Fountain Hills: Randy Harrel
*Gila Bend: Eric Fitzer
*Gila River: Doug Torres
Gilbert: Kurt Sharp for Leah Hubbard
Glendale: Robert Darr for Terry Johnson
Goodyear: Cato Esquivel
#Guadalupe: Gino Turrubiartes
Litchfield Park: Woody Scoutten
Maricopa County: John Hauskins
Mesa: Jeff Martin for Scott Butler
*Paradise Valley: Bill Mead
Peoria: Andrew Granger
Phoenix: Rick Naimark
*Queen Creek: Troy White
RPTA: Bryan Jungwirth
Surprise: Nick Mascia for Bob Beckley
Tempe: Chad Heinrich
Valley Metro Rail: John Farry
Wickenburg: Rick Austin
Youngtown: Grant Anderson for Lloyce Robinson

EX-OFFICIO MEMBERS ATTENDING

*Street Committee: Charles Andrews, Avondale
ITS Committee: Debbie Albert, Glendale
*Bicycle/Pedestrian Committee: Katherine Coles, City of Phoenix
*Transportation Safety Committee: Julian Dresang, City of Tempe

* Members neither present nor represented by proxy. + - Attended by Videoconference
# - Attended by Audioconference

OTHERS PRESENT

Eric Anderson, MAG
Teri Kennedy, MAG
Marc Pearsall, MAG
Steve Tate, MAG
Eileen Yazzie, MAG
Nathan Pryor, MAG
Alfonso Rodriguez, Ft. McDowell Yav. Nation
Paul Ward,

1. Call to Order

Chairman David Meinhart from the City of Scottsdale called the meeting to order at 10:00 a.m.

2. Approval of Draft May 24, 2012 Minutes

Chairman Meinhart asked if there were any changes or amendments to the May 24, 2012 meeting minutes, and there were none.

Mr. Rick Naimark from the City of Phoenix motioned to approve the minutes as amended. Mr. John Hauskins from Maricopa County seconded, and the motion passed by a unanimous voice vote of the Committee.

3. Call to the Audience

Chairman Meinhart announced that he had not received any cards requesting to speak and moved on to the next item on the agenda.

4. Transportation Director's Report

Chairman Meinhart invited Mr. Eric Anderson, MAG Transportation Director, to provide the Transportation Director's Report.

Mr. Anderson gave a summary of the Federal transportation reauthorization bill that appears to be moving through Congress. The House and Senate Conference committee have come to an agreement. It appears that funding levels are maintained for 2013 and 2014 in bill. There had been a concern about a potential 30 percent cut, but Congress has maintained the funding levels. But there are some program changes, but not as radical as others that had been proposed. There is emphasis on performance measures and performance based planning. The last thing is I-11 in designated in the bill being considered. There had been concerns that it would be removed due to being an earmark.

Mr. Anderson reported that RARF revenue in May was up .4 percent compared to May 2011. This is a deterioration from the 5 to 6 percent increases from previous months. Year to date, revenue is up 5.3 percent compared to the 4 percent forecast. HURF revenue in May was up .4 percent. Year to date, it is flat at .2 percent compared to last year. The forecast was 1 percent growth rate which looks like it won't be attained. As well, VLT and gas tax revenues are still down compared to last year.

Mr. Anderson gave his condolences to the Mayor of El Mirage, whose husband passed away last night. He also let committee members know that Lance Calvert is moving to Portland. Chairman Meinhart inquired if there were any questions or comments. There were none, and he proceeded to the next item on the agenda.

5. MAG Federally Funded Locally Sponsored Projects Development Status Report

Randy Harrell entered the meeting

Chairman Meinhart invited Ms. Teri Kennedy, MAG Transportation Improvement Program Manager, to present MAG federally funded locally sponsored projects development status report. Ms. Kennedy addressed our current funding, stating that we are under a continuing resolution that expires on June 30th, which gives the region three-quarter of a year of funding. At the January TRC meeting, Tier 2 and Tier 3 closeout was based on the assumption that we had a full fiscal year of funding for 2012.

Ms. Kennedy reviewed programming guidelines that were approved in October 2011, and referenced section 500, tier 1 decisions. Workbooks were sent to member agencies to complete and on June 22, a status report was mailed out to the Committee.

Mr. Gino Turrubiartes entered by audio conference

Ms. Kennedy summarized the project updates for Fiscal years 2012-2014. For the 3 projects expected to obligate for the fiscal year 2012, there was one that requested deferment, one that MAG staff suggested for deferral for Ft. McDowell. It was at the bureau of Indian affairs under right of way review. ADOT has now said that it will make obligation this year. This project will be removed from the change sheet and allowed to move forward in 2012. For fiscal year 2013, 34 projects were expected to authorize. Out of that, 31 will obligate on time. A few projects needed schedule modifications to meet MAG policy compliance. These would need to be completed before the December -January reports. This included 3 requested deferrals, 1 requested deletion and 3 requested project changes. For fiscal year 2014, out of 34 projects expected to authorize, 31 projects will submit on time. One requested deferral to 2015. This deferral, if accepted it would impact the new TIP call for projects resulting in a reduction in 2015 projects. One project requested deletion. The Tempe 14-102 project there is a script error in the report which will be corrected in handouts for MC. That project did meet policy compliance at this time.

Ms. Kennedy stated that commitment letters were received from everyone on time and reminded the committee that the letters for 2014 projects will be due in December.

Ms. Kennedy reviewed the dynamic TIP process. For Tier 1, MAG staff is reviewing workbooks and recommended changes for 2013. If we need to make changes, this is the time to speak on that and we will revise the materials. If we recommend approval at this time, this will complete Tier 1 and we can move to Tier 2 once financials are calculated.

Ms. Kennedy discussed the Tier 2 process including requirements to advance CMAQ to 2013. This includes affirmation letters stating time constraints and staff resources. These project recommendations will be made at the TRC August meeting.

Ms. Kennedy summarized Tier 3 projects as 3rd in priority to move forward in funding consideration, currently estimated at 11-15 million dollars but subject to change with 2012 close-out projects. Policy options to be discussed include increasing funding for projects that are due to obligate in 2013 and establishing the list of projects to be funded with CMAQ. Ms. Kennedy affirmed CMAQ requirements and that MAG staff will work with ADOT regarding obligation authority. Tier 3 considerations are due to MAG buy August 21. Questions and

comments may be addressed to Steve Tate or Teri Kennedy.

Patrice Kraus entered the meeting.

Chairman Meinhart opened up the discussion for questions or comments regarding presentation or Tier 3 priorities.

Mr. Rodriguez thanked MAG staff for the correction made to the Ft McDowell project. Chairman Meinhart questioned the information in the packet and asked if there were additional funds that needed to be obligated. Ms. Kennedy explained that during the Jan Closeout, Ms. Eileen Yazzie had wrapped everything into one action and precise financial data is not available at this time.

Mr. Heinrich commented that the glitch on Tempe project was due to a technical mix up with the date that triggered the error.

Mr. Esquivel inquired if only CMAQ funds available for closeout and wanted to know if it was possible to switch out other sources of funding out with ADOT to facilitate that. Ms. Kennedy said that option had not been discussed with ADOT to date.

Mr. Martin asked if a decision needed to be made today. Ms. Kennedy responded that it would be better to do so now so when the initial projects come in we can make an initial calculation. Mr. Gino suggested it made more sense to get the projects in before we make a decision on it. Chairman Meinhart agreed the committee needed more time to decide on Tier 3 and today's focus should be on the changes currently in the packet.

Mr. Naimark from the City of Phoenix clarified the motion to recommend approval of federal fund projects to be deferred, deleted, advanced, and changed; and of the necessary amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, and as appropriate, to the Regional Transportation Plan 2010 Update with the exception of tier 3. Mr. Grant seconded, and the motion passed by a unanimous voice vote of the Committee.

6. Project Changes - Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program

Chairman Meinhart invited Ms. Teri Kennedy, MAG Transportation Improvement Program Manager, to present Project Changes - Amendment and Administrative Modification to The FY 2011-2015 MAG Transportation Improvement Program.

Ms. Kennedy referenced updated handouts provided. She summarized the changes, which included 2013 and 2014 requests, plus ALCP changes related to Northern Parkway. She congratulated MCDOT on 1st advanced construction joint project agreement for a local project. Other updates include, lead agency change request, Northwest light rail extension moved up to 2016, and minor modifications to the Mesa light rail extension.

Mr. Martin asked if the changes were made to balance out the Freeway lifecycle program. Ms.

Kennedy affirmed that and that the program was approved by Regional Council in the previous month.

Mr. Farry moved to approve amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, and as appropriate, to the Regional Transportation Plan 2010 Update. Mr. Anderson seconded, and the motion passed by a unanimous voice vote of the Committee.

7. Phoenix West Extension Locally Preferred Alternatives Report Recommendations

Chairman Meinhart invited Ms. Eileen Yazzie, MAG Transportation Planning Project Manager, to present Phoenix West Extension Locally Preferred Alternatives Report Recommendations Ms. Yazzie introduced Mr. Callow to assist with technical questions. This item was recommended previously at Transit Committee to move forward. Ms. Yazzie began with the study purpose and location, explaining that it is in the Regional Transportation Plan as an I-10 high capacity transit corridor project. The Alternatives Analysis (AA) process started five years ago and that the overall project divided into two sections; there is a freeway and a downtown section.

Ms. Yazzie summarized the purpose of an AA and related documents. She explained that the AA determines where the project should go as well as what technology would be the best fit. She said the documents total 600 pages and are available on the MAG Transit Committee webpage if people are interested in downloading the materials.

Ms. Yazzie explained that in 2008, METRO and MAG went through the City Council to approve the mainline alignment for the 1-10/freeway section and this study segment is for the downtown section. For the downtown section, the team evaluated McDowell Road and Thomas Rd. Metro and City of Phoenix did heavy public involvement in the St. Matthews and capital neighborhood on the project because of the impacts to those areas. The St. Matthews leaders were present at the METRO Board when the alignment was approved and were appreciative of the public involvement efforts and outcomes.

Ms. Yazzie displayed a map of the proposed alignment. It indicated that at one point the alignment is on the north side of I-10 and then moves into the corridor median.
Ms. Yazzie provided approval dates related to the LPA:

Recommendation for High Capacity Transit Improvements in the I-10 Right-of-Way west of I-17:

- Phoenix City Council - April 2008
- METRO Board - June 2008
- MAG Regional Council - July 2008
- Acceptance for AA, Locally Preferred Alternative (LPA) and recommendations:
- Phoenix City Council - May 15, 2012
- METRO Board - May 17, 2012

Ms. Yazzie presented the cost analysis the findings related to cost, boarding, ridership potential, travel time using two different end points. She stated that the final recommended technology

is LRT. Summary slides were displayed with the following information:

- Capital Costs: LRT (1 Billion); and BRT (496M)
- Total Cost per Boarding (Annualized Capital + Operating Costs)/Annualized Boardings: LRT 16.2; BRT 40.8
- Ridership Potential (2030 ADT), LRT 32,900;BRT 9,200
- Hourly Capacity in one direction (number of passengers per hour per direction): LRT 5,000; BRT 1,000
- Travel Times (79th Avenue to Central Avenue/Washington) : LRT 19 minutes; BRT 26 minutes
- The operating costs match the proposed capital expenditures, including: bus feeder connections to the light rail end-of-line station, and interlining with the existing 20-mile system.
- The annual opening year operating costs, in 2023 dollars, are:
- 79th Avenue to Downtown Phoenix - $17.0 Million
- 79th Avenue to 19th Avenue/Dunlap - $29.3 Million

Ms. Yazzie discussed the Capital Advance Transportation Opportunity (CATO) Program and its' intent to capitalize on opportunities within the study area at strategic locations. Improvements could potentially be eligible for near-term federal funding opportunities. The objectives of the CATO Program include: ROW coordination and preservation, improved mobility, investment for the future, multi-modal coordination, enhanced connectivity to the state capitol.

Ms. Yazzie explained that the Locally Preferred Alternative (LPA) includes multiple components, similar to historic LPA approvals in the region such as the Tempe Street Car and the Mesa extensions. As such, the motion includes, the preferred alignment, technology, and CATO, and future considerations of increased transit services.

Mr. Naimark thanked staff and everyone else involved in getting the neighborhoods supportive of the proposed scenario.

Chairman Meinhart requested background on the CATO part of it. Mr. Callow explained the evaluation produced recommendations to make the LRT successful. The direct access HOV ramp, if built, would improve vehicular access to the 79th Ave Park and Ride from the west. It would allow the RAPID bus to directly access the Capital without backtracking through the historic districts. Travel time to downtown will remain unchanged. In the future, the ramps can be converted to light rail use although the ramp would improve transit service regardless.

Mr. Jungwirth asked if the direct access HOV ramps will allow SOV to utilize and exit at the Park-and-Ride. Mr. Callow says the issue will be addressed with ADOT.
Mr. Farry congratulated the METRO planning and public involvement staff in addressing neighborhood issues.

Mr. Naimark from City of Phoenix moved to recommend to accept the Phoenix West Alternatives Analysis for the (1) A Locally Preferred Alternative (LPA) for the Phoenix West project, including a light rail alignment along I-10 from 79th Avenue to I-17; southbound along

the I-17 southbound frontage road; east along Van Buren Street to 18th Avenue; southbound along 18th Avenue to Jefferson Street and then east to downtown Phoenix along Jefferson Street; (2) Inclusion of the Corridor Advanced Transit Opportunities (CATO) Program that consists of near term improvements and investments to improve existing mobility, enhance transit service and lay the groundwork for future HCT service within the study area. The set of proposed projects, include: construction of a direct HCT access ramp from I-10 to I-17, expansion of the 79th Avenue Park-and-Ride, identification and development of new park and ride stations, and construction of direct connection I-10 HOV ramps on the west side of 79th Avenue; and (3) Future consideration for increased transit service for areas within and west of the study area, per the long range transit needs identified in MAG's Regional Transit Framework Study, through the regional transportation system planning process. Mr. Martin seconded, and the motion passed by a unanimous voice vote of the Committee.

8. ADOT Passenger Rail Corridor Study Update

Chairman Meinhart invited Mr. Mike Keis, ADOT, to present the ADOT Passenger Rail Corridor Study Update

Mr. Kies introduced the study and stated that it has been referred to as the inner city rail study or the high speed rail between phoenix and Tucson. Project now official called Passenger Rail Corridor Study. The FTA wants us to look at commuter trips while the FRA were more concerned with inner city trips. They didn't just want the study to focus on downtown to downtown travel.

Gino Turribate left the conference

Mr. Kies explained a few years ago, ADOT began BQAZ process which recognized the need to focus on multimodal transportation elements. The Statewide rail plan by ADOT was approved in 2011 and it looked at how to link Tucson and phoenix. A map of corridor ideas developed during the BQAZ process was presented. It included sharing facilities and the possibility of new facilities on new alignments.

Mr. Kies said that over 3000 surveys were conducted as part of the public involvement process. This information helped develop the draft purpose and needs statements. The process included stakeholder interview with agencies throughout Maricopa, Pima and Pinal Counties, and State Agencies. He explained that the study comprises completing three major documents: AA, EIS, and service development Plan. It is currently in the AA process. And the first step which is the initial screening the study is now in second step, conceptual analysis. The steps are as follows:

- Initial Screening
- Conceptual Analysis
- Final Analysis
- Results in a Locally Preferred Alternative

Mr. Kies explained that part of the conceptual analysis including working with agencies. So far the analysis has been discussed with 41 different stakeholder groups. After the screening will be the final analysis. The screening of route locations reduced the number of potential

alignments as well the most appropriate mode to address travel between Tucson and Phoenix was evaluated. FTA was not comfortable with stating that only one mode is needed to address travel needs. One of the findings was air mode considered not feasible to deal with traffic issues between the cities. Mr. Kies directed the committee to maps of alternatives considered which included color coding to indicate which ones were no longer feasible.

Mr. Kies further elaborated that the station evaluation included 38 Potential Station Locations. The screening analysis determined what was needed to serve inner city and commuter routes. A top 10 list for areas that would best serve a commuter system as well as the top 10 for an inner city system was displayed.

Mr. Kies described the seven conceptual alternatives from initial screening, of which six of seven are Rail Alternatives. They are as follows:

1) I-10 Express Bus Alternative
2) UPRR Alternative - Share R/W
3 and 4) Non-UPRR Alternatives: I-10 N-S Corridor & US60
5-7) Combination Alternatives: UPRR Southeast Branch; UPRR Tempe Branch; UPRR Chandler Branch

The plan is to take seven alternatives and analyze potential benefits and issues with a focus on commuter and inner city issues. As well, MAG Area considerations are also examined such as System Hub Locations including the termini of the system with considerations for:

- Downtown Phoenix
- Sky Harbor
- System Enhancements
- West Valley cities would like an extension to the West Valley. All of our alternatives are taking this into consideration
- Commuter/Intercity extensions
- Chandler Ave BRT
- Gateway Airport Connection

Mr. Kies displayed a graph of the process showing the next launch of the conceptual alternatives analysis. he hope is to go to public in the fall with the alternatives and in 2013, public hearings on the LPA that is recommended.

Mr. Naimark left the meeting.

Mr. Anderson asked if the disruption of service was considered when looking at the bus service given the issues on 1-10 during the monsoon season. Mr. Keis said that analysis was not done yet and can be taken into consideration.

Mr. Hauskins questioned the assumptions made with looking at the BTU and asked where the figures came from and if there were standardized. Mr. Keis replied that the consultant provided the figures to the FTA and FRA. Looking at cost, ridership and travel time. He said that they reviewed 27 peer systems. that include inner city bus, inner city rail, and commuter rail. The figures were probably an average. Mr.Hauskin said that his calculations produced different

numbers and it was something he would like to discuss later.

Mr. Fitzhugh asked about the significance of travel time and how much of a component it was in the evaluation. Mr. Kies explained that travel time will be evaluated in two different ways - using local and regional stations. The regional train would operate at high speeds than the local train. Travel times and ridership for both options will be looked at and when the recommendation comes forward it will be a blended option.

Mr. Farry asked if one of the alternatives to look at operating buses in a dedicated lane as the HOV lane or a dedicated BRT lane. Mr. Keis stated that the FTA has asked us to consider the most successful bus option therefore they were looking at the HOV or exclusive bus. However, the addition of exclusive bus lane would be quite costly.

Mr. Martin asked if costs had been evaluated. Mr. Keis replied no, they were in the process of doing that right now in conjunction with project partners. There were a lot of conversations with Union Pacific. There is perception with the public the UP is under used and we should just use that. However, that option would Chairman Meinhart asked members of the Committee if they would like to provide updates, address any issues or concerns regarding transportation at the regional level, and asked if any members in attendance would like to address recent information that was relevant to transportation within their respective communities. be quite costly. Chairman Meinhart asked if the documents are available. Mr. Kies responded that they this information is available on the ADOT website under the planning website. Mr. Hauskins suggested that a preliminary cost analysis be done to look at what would be more feasible when reviewing the analyses. Mr. Keis said it was a three step process with the alternatives, the details are evaluated after initial batch of alternatives have been decided.

9. Request for Future Agenda Items

Chairman Meinhart inquired if the members had any topics or issues of interest they would like to have considered for discussion at a future Committee meeting. There were none, and Chairman Meinhart moved onto the next agenda item.

10. Member Agency Update

Chairman Meinhart asked members of the Committee if they would like to provide updates, address any issues or concerns regarding transportation at the regional level, and asked if any members in attendance would like to address recent information that was relevant to transportation within their respective communities.

Chairman Meinhart shared recent accolades given to the city for its bicycling system from Bicycling Magazine and Sunset Magazine. The City was ranked 15 for cities over 95,000 people for the bike program by Bicycling Magazine and put in the 10 top Burb-in-the-West for cycling by Sunset Magazine. He acknowledged the MAG process and Federal funding for helping to create the network.

Mr. Hauskins added that MCDOT has a pool ride project for connected corridor going on right now. The test corridor is in Anthem around Daisy Mountain Road that is working very well.

If anyone is interested, he offered to do demonstration or a presentation.

11. Next Meeting Date

Chairman Meinhart informed members in attendance that the next regularly scheduled meeting of the Committee would be held on Thursday July 26, 2012, at MAG. There being no further business, Chairman Meinhart adjourned the meeting at 11:00 a.m.

DRAFT MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TRANSPORTATION REVIEW COMMITTEE

August 23, 2012
Maricopa Association of Governments Office
302 North First Avenue, Suite 200, Saguaro Room
Phoenix, Arizona

MEMBERS ATTENDING

Scottsdale: David Meinhart, Chair
Avondale: David Fitzhugh, Vice-Chair
ADOT: Kwi-Sung Kang for Floyd Roehrich
Buckeye: Scott Lowe
Chandler: Dan Cook for Patrice Kraus
El Mirage: Jorge Gastelum
Fountain Hills: Randy Harrel
*Gila Bend: Eric Fitzer
*Gila River: Doug Torres
Gilbert: Leah Hubbard
Glendale: Bob Darr for Terry Johnson
Goodyear: Cato Esquivel
*Guadalupe: Gino Turrubiartes
Litchfield Park: Woody Scoutten
Maricopa County: John Hauskins
Mesa: Jeff Martin for Scott Butler
Paradise Valley: Jim Shano
Peoria: Andrew Granger
Phoenix: Rick Naimark
Queen Creek: Troy White
Surprise: Bob Beckley
Tempe: Chad Heinrich
Valley Metro: John Farry
Wickenburg: Rick Austin
Youngtown: Grant Anderson for Lloyce Robinson

EX-OFFICIO MEMBERS ATTENDING

*Street Committee: Charles Andrews, Avondale
*ITS Committee: Debbie Albert, Glendale
Bicycle/Pedestrian Committee: Katherine Coles, City of Phoenix
*Transportation Safety Committee: Julian Dresang, City of Tempe

* Members neither present nor represented by proxy. + - Attended by Videoconference
# - Attended by Audioconference

OTHERS PRESENT

Monique De Los Rios-Urban, MAG
Maureen DeCindis, MAG
Bob Hazlett, MAG
Teri Kennedy, MAG
Cavan Noone, MAG
Nathan Pryor, MAG
Eileen Yazzie, MAG
Patrick Stone, ADOT
Mindy Kimball, ASU School of Sustainability
Kristen Sexton, Avondale
Mike Sabatini, Baker
Greg Haggerty, Debbie Engineering
Randy Harrel, Fountain Hills
Kurt Sharp, Gilbert
Chrsitine McMurdy, Goodyear
Bill Cowdrey, HDR
Clem Ligocki, McDOT
Art Brooks, Strand
Chris Hagen, Tolleson
Mark Lemon, Wickenburg

1. Call to Order

Chairman David Meinhart from the City of Scottsdale called the meeting to order at 10:01 a.m.

2. Call to the Audience

Chairman Meinhart announced that he had not received any cards requesting to speak and moved on to the next item on the agenda.

3. Transportation Director's Report

Chairman Meinhart invited Mr. Eric Anderson, MAG Transportation Director, to provide the Transportation Director's Report. Mr. Anderson stated that congress passed MAP-21, a new federal transportation authorization, in early July for Fiscal Years (FY) 2013 and 2014, at basically FY 2012 funding levels. This was possible through using savings in the general fund to fund transportation. Within the authorization, there was program consolidation in both programs, with more changes on the highway side than transit. Future funding levels are the key issues currently being discussed. The funding increase this authorization was less than 1% with; CMAQ funding 167 billion or so less than previous years. MAG staff will work with Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) on these implications.

Mr. Anderson continued with updates about local revenue streams. For FY 2012, Regional Area Road Fund (RARF) is down 5.1% versus 2011 although July revenue is up 7.1% versus last year. Highway User Revenue Fund (HURF) is flat versus FY 2011 and July revenue was down 3.4% versus 2011. HURF continues to be flat or declining which has been the trend in the last three or four years. Lastly, Mr. Anderson mentioned that as a result of the Southeast Corridor Major Investment Study (SE Corridor MIS), ADOT and FHWA have put I-10 and I-17 EIS on hold.

Chairman Meinhart asked if there was any information regarding the reprogramming of FHWA funds that were unobligated throughout the country. Mr. Anderson said that 500 million is available nationally at the discretion of the Secretary of Transportation. Mr. Kang added that ADOT did not have any additional information, only that Arizona is expected to receive some funds but the amount is currently unknown.

Chairman Meinhart inquired if there were any questions or comments. There were none, and he proceeded to the next item on the agenda.

4. Consent Agenda

Addressing the next item of business, Chairman Meinhart directed the Committee's attention to the consent agenda. He asked the Committee if there were any questions or comments regarding consent agenda 4a on the December 2012 Transportation Review Committee Meeting Reschedule, 4b on the Arizona Department of Transportation Red Letter Process, 4c on the Local Match Consideration for Glendale Right of Way Costs for Northern

Parkway, 4d on the Pedestrian and Bicycle Facilities Design Assistance Program. Mr. Fitzhugh requested to hear item 4c on the Local Match Consideration for Glendale Right of Way Costs for Northern Parkway. Chairman Meinhart moved to remove the item and requested to act on the remaining items. Mr. Naimark motioned to approve the remaining consent agenda. Mr. Fitzhugh seconded, and the motion passed with a unanimous voice vote of the Committee.

4c. Local Match Consideration for Glendale Right of Way Costs for Northern Parkway

Chairman Meinhart invited Eric Anderson, Transportation Director, to present on Local Match Consideration for Glendale Right of Way (ROW) Costs for Northern Parkway. Mr. Anderson began with some background information regarding the project. Glendale has requested $516,000 to be used as local match for the Northern Parkway project. He explained that the City of Glendale a few years ago acquired some right or way related to Northern Avenue. Due to the pace of development, they wanted to protect the corridor. This advanced ROW was acquired prior to completing the Findings of No Significant Impact (FONSI) environmental assessment. FHWA is very sensitive to ROW acquisition prior to the completion of final environmental assessment as they do not want it to be to be pre-decisional. Upon review of all the information provided by Glendale, almost all the costs were accepted by FHWA with the exception of $516k. It was work related to technical issues. Mr. Anderson surmised that if it had been acquired after environmental it may have been allowed. FHWA took a very stringent view of this. MAG staff reviewed the records to make sure expenditures related to Northern Parkway acquisition and they were. One was related to cost to procure and the other was related to discrepancy of the appraisal value of improvements. MAG is recommending Glendale be allowed to use $516k as part of the local match although it would not be part of the minimum match. It would be between the 5.7% and 30% local match requirements. Mr. Anderson said he had been asked if this was going to be a precedence in the region and he replied that he did not believe it will due to the uniqueness of this case. Staff believes it is appropriate and the expenditures were directly related to acquisition of ROW. MAG staff recommends approval.

Mr. Fitzhugh explained his reasoning for hearing the item was a better understanding of the logic behind the exception to the guidelines. Chairman Meinhart stated he wanted the information as well and was satisfied with the explanation.

Mr. Rick Naimark from the City of Phoenix motioned to approve. Mr. Martin seconded, and the motion passed with a unanimous voice vote of the Committee.

5. Project Changes – Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program

Chairman Meinhart invited Teri Kennedy, MAG Transportation Improvement Program Manager, to present on Project Changes to the Transportation Improvement Program (TIP). Ms. Kennedy reviewed project changes to the TIP. City of Phoenix held a competitive JARC and New Freedom process and they have requested to add projects to the TIP using funds from SAFETEA-LU 2012. She explained that ADOT had minor project modifications and additions in the Maricopa County area. She directed the committee to the agenda material.

There was one project name change within the City of Mesa as it was obligated. Chairman Meinhart asked if there were any questions or comments. There were none. Mr. Martin motioned to approve the amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, and to the Regional Transportation Plan 2010 Update, as appropriate. Mr. Cook seconded, and the motion passed with a unanimous voice vote of the Committee.

6. Draft Fiscal Year (FY) 2013 Arterial Life Cycle Program (ALCP)

Chairman Meinhart invited Teri Kennedy, MAG Transportation Improvement Program Manager, to discuss the Draft Fiscal Year (FY) 2013 Arterial Life Cycle Program. Ms. Kennedy stated that this item was on the agenda for information, discussion and possible recommendation to approve the draft FY 2013 Arterial Life Cycle Program (ALCP). She explained that the ALCP is required to be fiscally balanced by Arizona revised statute. MAG has a process where they review the program and produce a fiscal analysis and this year they identified a deficit of about 40 million. Upon identification, a memo sent to members of the TRC, Intergovs and the working group.

Ms. Kennedy then reviewed the historical financials of the ALCP. It has experienced a 30% cut since inception. Prior to today there was a rebalancing of approximately 190M deficit. There is currently an additional 40 Million dollar deficit. Ms. Kennedy presented a graph depicting overall program deficit and said it was mostly related to the ½ sales tax. The graph indicated deficits in program years 2013, 2015, 2016, 2018 and 2019. The fluctuations are the reason the program needs to be rebalanced. MAG staff produced 3 scenarios and 3 mock drafts of program for a working group held May 22nd. Each scenario was reviewed along with requests for additional ones. Scenario 1 kept everything in place which leads to cuts of $35-40 million. Scenario 2 eliminated bonding which is a large deficit the program carries. Scenario 3 cut bonding and inflation from the program. This allowed the program to not cut any funds but defer reimbursement years. An alternative scenario which would cut all necessary reimburse by 1% was suggested during the meeting. But this scenario meant some cities would be cut more than others based on program years and this was deemed unacceptable. The working group recommended balancing scenario #3 which eliminated bonding and inflation for future until revenues were recovered. A draft was produced in July. A 2nd working group meeting was held to review the draft scenario. No additional viable scenarios were received during the 2nd working group. Agencies were asked if they wanted to swap projects and there were no volunteers. Agencies were allowed to shift priorities to advance and defer and those requests were included in the draft currently in agenda packet. The results meant most of the projects were deferred 1-3 years rather than the 2-4 years as expected. No project was removed or unfunded and there were no reimbursement cuts. Ms. Kennedy stated that this was the best possible scenario given the need to cut $40 million to the program.

Mr. Anderson added that he appreciated all member agencies for all the work they did to help. He reiterated that given revenue declines in the last few years, there were very few contingencies for balancing the program. Removing inflation and bonding allowed them to keep the program intact. He shared that ADOT sales tax forecast are to be released this fall and hopefully will indicate higher revenues. However, with sales tax revenue stabilizing

there is now concern about federal transportation revenue growth. Mr. Anderson thanked the committee for their understanding.

Mr. Martin indicated that the working group had to make difficult choices and MAG staff made the least painful of all the choices. Nevertheless, some of the communities still had concerns. Mr. Martin moved to approve the motion.

Mr. Gastelum read a statement on behalf of the City of El Mirage. The City of El Mirage is willing to vote in favor of the "Draft ALCP" as a show of its ongoing support for regionalism and the Maricopa Association of Governments. But, we have to go on record to let the Association know that the El Mirage Road project is the linchpin for our City's economic development efforts. The City of El Mirage thanks the County and MAG for their ongoing partnership and cooperation. Simply pushing the funding out a couple of years sounds easy enough but it does impact a small City that has worked extremely hard to garner broad community and business support as well as voter approved funding for this project. Again, we support MAG and the rebalance but wanted to state a position for the record. We look forward to working with MAG staff to find alternative ways to move this project forward.

Chairman Meinhart apologized for opening the item for discussion prior to the second of the motion. Mr. Cook seconded the motion.

Mr. Granger asked if bonding had been used as an option in the past to repay the projects. Mr. Anderson responded that it takes the option out until the revenues come back. Bonding has not been used in the past; it has always been maintained through cash flow. Chairman Meinhart agreed that the recommended scenario was the best of the difficult choices. He stated support for the motion.

The motion passed with a unanimous voice vote of the Committee.

7. Update on the Southeast Corridor Major Investment Study

Chairman Meinhart invited Bob Hazlett, MAG Senior Engineer, to give an update on the Southeast Corridor Major Investment Study. Mr. Hazlett stated that it is on the agenda for recommendation for acceptance by the Committee as a courtesy. However, as the study's recommendations have been reviewed by staff, it was concluded that the findings are not ready for inclusion in the current Regional Transportation Plan (RTP), and as result, is on the agenda for information and discussion only. The study has been underway for about two years and lead by HDR staff Brent Cain with help from Scott Miller, and assistance from Burgess & Niple, and Hexagon Consultants. Mr. Hazlett began his presentation by explaining the reason for the study was due to the need to look at the part of the valley where there is a lot of employment. Thirty percent of the regions employment is in the study corridor. As well, the city of Tempe has been concerned by the Interstate 10 Corridor Study Environmental Impact Statement (EIS) study that considered widening to Interstate 10 to 25 lanes. The study addressed the need for capacity improvements as well as evaluating other transportation options in the corridor.

The base network considered for the study was consistent with the Regional Transportation Plan that included all programmed freeway widenings in 2031 and additional High Capacity Transit improvements, such as the line along Mill Avenue in Tempe. Mr. Hazlett described the study process and identified a charrette process, which included participants from Valley Metro, City of Phoenix and City of Tempe transit and street staff. The intent was to move things as bundles that included alternative modes, and not as individual projects. Throughout the bundle development process, all transit options were kept consistent with the accepted long-range MAG Transit Framework Study. The participants came up with 3 bundles.

Mr. Hazlett began with Basic Mobility bundle which was a modest improvement. On the highway side, the intent was to make improvements along Interstate 10 in a narrower footprint than what is currently recommended. This included looking at possibility of managed lane corridor from the Stack interchange with Interstate 17 on the north side of Downtown Phoenix to the Pecos Stack interchange with SR-202L/Santan-South Mountain Freeway in Ahwatukee and Chandler. This included adding some previously unconsidered Direct High Occupancy Vehicle (DHOV) ramps along Interstate 10 and redeveloping Southern Avenue as an Arizona Parkway type of facility with indirect left movements to help with traffic flow. The Peer Competitive bundle included the aforementioned highway improvements, plus additional bus rapid transit corridors, commuter rail, fixed guideway transit along Rural Road, and a modern street car extension to Southern Avenue. The third and final bundle, Transit Focus, included the aforementioned highway improvements, plus fixed guideway buildout of the South Central corridor with extension along Southern Avenue, Rural Road, and Chandler Blvd (providing a continuous route between Downtown Phoenix and Downtown Chandler), the commuter rail corridors, a street car extension to Southern Avenue, and an Air Train extension from the airport south along 40th St and 48th St to Southern Avenue.

The main criteria were summarized, and the different impact evaluated along different bundles in the following areas.

1. Environmental Impacts
2. Socioeconomic Impacts
3. Capital Development Feasibility
4. Operational Feasibility
5. Performance
6. Financial Feasibility
7. Cost Effectiveness

As well, there were key findings from each bundle, which were explained.

<u>Managed lanes operations.</u> The Managed Lane operations along Interstate 10 and Interstate 17, including DHOV ramps, provides highest level of performance while accommodating increased traffic volumes in the freeway corridor. This improvement has been identified in a narrower footprint than what was being considered in the Interstate 10 Corridor Study EIS and has better traffic operations during morning and evening peak periods.

High Capacity Transit (HCT). Strategically focused network of high capacity transit services featuring exclusive guideway transit offers most productive transit investment. However, with the addition of HCT, there still remained a need to improve I-10 and I-17.

Transit. An east/west transit connection between Central Avenue and the East Valley in a parallel corridor to Interstate 10 and a north/south connection along Rural Rd or Arizona Ave produces the highest number of new system-wide transit riders. Modeling results indicate an exclusive guideway transit investment in either Rural Rd or Arizona Ave will not have a significantly discernible impact on traffic volumes or speeds on Interstate 10.

The recommended bundle included:

1. Managed Lanes
2. New DHOV Ramps
3. Exclusive Guideway Transit
4. Modern Streetcar

Mr. Hazlett discussed the performance findings related to a direct HOV ramp on SR-143 followed by potential ridership potential of HCT service along Arizona Avenue or Rural Road.

Mr. Anderson added that the report will be available on line.

Mr. Naimark requested that the presentation be posted online. He also inquired about the impact of these recommendations on other networks in the region's network. Mr. Hazlett responded that since Environmental Impact Statement (EIS) studies for both I-17 and I-10 have been suspended, MAG, FHWA, and ADOT will work together on evaluating the Interstate 10/Interstate 17 north-south "Spine" corridor between the North Stack (Interstate 17/SR-101L) and the Pecos Stack (Interstate 10/SR-202L) to identify a master vision for this major commuter route in the Valley.

Mr. Martin stated that he really liked the freeway recommendations for I-17 and I-10; but was uncomfortable with the transit recommendations.

Mr. Cook agreed that he liked the managed lanes. But as well, HOV can be useful in outer reaches serving express buses from park and ride lots. He noted that there were differences between these recommendations and other plans and that it may be useful to compare these findings in a table against others as a whole system.

Mr. Heinrich questioned the thought process that directed the locations of the HOV ramp locations. Mr. Hazlett responded that it was currently due to construct ability and what makes sense. The best places at the half mile streets because to add direct HOV at the mile segment would be a traffic operations problem. Mr. Anderson added that exact locations are for further studies and will include elements such as how to connect to park and rides.

Mr. Heinrich inquired about the language related to transit potential. Mr. Hazlett answered that it was left purposely vague. The finding did show however, that there still needs

additional lanes to Broadway curve even with transit investments. However, it allowed RPTA and VMR to review further options. Mr. Heinrich thanked the staff for work involved in the study. He recommended future efforts to include the Transit and possibly Street committee.

Mr. Hauskins stated truck traffic should be evaluated for future consideration. Given the amount of truck traffic, it may be useful to separate passenger and truck traffic especially since there are currently no designated truck lanes. Mr. Hazlett added that the MAG region is one of the few metropolitan areas where designated truck areas do not exist.

Mr. Naimark requested comment on the integration of this study with South Mountain Freeway. Mr. Hazlett said that South Mountain was included as an open facility by 2035, the horizon year of the study. The draft Environmental Impact Statement is expected to be completed end of year with public hearings early next year.

Mr. Farry commented that ISTEA [Intermodal Surface Transportation Efficiency Act] recommended systems' evaluations of alternatives be multi-modal and looked forward to developing some of the transit options. Mr. Meinhart added that, from a transit perspective, there are lines that stop at Loop 202 or Loop 101 that could be extended beyond by leveraging the findings from the study. He lauded the effort to address freeway solutions with transit investments and encouraged further efforts pursue those options. Mr. Hazlett said he didn't want to lose sight of MAG Transit Framework Study and tried to honor that as best as possible.

Mr. Farry inquired if the ridership numbers in the findings included either Arizona Avenue or Rural Road. Mr. Hazlett responded yes and that in the course of the study, the ridership numbers for AZ Avenue was found to be about the same for Rural Road.

Chairman Meinhart asked the committee if there were any additional questions or comments about the agenda item. There being none, he proceeded to the next item on the agenda.

8. Request for Future Agenda Items

Mr. Anderson requested a PowerPoint presentation of MAP -21 showing consolidation of the different money going to different pots. Mr. Meinhart added to that the inclusion of FTA information.

Mr. Anderson noted that Christina Hopes has left to accept a position in Portland, Oregon. Alice Chen has taken over TRC minutes temporarily.

9. Next Meeting Date

Moving on, Chairman Meinhart informed members in attendance that the next regularly scheduled meeting of the Committee would be held Thursday, September 27, 2012 at 9:30 a.m. in the MAG Office, Saguaro Room. There being no further business, Chairman Meinhart adjourned the meeting at 11:01 a.m.

ATTACHMENT #1

Agenda #5a

Agenda Item #5a

MARICOPA ASSOCIATION OF GOVERNMENTS INFORMATION SUMMARY…

DATE:
October 16, 2012

SUBJECT:
Project Changes – Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program, and to the Regional Transportation Plan 2010 Update.

SUMMARY:

The Fiscal Year 2011-2015 MAG Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP) 2010 Update were approved by the MAG Regional Council on July 28, 2010, and have been modified twenty times with the last modification approved on September 26, 2012.

The Arizona Department of Transportation (ADOT) have requested project changes that include: budget adjustments, deferrals, and administrative changes on the Freeway Life Cycle projects. Member agencies have requested project changes that include: cost changes to Highway Safety Improvement Program (HSIP), general budget adjustments, deferrals on Safe Routes to School projects, and administrative project changes. The requested project changes are included in Table A.

All of the projects to be amended may be categorized as exempt from conformity determinations and an administrative modification does not require a conformity determination.

PUBLIC INPUT:
None.

PROS & CONS:
PROS: Approval of this TIP amendment and administrative modification will allow the projects to proceed in a timely manner.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:
TECHNICAL: 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.

POLICY: This amendment and administrative modification request is in accord with MAG guidelines.

ACTION NEEDED:
Approval of amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, and as appropriate, to the Regional Transportation Plan 2010 Update.

PRIOR COMMITTEE ACTIONS:
none

CONTACT PERSON:
Teri Kennedy, Transportation Improvement Program Manager, (602) 254-6300.

Table A. Non-ALCP Project Changes to the Fiscal Year 2011-2015 MAG Transportation Improvement Program

10/17/2012

HIGHWAY

TIP #	Agency	Project Location	Project Description	Fiscal Year	Est. Date Open	Length miles	Lanes Before	Lanes After	Fund Type	Local Cost	Federal Cost	Regional Cost	Total Cost	Requested Change
DOT11-721	ADOT	17: SR101L - Anthem Way	Design FMS	2012	Jun-14	14	8	8	CMAQ	$51,300	$848,700	$ -	$900,000	Admin Mod: Change project name to "SR101L -Anthem Way" from "SR101L - SR74"
DOT12-139	ADOT	101 (Pima Fwy): Chaparral Rd to SR202L (Red Mtn Fwy)	Design general purpose lane	2012	Jan-16	5	8	10	RARF	$0	$0	$4,000,000	$4,000,000	Amend: Increase total project budget by $1,000,000 from $3,000,000 to $4,000,000. Additional funding is needed due to extensive coordination with the adjacent communities and the need for extensive landscaping and FMS design.
DOT13-152	ADOT	303: El Mirage Rd	Design Transportation Interchange	2013	Feb-16	0.2	4	4	IM	$0	$2,640,400	$159,600	$2,800,000	Amend: Increase total project budget by $1,400,000 from $1,400,000 to $2,800,000. Additional funding is needed to address Loop 303 improvements at the intersection.
DOT13-929	ADOT	101 (Pima Fwy): Shea Blvd to Chaparral Rd	Design general purpose lane	2012	Jan-16	5	8	10	RARF	$0	$0	$4,400,000	$4,400,000	Amend: Increase total project budget by $1,000,000 from $3,400,000 to $4,400,000. Additional funding is needed due to extensive coordination with the adjacent communities and the need for extensive landscaping and FMS design.
DOT13-953	ADOT	60 (Superstition Fwy) at Meridian Rd	Construct Traffic Interchange	2014	Jul-15	0.2	4	4	NHS	$0	$7,700,000	$4,000,000	$11,700,000	Amend: Defer construction project from FY 2013 to FY 2014 based on the current design schedule.
MES13-118CZ	Mesa	Southern Ave at Stapley Dr	Construct intersection improvement	2015		0.5	4.0	6.0	HSIP	381,741	6,315,471	$ -	6,697,212	Amend:Decrease Total project cost and federal cost by $381,741. Defer project to 2015. ADOT indicates that HSIP funding for project will not be avaiable until 2015.
PHX11-111	PHX	Wilson School District	Construct Sidewalks	2013		0.5	2	2	SRTS	$ -	$ 298,724	$ -	$ 298,724	Amend: Defer project from FFY2012 to FFY2013
PHX11-112	PHX	Mitchell Elementary School	Construct Sidewalks	2013		0.5	2	2	SRTS	$ -	$ 300,000	$ -	$ 300,000	Amend: Defer project from FFY2012 to FFY2013
PHX12-106	PHX	Jorgensen Elementary School	Sidewalk, curb, gutter, ADA Ramps, and st lighting on the west side of 17th Ave from Broadway to Roeser	2013		0.5	2	2	SRTS	$ 20,000	$ 330,500	$ -	$ 350,500	Amend: Defer project from FFY2012 to FFY2013
PHX12-107	PHX	Garcia Elementary School	Sidewalk, curb, gutter, ADA Ramps, and st lighting on the north side of Yuma St between 27th-28th Ave	2013		0.1	2	2	SRTS	$ 24,200	$ 398,800	$ -	$ 423,000	Amend: Defer project from FFY2012 to FFY2013

HIGHWAY *cont'd*

TIP #	Agency	Project Location	Project Description	Fiscal Year	Est. Date Open	Length miles	Lanes Before	Lanes After	Fund Type	Local Cost	Federal Cost	Regional Cost	Total Cost	Requested Change
TMP12-805	Tempe	Hardy Dr: University Dr to Broadway Rd	Pedestrian and bicycle improvements	2013	May-14	1.0	4.0	4.0	CMAQ	$ 123,600	$ 1,193,891	$ -	$ 1,317,491	Admin: Engineering estimate returned lower total cost. Reduce Local Cost by $1,327,639, Reduce total cost to $1,317,491.

Changes to TIP in Red

ATTACHMENT #2

Agenda Item #6

Agenda Item # 6

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

DATE:
October 17, 2012

SUBJECT:
Arterial Life Cycle Program Project Removal and Gilbert Rd. Light Rail Extension

SUMMARY:
The City of Mesa is requesting to remove federal Surface Transportation Program (STP) funds from sixteen (16) Arterial Life Cycle Program (ALCP) projects and use the funding to design, purchase right-of-way, and construct a 1.9 mile light rail transit (LRT) extension on Main St. from Mesa Drive to Gilbert Road. Since the funding stream that is associated with the 16 street projects does not align with the timing needed for the light rail construction, Mesa would provide interim funding using Transportation Project Advancement Notes (T-PAN), which would be paid back with federal STP funds.

Please see attached memorandum and analysis for further information.

This agenda item started with the October 17, 2012 meeting of the Transportation Policy Committee which made the following recommendation to the MAG Regional Council:

> Recommend approval to (1) remove federal Surface Transportation Program (STP) funds totaling $153,366,043 (2011$) from sixteen (16) Arterial Life Cycle Program (ALCP) projects and use the funding to reimburse costs associated with design, purchase of right-of-way, and construction of a 1.9 mile light rail transit (LRT) extension on Main St., from Mesa Dr. to Gilbert Rd; (2) program federal STP funds to reimburse costs associated with the LRT Gilbert Rd. project which are contingent on federal funding revenue streams and subject to the ALCP financial program; and (3) consult with the State Transportation Board, the Maricopa County Board of Supervisors, the Regional Public Transportation Authority, the Indian Communities, the cities and towns in Maricopa County, and the Citizens Transportation Oversight Committee, as required by A.R.S. 28-6353, on the proposal to add a 1.9 LRT extension on Main St., from Mesa Dr. to Gilbert Rd. to the MAG Regional Transportation Plan 2010 Update and 2011-2015 MAG Transportation Improvement Program as appropriate, contingent on the finding of air quality conformity.

The MAG Regional Council is scheduled to discuss and act on this recommendation at the October 24, 2012 meeting.

PUBLIC INPUT:
None.

PROS & CONS:
PROS: The Gilbert Road extension is forecast to significantly increase ridership on light rail by extending the end of line to Gilbert Road. Gilbert Road provides better access to light rail from the eastern portions of Mesa and the East Valley according to the analysis that was conducted as part of the Alternatives Analysis for the Mesa Drive extension that was a component of the Proposition 400 transit program.

CONS: The proposed action deletes funds from the Arterial Life Cycle Program (ALCP) which reduces the amount of federal highway funds available for street improvements. However, most of the streets projects have been or will be completed as development occurs adjacent to the streets.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The proposed action provides travel options to a broader population than the selected arterial street improvements that are being removed from the ALCP. Most of the streets projects have been or will be completed as development occurs adjacent to the streets. The Higley projects are not deemed feasible due to neighborhood concerns and have been determined be Mesa as not being a viable concept.

POLICY: The proposed amendment is a major amendment to the Regional Transportation Plan (RTP) since more than one-mile of fixed guideway transit is being added. The deletion of the projects from the ALCP are not subject to the major amendment requirements in state law for the RTP. The movement of federal highway funds from the ALCP to the transit program is a change in RTP. Although the transfer of Proposition 400 sales funds between modes is not allowed under the terms of the proposition and state law, the transfer of federal highway funds is not subject to the same restriction.

ACTION NEEDED:

Information, discussion and possible action to support the recommendation made by the Transportation Policy Committee.

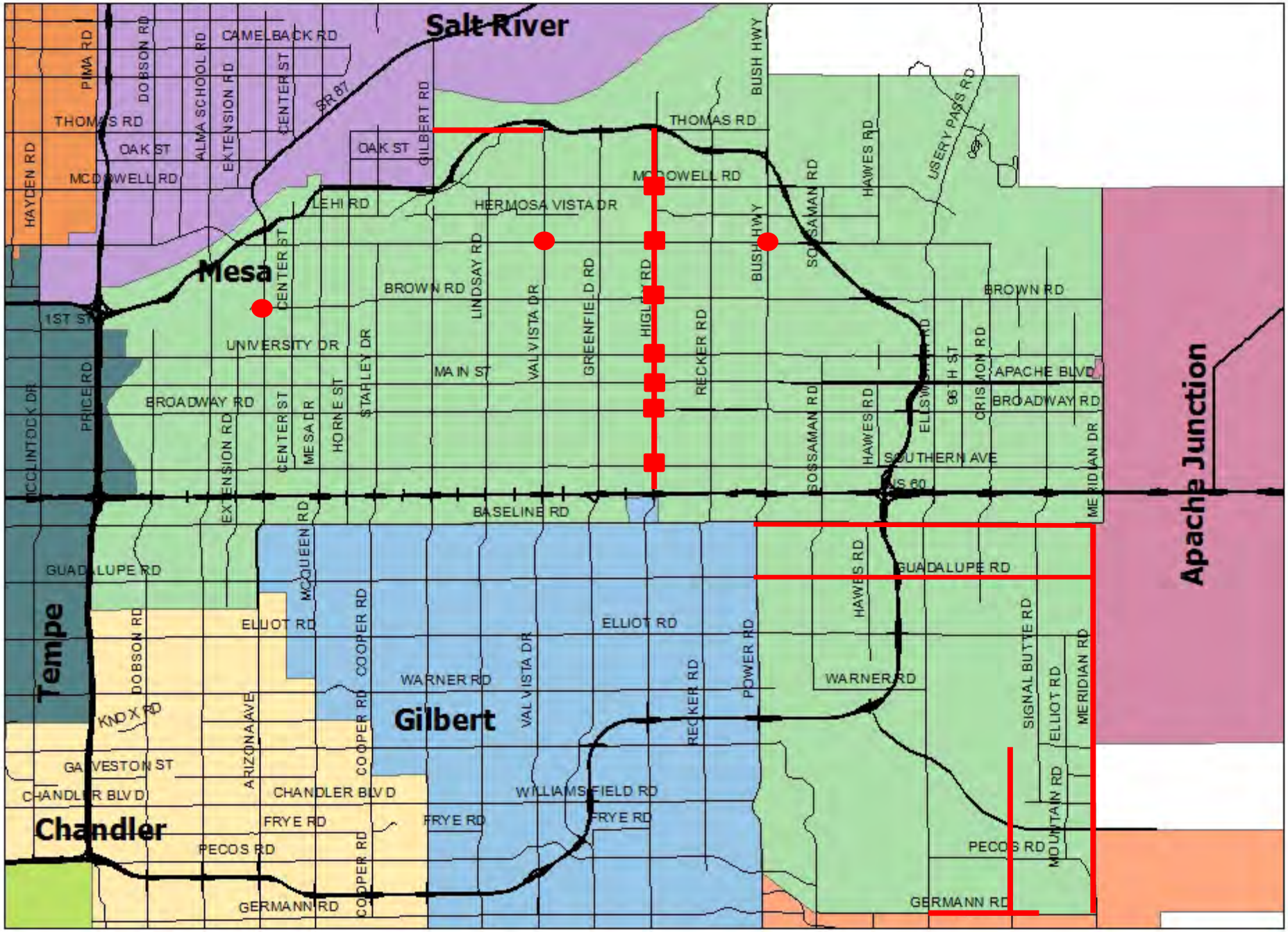
CONTACT PERSON:

Eric Anderson, (602) 254-6300

ATTACHMENT #1: Mesa Arterial Projects Proposed for Removal			
RTP Project	**Total amount of STP-MAG Funding (FY 2013 ALCP 2011$)**	**Years of Funding**	**Reason For Removal**
Baseline Rd.: Power Rd. to Ellsworth Rd.	$ 8,935,601	2016	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
Baseline Rd.: Ellsworth Rd. to Meridian Rd.	$ 9,361,106	2016, 2017	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
Country Club Dr./Brown Rd.: Intersection Improvements	$ 4,029,722	2017-2019	3) Project is not needed in the planned time horizon due to a change in the rate and pattern of development
Crismon Rd.: Ray Rd. to Germann Rd.	$ 12,326,562	2016-2018	1) Remaining improvements will be completed by adjacent property developers
Germann Rd.: Ellsworth Rd. to Signal Butte Rd.	$ 12,795,322	2016-2019	1) Remaining improvements will be completed by adjacent property developers
Guadalupe Rd.: Power Rd. to Hawes Rd.	$ 8,789,743	2021-2023	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
Guadalupe Rd.: Hawes Rd. to Crismon Rd.	$ 8,921,370	2018-2019	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
Guadalupe Rd.: Crismon Rd. to Meridian Rd.	$ 7,558,111	2018-2019	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
Higley Rd. Parkway: SR 202L to Brown Rd.	$ 8,581,650	2020-2021	2) Project is not feasible due to concerns over neighborhood impacts
Higley Rd. Parkway: Brown Rd. to US 60	$ 8,581,521	2021-2022	2) Project is not feasible due to concerns over neighborhood impacts
Higley Rd. Parkway: US 60 to SR-202L Grade Separations	$ 22,490,292	2021-2024	2) Project is not feasible due to concerns over neighborhood impacts
McKellips Rd./Power Rd.: Intersection Improvements	$ 3,393,384	2017-2019	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
McKellips Rd./Val Vista Dr.: Intersection Improvements	$ 2,910,774	2016-2018	1) Project is substantially complete and remaining improvements will be completed by adjacent property developers
Meridian Rd.: Baseline Rd. to Ray Rd.	$ 17,223,818	2017-2018	3) Project is not needed in the planned time horizon due to a change in the rate and pattern of development
Meridian Rd.: Ray Rd. to Germann Rd.	$ 12,721,129	2019-2020	3) Project is not needed in the planned time horizon due to a change in the rate and pattern of development
Thomas Rd.: Gilbert Rd. to Val Vista Dr.	$ 4,745,938	2020-2021	3) Project is not needed in the planned time horizon due to a change in the rate and pattern of development
	$ 153,366,043		

ATTACHMENT #1: (continued)										
Years of STP-MAG Funding Availablility										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
STP-MAG Funding	$ 18,764,931	$ 17,988,020	$ 24,475,939	$ 27,492,547	$ 19,298,987	$ 14,210,771	$ 20,682,022	$ 6,334,126	$ 4,118,698	$ 153,366,042

Locations of Requested Removal of 16 Arterial Life Cycle Program Projects



ALCP Project Name: Baseline: Power Rd to Ellsworth

Original ALCP Scope: Baseline to be improved from 4 to 6 lanes. Power, Sossaman, Hawes and Ellsworth intersections will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts.

Lanes in 2004: 4

Lanes in 2012: 5 or 6

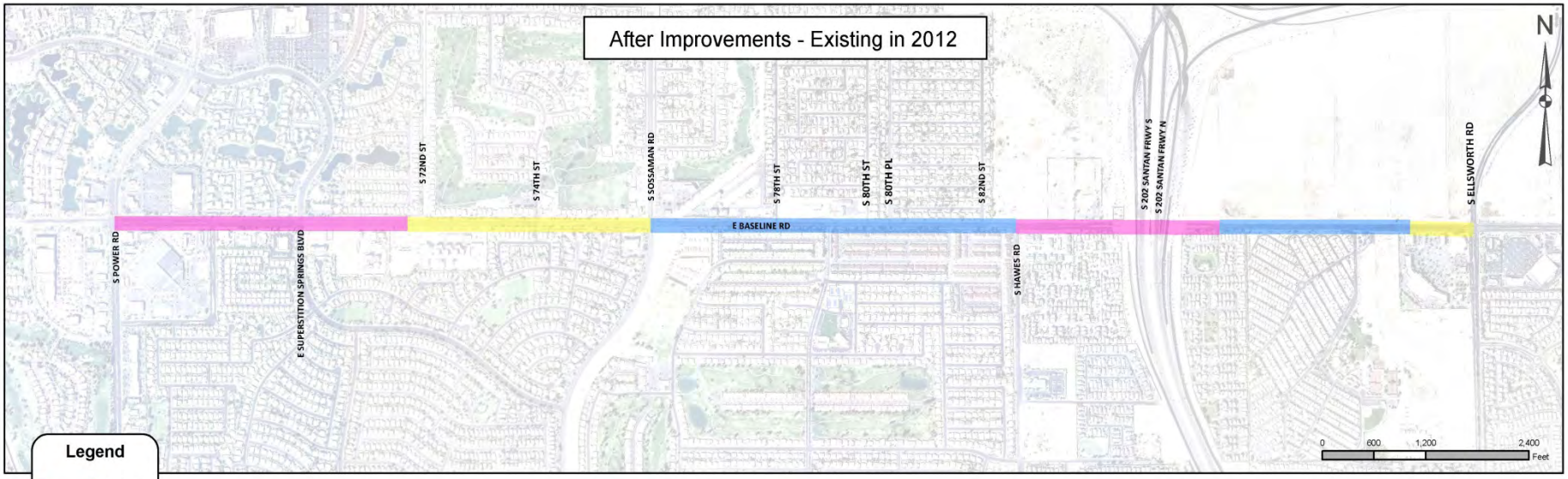
Work Completed Between 2004 - 2012: 6 lanes are existing on Baseline Road: Power Road to 1,400ft east of Superstition Springs Blvd. 5 lanes are existing from S 72nd Street to Sossaman Road. 6 lanes are existing on Baseline Road: Hawes Road to 400 ft. east of Loop 202.

Street improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: Improvements include 4 to 6 lane construction for a length of 4,240 ft. from Sossaman to Hawes Rds. and 1,800 ft. from 1,040 ft. east of Loop 202 to 2,920 ft. East of Loop 202. Improvements also include construction of 1 lane (5 to 6 lanes) at Baseline Road: S 72nd Street to Sossaman Road and Baseline Road: Hawes Road to 400 ft. east of Loop 202. Estimated date 2025.

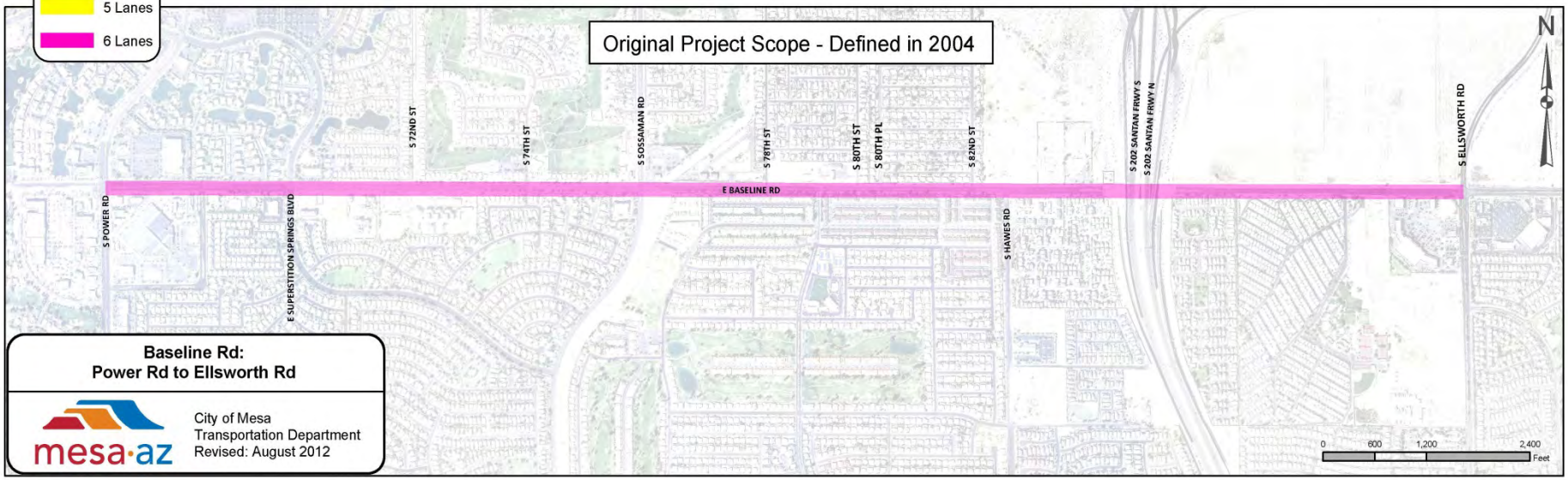
Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $8,935,601



Legend

- 4 Lanes
- 5 Lanes
- 6 Lanes



Baseline Rd:
Power Rd to Ellsworth Rd

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Transportation Department
Revised: August 2012

ALCP Project Name: Baseline: Ellsworth to Meridian Rd.

Original ALCP Scope: Baseline to be improved from 4 to 6 lanes. Crismon, Signal Butte, and Meridian intersections will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts.

Lanes in 2004: 4

Lanes in 2012: 5

Work Completed Between 2004 - 2012: 4 to 5 lanes have been constructed from Ellsworth to 2,375 feet east of Ellsworth, Crismon to 810 feet east of Crismon and from 1,240 east of Signal Butte to 2,060 feet east of Springwood Boulevard. All segments between these have been fully improved to 6 lanes

Street improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: 5 to 6 lanes will be constructed from Ellsworth to 2,375 feet east of Ellsworth, Crismon to 810 feet east of Crismon and from 1,240 east of Signal Butte to 2,060 feet east of Springwood Boulevard. From 2,060 feet east of Springwood Boulevard to Meridian Road (1,670 feet) a 3 lane roadway (3 to 6 lane road) will need to be constructed. Estimated date 2025.

Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $9,361,106

Legend

- 4 Lanes
- 5 Lanes
- 6 Lanes

Baseline Rd:
Ellsworth Rd to Meridian Rd

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ALCP Project Name: Country Club @ Brown: Intersection Improvement

Original ALCP Scope: Country Club Dr/Brown Road intersection will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in each direction.

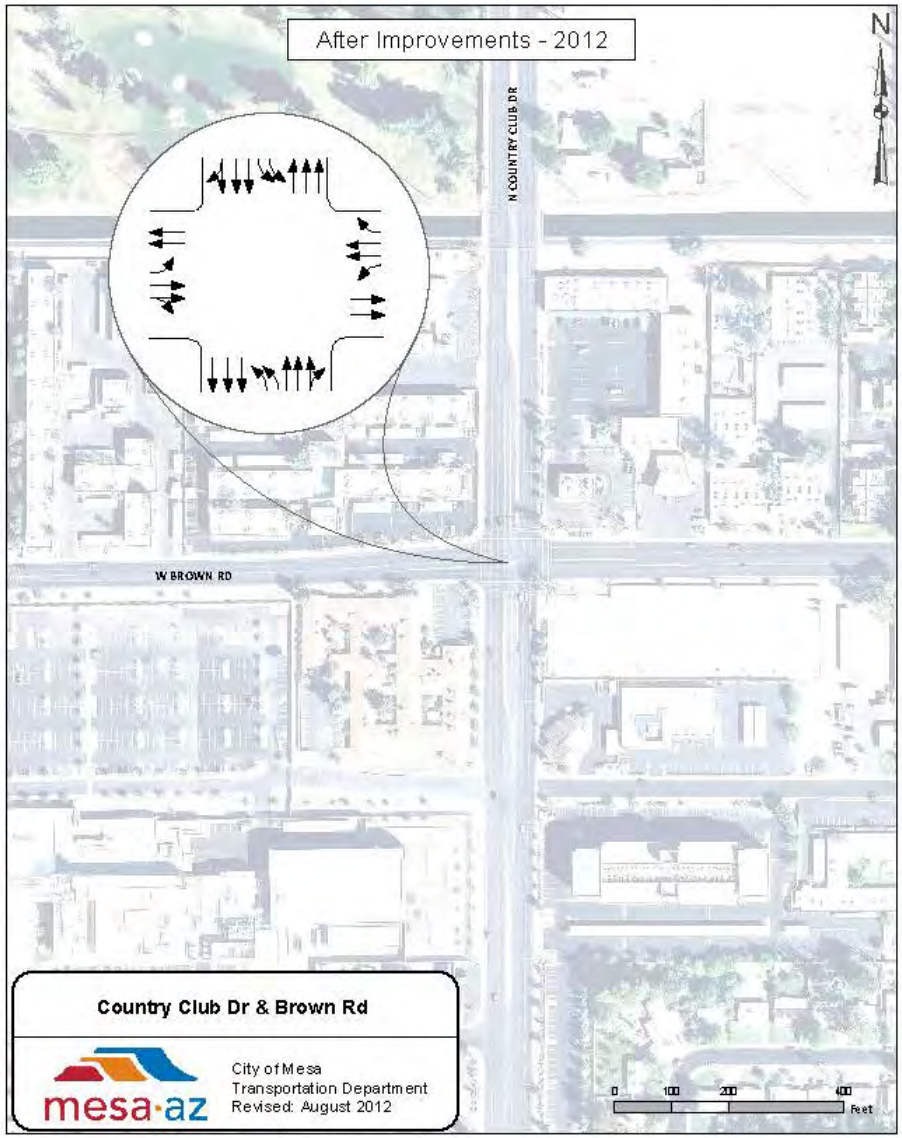
Lanes in 2004: 4

Lanes in 2012: 6

Work Completed Between 2004 - 2012: Currently, Country Club is a 6 lane roadway and Brown Road is a four lane roadway. The MAG 2031 24 hour volumes (run September 14, 2011) has modeled this intersection with the current configuration (no improvements to intersection or widening of roads). The results of this MAG run are volumes on Brown eastbound up to 2000. No improvements to the intersection are needed in light of this result.

Projected Improvements Post-2012: None. Project is not needed in the planned timeframe due to a change in the rate and pattern of development. The revised MAG traffic volume forecast (2031) does not justify the improvements.

ALCP Funding: $4,029,722



Country Club Dr & Brown Rd

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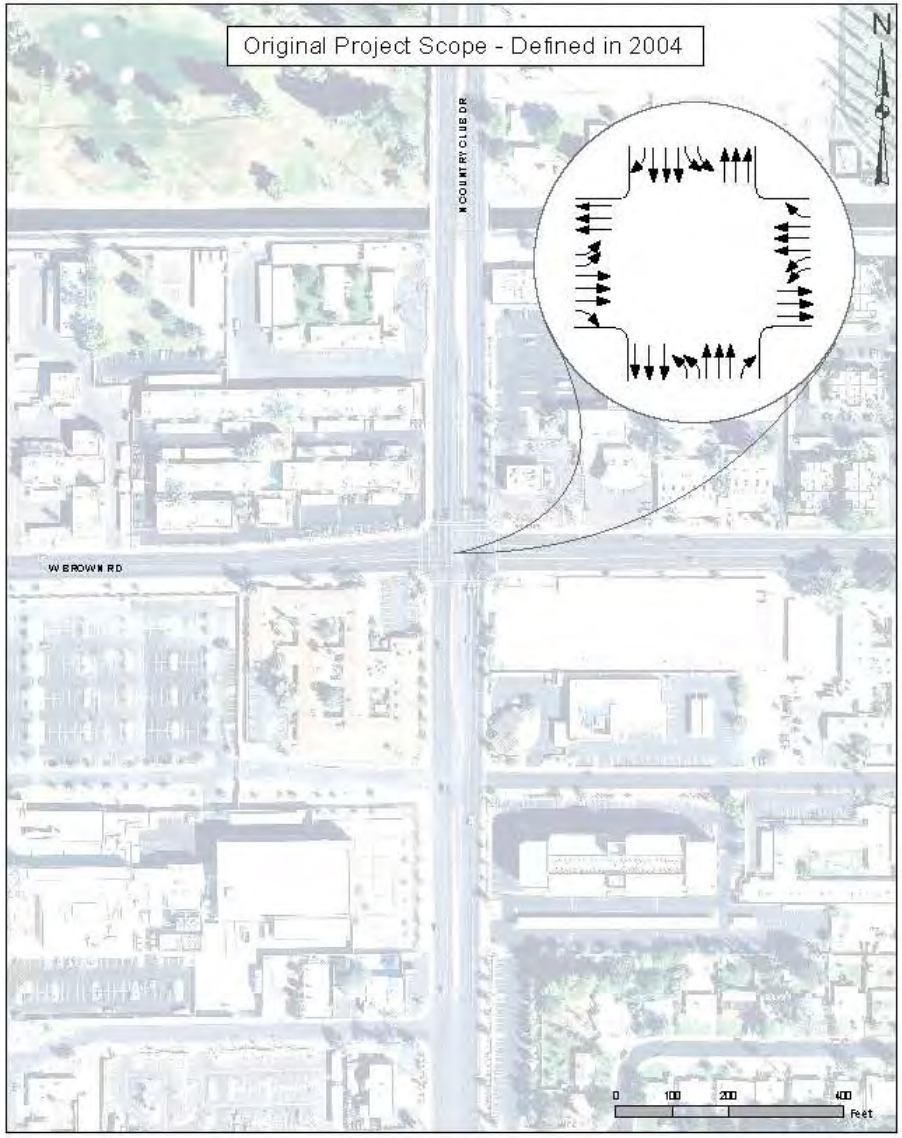
Transportation Department
Revised: August 2012



ALCP Project Name: Crismon Rd: Ray Rd to Germann Rd

Original ALCP Scope: Crismon has been identified in the 2025 Transportation Plan as a 6 lane Road.

Lanes in 2004: 0

Lanes in 2012: 0

Work Completed Between 2004 - 2012: None.

Projected Improvements Post-2012: Crismon: Ray to Williams Field is part of an approved development as a 4 lane roadway to be built by the private developer. Crismon from Williams Field to Germann is planned to be built as a 6 lane roadway by private development. Estimated date 2020.

Improvements, as scoped in 2004, will be done by developers.

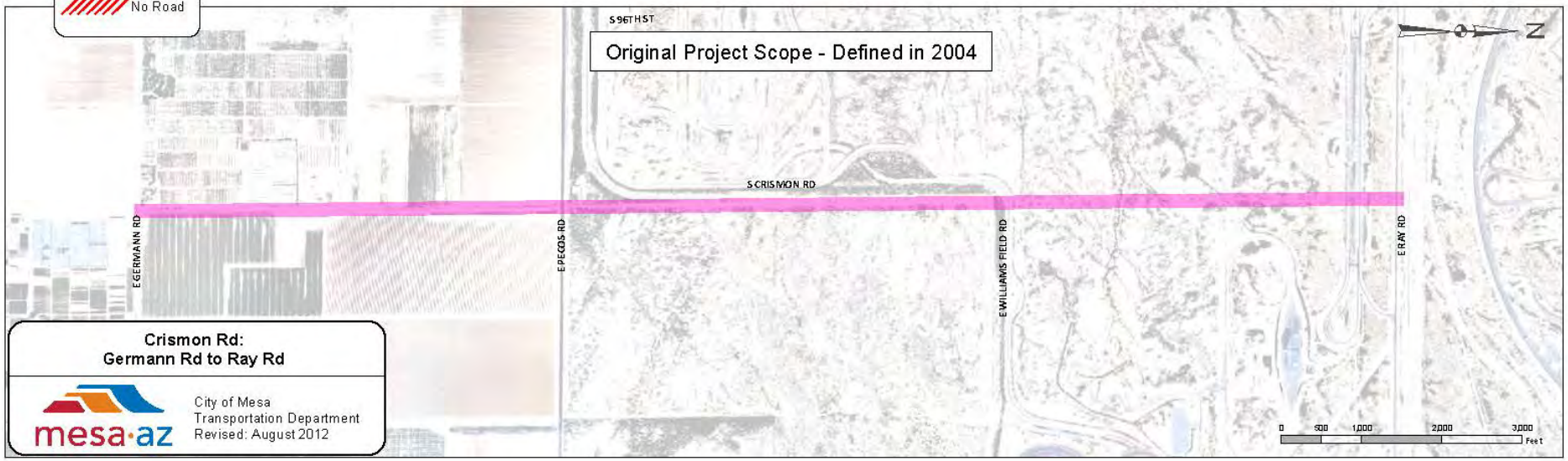
Reason for Removal: Remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $12,326,562

Legend

6 Lanes

No Road



Crismon Rd:
Germann Rd to Ray Rd

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Transportation Department
Revised: August 2012

ALCP Project Name: Germann Rd: Ellsworth to Signal Butte

Original ALCP Scope: Germann has been identified as a 6 lane roadway. Ellsworth, Crismon and Signal Butte intersections will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in all directions.

Lanes in 2004: 2

Lanes in 2012: 2

Work Completed Between 2004 - 2012: From 300 feet east of Ellsworth to Signal Butte, Germann is a 2 lane roadway.

Projected Improvements Post-2012: From 300 feet east of Ellsworth to Signal Butte, Germann will be developed to a 6 lane roadway by private development. Estimated date 2030.

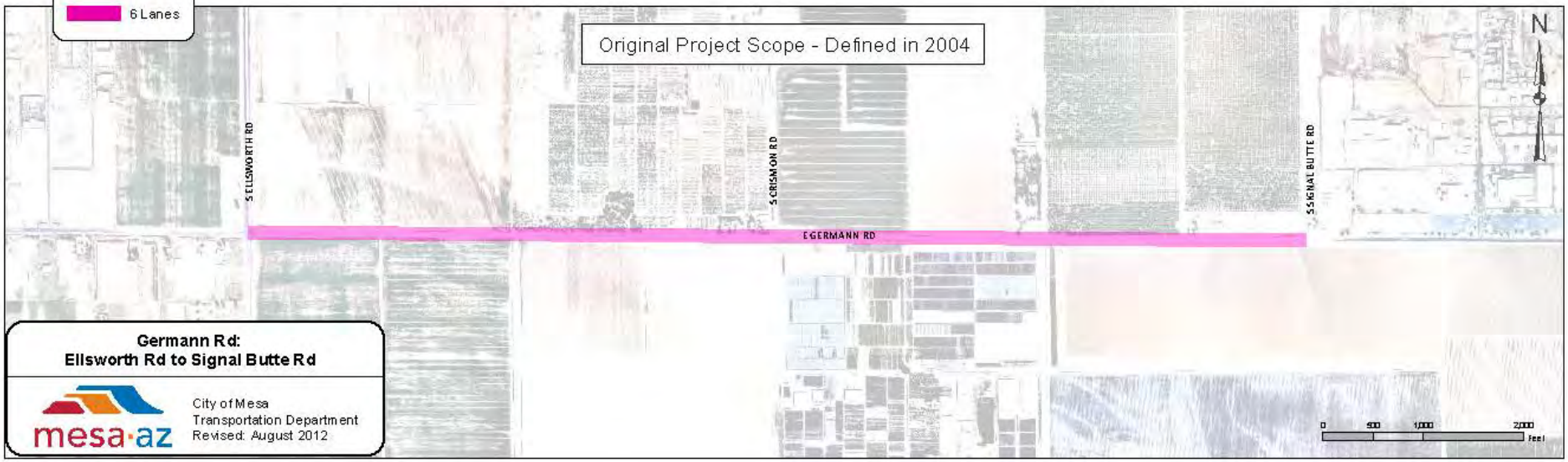
Improvements, as scoped in 2004, will be done by developers.

Reason for Removal: Remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $12,795,322

Legend

- 2 Lanes
- 6 Lanes



Germann Rd:
Ellsworth Rd to Signal Butte Rd

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Transportation Department
Revised: August 2012

ALCP Project Name: Guadalupe: Power to Hawes

Original ALCP Scope: Guadalupe Road to be improved from 4 to 6 lanes. Power, Sossaman, and Hawes intersections will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in all directions.

Lanes in 2004: 4

Lanes in 2012: 5 or 6

Work Completed Between 2004 - 2012: Guadalupe from Sossaman to Hawes has been fully improved to a 6 lane roadway. Guadalupe from Power to 1,500 feet east of Power the roadway was improved to a 5 lane roadway.

Improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: On Guadalupe from Power to 1,500 feet east of Power 1 lane with sidewalk will be constructed. From 1,500 feet east of Power to Sossaman 2 lanes plus sidewalk (4 to 6 lane roadway) will be constructed. Estimated date 2030.

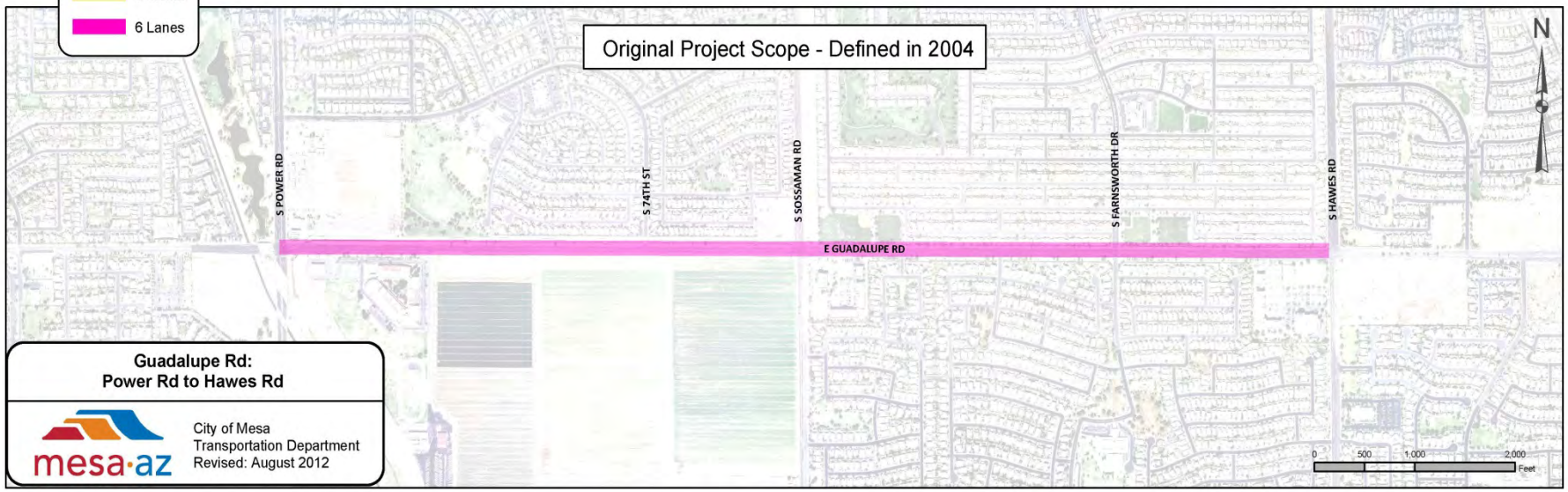
Any remaining improvements are to be done with future development.

Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $8,789,743

Legend

- 4 Lanes
- 5 Lanes
- 6 Lanes



Guadalupe Rd:
Power Rd to Hawes Rd

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Transportation Department
Revised: August 2012

ALCP Project Name: Guadalupe: Hawes to Crismon

Original ALCP Scope: Guadalupe Road to be improved from 4 to 6 lanes. Crismon and Ellsworth intersections will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in each direction.

Lanes in 2004: 4

Lanes in 2012: 4 or 6

Work Completed Between 2004 - 2012: Guadalupe Road from Joslyn Avenue to Crismon is fully improved to 6 lane roadway. Guadalupe Road from Joslyn Avenue to Hawes is a 4 lane roadway.

Improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: Guadalupe Road from Joslyn Avenue to Hawes is to be improved to a 6 lane roadway by constructing 2 lanes including sidewalks. Estimated date 2018.

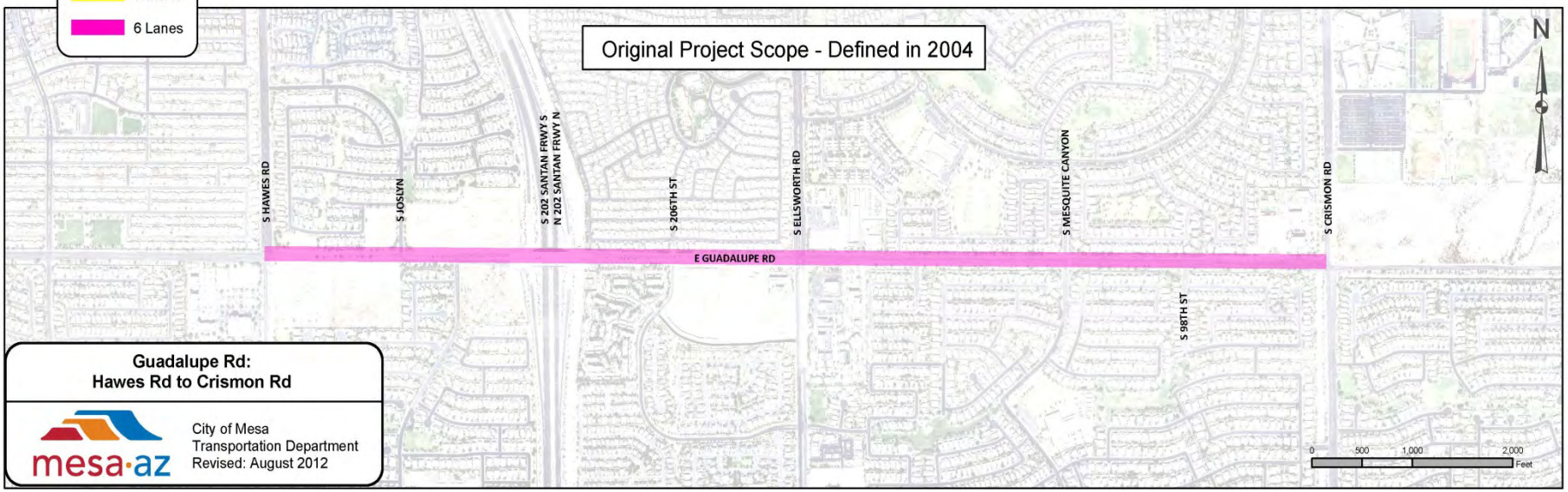
Any remaining improvements are to be done with future development.

Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $8,921,370

Legend

- 4 Lanes
- 5 Lanes
- 6 Lanes



Guadalupe Rd:
Hawes Rd to Crismon Rd

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ALCP Project Name: Guadalupe: Crismon to Meridian

Original ALCP Scope: Guadalupe Road to be improved to 6 lanes. Signal Butte and Meridian intersections will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in each direction.

Lanes in 2004: 2

Lanes in 2012: 2 or 6

Work Completed Between 2004 - 2012: Guadalupe from Crismon Road to Signal Butte Road is a 2 lane roadway. Undeveloped State land is located on the north side of Guadalupe. From Signal Butte to Wattlewood Guadalupe is a 6 lane roadway.

Improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: Guadalupe from Crismon Road to Signal Butte Road will be improved from 2 to 6 lanes with private development. From Wattlewood to Meridian, Guadalupe will be constructed to 6 lanes by private development. This is not foreseen in near future. Estimated date 2035.

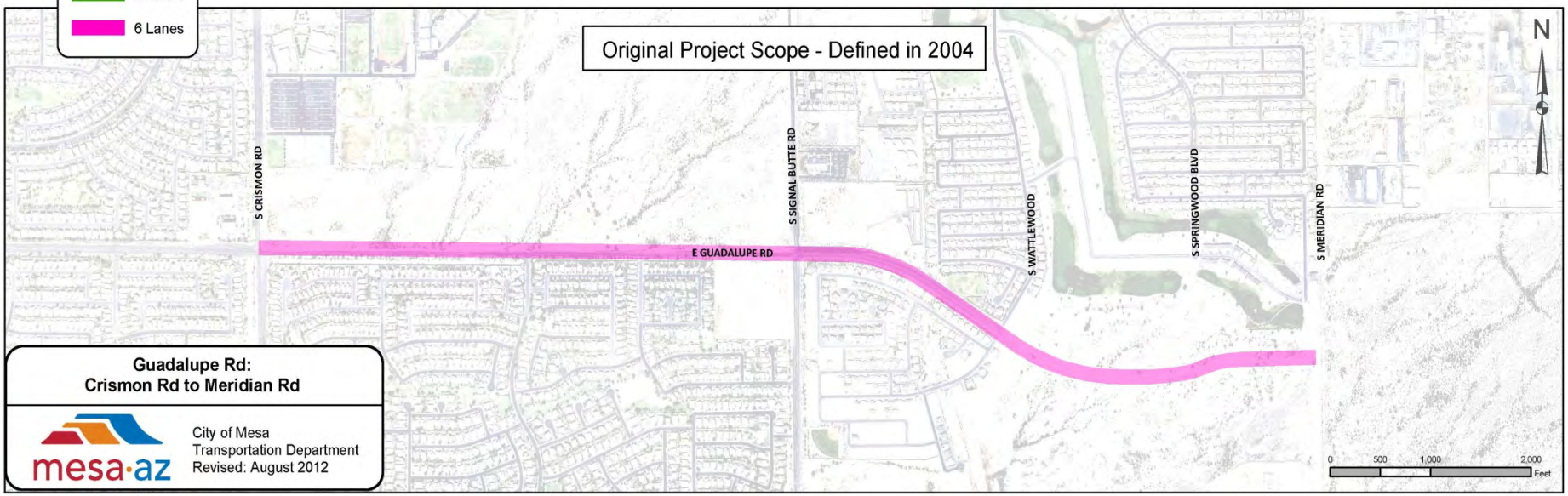
Any remaining improvements are to be done with future development.

Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $7,558,111

Legend

- 2 Lanes
- 6 Lanes



Guadalupe Rd:
Crismon Rd to Meridian Rd

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Transportation Department
Revised: August 2012

ALCP Project Name: Higley Rd Parkway: SR202L to Brown Rd

Original ALCP Scope: Higley Road to be a 6 lane roadway

Lanes in 2004: 4

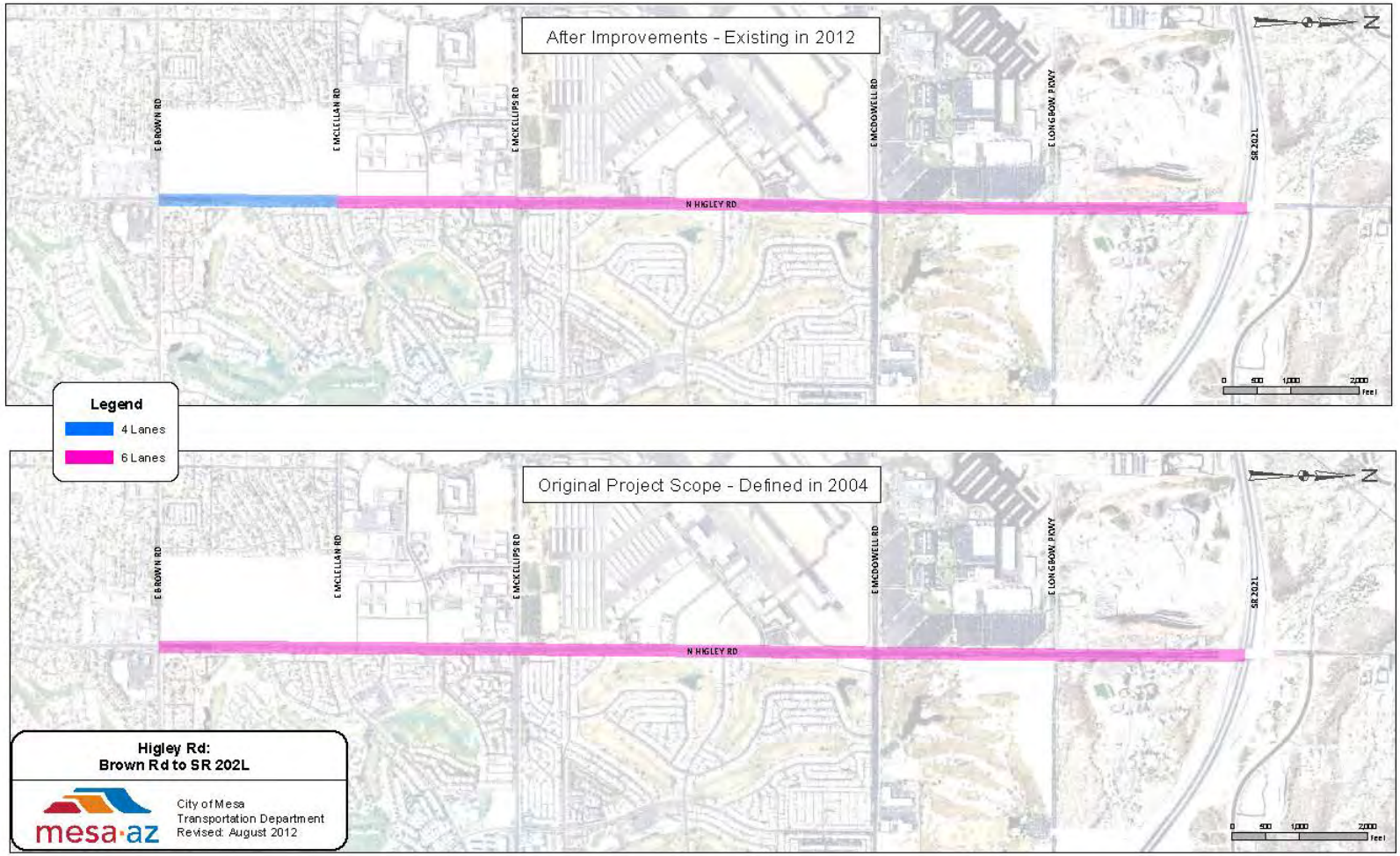
Lanes in 2012: 5 or 6

Work Completed Between 2004 - 2012: Higley Road from Loop 202 to McKellips is a 6 lane roadway missing sidewalks. Higley Road: McKellips to Indigo is a fully improved 6 lane. From Indigo Street to Brown 4 to 5 lanes roadway is existing.

Projected Improvements Post-2012: The impacts to the neighborhood are too severe. The City would have to potentially condemn nearby homes. The community has already expressed opposition to this. The impacts on businesses would also be severe as the City would have to potentially condemn some of their property or impact negatively their driveways or access.

Reason for Removal: Further improvements are not feasible, and the impacts to neighborhoods are too severe.

ALCP Funding: $8,581,650


After Improvements - Existing in 2012
E BROWN RD
E MCLELLAN RD
E MCKELLIPS RD
E MCDOWELL RD
E LONGBOW PKWY
SR 202L
N HIGLEY RD
0 500 1,000 2,000 feet
Legend
4 Lanes
6 Lanes
Original Project Scope - Defined in 2004
E BROWN RD
E MCLELLAN RD
E MCKELLIPS RD
E MCDOWELL RD
E LONGBOW PKWY
SR 202L
N HIGLEY RD
0 500 1,000 2,000 feet
Higley Rd:
Brown Rd to SR 202L
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City of Mesa
Transportation Department
Revised: August 2012

ALCP Project Name: Higley Rd Parkway: Brown Rd to US 60

Original ALCP Scope: Higley Road to be a 6 lane roadway

Lanes in 2004: 4

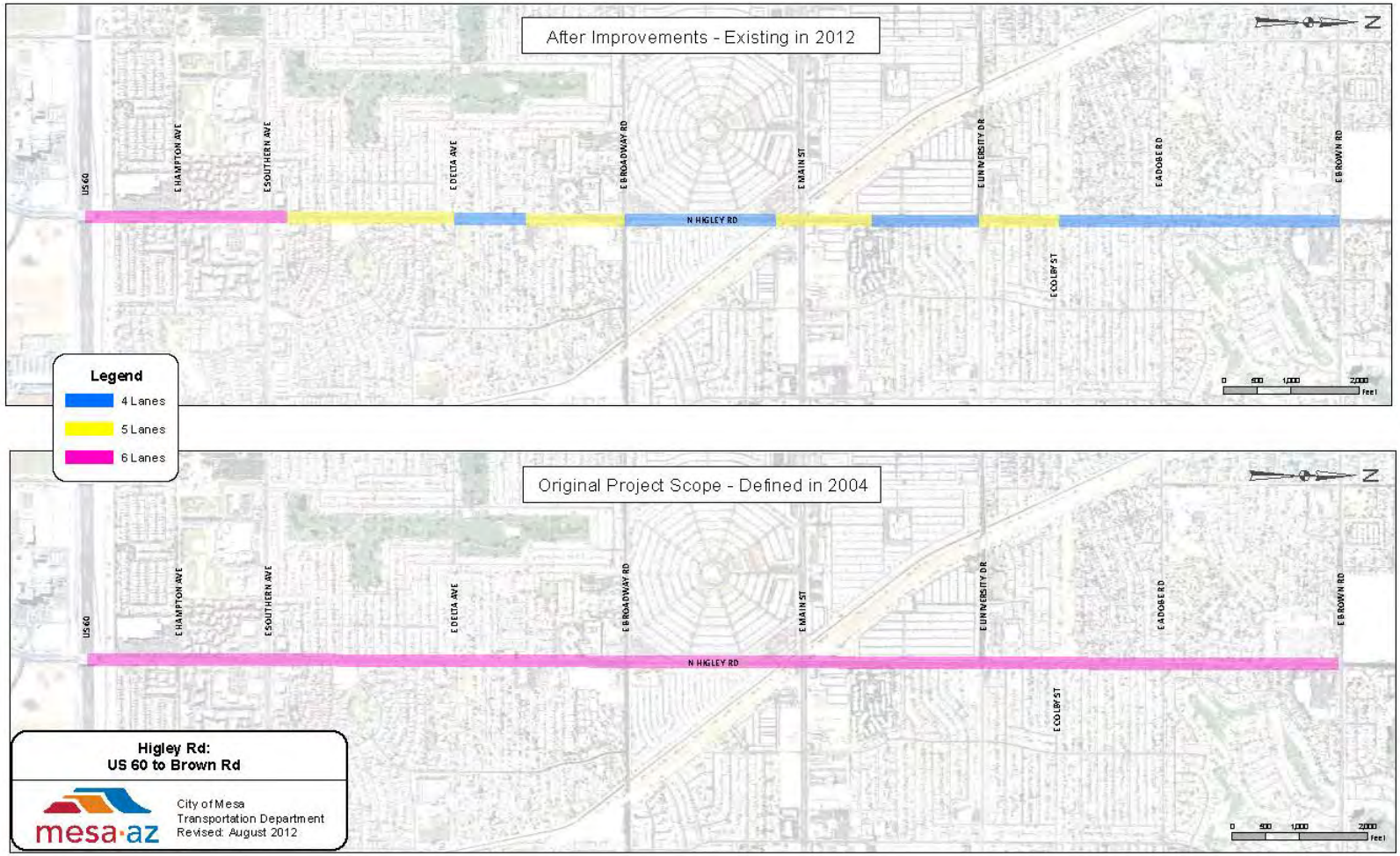
Lanes in 2012: 4

Work Completed Between 2004 - 2012: Higley Road from Loop 202 to McKellips is a 6 lane roadway missing sidewalks. Higley Road: McKellips to Indigo is a fully improved 6 lane. From Indigo Street to Brown 4 to 5 lanes roadway is existing.

Projected Improvements Post-2012: The impacts to the neighborhood are too severe. The City would have to potentially condemn nearby homes. The community has already expressed opposition to this. The impacts on businesses would also be severe as the City would have to potentially condemn some of their property or impact negatively their driveways or access.

Reason for Removal: Further improvements are not feasible, and the impacts to neighborhoods are too severe.

ALCP Funding: $8,581,521


After Improvements - Existing in 2012
US60
E HAMPTON AVE
E SOUTHERN AVE
E DELTA AVE
E BROADWAY RD
E MAIN ST
E UNIVERSITY DR
E ADOBE RD
E BROWN RD
N HIGLEY RD
E COLBY ST
Legend
4 Lanes
5 Lanes
6 Lanes
Original Project Scope - Defined in 2004
Higley Rd:
US 60 to Brown Rd
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City of Mesa
Transportation Department
Revised: August 2012

ALCP Project Name: Higley Rd Parkway: SR202L to US 60 Grade Separations

Original ALCP Scope: Higley Road to be a 6 lane roadway and grade separated intersections to be completed.

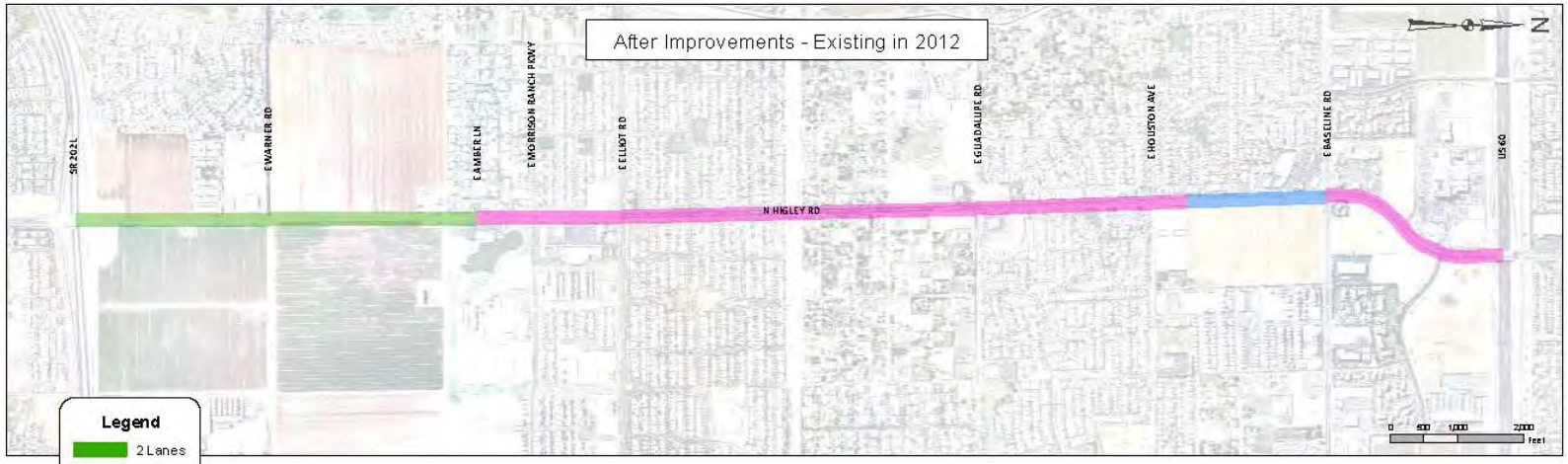
Lanes in 2004: 4

Lanes in 2012: 4, 5 or 6

Work Completed Between 2004 - 2012: None.

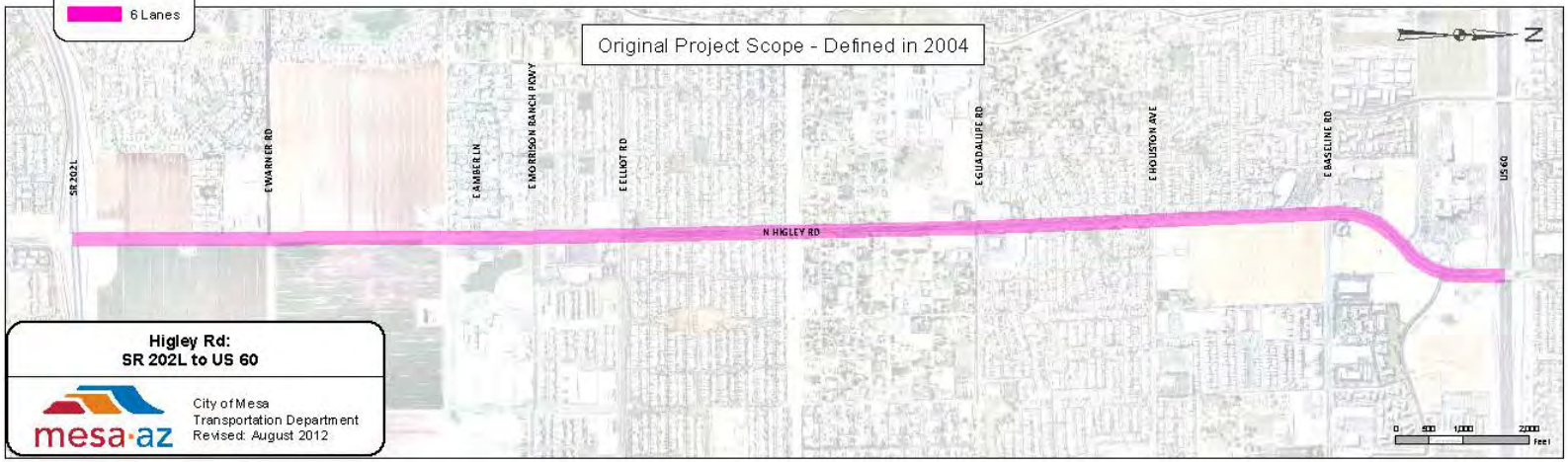
Projected Improvements Post-2012: The impacts on businesses would be severe as the City would have to potentially condemn some of their property or impact negatively their driveways or access.

Reason for Removal: Further improvements are not feasible, and the impacts to neighborhoods are too severe.
ALCP Funding: $22,490,292



Legend

- 2 Lanes
- 4 Lanes
- 6 Lanes



Higley Rd:
SR 202L to US 60

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Revised: August 2012

ALCP Project Name: McKellips @ Power Rd: Intersection Improvement

Original ALCP Scope: McKellips/Power intersection will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in each direction.

Lanes in 2004: 4

Lanes in 2012: 6

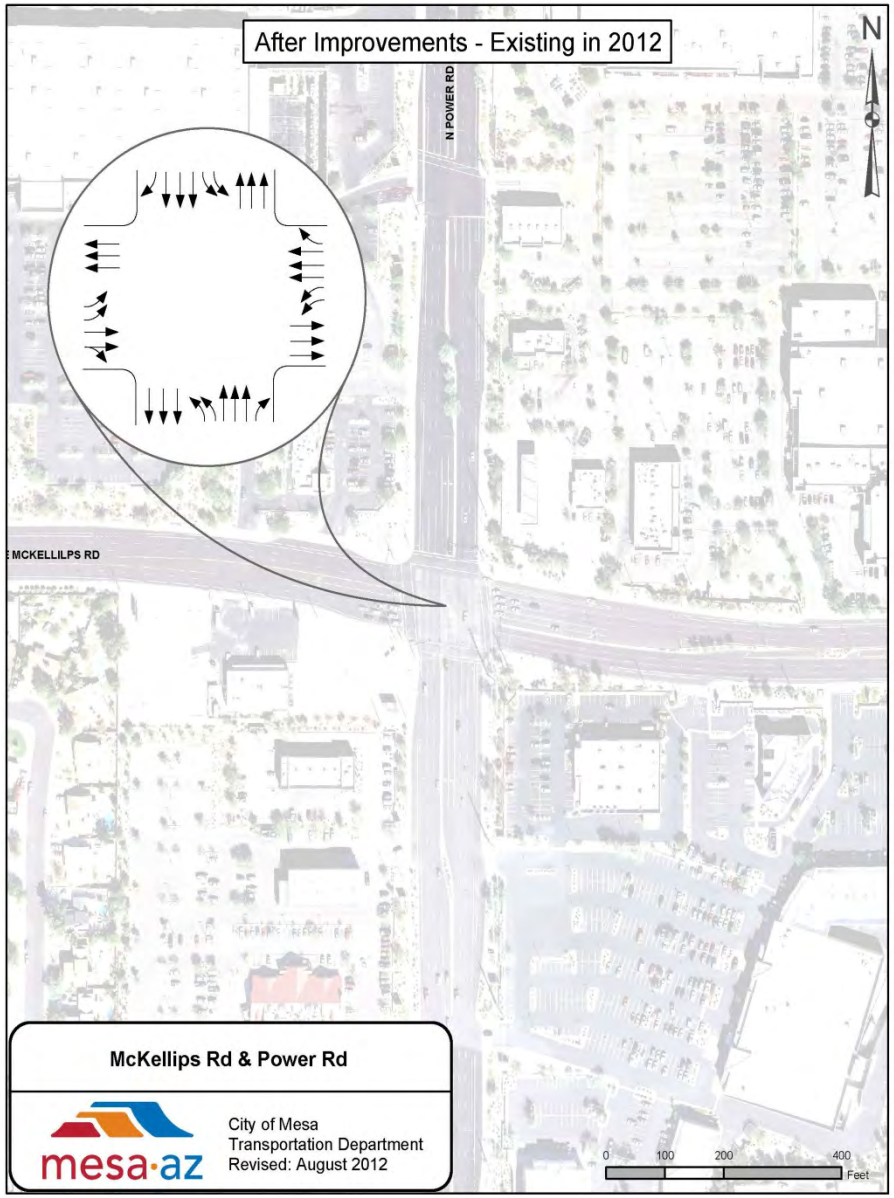
Work Completed Between 2004 - 2012: The north, south, and east legs of the intersection have been fully improved, and provide 3 thru lanes, 2 left turn lanes and 1 right turn lane in each direction. The west leg has 2 through lanes and 2 left turn lanes.

Improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: Construct 1,193 feet of additional through lane plus a right turn lane on the west leg, to be done by private development. Northbound bus pullout may be needed in future. Estimated date 2025.

Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $3,393,384



McKellips Rd & Power Rd

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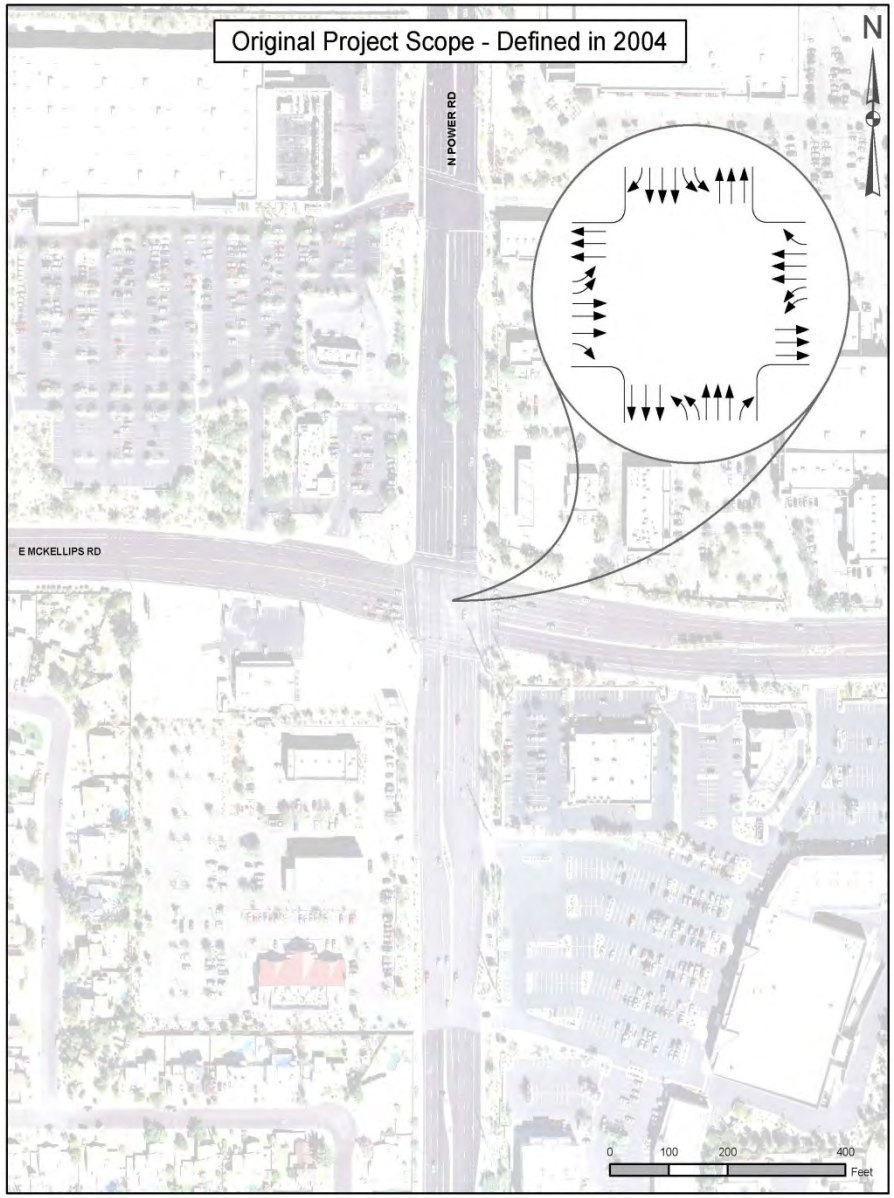
Transportation Department
Revised: August 2012



ALCP Project Name: McKellips @ Val Vista Dr: Intersection Improvement

Original ALCP Scope: McKellips/Val Vista intersection will be improved to provide 3-thru lanes, exclusive right turn lanes, bike lanes, dual left turn lanes and if needed bus pullouts in each direction.

Lanes in 2004: 4

Lanes in 2012: 6

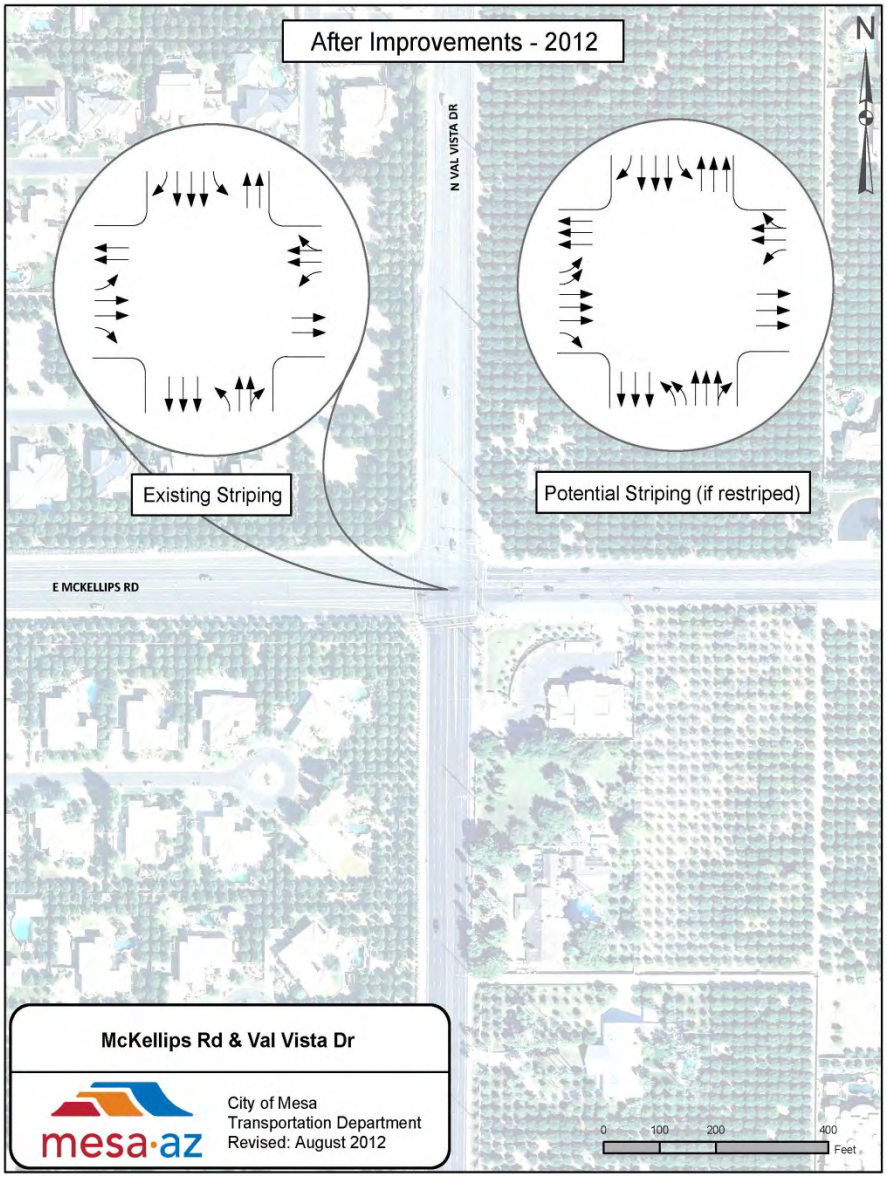
Work Completed Between 2004 - 2012: The north leg is fully improved for 6 through lanes, 1 right turn lane and 1 left turn lane; the west leg is fully improved for 6 through lanes, 2 left turn lanes, and 1 right turn lane; the south leg is fully improved for 6 through lanes and 2 left turn lanes, and the east leg has 4 through lanes and 1 left turn lane.

Improvements, as scoped in 2004, have mostly been done by developers.

Projected Improvements Post-2012: The east leg is to be improved with 1 additional through lanes, 1 additional right turn lane and 1 additional left turn lane to be done by private development. Estimated date 2025.

Reason for Removal: Project is substantially complete, and any remaining improvements are to be done by adjacent property developers with future development.

ALCP Funding: $2,910,774



McKellips Rd & Val Vista Dr

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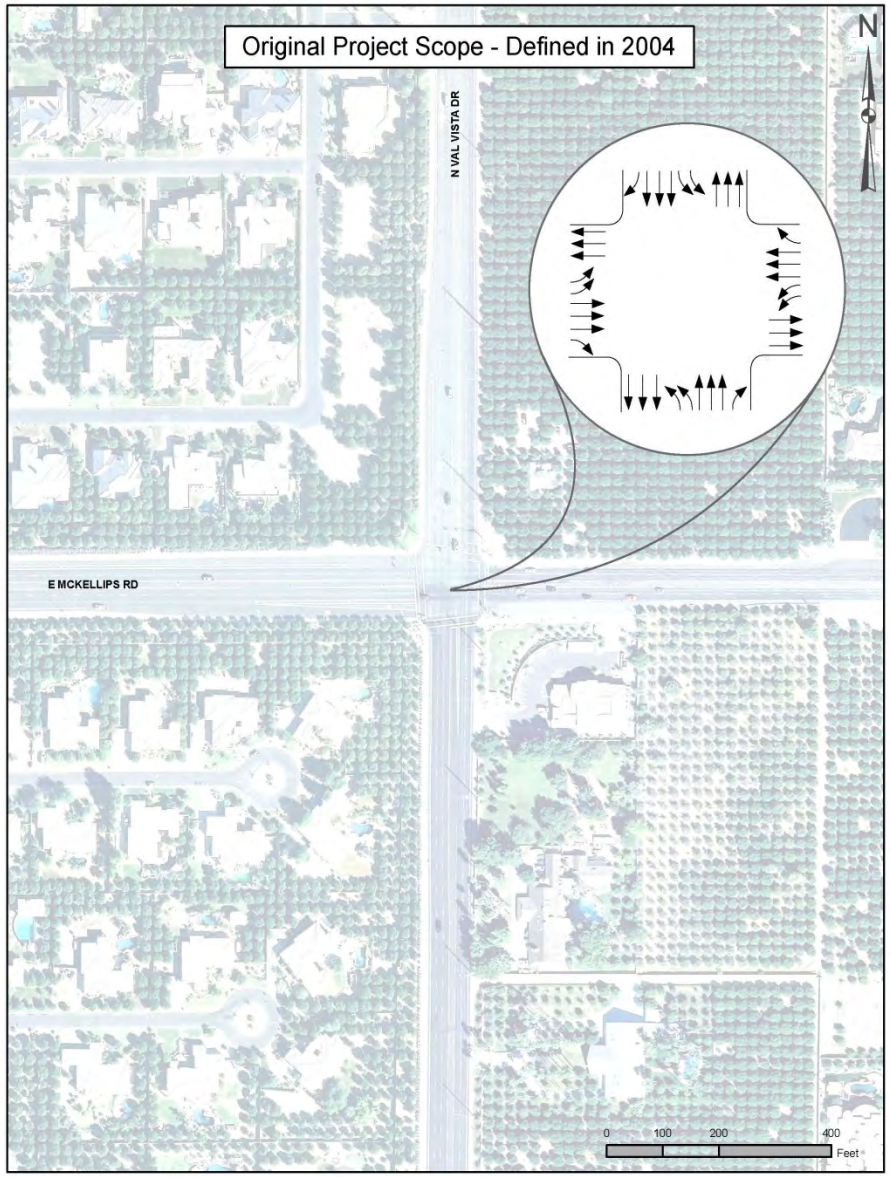
Transportation Department
Revised: August 2012



ALCP Project Name: Meridian Rd: Baseline to Ray

Original ALCP Scope: Meridian Rd to be a 6 lane roadway.

Lanes in 2004: 0

Lanes in 2012: 2

Work Completed Between 2004 - 2012: Meridian from Paloma to Warner and Warner to Starfire is a 2 lane roadway. Meridian from Baseline to Paloma and Starfire to Ray will need to be constructed to a new 6 lane roadway.

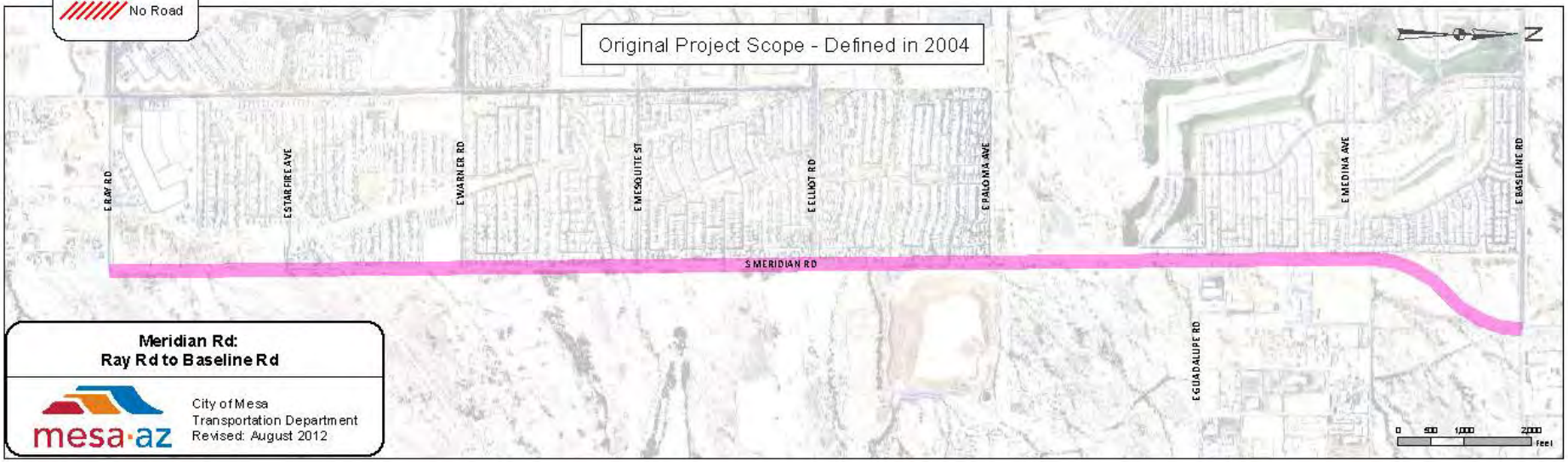
Projected Improvements Post-2012: The road is at the edge of the City of Mesa and does not lie within Mesa City limits. Mesa's interests in improving these streets are minor. Meridian is being planned as a 6 lane roadway by other jurisdictions.

Reason for Removal: Project is not needed in the planned time horizon due to a change n the rate and pattern of development.

ALCP Funding: $17,223,818

Legend

- 2 Lanes
- 6 Lanes
- No Road



Meridian Rd:
Ray Rd to Baseline Rd

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City of Mesa
Transportation Department
Revised: August 2012

ALCP Project Name: Meridian Rd: Ray to Germann

Original ALCP Scope: Meridian Rd to be a 6 lane roadway.

Lanes in 2004: 0

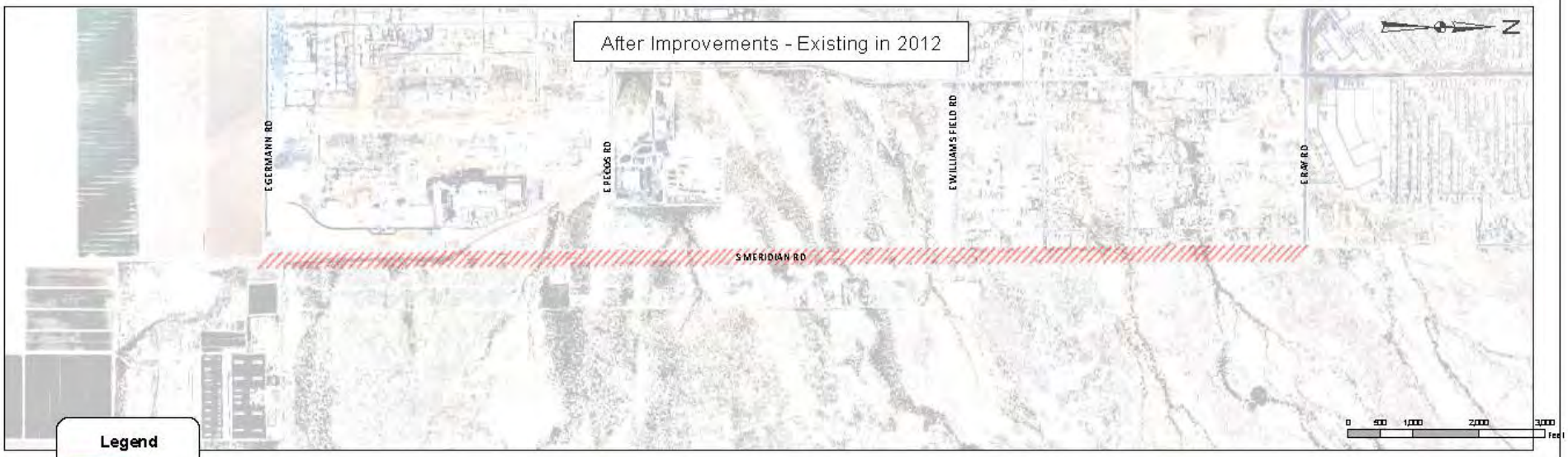
Lanes in 2012: 0

Work Completed Between 2004 - 2012: None.

Projected Improvements Post-2012: The road is at the edge of the City of Mesa and does not lie within Mesa City limits. Mesa's interests in improving these streets are minor. Meridian is being planned as a 6 lane roadway by other jurisdictions.

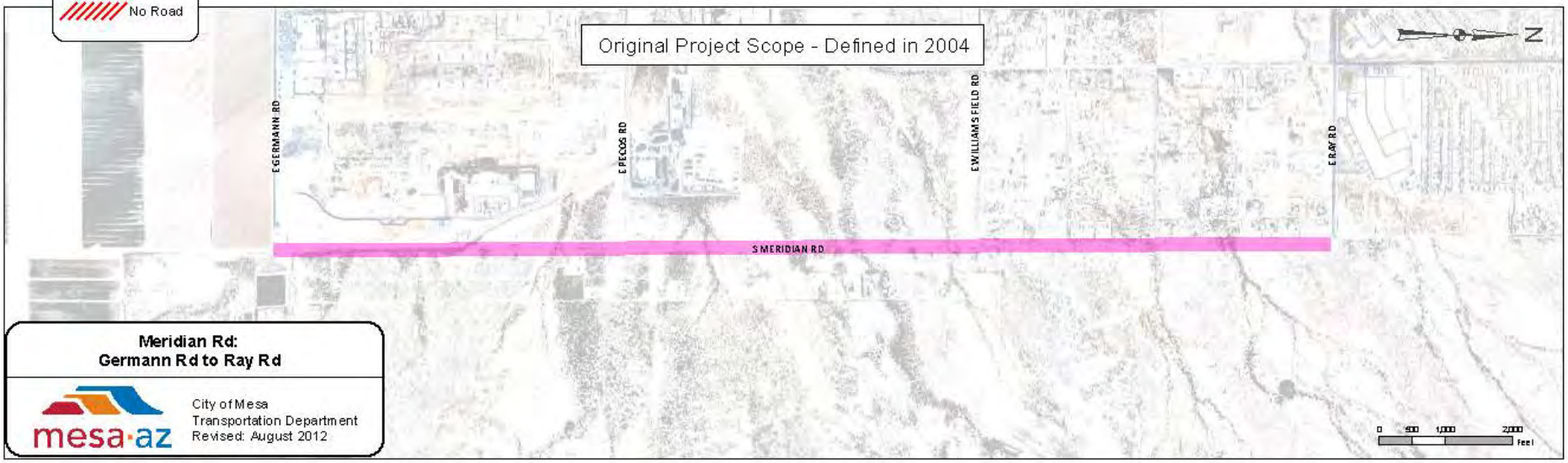
Reason for Removal: Project is not needed in the planned time horizon due to a change n the rate and pattern of development.

ALCP Funding: $12,721,129



Legend

- 6 Lanes
- No Road



Meridian Rd:
Germann Rd to Ray Rd

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Transportation Department
Revised: August 2012

ALCP Project Name: Thomas Rd: Gilbert to Val Vista

Original ALCP Scope: Meridian Rd to be a 4 lane roadway.

Lanes in 2004: 0

Lanes in 2012: 2

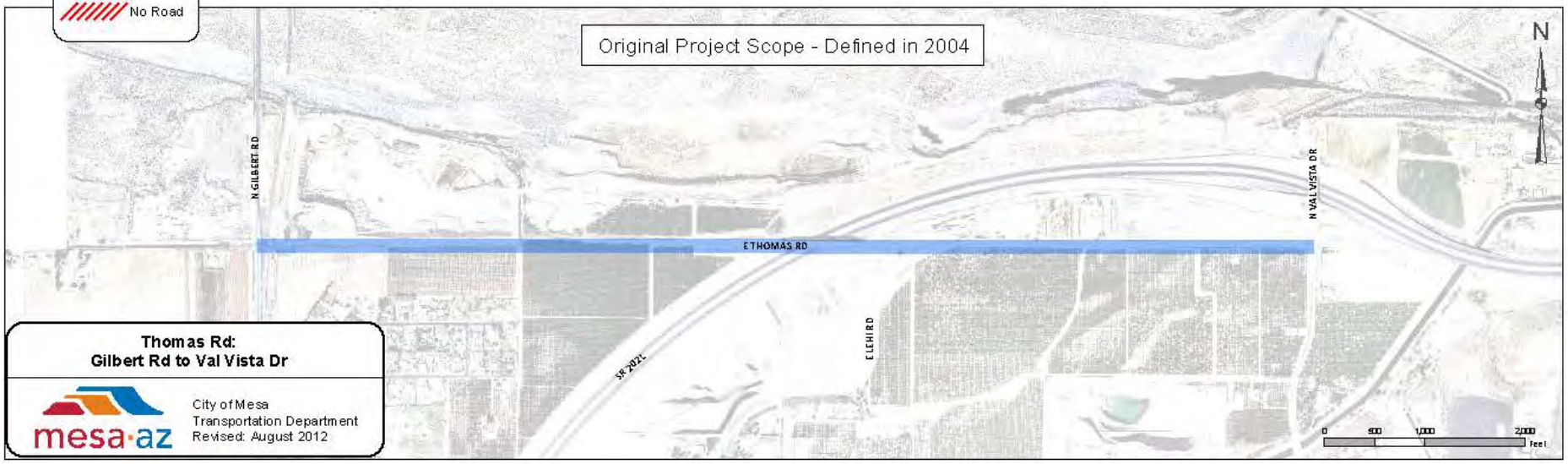
Work Completed Between 2004 - 2012: Thomas Rd from Lehi to Val Vista was developer constructed (Lehi Crossing Subdivision) as a 2 lane roadway. Thomas from Lehi to Gilbert is currently a dirt path that provides access to farm land and a mining operation.

Projected Improvements Post-2012: The anticipated traffic volume do not justify the expense, given that there alternative routes available. Low traffic volumes make it a very low priority. Project is not needed in the planned time horizon due to a change in the rate and pattern of development.

ALCP Funding: $4,745,938

Legend

- 2 Lanes
- 4 Lanes
- No Road



Thomas Rd:
Gilbert Rd to Val Vista Dr

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City of Mesa
Transportation Department
Revised: August 2012

ATTACHMENT #2 - Schedule for Major Amendment Process

Policy Approval & Major Amendment		
Committee	**Date**	**Action**
MAG Transportation Policy Committee	October 17, 2012	Recommend approval to remove federal Surface Transportation Program (STP) funds from sixteen (16) Arterial Life Cycle Program (ALCP) projects and use the funding to design, purchase right of way, and construct a 1.9 mile light rail transit (LRT) extension on Main Street, from Mesa Drive to Gilbert Road.
MAG Regional Council	October 24, 2012	Recommend approval to remove federal Surface Transportation Program (STP) funds from sixteen (16) Arterial Life Cycle Program (ALCP) projects and use the funding to design, purchase right of way, and construct a 1.9 mile light rail transit (LRT) extension on Main Street, from Mesa Drive to Gilbert Road.

Major Amendment		
Committee	**Date**	**Action**
RPTA	November 15, 2012	Recommend approval/concur with proposed major amendment to add a 1.9 Light Rail Transit extension on Main St., from Mesa Dr. to Gilbert Rd. to the MAG Regional Transportation Plan 2010 Update.
State Transportation Board	November 16, 2012	Recommend approval/concur with proposed major amendment to add a 1.9 Light Rail Transit extension on Main St., from Mesa Dr. to Gilbert Rd. to the MAG Regional Transportation Plan 2010 Update.
Maricopa County Board of Supervisors	October 31, 2012 or November 14, 2012	Recommend approval/concur with proposed major amendment to add a 1.9 Light Rail Transit extension on Main St., from Mesa Dr. to Gilbert Rd. to the MAG Regional Transportation Plan 2010 Update.
MAG Member Agencies (Indian Communities, cities, towns) and CTOC	30 Days	Comments on proposed major amendment to add a 1.9 Light Rail Transit extension on Main St., from Mesa Dr. to Gilbert Rd. to the MAG Regional Transportation Plan 2010 Update.
MAG Transportation Review Committee	December 13, 2012	Recommend approval of the proposed major amendment to the Regional Transportation Plan (RTP) and that the RTP and other transportation programs be amended subject to the necessary air quality conformity analysis.
MAG Management Committee	January 9, 2013	Recommend approval of the proposed major amendment to the Regional Transportation Plan (RTP) and that the RTP and other transportation programs be amended subject to the necessary air quality conformity analysis.

MAG Transportation Policy Committee	January 16, 2013	Recommend approval of the proposed major amendment to the Regional Transportation Plan (RTP) and that the RTP and other transportation programs be amended subject to the necessary air quality conformity analysis.
Major Amendment (continued)		
Committee	**Date**	**Action**
MAG Regional Council	January 23, 2013	Recommend approval of the proposed major amendment to the Regional Transportation Plan (RTP) and that the RTP and other transportation programs be amended subject to the necessary air quality conformity analysis.

TIP/RTP/ALCP New Finding of Conformity and Amendment Approval		
Committee	**Date**	**Action**
30-Day Public Review/Notice	January 24, 2013	30 Day (prior to Regional Council)
MAG Transportation Review Committee	January 24 or 31, 2013	Recommend approval of TIP, RTP, and ALCP Amendments
MAG Management Committee	February 13, 2012	Recommend approval of TIP, RTP, and ALCP Amendments and New Finding of Conformity
MAG Transportation Policy Committee	February 20, 2012	Recommend approval of TIP, RTP, and ALCP Amendments
MAG Regional Council	February 27, 2012	Approval of TIP, RTP, and ALCP Amendments and New Finding of Conformity

Information Summary

ATTACHMENT #3

DATE
September 25, 2012

SUBJECT
Gilbert Road Light Rail Transit Extension

PURPOSE
The purpose of this information summary is to provide background information related to the Gilbert Road Light Rail Transit Extension.

BACKGROUND/DISCUSSION/CONSIDERATION
In September 2009, the Maricopa Association of Governments (MAG) Regional Council approved a set of Alternatives Analysis recommendations, which included a locally preferred alternative (LPA) for a 3.1-mile LRT extension along Main Street from Sycamore to just east of Mesa Drive. Also as part of the Alternatives Analysis recommendations, MAG approved consideration of a 1.9-mile LRT extension on Main Street east to Gilbert Road as a future phase.

The extension to Gilbert Road was included in the Regional Transportation Plan (RTP) as an "illustrative" project, meaning the project will be considered in future regional planning efforts, but is unfunded at this time. This was recommended because of strong ridership demand along this segment, opportunities to optimize regional bus connections, and a preferred long-range site for an end-of-line park and ride near Gilbert Road given the travel patterns observed in the regional model.

The Gilbert Road Extension project would also help ensure the equitable distribution of transit services across the city, and support community economic growth initiatives for sustainable development. Investments in transportation infrastructure must produce travel improvements for both personal and economic reasons. An investment in light rail within the corridor will allow for easier and faster movement of people to reach additional desired destinations in Mesa and the central valley region. The need for the project is demonstrated in five areas:

- Accommodating the travel needs of a growing population
- Improving local and regional mobility, especially during peak travel times
- Providing a reliable transportation service and optimize regional transit network efficiency
- Linking Mesa and East Valley populations with regional employment centers and activity destinations
- Maximizing the economic development potential of the corridor

The project is bounded by University Drive to the north, Broadway Road to the south, Gilbert Road to the east, and Mesa Drive to the west (Figure 1).

Ridership

As part of the planning process for the Central Mesa Extension that would extend light rail service through downtown Mesa, ridership was forecast between the current end-of-line station at Sycamore and at various points east towards the Superstition Springs Mall. A series of travel forecast analyses were conducted to estimate potential ridership along Main Street. The findings of these analyses suggested that extension of light rail to Gilbert Road showed high demand and could yield an additional 4,000 daily riders in opening year (Figure 2).

Capital & Operating Costs

The total project capital cost is estimated at $133 million in year of expenditure dollars. The capital cost estimate is a planning-level estimate, which includes uncertainty in project elements such as stations, right-of-way requirements, placement of underground utilities etc. Valley Metro will refine the cost estimates during the environmental and design phase of the study. Funding for this project would be obtained from federal Surface Transportation Program (STP) funds, with the local match provided by the City of Mesa. Annual operating expenses are estimated at $3.2 million in 2012 dollars and will be paid from fares and City of Mesa funds. The project is scheduled to open in 2017 (Figure 3).

APPROVAL PROCESS

City of Mesa City Council, May 18, 2009
METRO Board of Directors, June 17, 2009
MAG Regional Council, September 30, 2009

RECOMMENDATION

For information only, no action is required.

CONTACT

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Director, Planning and Development
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wgrote@valleymetro.org

ATTACHMENTS

Financing Plan to Extend Light Rail to Gilbert Road in Mesa

FIGURE 1: GILBERT ROAD LRT EXTENSION AND STUDY AREA

FIGURE 2: GILBERT ROAD LRT EXTENSION RIDERSHIP MARKET

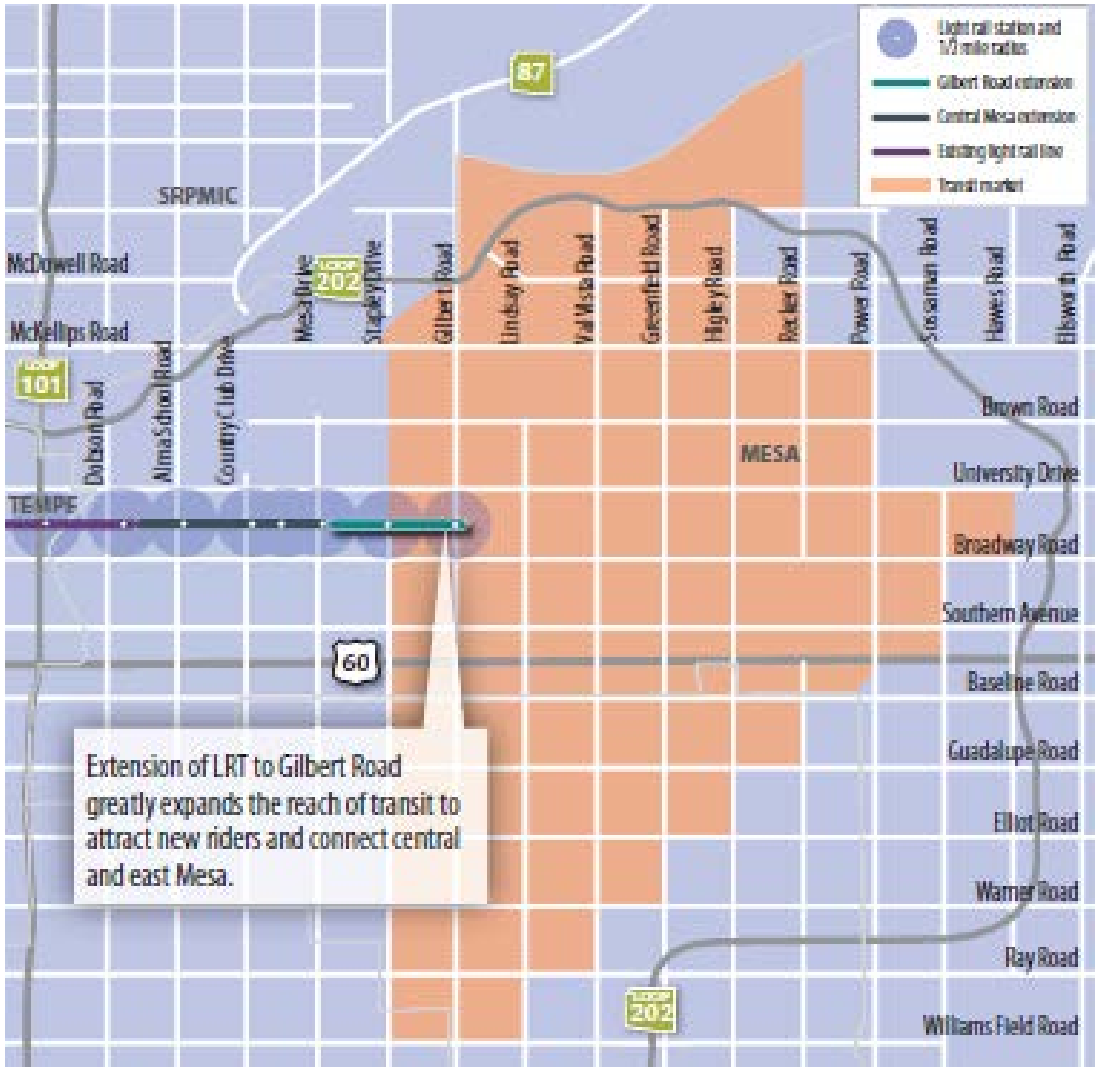
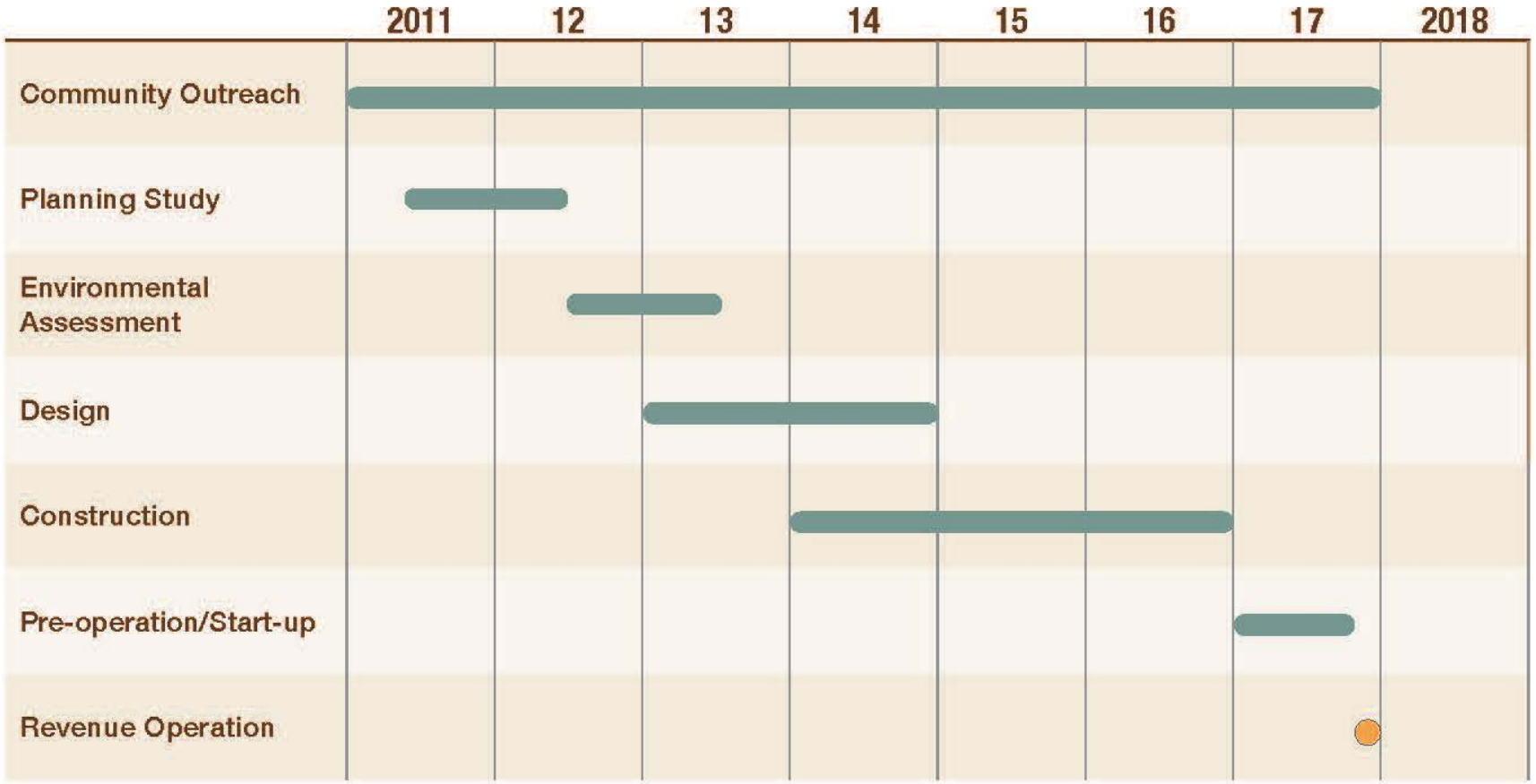


FIGURE 3: GILBERT ROAD LRT EXTENSION PRELIMINARY SCHEDULE



All dates reflect the year the activity is expected to begin.

ATTACHMENT #4

PROPOSED FINANCING TO EXTEND LIGHT RAIL TO GILBERT ROAD IN MESA

Subject: Financing Plan to Extend Light Rail to Gilbert Road in Mesa

Summary: Mesa has requested consideration of a proposal to advance the design, right-of-way acquisition and construction of a 1.9 mile extension of light rail transit (LRT) on Main Street, from Mesa Drive to Gilbert Road. Several planning studies have been conducted on this corridor including an Alternatives Analysis in 2009, which recommended the extension to Gilbert Road. Later that year, the MAG Regional Council adopted the Gilbert Road extension as an illustrative corridor to the MAG Regional Plan. In 2011, a planning study was completed to better define the proposed project and now an Environmental Assessment is underway with completion set for late 2013. Mesa is proposing to begin design and right-of-way acquisition in 2014 following the selection of a design-build contractor by METRO.

The underlying funding for this Project would come from federal Surface Transportation Program (STP) funds totaling $153.4 million (2011$) that are currently programmed for 16 Arterial Life Cycle Program (ALCP) projects in Mesa. Mesa is proposing to remove these funds from the ALCP and instead fund the LRT extension. The Mesa City Council established the extension of LRT to Gilbert Road as a Council priority and has determined that the extension is a better use of its limited transportation funds than the 16 ALCP projects. MAG staff also modeled regional travel demand without the ALCP projects proposed for deletion and found the impact on system performance to be minimal.

Since the funding for these ALCP projects does not align with the timing needed for light rail construction, Mesa is proposing to provide interim funding using Transportation Project Advancement Notes (TPANs). These notes would be repaid with federal STP funds as they become available in the program beginning in 2016. The TPAN financing would be secured by the City's excise tax and since Mesa would issue the notes, there would be no impact on the region's financing capacity. This financing is similar to the approach used to accelerate SR 24 by four years which saved the program roughly $100 million by doing it earlier than planned.

The cost for this extension is currently estimated by METRO at $112 million in year of expenditure dollars for design, right-of-way and construction. The Project cost also includes contingency funds of over 30% as required by the Federal Transit Administration. The interest expense for this financing is estimated to be about $21 million for a total Project cost of about $133 million. As indicated above, the repayment of the interim funding for the Project would come from STP funds totaling about $153.4 million (2011$). The additional STP funds being set aside ($20 million) above the estimated Project cost could be used, if needed, as additional funds to repay the City's advance of interim funding or to fund light rail vehicles in the future if required by METRO policy at some future date.

Mesa understands and agrees that if the schedule for the Project is delayed due to higher program costs and/or lower program revenues, the reimbursement to Mesa would be delayed as other projects are also delayed.

ATTACHMENT #3

Agenda Item #7

Agenda Item # 7

Table B. SRPMIC Requested Changes to the Fiscal Year 2011-2015 MAG Transportation Improvement Program

10/16/2012

HIGHWAY

TIP #	Agency	Project Location	Project Description	Fiscal Year	Est. Date Open	Length miles	Lanes Before	Lanes After	Fund Type	Local Cost	Federal Cost	Regional Cost	Total Cost	Requested Change
SRP12-801RW	Salt River Pima-Maricopa Indian Community	Pave Dirt Roads: Center Rd, Mesa Dr, McDonald, and Alma School	ROW: Unpaved Road	2013	2016	5.4	2	2	CMAQ	$ 60,445	$ 1,000,000	$ -	$ 1,060,445	Amend: New right-of-way phase, $1,000,000 CMAQ from construction phase.
SRP12-801	Salt River Pima-Maricopa Indian Community	Pave Dirt Roads: Center Rd, Mesa Dr, McDonald, and Alma School	Construct: Pave Unpaved Road	2015	2016	5.4	2	2	CMAQ	$ 2,509,717	$ 1,589,595	$ -	$ 4,099,312	Amend: Reduce CMAQ funding by $1,000,000 (move to ROW phase), increase local amount by $1,396,126 on construction phase. Defer construction phase from FY2013 to FY2015. Total federal project cost for ROW and construction remains the same.

Changes to TIP in Red

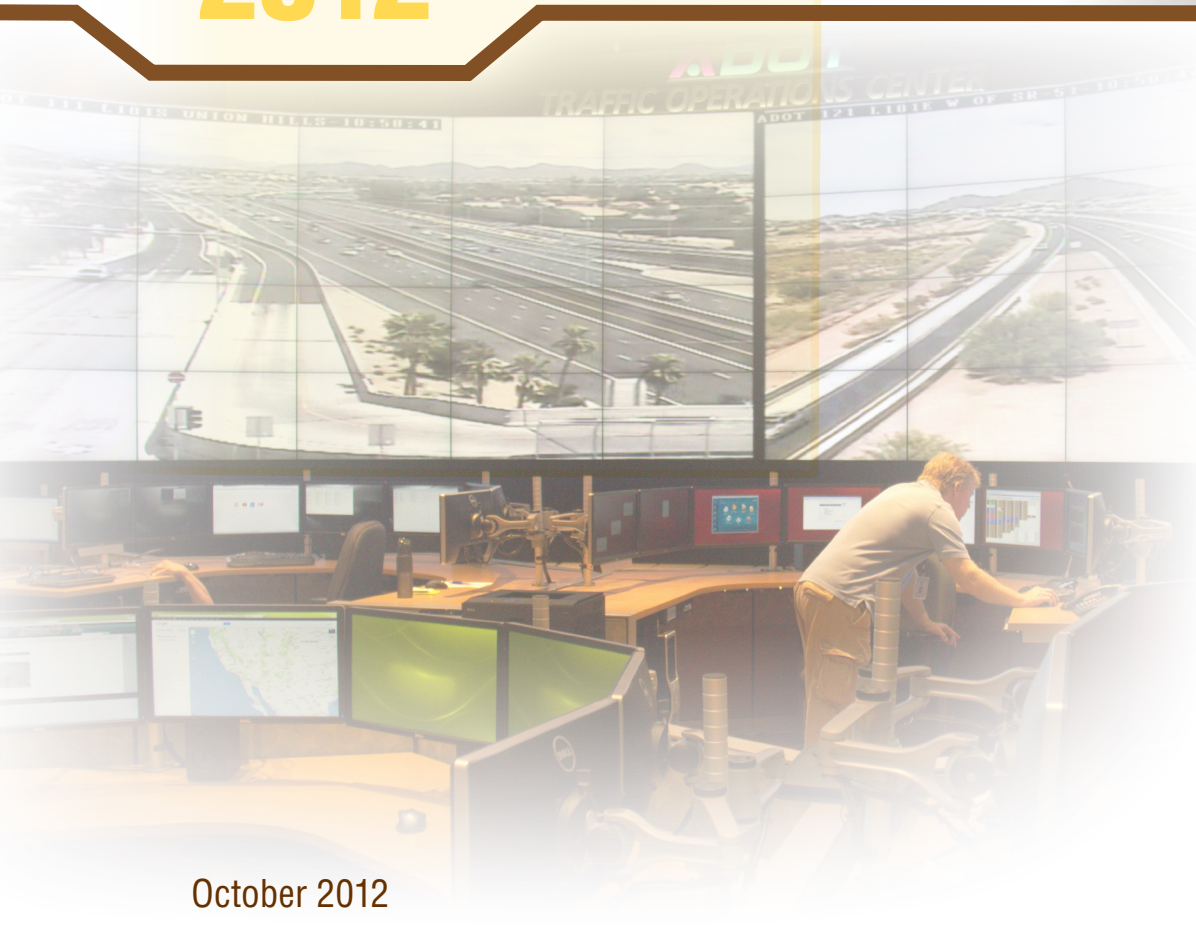
ATTACHMENT #4

Agenda Item #8

Agenda Item # 8

MARICOPA ASSOCIATION of GOVERNMENTS

ITS Strategic Plan
2012



October 2012

MARICOPA ASSOCIATION of GOVERNMENTS

ITS Strategic Plan 2012

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ITS Strategic Plan 2012

Acknowledgements

MAG Member Agencies

Apache Junction, City of

Arizona Department of Transportation

Avondale, City of

Buckeye, Town of

Carefree, Town of

Cave Creek, Town of

Chandler, City of

El Mirage, City of

Fort McDowell Yavapai Nation

Fountain Hills, Town of

Gila Bend, Town of

Gila River Indian Community

Gilbert, Town of

Glendale, City of

Goodyear, City of

Litchfield Park, City of

Maricopa County

Mesa, City of

Paradise Valley, Town of

Peoria, City of

Phoenix, City of

Queen Creek, Town of

Salt River Pima-Maricopa Indian Community

Scottsdale, City of

Surprise, City of

Tempe, City of

Tolleson, City of

Wickenburg, Town of

Youngtown, Town of

The following additional agencies provided input to the ITS Strategic Plan as part of the MAG ITS Committee:

Arizona Department of Public Safety

Valley Metro

MARICOPA ASSOCIATION of GOVERNMENTS

ITS Strategic Plan 2012

Executive Summary

The MAG region is a relatively robust area in terms of deployment and integration of ITS technologies and systems. The 2001 MAG ITS Strategic Plan helped to guide and prioritize implementation of key systems to support traffic management and operations, traveler information, and traffic incident management.

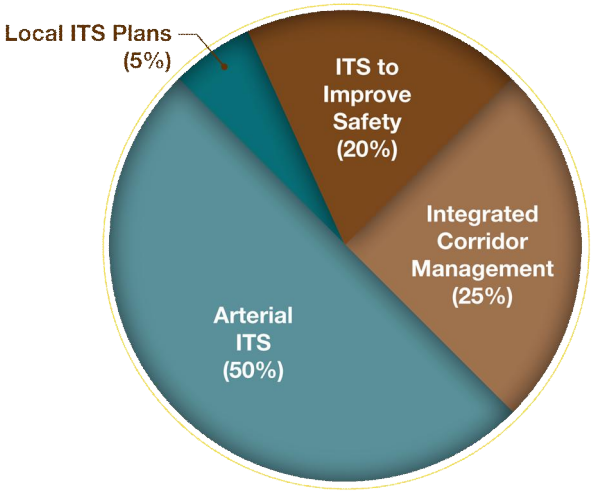
As the region looks ahead, there is a key focus on improving connectivity among systems and agencies, as well as developing a sustainable path for the region's investments in ITS for supporting a more integrated and coordinated multimodal transportation network. The MAG ITS Strategic Plan provides a framework, a set of regional ITS priorities and a strategy for focusing available funding toward achieving regional mobility and safety objectives as well as continuing to support local agencies in deploying and enhancing their ITS programs.

The following represent the ITS goals for the MAG region:

MAG's ITS goals and focus on modal priorities and investment allocation goals directly support the MAG Regional Transportation Plan and the Congestion Management Plan.

- ⇒ Actively manage transportation systems with available tools and technologies to better respond to recurring and non-recurring congestion in a way that improves both mobility and safety for the region's travelers.
- ⇒ Operate and maintain our ITS infrastructure to maximize its effectiveness and impact on the transportation network, and provide adequate staff, training and funding resources to accomplish the required operations and management.
- ⇒ Plan and coordinate deployments, and collaborate on strategies that will help to balance demand across transportation modes in the region to maximize our available network capacity.
- ⇒ Leverage staff technical resources, regional systems and tools, and agency operations across the region to provide for more coordinated system management and operations.
- ⇒ Focus on new technology applications and operational improvements to enhance safety on our region's multi-modal transportation network.
- ⇒ Pursue cost-effective and technically feasible alternatives and partnerships to better leverage agency funding resources for ongoing system management and operations.
- ⇒ Provide the region's travelers with accurate and up to date information on the transportation network through a variety of systems and technologies.
- ⇒ Actively promote the benefits and impacts of ITS investments in the region to local decision makers and to the public.
- ⇒ Measure performance and report on the impact of ITS and regional operations strategies, and use outcomes of performance measures to better inform transportation system.

As part of this MAG ITS Strategic Plan, an important objective is to establish regional and programmatic priorities to help direct regional investments in ITS infrastructure, through the MAG Transportation Improvement programming process, based on strategic regional goals and objectives. This regional investment strategy marks a focused effort within the MAG region to target the available federal funding resources toward important initiatives, including Integrated Corridor Management strategies, continued build-out and enhancement of arterial management capabilities as well as support for smaller agencies in the region in developing ITS plans to guide their growing programs.



Freeway and transit ITS, funded separately through the MAG Regional Transportation Plan, can align and coordinate future investments with the priorities identified with the Regional ITS Strategic Plan.

In addition to the federal Congestion Mitigation and Air Quality (CMAQ) funding through the MAG Transportation Improvement Program and available local funds, state and local agencies are encouraged to explore public-public and public-private partnering strategies for ITS projects and programs.

The MAG ITS Strategic Plan emphasizes a transition from “projects” to “programs”. An important regional objective is to expand Integrated Corridor Management strategies and principles which are aimed at balancing demand and capacity across freeway, arterial and multimodal transportation systems. The region needs to develop an Integrated Corridor Management strategy to guide the planning, implementation, integration and operation of local and regional ITS investments to work toward this goal. This may include evaluating future Freeway Management System investments and priorities to support enhanced real-time monitoring and operations strategies to support future Integrated Corridor Management and Active Traffic Management Strategies.

Monitoring, measuring and reporting on performance of the region’s transportation networks will be critical to ensuring operational strategies and ITS investments are having the desired impact on mobility, safety, and demand management. Key to an effective performance monitoring program will be a robust and comprehensive data set, as well as an agreed-upon set of metrics for freeways, arterials and transit. Performance monitoring goes beyond generating performance reports, and real-time performance data across modes can benefit freeway, arterial and transit operations to support better real-time strategy implementation.

The ITS Strategic Plan has been developed to allow for flexibility and innovation in how agencies in the MAG region plan for and implement ITS projects. Over time, certain factors could warrant an update to the Plan, such as a new Regional Transportation Plan, a shift in regional priorities, the need to re-evaluate funding allocation targets, specific policy direction that affects how ITS projects are prioritized, or changes to local or federal funding availability for ITS projects in the region. The MAG ITS Committee will periodically review the goals and strategies contained within the ITS Strategic Plan and recommend updates as appropriate for formal adoption by MAG.

MARICOPA ASSOCIATION of GOVERNMENTS

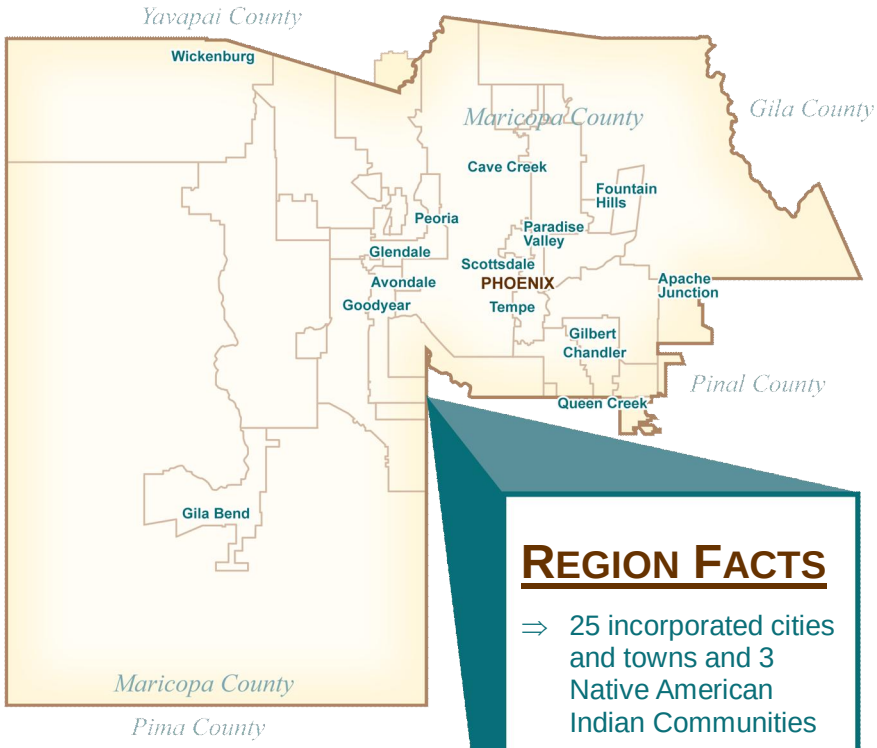
ITS Strategic Plan 2012

MAG Regional Overview

REGIONAL BACKGROUND

The Maricopa Association of Governments (MAG) is the metropolitan planning organization for the Phoenix metropolitan region that is made up of 31 member agencies, including the Arizona Department of Transportation (ADOT), Maricopa County, 25 cities and towns, three Native American communities and the Citizen's Transportation Oversight Committee. The long-term planning for transportation infrastructure in the region (arterial, freeway and transit) and related funding decisions are made at MAG. These are documented in the Regional Transportation Plan (RTP). Intelligent Transportation Systems, or ITS, collectively refers to advanced technology applications used for efficient traffic operations and management. The recommendations identified in this Strategic Plan will guide regional investments in ITS, starting with the programming of projects in FY2015 - 2017. These regional ITS priorities will also be incorporated in the next update of the RTP.

The MAG region has grown from a population of 1.5 million people in 1980 to 3.8 million people in 2010. By 2030, the region is projected to grow to more than 6,000,000 people, essentially adding more than one million people per decade over the next 25 – 30 years. The transportation system as a whole has experienced significant growth, including an expanded freeway network, additional arterials, and transit services expanding to meet the demands of the region's growing population and geographic expansion. With these population projections, the transportation network will need to accommodate almost double the daily trips compared to today.



REGION FACTS

- ⇒ 25 incorporated cities and towns and 3 Native American Indian Communities
- ⇒ 700 freeway/highway centerline miles
- ⇒ Arterials carry more than half of the total vehicle-miles-traveled in the region

Over the last two decades, the state, local agencies, transit and public safety agencies have been actively implementing management systems and infrastructure which have significantly enhanced the capability of agencies in the region to operate and manage the transportation system.

STRATEGIC DIRECTION FOR ITS IN THE MAG REGION

The MAG region is a relatively robust area in terms of deployment and integration of ITS technologies and systems. The 2001 MAG ITS Strategic Plan helped to guide and prioritize implementation of key systems to support traffic management and operations, traveler information, and traffic incident management.

As the region looks ahead, there is a key focus on improving connectivity among systems and agencies, as well as developing a sustainable path for the region's investments in ITS for supporting a more integrated and coordinated multimodal transportation network.

- ⇒ Agencies need to collaborate on traffic management and operations strategies that will maximize available capacity and leverage the tools and systems that are available across freeway, arterial and transit networks and across jurisdictions;
- ⇒ Integrated Corridor Management (ICM) principles should be applied to different geographic areas to address unique freeway/arterial coordination issues to improve safety and mobility during periods of recurring congestion as well as support traffic management during non-recurring congestion;
- ⇒ Available regional funding needs to be focused toward those strategies, systems and technology applications that can address issues with regional impact, while still helping to support local agencies in addressing their ITS program needs; and
- ⇒ Continued improvement of the data quality of the regional traffic data archive so that it can support real-time operations, mobility and safety analyses, and system performance monitoring.

MAG ITS Committee stakeholders identified the following as key priorities that should be incorporated into the goals and/or Strategic Plan update:

- ⇒ Operations and maintenance (O&M) of ITS systems and devices, and having adequate funding to support required O&M;
- ⇒ Build out communications infrastructure to provide the needed connectivity to current and future devices, as well as to enable agency-to-agency communications (i.e., migrate away from leased lines);
- ⇒ Focus device deployment, integration and coordination on those arterials that will have the highest impact on regional mobility;
- ⇒ Need to be able to actively measure benefits and effects of systems and ITS investments, and articulate these benefits to regional decision makers and officials;
- ⇒ Focus on expanding real-time traveler information capabilities; and
- ⇒ Need to focus on staff development, staff resources for sustaining a robust regional system, and providing technical staff with the appropriate training.

ITS TECHNOLOGY APPLICATIONS ON THE FREEWAY NETWORK

The Arizona Department of Transportation builds, operates and maintains the regional freeway network. As part of this network, ADOT operates a Freeway Management System (FMS) currently covering approximately 150 miles of the Phoenix metropolitan area freeway system. The FMS supports traffic management, incident management and response, special event traffic management and traveler information. Components of ADOT's FMS include vehicle detection, closed-circuit television (CCTV) camera surveillance, dynamic message signs (DMS), ramp meters, and a fiber-optic/wireless communications network. The FMS fiber-optic communications paths also provide connectivity to local agency traffic management systems via the Regional Community Network (RCN).

ADOT's Traffic Operations Center (TOC) is staffed 24 hours per day, 365 days per year. A recent upgrade to the TOC supports improved traveler information, incident management coordination, and real-time monitoring capabilities. The 2003 MAG Regional Transportation Plan provided nearly $143 million for expanding the FMS to cover nearly 224 miles. Current FMS plans indicate a complete build-out of the Phoenix FMS by 2023; however, evolving technology, new data collection methods and new regional priorities may result in the need to revise the FMS implementation schedule. This will be carried out by the MAG ITS Committee in partnership with ADOT considering future anticipated travel demand on the freeway network.

ADOT has been enhancing the FMS to better support traveler information (including additional travel time display signs on freeways), reduce congestion due to traffic incidents through better regional coordination with the Traffic Incident Management (TIM) Coalition. A major improvement is the 2011 upgrade of the central control system that has provided the capability to control devices such as ramp meters. Other new initiatives for ADOT include managing all ADOT operated traffic signals at interchanges with a centralized signal control system, and developing an alternate routing plan for freeways.

ITS TECHNOLOGY APPLICATIONS ON THE ARTERIAL NETWORK

The MAG region is served by a robust arterial street network comprised of several key east-west and north-south arterial corridors that traverse multiple jurisdictions. ITS applications currently in use in the region to support arterial traffic operations and management include:

- ⇒ Vehicle detection – loops, video detection and some limited use of Bluetooth technology;
- ⇒ CCTV cameras on key routes and at some intersections;
- ⇒ Permanent arterial DMS;
- ⇒ Central traffic control and management systems operated from city, town and County traffic management centers;
- ⇒ Wireless and fiber telecommunications to enable real-time device operations and control; and
- ⇒ Agencies also have invested in innovative ITS infrastructure and systems including adaptive traffic signal control, arterial travel times on DMS, and Bus Rapid Transit.

A recent state-of-the-system survey completed by MAG noted the following about arterial ITS in the region:

- ⇒ Over 70% of the traffic signals in the region are operated from centralized signal management systems;
- ⇒ Agencies plan to double the number of CCTV on arterials and half of all CCTV cameras have shared control/viewing between at least two jurisdictions; and
- ⇒ 95% of agencies are planning for additional devices, additional staff resources, and regional connectivity.

Local agencies plan to double the number of CCTV on arterials, and the number of arterial DMS is expected to grow by 75%

ITS TECHNOLOGY APPLICATIONS IN PUBLIC TRANSIT

Public transit services (bus, RAPID, local circulators, light rail and LINK/Bus Rapid Transit) in the region are operated and managed by Phoenix Public Transit, Valley Metro, and local agencies including the City of Tempe and Glendale. These entities have been implementing technologies and systems to support transit operation for fixed route, rapid and local circulator buses. Phoenix hosts the following ITS systems on behalf of the region:

- ⇒ Vehicle Management System (VMS);
- ⇒ Fare Collection System (FCS);
- ⇒ Radio Communications for bus and rail operations (VMS and RWC);
- ⇒ Route planning and schedule (HASTUS); and
- ⇒ Bus Stop Management (BSM).

Transit traveler information is provided through a variety of dissemination channels. Valley Metro hosts the www.valleymetro.org web site which includes route, schedule and fare information for bus and light rail services as well as an on-line trip planning tool. The trip planning application is updated every minute with current information from the VMS from Phoenix Transit servers. The Valley Metro call center also is equipped with VMS workstations to provide call center operators with current information about schedules and routes. There is a link from the www.az511.gov site to and phone service to the transit customer service call center and web site.

Phoenix Transit provides a Bus Operation Control Center, which monitors fleet movements and radio communication for region buses utilizing VMS and radio communications. Valley Metro operates a separate rail control center for light rail.

There are multiple operating garages for transit and each are equipped with VMS workstations and transmit data to Phoenix Transit servers. These workstations allow operators to monitor their assigned vehicles. The VMS system (software application, central servers and garage workstations) will complete an upgrade in December 2012.

PLANNING FOR OPERATIONS IN THE MAG REGION

Planning for Operations is a joint effort between operations and planning that encompasses the important institutional underpinnings needed for effective regional transportation systems management and operations. A framework developed by FHWA has helped to guide planning for operations and improved operations collaboration at the regional levels. Planning for operations includes three important aspects:

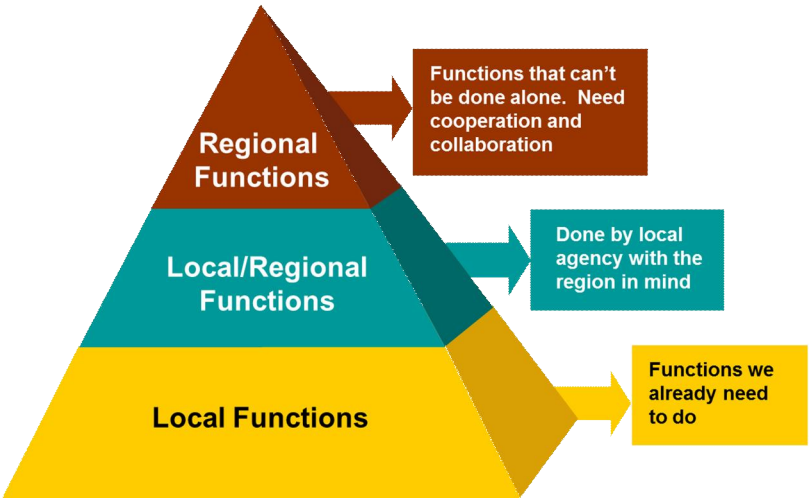
- ⇒ Regional transportation operations collaboration and coordination activity that facilitates Regional Transportation Systems Management and Operations;
- ⇒ Management and operations considerations within the context of the ongoing regional transportation planning and investment process; and
- ⇒ The opportunities to link regional operations collaboration and regional planning.

MAG encourages and supports these principles through its ITS program development, regional project prioritization strategies, and through the MAG ITS Committee decision-making process.

Key initiatives in the MAG region that support enhanced planning for operations are described below.

Regional Concept of Transportation Operations (RCTO)

The 2003 RCTO identified the need for traffic management and operations with a regional perspective; defined roles and responsibilities at three different levels of transportation operations; and sets performance measures against goals. An update to this document will set a new bar and initiatives for the region's ITS development.



The RCTO was a first step in addressing operations priorities and initiatives at a regional level. The priorities and initiatives within the RCTO has helped to guide greater collaboration in the MAG region for traffic management and operations.

MAG's RCTO was nationally recognized as a benchmark in regional operations planning.

Regional Dynamic Traffic Assignment Model

The effectiveness of traffic management strategies can be difficult to evaluate before they are implemented, especially when these strategies have system-wide impacts. MAG has developed an important transportation simulation tool to support operations planning and in the evaluation of benefits of ITS applications in the MAG region. The Dynus-T Dynamic Traffic Assignment (DTA) model is a mesoscopic model that provides a cost-effective and efficient means of evaluating area-wide impacts. This tool will be used to support some of the analysis required for key operational initiatives, such as integrated corridor management strategies, incident impacts across a large area, or other multi-agency operations strategies.

REGIONAL SYSTEMS AND RESOURCES

There are several important regional systems and resources that are in place to help support agency information sharing, regional traveler information, as well as analysis and evaluations.

Highway Conditions Reporting System (HCRS)

The HCRS is ADOT's closure and restriction information system which consolidates planned event information, construction impacts and restrictions, and incident information. The information input to HCRS populates the public website (www.az511.gov) and the 511 phone system. Local agencies also can input local road impact and closure information into HCRS. However, none of the agencies operate on a 24-hour basis. A new feature allows agencies to select an Area of Influence to receive alerts about incidents or impacts on freeways and arterials that could impact their jurisdiction.

Regional Community Network (RCN)

The MAG RCN is planned to establish a fiber communications network through a topology of three sub-rings (West of I-17 Region, Northeast Region, and Southeast Region). The RCN links multiple agencies throughout the MAG region to facilitate the sharing of traffic management technologies, video conferencing capabilities, disaster recovery backups, and 9-1-1 communications. The first phase, funded by MAG, has been completed. This phase consists of fiber deployment and physical connection of 11 agencies utilizing mostly existing agency-owned fiber and the hardware/software to share information.

The RCN has linked 21 facilities thus far enabling participating agencies to utilize this fiber communications network to share traffic cameras, exchange data, video conferencing, and provide additional paths between 9-1-1 dispatch centers. The RCN will be extended to link local agencies in the West Valley and other parts of the region utilizing available capacity in the FMS fiber backbone.

AZTech™ Regional Archived Data System (RADS)

The AZTech™ RADS collects and stores traffic data, in a centralized archive data server located at the ADOT TOC, from the various systems in the MAG region. The primary data in RADS comes from the ADOT FMS, ADOT HCRS and Phoenix Fire Dispatch Center. The archive has the ability to store traffic signal information and traffic data, such as volumes and speeds. Plans are underway to add transit data to the RADS database. ADOT FMS data stored in RADS is used to calculate and display travel times on freeway DMS. Enhancements to the RADS system and servers have been recommended in the past by MCDOT as new arterial ITS improvement projects and have been programmed by MAG using Arterial ITS funds.

ADVANCING ITS IN THE REGION

The MAG region has had a strong focus on continued deployment and integration of ITS systems and technologies to support enhanced regional mobility and safety. Over the last two decades, the state, Maricopa County, local cities and transit agencies have made key investments in infrastructure and systems for freeways, arterials and transit networks, as well as worked toward leveraging these investments toward a more collaborative regional operations strategies.

Key ITS achievements in the MAG region include:

- ⇒ Thirteen local agency traffic management and operations centers and one statewide 24/7 center operated by ADOT provide centralized points for monitoring and managing ITS and traffic control systems.
- ⇒ Travel times on Phoenix area freeways are available on a select number of dynamic message signs during morning and afternoon commute periods. ADOT plans to expand travel times to include additional signs and destinations in the near future. The City of Chandler provides arterial travel times, which was the first such application in the region for arterials.

- ⇒ The RCN establishes physical connectivity among transportation management and operations centers (and other entities) in the region, and the AZTech™ Center-to-Center network provides for the virtual connectivity to allow for data sharing among centers, shared CCTV camera viewing and control and shared DMS message posting (per established operational protocols). A concept has been prepared for transit data integration into the Center-to-Center system.
- ⇒ MAG's Traffic Signal Optimization Program (TSOP) provides funding for local agency corridor traffic signal timing and coordination activities. Since 2003, MAG has invested approximately $1.5 million in the TSOP program which has improved signal operations, timing and coordination at more than 2,100 intersections throughout the region.

Over the last few years, there have been some key initiatives that are helping to advance important operations objectives in the MAG region. These have involved multiple agencies and partners, and build on key regional priorities for ITS and traffic management and operations.

Traffic Incident Management Coalition

A study by MAG indicated that more than 40% of the congestion on the region's freeway system is caused by non-recurring congestion. Improved freeway incident management has been identified as a key priority for the MAG region dating back to the original Strategic Plan in 2001.

Established in 2010 as a result of a Traffic Incident Management Workshop organized by FHWA, MAG and AZTech™, the AZTech™ regional TIM Coalition is dedicated to collaborating for safer and more efficient management of incidents that occur on, or significantly impact, the region's roadways to meet the objectives of the National Unified Goal (NUG). Successful TIM procedures will decrease the length and effects of traffic incidents while improving the safety of motorists, crash victims and emergency responders.

The AZTech™ TIM Coalition is initially focused on improving processes and coordination to support freeway incidents, but there also is a focus on improving freeway-arterial coordination to support incident management.

Operations Action Plan

In 2009, the Federal Highway Administration (FHWA) identified Arizona and several other states as "Opportunity State", and encouraged the region to develop an Operations Vision and Action Plan to help shift the focus from a "build culture" to an "operations culture". Within the Plan are a number of vision statements that have related focus areas and action steps that incorporate numerous agency roles and responsibilities in being able to complete the action steps, none of which involve any regional decisions on transportation resource allocation.

The Opportunity State discussions were carried out as part of AZTech™ meetings, with participation from state and local agencies throughout the MAG region. Activities have included an Operations Summit, and development of Transportation Performance Measures focused on traffic operations. A few of the performance measures that were not currently included in the MAG performance measures for the region will be included in future MAG reports on performance measures. This will result in an enhanced report on transportation performance measures produced by MAG.

SAFETY AND EFFICIENCY BENEFITS OF ITS

The evaluation of the benefits of ITS investments is important, not only to identify if the investment in ITS infrastructure is improving safety and mobility, but they are also an important tool for communicating to local leaders and to the traveling public about how agencies are improving travel on the region's roadways. Some local benefits experienced as a result of improved operations through ITS :

Arterial Operations Benefits:

Bell Road Traffic Signal Timing and ITS (2008-2010) – 25% westbound travel time reduction (5 minutes saved) [1]

Town of Gilbert Town-wide Retiming Project – 30% reduction in delay in the peak direction [2]

Freeway Incident Management Benefits:

DPS Average Time to Remove Blockage from Travel Lanes – 49.8 min 2011 Q2 to 34.2 min 2011 Q4 (31% improvement) [3]

Traveler Information Benefits:

ADOT DMS Travel Time Program – Users who changed their route based on travel time information provided went from 25.4% to almost 42% during the first year of the program. The increase is attributed to user confidence in the information provided. [4]

Special Event Management Benefits:

Using real-time systems for vehicle ingress and egress (traveler information, signal operations and CCTV), agencies have been able to reduce the number of law enforcement officers in the field directing traffic such as in Scottsdale. [5]

[1] Maricopa County DOT Bell Road 2010 Before and After Study

[2] Town of Gilbert 2011 Bi-Annual Signal Retiming Before-and-After Study

[3] "TIM Performance Measures and Reducing Secondary Crashes," webinar presented by Capt. Jeff King, AZDPS, April 18-19, 2012

[4] ADOT DMS Travel Time Pilot Project Evaluation, Final Report, April 2011

[5] Anecdotal information from the City of Scottsdale, AZ

Previous Regional ITS Planning Efforts

CAREFUL PLANNING GUIDES ITS IMPLEMENTATION

The MAG region has been systematically planning and updating various ITS related plans for more than 10 years. Efforts to develop these plans have all have provided valuable guidance on ITS needs and priorities for the MAG region. Previous planning efforts by MAG and its partner agencies that have guided ITS implementation and operations in the region are shown in the table below.

Several local agencies in the MAG region have embarked on various ITS strategic or master plans over the last decade. These have been primarily focused on individual agency needs, recommended ITS infrastructure and deployment timeframes, and identifying how ITS could help to support other city/agency needs, such as law enforcement. Agencies have used these plans to help guide project development, Capital Improvement Program planning and programming, to provide support for MAG TIP funding requests and applications, as well as to help identify where ITS could be integrated with other capital improvements.

Regional ITS Planning Effort	Summary Description
ITS Strategic Plan (2001)	Identified needs for the MAG Region that could be addressed through ITS. Included a multi-year deployment plan and telecommunications plan to guide TIP project development and phasing.
Regional Concept of Transportation Operations (2003)	This was a comprehensive effort to plan for more effective and multi-agency operations in the MAG Region, and included three– and five-year goals. Initial performance metrics also were developed.
MAG Regional ITS Architecture (2001, 2009, 2010)	The 2001 Regional ITS Architecture (RIA) was updated in 2009 and 2010. This included capturing existing functional relationships as well as mapping out future desired capabilities. The MAG RIA is web-based and accessible by agencies to help support ITS project development and systems engineering.
Arterial Transportation Systems Management and Operations Survey (2011)	In 2011, MAG conducted a survey of the current state of arterial ITS implementation, operations, and plans for future deployment. This survey captured existing and planned infrastructure, current agency operating practices, and obtained input on future needs for arterial ITS in the region.

KEY FACTORS

Through these regional planning efforts and discussions at the MAG ITS Committee, a number of key factors for the region have emerged and are brought forward into this planning effort:

- ⇒ Deployment of ITS devices on freeways and arterials has progressed through local agency capital projects and MAG TIP funded projects.
- ⇒ Arterial traffic signal coordination, in particular across jurisdictional boundaries, continues to emerge as a priority as part of ITS planning processes in the region.
- ⇒ Freeway and arterial incident management, and coordination between law enforcement, emergency responders and traffic management were identified as priorities dating back to the initial 2001 ITS Plan.
- ⇒ Transit mobility through signal priority has been identified as part of each ITS plan.
- ⇒ ITS strategies for non-motorized modes (pedestrian and bike) remain one of the few priorities from the original ITS Strategic Plan that have not been addressed as part of a regional strategy.
- ⇒ ITS applications to support safety had not been specifically identified in previous regional ITS strategic plans, although safety benefits may be an outcome of several strategies.
- ⇒ Articulating the benefits of ITS, improved operations, and overall benefit of investing in ITS remains a challenge. This includes communicating these benefits to decision makers and local/regional officials, as well as to the public.

MAG Region ITS Goals and Strategic Priorities

ITS GOALS

The following ITS goals have been identified for the MAG region, and will seek to provide a baseline for alignment with the MAG TIP prioritization process for ITS project investments:

- ⇒ Actively manage transportation systems with available tools and technologies to better respond to recurring and non-recurring congestion in a way that improves both mobility and safety for the region's travelers.
- ⇒ Operate and maintain our ITS infrastructure to maximize its effectiveness and impact on the transportation network, and provide adequate staff, training and funding resources to accomplish the required operations and management.
- ⇒ Plan and coordinate deployments, and collaborate on strategies that will help to balance demand across transportation modes in the region to maximize our available network capacity.
- ⇒ Leverage staff technical resources, regional systems and tools, and agency operations across the region to provide for more coordinated system management and operations.
- ⇒ Focus on new technology applications and operational improvements to enhance safety on our region's multi-modal transportation network.
- ⇒ Pursue cost-effective and technically feasible alternatives and partnerships to better leverage agency funding resources for ongoing system management and operations.
- ⇒ Provide the region's travelers with accurate and up to date information on the transportation network through a variety of systems and technologies.
- ⇒ Actively promote the benefits and impacts of ITS investments in the region to local decision makers and to the public.
- ⇒ Measure performance and report on the impact of ITS and regional operations strategies, and use outcomes of performance measures to better inform transportation system management and operations.

ITS PRIORITIES

The following table summarizes the ITS priorities that have been identified for the MAG region. These priorities are intended to provide a framework within which agencies will develop and collaborate on ITS programs and opportunities.

Focus Areas	Modal Priorities
Freeways	1. Integrate dynamic traffic management technologies and operational strategies with ADOT FMS to improve safety and travel time reliability. 2. Seek out new cost-efficient technologies and partnerships. 3. Improve coordination with local agencies and operational responses to freeway incidents. 4. Expand and enhance real-time traveler information systems.
Arterials	1. Support agency needs to connect ITS devices for real-time operations and management. 2. Support multi-agency efforts to streamline resources needed to manage, operate and maintain the network. 3. Collaborate on operational strategies on multi-jurisdictional corridors and expand arterial data and video sharing across regional systems. 4. Expand and increase the availability of arterial traveler information available to users. 5. Support interagency partnerships among traffic management, public safety, emergency response, transit, and maintenance. 6. Enable multi-agency operations for integrated corridor management and improved travel time reliability.
Transit	1. Seek out opportunities to leverage multi-modal and arterial operations data. 2. Enhance real-time transit traveler information region wide. 3. Partner with arterial management agencies for improved transit mobility. 4. Collaborate with freeway and arterial traffic tools to influence mode shift. 5. Create a safe and secure transit system for customers. 6. Collect comprehensive system wide information on boardings and alightings.
Safety	1. Improve safety on freeway and arterials through appropriate use of ITS technology and active traffic management. 2. Evaluate safety impacts of technology on freeways and arterials.

ALIGNING ITS GOALS WITH THE REGIONAL TRANSPORTATION PLAN

The MAG Regional Transportation Plan identifies regional investments for improvements in the transportation network. ITS applications have a direct impact on transportation network efficiency and operations and therefore have an important link to the RTP.

A number of goals and objectives have been identified for the region in the RTP, and the items that can be directly linked to the ITS Strategic Plan are as follows:

MAG Regional Transportation Plan Goal	MAG ITS Strategic Plan Alignment
System Preservation and Safety Transportation infrastructure that is properly maintained and safe, preserving past investments for the future.	⇒ The ITS Strategic Plan emphasizes the importance of operations and maintenance of technology investments. ⇒ Agencies are encouraged to incorporate lifecycle planning and replacement of outdated infrastructure to maintain reliability of traffic management equipment and systems. ⇒ Safety is a key part of the ITS goals for the region as well as the modal priorities.
Access and Mobility Transportation systems and services that provide accessibility, mobility and modal choices for residents, businesses and the economic development of the region.	⇒ Emphasizes integration of systems across modes to promote balancing demand and capacity across freeways, arterials and transit systems. ⇒ Integrated corridor management strategies are a priority emphasis area.
Sustaining the Environment Transportation improvements that help sustain our environment and quality of life.	⇒ The ITS Strategic Plan and project programming process supports the CMAQ process for evaluating projects based on reducing delay and air quality impacts.
Accountability and Planning Transportation decisions that result in effective and efficient use of public resources and strong public support.	⇒ MAG TIP funding resources for ITS are targeted toward high priority focus areas for the MAG Region ⇒ MAG ITS Committee members provide input to project ranking and project priority to balance project requests geographically and among agencies

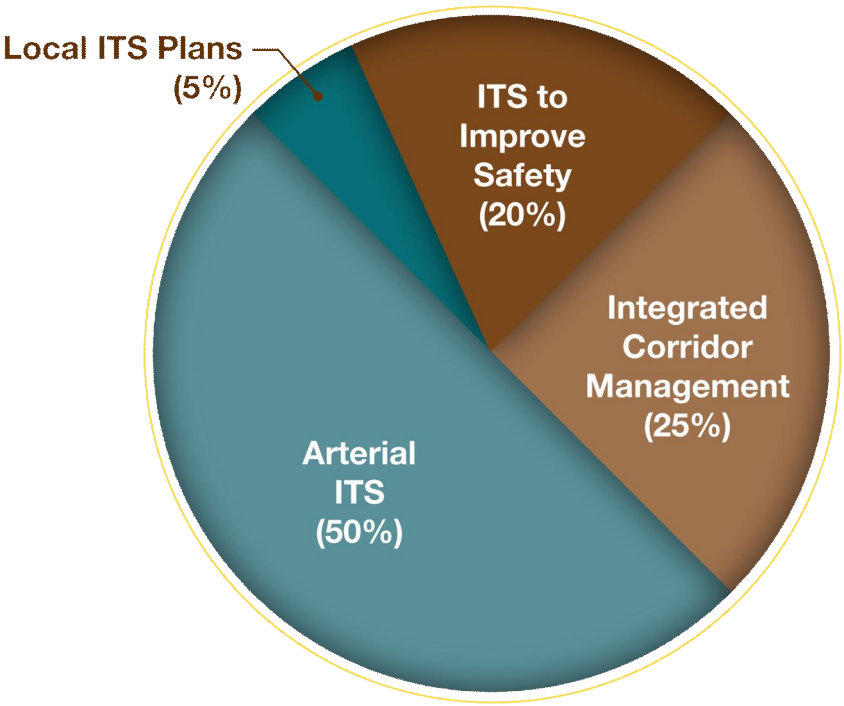
MAG Region's ITS Investment Priorities

REGIONAL ITS INVESTMENT STRATEGY

As part of this MAG ITS Strategic Plan, an important objective was to establish regional and programmatic priorities to help direct regional investments in ITS infrastructure, through the TIP programming process, based on strategic regional goals and objectives.

The TIP programming process since the 2001 ITS Strategic Plan has focused primarily on building ITS infrastructure that was desired by local agencies, that met all federal requirements for ITS, and that complied with the Regional ITS Architecture. By defining specific priorities for TIP funding allocation, along with a process to do so, it is envisioned that the region will be able to establish targets for the types of projects that are funded with regional TIP funds. These prioritization strategies are focusing ITS investments in strategic areas that are in addition to complying with CMAQ program funding requirements.

The following investment priorities are identified for the MAG region, and these targets and have been incorporated into the TIP programming process for ITS projects to be funded in FY 2015-2017. Future updates to this Plan will review and potentially modify these targets.



This regional investment strategy marks a focused effort within the MAG Region to target the available federal funding resources toward important initiatives, including Integrated Corridor Management strategies, continued build out and enhancement of arterial management capabilities as well as support for smaller agencies in the region in developing ITS plans to guide their growing programs.

By targeting available ITS funds toward high priority focus areas, the MAG region will be able to make effective use of funds to achieve important regional objectives.

These resource investment priorities and allocations do not include freeway ITS or transit ITS. The freeway and transit programs are separately funded through the MAG RTP; the RTP establishes the priorities for program expansion as well as dedicates funding to support expansion and operations. Transit and freeway funding come from federal as well as local funding sources (through proposition 400).

The modal priorities and investment priorities are intended to provide guidance for future freeway management system planning and enhancements, as well as can be used to support transit ITS planning and implementation by Valley Metro and Phoenix Public Transit.

The MAG ITS Strategic Plan recognizes that the regional ITS program will continue to evolve over time and through incremental project development and implementation. Below is a summary of the types of projects envisioned for the different ITS Investment Priority areas.

ITS Investment Priority	Resource Allocation Goal	Example Projects for MAG TIP Funding
Arterial ITS Applications	50%	Includes traffic signals and traffic signal management systems, local traffic management centers and associated equipment, telecommunications, monitoring and detection,
Integrated Corridor Management	25%	Includes infrastructure and connectivity to support freeway/ arterial coordination, multimodal integration and data sharing, inter-agency connectivity (transportation/transportation or transportation/public safety)
ITS Applications to Improve Safety	20%	Includes signal upgrades and enhancements that improve safety at intersections, pedestrian and crosswalk technologies, technologies to support warnings and alerts, technologies to support incident management
Local ITS Plans	5%	Includes funding to help local agencies develop or update their ITS strategic plans, implementation plans or deployment plans

The region's focus on ICM strategies is the result of the evolution of the region's transportation network and ITS program. ICM addresses a key need for the region to be more proactive in managing congestion, both recurring as well as non-recurring congestion resulting from an incident or impact on the region's network.

MAG began planning for an ICM program in 2007 in the west portion of the metropolitan area on I-10. This corridor segment is prone to daily congestion during AM and PM commute periods, and carries a significant number of freight vehicles.

In the MAG region, ICM strategies will be used during periods of recurring congestion to:

- ⇒ Effectively balance demand among freeway, arterial and transit modes by managing available capacity across modes and implementing strategies that encourage mode shift;
- ⇒ Actively monitor demand on freeways, arterials and transit to be able to identify availability capacity; and
- ⇒ Collaborate to share information among agencies in real-time to be able to proactively implement traffic management strategies across the network.

ICM strategies also will be used in the MAG region to support more effective operations during incidents and other non-recurring events, including:

- ⇒ Implement technologies and systems that will support enhanced real-time monitoring and agency communications;
- ⇒ Support proactive freeway-arterial coordination and operations strategies; and
- ⇒ Inform travelers of conditions through a variety of means to support en-route decision making and traveler route decisions.

Integrated Corridor Management

Integrated Corridor Management Strategies will require new systems and approaches in the MAG region to support an enhanced capability across modal networks to implement strategies and communicate in real-time.

Through the investment priorities and CMP weighting criteria, arterial ITS projects that support ICM are strongly encouraged.

For freeways, although funding is allocated through the RTP for expansion of the FMS, to support the regional objective of more Integrated Corridor Management, future FMS expansion may be evaluated to identify how systems to support ICM and more active traffic management should be integrated into the current Freeway Management System.

RESOURCES AVAILABLE FOR ITS PLANNING AND IMPLEMENTATION

ITS projects in the MAG region are funded through a number of ways:

- ⇒ Federal CMAQ funding is used for freeway and arterial ITS projects. Local agencies submit ITS project applications for the TIP, and the MAG ITS Committee evaluates and recommends projects for inclusion in the approved TIP.
- ⇒ MAG Work Program funds specific ITS-related efforts including the Traffic Signal Optimization Program (TSOP) as well as special studies and evaluations that have a regional impact.
- ⇒ Agencies can use local funding to implement projects and as a match as required by CMAQ funding.

The following summarizes currently available (and anticipated) funding levels to support ITS in the MAG region.

Source of Funds	Application	Amount	Duration
TIP/RTP	Freeway ITS	$76M (remaining)	2015 - 2026
TIP/RTP	Arterial ITS	$ 6-7m/Yr	2015 - 2026 *
RTP	Transit ITS	TBD	
MAG Work Program	TSOP	$400,000/Yr	
MAG Work Program	ITS Planning Studies	As needed	

*Historically, the MAG Region has been allocated between $6-7M in ITS funding to support the arterial ITS program and local agency ITS projects. With the investment priority targets established for the Region, MAG encourages agencies to develop their projects to help support the ITS priorities and resource allocation goals.

In addition to traditional project applications through the MAG TIP, agencies in the MAG region are encouraged to explore public-public and public-private partnerships as a means of delivering ITS programs and services, as well as maximizing available funding.

AGENCY PARTNERSHIPS

Agencies in the MAG region have a long history of cooperating on operational strategies through the MAG ITS Committee and AZTech™ Committees. With the increased focused toward integrated corridor management, leveraging staff resources and expertise, as well as collaboration to support incident management on freeways and arterials, continued partnering among agencies in the Region is an integral component of the Region's ITS program.

Future operational strategies and program delivery will require a focus on partnerships among agencies, as well as partnerships within agencies. Examples include:

- ⇒ Corridor signal timing strategies on multi-jurisdictional corridors;
- ⇒ Event traffic management planning and operations among freeway, arterial, transit, law enforcement and emergency response;
- ⇒ Multi-agency procurements and requirements development;
- ⇒ Utilization and expansion of regional programs and tools, including the RCN, HCRS and RADS platforms; and
- ⇒ Cooperative interagency operational agreements, such as shared operations or collocation of local agency TMC and law enforcement dispatch.

PUBLIC-PRIVATE PARTNERING OPPORTUNITIES

The private sector is most widely recognized for its role in partnering or supporting traveler information, although the private sector does participate as a partner in the ITS community on a variety of levels. From an ITS and system management/operations perspective, there are some emerging models that utilize the private sector in various roles, including traditional contracted relationships (fee for service or for product), sponsorship of services (i.e., freeway service patrol), ad-based sponsorships (traveler information systems or roadside signs), or trade relationships, such as exchanging right-of-way for use of private telecommunications infrastructure.

Examples of Public-Private Partnerships for ITS include:

- ⇒ **Telecommunications infrastructure agreements:** These are widely used in the MAG Region to allow for shared conduit or shared fibers to be able to support expansion of telecommunications infrastructure to support traffic management. In some cases, right-of-way may be granted from an agency to a telecommunications provider in exchange for fiber or conduit (or spare conduit).
- ⇒ **Contracted TMC operations**: Outsourcing TMC operational functions to a third party, usually under a contracted relationship. Can be performance based, and agency can specify specific operational parameters and expectations. Examples of this are typically found in statewide TMC/TOC facilities.
- ⇒ **Sponsorship of traveler information systems (511)** – There are growing examples of ad-based services on public agency 511 sites, and emerging models of sponsoring regional and statewide traveler information programs.
- ⇒ **Business-based Traveler Information Systems**: In larger urban areas, there is a growing trend for businesses along transit routes to install next-bus arrival screens for the benefit of their patrons. This is similar to the screens that were installed in the Sky Harbor Rental Car Center, except these screens show estimated transit vehicle arrival times along that route.

ITS APPLICATIONS FOR IMPROVING ROAD SAFETY

Safety is the top priority for all public agencies in the MAG region, and the region is committed to exploring and implementing cost-effective technology solutions that will also support increased safety for the region's travelers: drivers, pedestrians, transit users and bicyclists.

Examples of technology applications and systems to improve road safety include:

- ⇒ Technologies to support active traffic management on freeways, including variable speed limits, dynamic merge warning and dynamic ramp metering. These technologies help to advise and regulate vehicles during periods of heavy congestion;
- ⇒ Signal operations strategies, such as modifying arrow permissions, to reduce crash risk at intersections;
- ⇒ Pedestrian crosswalk enhancements, including countdown and audible alert capabilities, as well as technologies to support elderly and visually impaired pedestrians;
- ⇒ Bicycle and pedestrian detection systems as well as motorist warning signs;
- ⇒ Wrong-way ramp detection and warning systems; and
- ⇒ Enhanced security monitoring on transit vehicles and at transit stations.

EMERGING TECHNOLOGIES

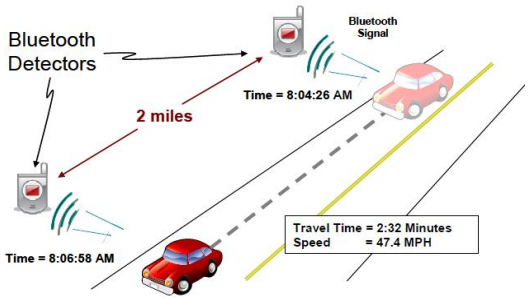
Agencies in the MAG region have a long history of testing and implementing innovative technology approaches to address mobility, safety, and real-time information sharing needs. Although there is no funding source at MAG for supporting ITS research projects, Arizona universities have performed ITS research and developed ITS applications. Their past successes are linked to the high level of support their research programs received from the Arizona DOT through the Arizona Transportation Research Center. An example university-developed application is RHODES adaptive traffic control; early phases of RHODES were jointly funded by MAG and ADOT.

Adaptive Signal Control Technology (ASCT)

These systems adjust traffic signal timings in real-time and based on current traffic conditions and capacity. Some agencies in the MAG region are already embarking on some adaptive strategies, and others are evaluating whether they are a cost-effective or feasible option to address specific operations needs.

New Data Collection Strategies

Bluetooth readers and third party probe data providers can provide speed information for segments of corridors that are not instrumented with agency-operated detection devices. Bluetooth readers pick up the anonymous MAC addresses emitted from Bluetooth-equipped mobile devices and can translate that information into segment speeds and travel times. The City of Chandler is utilizing Bluetooth to develop arterial travel times, the first such application for arterials in the MAG region.



Source: University of Maryland

Connected Vehicles and Connected Travelers

Although still very much in the research and testing phases, Connected Vehicles envisions utilizing the car as an important source of data (weather, current traffic conditions, driver response to conditions, among others), as well as provide a platform to be able to communicate real-time alerts to the traveler. There is research underway through USDOT and other partners in the Connected Vehicle community, and agencies in the MAG region are among the early testers of vehicle-to-vehicle mobile communications and vehicle-to-roadside communications as part of the MCDOT Smart*Drive*™ program, which is funded by MCDOT, ADOT and federal research funds.

Active Traffic Management (ATM)

Active Traffic Management is an emerging approach to managing recurring and non-recurring congestion on heavily congested freeway corridors. An ATM strategy incorporates real-time detection, dynamic traffic management capabilities (including dynamic merge and dynamic ramp metering), variable speed limits and speed harmonization, dedicated travel time signs, and lane closure signs, and operational strategies such as hard shoulder running.

Washington State has launched its initial ATM program and others are in the planning stages in Minneapolis and Virginia. In Europe, ATM strategies have shown a 30 percent decrease in freeway injury collisions and a 22 percent increase in roadway capacity (source: Washington State DOT I-5 ATM Project, www.wsdot.wa.gov).

Source: UK Highways Agency

Aligning ITS Priorities in the CMP Process

The Congestion Management Process (CMP) is a systematic approach, collaboratively developed and implemented throughout a metropolitan region, that provides for the safe and effective management and operation of new and existing transportation facilities through the use of demand reduction and operational management strategies. A CMP is a requirement of federal funding; federal requirements state that regions with more than 200,000 people, known as Transportation Management Areas (TMAs), must maintain a CMP and use it to inform transportation planning and decision-making.

MAG's CMP is intended to guide and complement the process used to prioritize projects, including ITS projects in the region.

MAG developed its *Performance Measurement Framework and Congestion Management Update* in 2010. Performance measures have been defined for freeway general purpose and High Occupancy Vehicle (HOV) lanes, arterial performance, transit performance and bicycle and pedestrian performance. These include access and mobility measures as well as safety measures. Congestion management strategies have been defined for the region which is consistent with the same goals and objectives of the original 2003 RTP, and the CMP process will continue to use the same congestion mitigation criteria in the assessment and evaluation of the projects submitted for consideration.

MAG's CMP objectives are to:

- ⇒ Reduce crash rates on the system;
- ⇒ Minimize delay and improve travel time;
- ⇒ Reduce travel time variability in all modes;
- ⇒ Minimize delay and improve travel time in freight corridors;
- ⇒ Improve system connectivity;
- ⇒ Develop and maintain a functional roadway hierarchy;
- ⇒ Minimize delay in HOV lanes;
- ⇒ Manage congestion on facilities used for bus service;
- ⇒ Promote travel demand management programs; and
- ⇒ Reduce emissions and fuel consumption through congestion management.

MAG's focus on modal priorities and investment allocation goals directly support the CMP Congestion Management Objectives to minimize delay, reduce crash rates, manage congestion on key corridors and improve system connectivity through integrated corridor management strategies.

A key facet of MAG's congestion management activities is the updating of the TIP. For years where programming is occurring, MAG has an established process for ITS project applications, including a programming schedule, project evaluation process, and project selection process. This evaluation and selection process was updated in 2012 in conjunction with the update of the ITS Strategic Plan to reflect resource allocation goals and targets established by the MAG ITS Committee.

The following is intended to guide the process for ITS project programming through the MAG TIP:

⇒ Agencies are to develop project ideas, and collaborate with partner agencies on project ideas, that support the four priority areas of Arterial ITS, Integrated Corridor Management, ITS Projects to Improve Road Safety and Local ITS Plans;

⇒ Project applications submitted to MAG must first be evaluated against CMAQ Air Quality requirements; and

⇒ A CMP weighting criteria has been established for ITS projects submitted for TIP programming consideration.

The following weights will be applied to projects:

ITS Investment Priority	CMP Weight
Arterial ITS Applications	6.5
Integrated Corridor Management	6.5
ITS Applications to Improve Safety	5.5
Local ITS Plans	2.5

The combined CMAQ and CMP scores will result in a ranked list of projects for discussion at the MAG ITS Committee, which also will factor in the funding allocation targets.

As new funding sources become available, the updated CMP will play a greater role in the planning and programming of future transportation investments in the MAG region.

Implementing the ITS Strategic Plan

MAG and the MAG ITS Committee have collectively developed a set of strategic priorities to guide ITS deployment, integration and operations in the region. The 2012 MAG ITS Strategic Plan marks an important shift from “projects” to “programs”.

This ITS Strategic Plan does not prescribe or recommend specific projects to be implemented, but rather establishes priorities and TIP funding allocation targets to help achieve regional objectives for ITS and system operations as well as continue to support local agency ITS program needs.

INTEGRATED CORRIDOR MANAGEMENT AND OPERATIONS

The MAG region has identified Integrated Corridor Management as an important priority. ICM strategies will support real-time system operations needs during non-recurring events (such as a major incident on the freeway which diverts traffic on to arterials) as well as to support day-to-day congestion management and mobility options for travelers in the Region.

Many of the strategic ITS priorities point to a need for better real-time data, improved coordination and information sharing among agencies, as well as operational strategies that balance demand across modes and help to respond to real-time conditions on freeway, arterial and transit systems.

Steps toward this objective include:

- ⇒ Plan for Integrated Corridor Concepts—evaluate key corridors and unique issues that could be addressed through ICM strategies and develop specific plans to update and implement ITS equipment and the necessary institutional and operational relationships.
- ⇒ Identify ITS technology and infrastructure needs—utilize the TIP programming process to implement projects that help to achieve ICM goals.
- ⇒ Evaluate FMS needs to support ICM—assess infrastructure needs and evaluate priority of FMS improvements to incorporate ICM strategies.
- ⇒ Implement a Pilot Program—deploy, operate, test and evaluate ICM under recurring and non-recurring conditions, and report on performance.

Collectively, and over time, MAG member agencies can strategically develop, implement and integrate systems and projects to help support this important regional initiative while still addressing local ITS and system management needs.

In 2007, MAG developed a Concept of Operations for ICM for the I-10 Corridor west of downtown to Loop 303. This provided an initial step in defining a coordinated plan for multi-agency operations. The impetus for that Concept of Operations was a large-scale interstate widening project that would impact I-10 capacity for several years. Today, ICM concepts for I-10 may focus more on specific traffic incident management strategies, real-time monitoring and sharing of information with more robust arterial capabilities in the West Valley, as well as look to integrate multimodal operations into the overall corridor management plan.

Other corridors in the MAG Region could also benefit from ICM, and each has their own unique operating requirements, attributes, constraints, and institutional considerations. A pilot program is underway looking at ICM strategies on the Loop 101 Pima freeway in the northeast part of the Valley. This effort includes coordination among ADOT and the City of Scottsdale to identify operational requirements and processes for diverting traffic on to arterials during a freeway incident or closure. Future ICM considerations in the region could include:

- ⇒ I-17 is a north-south freeway corridor through Phoenix with no available right-of-way to expand this freeway to add capacity; operational strategies would need to factor in parallel arterials such as 35th Avenue and 19th Avenue.
- ⇒ In the East Valley, US60 traverses through Phoenix, Tempe, Mesa, Maricopa County, Pinal County, and Apache Junction. Loop 202 to the north and south of this corridor could provide an alternate freeway option for some travelers.

EVALUATING SYSTEM PERFORMANCE

Continued improvement of operations and management, as well as identifying locations for high priority ITS investments, is dependent on a regional strategy for performance monitoring and reporting. MAG is responsible for reporting on regionwide transportation system performance. Performance measures relevant to traffic operations are currently incorporated in MAG system performance reports and additional measures recommended by the ITS Committee will be added in the future.

As the region moves toward a strategy focusing on ICM, coordinating performance monitoring and reporting across modes will be an integral part of that strategy; impacts of real-time operations as well as trend analysis will help to better inform regional ITS priorities and investment needs.

Freeway Performance Metrics

Freeway performance monitoring will help to better inform real-time operational strategies as well as target FMS funding and program enhancement/expansion priorities. There are a range of measures for freeway performance, including mobility, safety and travel time reliability metrics. A key activity for the MAG region is to define specific data needs and requirements, including data sources. ADOT's FMS detector data can support some metrics, but additional data types and sources could be explored for their feasibility to support required freeway performance monitoring.

Arterial Performance Metrics

Agencies in the region have been measuring and monitoring impacts of traffic signal timing and signal operations on throughput, delay and environmental impacts as part of specific projects and on specific corridors. MAG has implemented a required component for TSOP projects to include a before-and-after study. A regional strategy should consider a set of arterials that are representative of the MAG region, and define consistent metrics, data needs and potential data sources.

Real time data on arterials is a gap in the MAG region. This data is needed to support arterial mobility and travel time measures, as well as support safety analyses.

Transit Performance Metrics

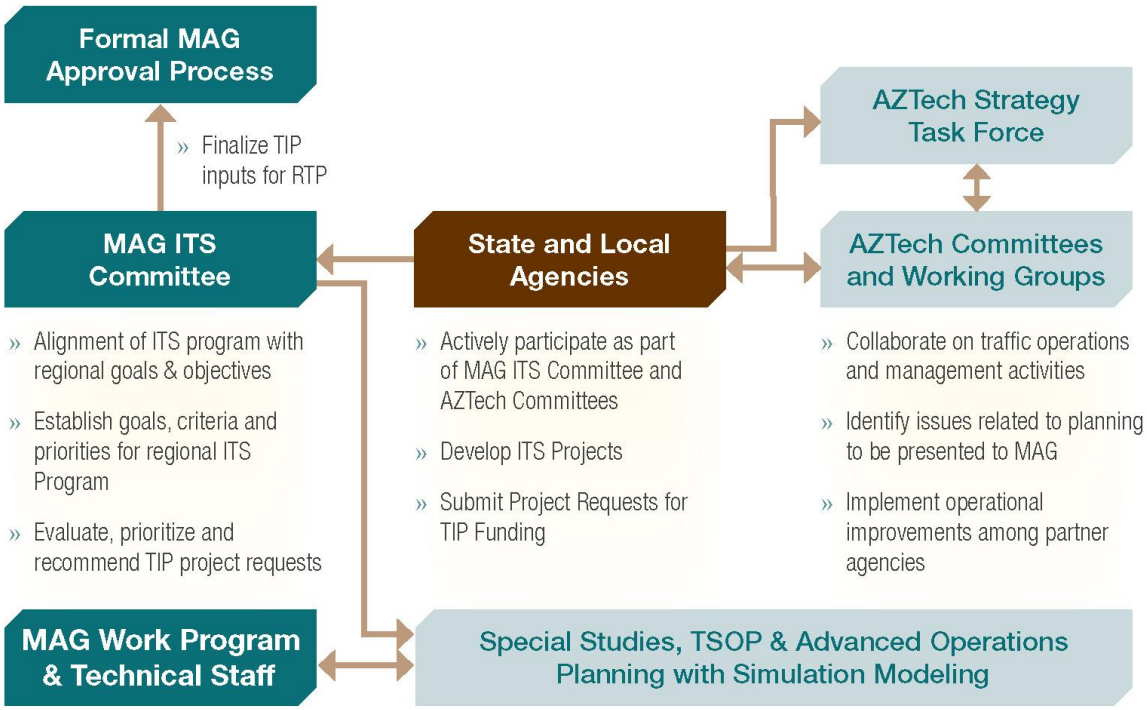
Transit agencies in the MAG region regularly use real-time data to assess schedule adherence and support traveler information notifications. Other operational data, such as boardings and alightings help transit agencies to determine where certain routes are over or under capacity and adjust operations and schedules over time.

Future real-time metrics could help to support ICM strategies by identifying transit usage, capacity and demand and be able to correlate that with arterial and freeway strategy implementation. Transit also could benefit from receiving real-time arterial and freeway performance data to help support their operations and routing.

IMPLEMENTATION ROLES AND RESPONSIBILITIES FOR ITS

Implementing ITS strategies within the framework and priorities provided by the MAG ITS Strategic Plan will be a collective effort among agencies in the MAG region. MAG is responsible for formal planning and project programming in the region. In this role, MAG serves as the regional forum for establishing funding priorities, balancing available funding and regional investments, as well as providing the accountability for achieving regional performance goals. MAG's ITS Committee is comprised of member agencies representing state and local transportation management and operations, transit operations and public safety (DPS). This group collectively reviews and prioritizes project requests submitted by agencies through the TIP programming process, as well as through the TSOP call for projects. The ITS Committee can formally request MAG to conduct studies or evaluations for issues that impact or could benefit the region's ITS program. Members of the ITS Committee also serve as project stakeholders for MAG ITS plans, studies and evaluations.

The graphic below shows the process whereby agencies in the region collaborate on and develop ITS projects to bring to the ITS TIP programming process.



State and Local Agencies

State and local agencies are responsible for operating and maintaining ITS infrastructure within their jurisdiction, and for coordinating with neighboring agencies on operational strategies that will help to support multijurisdictional corridor operations. Local agencies also are responsible for developing ITS project requests to submit to MAG through the TIP programming process and providing a required local match for CMAQ funding. State and local agencies are represented on the MAG ITS Committee to support collective decision making and ITS project prioritization.

AZTech™ Strategy Task Force, Committees and Working Groups

AZTech™ is a regional forum that focuses on operational discussions among state and local agencies, as well as the private sector. AZTech™ has established various committees and working groups that address issues such as traveler information, traffic incident management and traffic operations. Technical issues or collaboration on day-to-day operational activities are discussed and coordinated through these AZTech™ groups. Project ideas that are generated through AZTech™ committees can be brought forward by a lead agency for MAG TIP funding consideration.

Schedule and Process for Updating and Maintaining the ITS Strategic Plan

It will be important to periodically review the goals, priorities and strategies contained within the MAG ITS Strategic Plan. MAG will conduct a biannual review of the ITS Strategic Plan, and bring forth any potential changes to the MAG ITS Committee. The ITS Strategic Plan has been developed to allow for flexibility and innovation in how agencies in the region plan for and implement ITS projects. Over time, certain factors could warrant an update to the Plan, such as:

- ⇒ Shift in regional priorities or recommendations requiring a different approach to funding allocation or CMP weighting criteria;
- ⇒ Change in specific priorities reflected in the RTP;
- ⇒ New or modified recommendations for ITS implementation, operations or goals;
- ⇒ Specific policy direction that necessitates a change in how projects are prioritized, such as a future managed lanes strategy or formal active traffic management program in the MAG region; and
- ⇒ Changes to local or federal funding such that there are significant additional funds or a significant decrease in available funds, which could necessitate a different process and different priorities for ITS projects in the region.

In addition to the ITS Strategic Plan, MAG's Regional ITS Architecture (RIA) also is periodically reviewed and updated to ensure compliance with the most recent National ITS Architecture as well as capture new priorities that would need to be reflected. The RIA is reviewed annually for potential changes, and is updated on a biannual basis. The 2008 RIA update made substantial changes to reflect all existing ITS-related infrastructure as well as those programmed and planned future projects. The MAG RIA is planned to be updated and maintained on a regular basis beginning with the first update that was completed in 2010. It is available at the following link:

http://azmag.gov/Projects/Project.asp?CMSID=1050&CMSID2=1063

Changes that warrant an update to the RIA include:

- ⇒ Updated regional focus/needs;
- ⇒ New stakeholders;
- ⇒ New or updated planning efforts completed;
- ⇒ New technologies or initiatives implemented;
- ⇒ New funding availability to support new types of projects; and/or
- ⇒ Updated project priorities for each agency.

Acronym List

ADOT	Arizona Department of Transportation
ATCS	Adaptive Traffic Control Systems
AVL	Automated Vehicle Location
ATM	Active Traffic Management
BSM	Bus Stop Management System
CCTV	Closed-Circuit Television
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMP	Congestion Management Process
DMS	Dynamic Message Sign
DPS	Department of Public Safety
DTA	Dynamic Traffic Assignment
FCS	Fare Collection System
FHWA	Federal Highway Administration
FMS	Freeway Management System
HCRS	Highway Conditions Reporting System
HOV	High Occupancy Vehicle
ICM	Integrated Corridor Management
ITS	Intelligent Transportation Systems
MAG	Maricopa Association of Governments
MCDOT	Maricopa County Department of Transportation
OCC	Operations Control Center
RADS	Regional Archived Data System
RCN	Regional Community Network
RIA	Regional ITS Architecture
RTP	Regional Transportation Plan
TIM	Traffic Incident Management
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TMC	Traffic Management Center
TOC	Traffic Operations Center
TSOP	Traffic Signal Optimization Program
USDOT	United States Department of Transportation
VMS	Vehicle Management System

ATTACHMENT #5

Agenda Item #9

FOLD

Agenda Item # 9

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Rural and Urban Logo Sign Program

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The Arizona Department of Transportation (ADOT)**, through the Grand Canyon State Logo Signs program** (GCSLS), **has transitioned the rural logo sign program from a private vendor to ADOT administration, effective July 2012**. This program manages approximately 1,200 leases on ADOT sign structures along highways throughout rural Arizona, specific to travel-related business including food, gas, lodging, camping, 24-hour pharmacies and attractions. GCSLS recently initiated the process to launch a similar program in urban areas in the coming year.

PROGRAM BENEFITS

There are several key benefits to the new urban logo sign program:

- Improving motorist information about travel-related services
- Improving business identification along urban area highways
- Providing a significant source of additional financing to the state highway fund

PROGRAM AND PRICING ANALYSIS

Research is underway to define the number of qualified businesses and locations suitable for sign placement. This data will be used along with an evaluation of local media advertising rates to develop a pricing structure. Recognizing the unique aspects that contribute to the value of the advertising at any particular location, GCSLS will develop a pricing structure that reflects the market dynamics of motorist traffic, potential interested businesses and maximum logo sign availability at each exit.

TARGET LAUNCH DATE

GCSLS plans to launch the urban program during the third calendar quarter 2013. This date is subject to the successful completion of many key tasks, any one of which could impact the program start. The critical path for program launch is dependent upon final approval of the Program Rules.

ATTACHMENT #6

Agenda Item #10

Agenda Item #10

DRAFT

2012 ANNUAL REPORT ON PROPOSITION 400

SUMMARY OF FINDINGS AND ISSUES

The *2012 Annual Report on the Status of the Implementation of Proposition 400* has been prepared by the Maricopa Association of Governments (MAG) in response to Arizona Revised Statue (ARS) 28-6354. ARS 28-6354 requires that MAG annually issue a report on the status of projects funded through Proposition 400, addressing project construction status, project financing, changes to the MAG Regional Transportation Plan, and criteria used to develop priorities. In addition, background information is provided on the overall transportation planning, programming and financing process. The key findings and issues from the 2012 Annual Report are summarized below.

MAG REGIONAL TRANSPORTATION PLAN

The MAG Regional Transportation Plan (RTP) provides the blueprint for the implementation of Proposition 400. By Arizona State law, the revenues from the half-cent sales tax for transportation must be used on projects and programs identified in the RTP adopted by MAG. The RTP identifies specific projects and revenue allocations by transportation mode, including freeways and other routes on the State Highway System, major arterial streets, and public transportation systems.

- During FY 2012, revenue deficits in the life cycle programs were addressed to re-establish cost/revenue balance in each of the major modal programs.

  All three life cycle programs -- freeways, arterial and transit – have been dealing with lower sales and other tax revenues and a high level of uncertainty about future Federal transportation funding. On September 21, 2011, the MAG Regional Council approved the rebalanced FY 2012 Arterial Life Cycle Program. On May 17, 2012, the Valley Metro RPTA and METRO Board of Directors approved a rebalanced 2012 Transit Life Cycle Program (TLCP) update. On May 23, 2012, the MAG Regional Council approved a rebalancing scenario for the Regional Freeway/Highway Life Cycle Program.

- The results of a performance audit of the Regional Transportation Plan conducted by an independent auditor under contract to the State Auditor General were released in report form.

  On December 21, 2011, the *Performance Audit of the Maricopa County Regional Transportation Plan* was released by the State Auditor General.

The audit "found no substantial evidence to warrant drastic modifications to the transportation system or specific projects … (and) … the RTP Partners should continue to implement the current transportation system and strive to continually reassess system performance to make modifications as needed." In addition, the audit provided 27 recommendations aimed at more efficient and effective implementation of the RTP, as well as stronger accountability for the performance of the plan.

On June 25, 2012, the Maricopa Association of Governments (MAG), the Arizona Department of Transportation (ADOT), the Regional Public Transportation Authority (RPTA), and METRO Rail provided a combined, detailed assessment of the efforts made to date in implementing the audit recommendations.

HALF-CENT SALES TAX AND OTHER TRANSPORTATION REVENUES

The half-cent sales tax for transportation approved through Proposition 400 is the major funding source for the MAG Regional Transportation Plan (RTP), providing over half the revenues for the Plan. In addition to the half-cent sales tax, there are a number of other RTP funding sources, which are primarily from State and Federal agencies.

- Fiscal Year 2012 receipts from the Proposition 400 half-cent sales tax were 4.8 percent higher than receipts in FY 2011.

  The receipts from the Proposition 400 half-cent sales tax in FY 2012 totaled approximately $323 million, corresponding to a 4.8 percent increase over FY 2011. With an increase in collections also occurring in FY 2011, this represents the second consecutive year of higher revenues. However, the collections for FY 2012 remain 17.3 percent lower than those in FY 2007.

- Forecasts of Proposition 400 half-cent revenues are 3.4 percent lower for the period FY 2013 through FY 2026, compared to the 2011 Annual Report estimate.

  Future half-cent revenues for the period FY 2013 through FY 2026 are currently forecasted to total $6.5 billion. This amount is $232 million, or 3.4 percent, lower than the forecast for the same period presented in the 2011 Annual Report. The Proposition 400 half-cent revenue forecasts will be updated again in the fall of 2012

- Forecasts of total ADOT Funds dedicated to the MAG area for FY 2013 through FY 2026 are slightly higher (1.0 percent) than the 2011 Annual Report estimate.

The forecast for ADOT funds for FY 2013 through FY 2026 is $46 million or 1.0 percent higher, compared to the forecast for the same period in the 2010 Annual Report. These revenues include Federal funds that correspond to the programs as structured in SAFETEA-LU. Federal funds forecasts will be updated in subsequent Annual Reports to correspond to the new Federal transportation legislation (MAP-21) signed into law by President Obama on July 6, 2012.

- Forecasts of total MAG Federal Transportation Funds for FY 2013 through FY 2026 are somewhat higher compared to the 2011 Annual Report estimate.

  The forecasted MAG Federal aid revenues for the period FY 2013 through FY 2026 total $3.7 billion. This forecast is approximately four percent higher than that in the 2011 Annual Report for the same period. This was due primarily to the level of Federal reimbursements projected for the LRT/High Capacity Transit program.

- Although new Federal transportation funding legislation has been approved, the long-term outlook for Federal funding remains uncertain.

  On July 6, 2012, President Obama signed legislation known as the 'Moving Ahead for Progress in the 21st Century Act', or 'MAP-21′. This two-year transportation reauthorization bill provides federal funding of transportation programs through September 2014. Total annual funding provided by MAP-21 is generally comparable to that in the previous Federal legislation (SAFETEA-LU). However, since MAP-21 covers only a two-year period, future Federal funding levels will be subject to change within a relatively short time.

FREEWAY/HIGHWAY LIFE CYCLE PROGRAM

The Freeway/Highway Life Cycle Program (FLCP) extends through FY 2026 and is maintained by the Arizona Department of Transportation (ADOT) to implement freeway/highway projects listed in the MAG Regional Transportation Plan (RTP). The program utilizes funding from the Proposition 400 half-cent sales tax extension, as well as funding from state and Federal revenue sources.

- A number of major freeway/highway construction projects were completed, underway, or advertised for bids during FY 2012.

  Completed

  - Loop 101 (I-10 to Tatum Blvd.): New HOV lanes.
  - SR143 (at Loop 202 Access Road): Interchange improvements.
  - Loop 202/Santan (Gilbert Rd. to I-10): New HOV lanes. -
  - MAG Region (Various Locations): Noise Walls.

Advertised for Bids or Under Construction

- SR 24 (Loop 101 to Ellsworth Rd.): Construct interim freeway.
- SR 85 (at B-8/Maricopa Rd): Reconstruct intersection.
- US 60 (Loop 101 to 71st Avenue): Roadway improvements.
- US 60 (71st Avenue to Van Buren St..): Roadway improvements.
- Loop 303/I-10: Construct new system interchange.
- Loop 303 (Thomas Rd. to Camelback Rd.): Construct new freeway.
- Loop 303 (Camelback Rd. to Glendale Ave.): Construct new freeway.
- Loop 303 (Glendale Ave. to Peoria Ave.): Construct new freeway.
- Loop 303 (Peoria Ave. to Mountain View Blvd.): Construct new freeway.

- A project to add high occupancy vehicle (HOV) lane ramps at Loop 101 and Maryland Avenue was added to the FLCP.

  On January 25, 2012, the MAG Regional Council approved amendment of the Regional Transportation Plan - 2010 Update to include a new project to add HOV direct connection ramps at the Loop 101 and Maryland Avenue grade separation. Funding for the project was provided by a combination of uncommitted funds in the MAG portion of the Statewide Transportation Acceleration Needs Account and the MAG Regional Freeway/Highway Program. The project is programmed as a design/build project in FY 2013.

- On May 23, 2012, the MAG Regional Council approved a rebalancing scenario for the Regional Freeway/Highway Life Cycle Program.

  Cash flow analysis indicated that there was an overall funding deficit of approximately $390 million and negative year-end cash balances for the FLCP. A rebalancing scenario was approved that: (1) repositioned the SR-202L/South Mountain Freeway and Interstate 10/Maricopa Freeway projects to improve the Program's cash flow, (2) transferred funding from the SR-303L segment between US-60 and Interstate 17 to the SR-303L segment between Interstate 10 and MC-85, and (3) removed $300 million from the Program's budget for the Interstate 17/Black Canyon Freeway corridor. The long-term financial forecast for the FLCP indicates a positive balance of approximately $166 million through FY 2026, with no annual deficits.

ARTERIAL STREET LIFE CYCLE PROGRAM

The Arterial Street Life Cycle Program (ALCP) extends through FY 2026 and is maintained by the Maricopa Association of Governments (MAG) to implement arterial street projects in the MAG Regional Transportation Plan (RTP). The Program receives significant funding from both the Proposition 400 half-cent

sales tax and Federal highway programs, as well as a local match component. Although MAG is charged with the responsibility of administering the overall program, the actual construction of projects is accomplished by local government agencies. MAG distributes the regional share of the funding on a reimbursement basis.

- During FY 2012, a total of $103 million in ALCP project expenses were reimbursed to the implementing agencies.

  During FY 2012, a total of $103 million in ALCP project expenses were reimbursed to implementing agencies. This included reimbursements to eight individual agencies, as well as funding for projects in the MAG ITS program.

- Continuing progress on projects in the Arterial Street Life Cycle Program has been maintained.

  As of FY 2012, $327 million has been disbursed since the beginning of the Program for the completion of 30 projects, covering arterial street widening and intersection improvements throughout the MAG area. In addition, a total of nearly $31 million in reimbursements has been provided to ITS projects through FY 2012.

- On September 21, 2011, the MAG Regional Council approved a rebalanced FY 2012 Arterial Life Cycle Program, and it is anticipated that a balanced FY 2013 ALCP will be adopted in September 2012.

  A $197 million reduction in the FY 2012 ALCP through FY 2026 was necessitated by lower half-cent sales tax revenue forecasts. A rebalanced FY 2012 ALCP was achieved by proportionally reducing each agency's program allocation.

  Due to a continued decline in program revenues, the FY 2013 update of the ALCP encountered an additional deficit of approximately $40 million through FY 2026. In addition, there was a need to rebalance annual expenditures and revenues, which were out of balance in a number of years. To meet the required program reductions, MAG staff and member agencies are reviewing alternative reprogramming scenarios. It is anticipated that a fiscally balanced, FY 2013 Arterial Life Cycle Program will be considered for approval in September 2012.

TRANSIT LIFE CYCLE PROGRAM

The Transit Life Cycle Program (TLCP) is maintained by the Regional Public Transportation Authority (RPTA) and implements transit projects identified in the MAG Regional Transportation Plan. The RPTA maintains responsibility for administering half-cent sales tax revenues deposited in the Public Transportation

Fund for use on transit projects, including light rail transit (LRT) projects. Although RPTA maintains responsibility for the distribution of half-cent funds for light rail projects, the nonprofit corporation of Valley Metro Rail, Inc. was created to oversee the design, construction and operation of the light rail starter segment, as well as future corridor extensions planned for the system.

- One new supergrid bus route was implemented in FY 2012 and several additional routes will start service during the next five years.

  Routes Implemented During FY 2012:

  - Arizona Avenue/Country Club Drive (T44); Service start: FY 2012.

  Routes Planned for Implementation During FY 2013 through FY 2017:

  - Baseline Road (T45); Service start: FY 2013.
  - Elliot Road (T53); Service start: FY 2013.
  - South Central Avenue Express (T26); Service start: FY 2013.
  - Thomas Road (T68); Service start: FY 2013.
  - Van Buren Street (T70); Service start: FY 2013.
  - McDowell/McKellips Roads (T61); Service start: FY 2014.
  - Scottsdale/Rural BRT (T25); Service start: FY 2015.
  - Waddell/Thunderbird (T71); Service start: FY 2015.

- Completion of the Northwest Extension-Phase 1 (Bethany Home Rd. to Dunlop Rd.) was accelerated.

  Completion of the Northwest Extension-Phase 1 (Bethany Home Rd. to Dunlop Rd.), which had been scheduled to be complete in FY 2024, is now scheduled to be complete in FY 2016. It is expected that utility relocations and street improvements will be completed in the corridor in FY 2013 to facilitate the light rail construction. Phase 2 (Dunlop Rd. to Rose Mofford Sports Complex) is scheduled to be complete in FY 2026.

- On May 17, 2012, the Valley Metro RPTA and METRO Board of Directors approved a rebalanced 2012 Transit Life Cycle Program (TLCP) update.

  Due to the continued economic downturn and the decrease in estimated future revenues, in FY 2011 it was determined estimated TLCP costs for FY 2012 to 2026 were not in balance with projected future funds available, with a deficit of approximately $581 million (2011 $'s).

  On May 17, 2012, the Valley Metro RPTA and METRO Board of Directors approved the 2012 Transit Life Cycle Program (TLCP) update. An updated financial model for bus service is balanced through FY 2018, shows deficits in FY 2019 through FY 2025 and a final positive balance in FY 2026. The high

capacity / light rail transit (HCT/LRT) component of the TLCP has a fund balance of $39 million in FY 2026 after the completion of all HCT/LRT projects in the RTP, with the exception of construction of the Northeast Phoenix corridor.

Balance was achieved in FY 2012 by delaying the implementation of numerous projects and reducing the scope of many other projects, especially bus route frequencies and routing. During FY 2012, significant efforts were also made to identify further cost savings or to enhance operating revenues.

- Federal discretionary funding for transit continues to be an important issue.

  A large part of the funding for the LRT/HCT system is awarded by the US Department of Transportation through the discretionary "New Starts Program". The timing and amounts of light rail transit new start monies coming to the MAG region will be subject to a highly competitive process at the Federal level.

  The recently approved Federal transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21), makes significant changes to the federal transit funding programs. MAP-21 eliminates many of the discretionary programs in favor of formula based programs. This allows a more predictable stream of federal revenues for planning purposes. RPTA, METRO and MAG will need to monitor the implementation of MAP-21 and evaluate its impact on the RTP.

PERFORMANCE MONITORING PROGRAM

The MAG Transportation System Performance Monitoring and Assessment Program has been established to provide a framework for reporting performance at the system and project levels, and serve as a repository of historical, simulated and observed data for the transportation system in the MAG Region.

- Freeway vehicle miles of travel (VMT) have increased recently.

  The total number of freeway vehicle miles traveled in 2011 was 29,495,000, which is a 1.4 percent increase over the level in 2010 and only 0.5 percent below the level in 2007. This is illustrative of the fact that regional economic conditions - generally following the slight upward trend in the national economy - are being reflected in travel demand in the MAG region.