

**INTELLIGENT TRANSPORATATION APPLICATION**

**General Instructions:**

This Excel form is to be used to request federal Congestion Mitigation and Air Quality (CMAQ) funding available through the Maricopa Association of Governments (MAG) for Bicycle Projects to be included in the FY2014-FY 2018 MAG Transportation Improvement Program. Funding is available for Federal Fiscal Year (FFY) 2015, 2016 and 2017.

This application form includes:

- Part A - Contact and Project Description,
- PART B - ITS TIP Listing and CMAQ Score Data,
- PART C - ITS project Description,
- Part D - Checklist and Signature Page, and Transmittal Instructions and Schedule.

Each part is a separate tab of this excel file. Please complete Parts A - D. Alternative application forms are available upon request.

**Deadlines and Transmittal Instructions:**

Two copies of a printed, complete and signed application must be received in the MAG offices by **10:00 a.m. Wednesday, September 19, 2012**. The application is to be submitted electronically and should include ArcGIS shape files depicting the project location if they are available.

**Detailed transmittal instructions are located in a separate tab** in this excel sheet. Late applications **will not be accepted.**

If member agencies need additional information or have questions, they should contact Teri Kennedy or Stephen Tate at (602) 254-6300 or contact them by e-mail at the following addresses:

- <mailto:state@azmag.gov>
- <mailto:tkennedy@azmag.gov>
- <mailto:LLuo@azmag.gov>

**All information is required, unless noted by the word - Optional.**

**PART A - CONTACT AND PROJECT DESCRIPTION**

<b>Contact Information</b>	
1. Sponsoring Agency	City of Glendale
2. Contact Name	Debbie Albert
3. Phone	623-847-7524
4. E-Mail Address	dalbert@glendaleaz.com
5. Mailing Address	5800 West Glenn Drive, Suite 315, Glendale, AZ 85301

(OPTIONAL)

If the applicant will be providing a GIS coverage (shapefile or geodatabase), please see the tab labeled "GIS Transmittal Instructions)

[GIS Submittal Instructions](#)

ITS Application from City of Glendale for 'Maryland Avenue Lane Control Signals'

**PART B-ITS TIP Listing and CMAQ Score Data**

This part of the form identifies data to calculate an CMAQ Score and provide the minimum data needed for a listing of the project in the Transportation Improvement Program

**Federal Funding Eligibility**

All ITS projects to be funded with Federal CMAQ funds must be in the 8-Hour Ozone Nonattainment Area. Please use the following link to verify that the map is located in the nonattainment area:

[Link to an 8-Hr Ozone Nonattainment Map on the MAG Website](#)

**1. Traffic Estimate and Roadway Characteristics**

a. Current Average Daily Traffic (ADT) on the Facility or the Nearest Parallel Facility of a Similar Type:

b. Please Describe how the ADT was estimated:

Calculated based on parking lot counts feeding onto the roadway during events and added in the background traffic from TSOP traffic counts on Maryland between 53rd Ave and 95th Ave from January 2012.

c. When was the ADT estimate developed:

d. Name of the Roadway Section Used for the ADT Estimate:

e. Starting Limit of the Roadway Section:

f. Ending Limit of the Roadway Section:

g. Length (Miles)

h. Total Number of Through Lanes on the Roadway Section:

i. Federal Functional Classification of the Roadway Section:

[Link to Functional Classification Map on the MAG Website](#)

**2. Traffic Coordination Improvements. If the project improves traffic signal coordination, please do the following:**

a. Enter the pre-improvement (current) traffic speed of the traffic corridor:

b. In the Table Check the Box in The Row That Best Describes the Project (Check Only One Box):

Before (Pre-improvement) Condition	After (Post Improvement) Condition	Expected Increase In Speed
<input type="checkbox"/> Interconnected, pre-timed signals with old timing plan	Advanced computer-based control	17.5 percent
<input type="checkbox"/> Non-interconnected signals with traffic-actuated controllers	Advanced computer-based control	16.0 percent
<input type="checkbox"/> Interconnected, pre-timed signals with actively managed timing	Advanced computer-based control	8.0 percent
<input type="checkbox"/> Interconnected, pre-timed signals with various forms of master control and various qualities of timing plans	Optimization of signal timing plans. No change in hardware	12.0 percent
<input type="checkbox"/> Non-interconnected, pre-timed signals with old timing plan	Optimization of Signal Timing Plans	7.5 percent

**3. Other Improvements. Check all that apply:**

Includes Traffic Signal Improvements for a Single Agency

Includes Traffic Signal Improvements that Apply to More than One Agency

Includes FMS Improvements

The Project Conforms to Local Land Use Plans

Adds Traffic Signals that increase pedestrian crossing time for seniors

**4. Traffic Speed Impacts of the Project (Not required for Traffic Coordination Improvements)**

a. Enter the pre-improvement (current) traffic speed of the traffic corridor:

35

b. Enter the post-improvement (current) traffic speed of the traffic corridor:

35

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## PART C -ITS project Description

Please enter project data ONLY in highlighted cells, save the file with the lead agency name in it - ie. City 0 ITS Projects.xls  
Submit this Excel workbook to MAG via email to: lluo@azmag.gov  
Please use one worksheet per project, with the tab at the bottom indicating agency priority -- Mesa1, Mesa2,.. etc.  
Links to various websites are provided for additional information and help  
The worksheet titled "Example" shows an example on how to enter Data in the highlighted areas

Please enter required information in highlighted cells

### A. Project Title & Sponsor

Lead Agency	City of Glendale
Other Partnering Agencies	
ITS Project Title:	Maryland Avenue Lane Control Signals
Project Category:	

### B. Project Goals & Objectives

#### Project Goals:

Maximize roadway capacity using innovative technology.

#### Objectives:

Leverage technology to increase the roadway capacity on Maryland Avenue during planned special events and unplanned incidents to minimize the impact on the L101 corridor.

### C. Project Information

#### Project Location:

Maryland Avenue from 95th Avenue to 99th Avenue.

#### Scope of the project:

Install four lane control signal bridges with overhead signs to allow for dynamic assignment of lanes along Maryland Avenue between 95th and 99th avenues. Install dynamic message signs for both east and westbound traffic on two of the structures.

FY201    FY201    FY201  
FY20    FY20  
FY201

### D. Identify Components in MAG Regional ITS Architecture

<b><i>ITS applications</i></b>	<b>Relevant Applications (ENTER: Yes or No)</b>	<b><a href="http://www.azmag.gov/ITS/">Applicable ITS Market Packages</a></b>
1. Traffic Management	Y	ATMS 01, ATMS 08, ATMS 18
2. Transit Operations Support		
3. Communications		
4. Traveler Information		
5. Archived Data Management		
6. ITS for Safety		
7. ITS Plans		
8. Freeway-Arterial Operations		

Note: Please attach the Architecture Flow Diagram in the application

**E. Program Year Preference**

First Choice

Second Choice

Third Choice

**F. Project Budget**

	Federal Cost	Local Match (min 5.7%)	Total Cost
Amount	\$1,222,193.00	\$73,876.00	\$1,296,069.00
Cost percentage	94.3%	5.7%	

**G. Project Schedule**

The table below is provided as a tool to assist local agencies develop a project planning schedule. Column A shows standard project milestones and Column B shows the schedule based on a typical project procurement process. To generate a custom Project Schedule:(1) select applicable milestones in Column C;(2) Enter estimated time to complete milestone measured in months from project development start date in Column D; **NOTE: The project obligation date generated in cell E111 MUST occur before Sept 15th of the programmed fiscal year.** Determine the appropriate **Project Activity Start Date** (by trial-and-error) in order to obligate the project on time.

Standard Project Milestones	Default Schedule for Process	Applicable Milestones (ENTER - Yes OR No)	Estimated Time to Milestone (ENTER #Months)	Estimated Date
Apply for ADOT project number				Jun-2013
Receipt of ADOT project number	Aug-2013	yes	2	Aug-2013
Initial DCR	Sep-2013	yes	6	Dec-2013
Final DCR	Oct-2013	yes	8	Feb-2014
30% Preliminary Plans, Cost Estimate and Report	Dec-2013	yes	9	Mar-2014
60% Preliminary Plans, Cost Estimate and Report	Feb-2014	yes	12	Jun-2014
Final Preliminary Plans, Cost Estimate and Report	Apr-2014	yes	16	Oct-2014
Environmental Clearance	Feb-2014	yes	12	Jun-2014
Utility Clearance	Mar-2014	yes	16	Oct-2014
Right-of-Way Clearance	Dec-2013	yes	16	Oct-2014
Approval of IGA	Jun-2014	yes	20	Feb-2015
Obligation authority of Federal funds	Jul-2014	yes	24	Jun-2015
Advertised Date	Sep-2014	yes	2	Aug-2015
Final Deployment	Mar-2015	yes	8	Apr-2016

< ENTER mm/yyyy -- Project Activity S

**H. System Maintenance and Operations**

Current staff resources available for ITS operations at the local  
 Additional staff resources required for fully utilizing features added by  
 Estimated current annual ITS operations & maintenance budget  
 Estimated additional annual operations & maintenance funds required  
 Estimated DATE from when required additional O&M funds will be

5
0
\$613,532
\$0

Other comments:

## **I. Systems Engineering Analysis Requirement**

### **Commitment to address the federal requirement for Systems Engineering Analysis:**

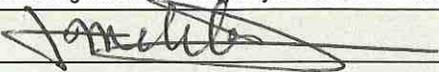
Agency's intent to follow the process described in the 'V' diagram during the project development process

The City of Glendale is committed to following the federal aid process and will completed the required Systems Engineering Analysis.

<http://www.azdot.gov/Highways/TTG/PDF/SystemsEngineeringChecklist.pdf>

**PART D - SIGNATURE AND CHECKLIST**

As the jurisdiction's manager/administrator or designated representative, I certify that this application is accurate and complete and that the project will be included in the sponsoring MAG member agency's local CIP/TIP if the project is selected for federal funding.

Signature: 

Name: Jamsheed Mehta

Title: Transportation Services Executive Director

Date: 9/14/12

**WILL FILL OUT AFTER QUESTIONS APPROVED.**

**Checklist - OPTIONAL**

This check list is optional, but is included to facilitate applicant review and verification that all required fields in the form have been completed.

<b>PART A - Contacts and Project Description Fields</b>	<b>Complete?</b>
Contact Information, fields 1 – 5 are complete	Yes
<b>PART B - TIP Listing and CMAQ Score Data</b>	<b>Complete?</b>
1. Traffic Estimate and Roadway Characteristics - Fields a - I are complete	
2. Traffic Coordination Improvements - as applicable table is complete	Yes
3. Other Improvements - As applicable all fields are completed	Yes
<b>PART C - Total Project Schedule and Budget Including All Segment Fields</b>	<b>Complete?</b>
Section A is Complete	Yes
Section B is Complete	Yes
Section C is Complete	Yes
Section D is Complete	Yes
Section E is Complete	Yes
Section F is Complete	Yes
Section G is Complete	Yes
Section H is Complete	Yes
Section I is Complete	Yes
<b>PART D - Signature Page Fields</b>	<b>Complete?</b>
Form is signed	Yes
Name, title and date fields are completed.	Yes

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## MAG CMAQ Project

### Intelligent Transportation Systems Project

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
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**A. SCOPING** (15% Preliminary Engineering Design)  
(Non-infrastructure projects: Only #2 applies).

1. SITE TOPOGRAPHIC SURVEY	LS	1	\$3,000.00	\$15,000.00	No
2. PROJECT ASSESSMENT REPORT or DETAILED WORKPLAN	LS	1	\$5,000.00	\$5,000.00	No
3. SYSTEMS ENGINEERING ANALYSIS (must address FHWA requirements)	LS	1	\$5,000.00	\$15,000.00	No
4. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)	LS	1	\$20,000.00	\$20,000.00	No
5. HAZMAT ASSESSMENT	LS	1	\$5,000.00	\$5,000.00	No
<b>SUBTOTAL – PROJECT SCOPING COSTS</b>				\$60,000.00	\$0

**B. FINAL PRELIMINARY ENGINEERING DESIGN - Stages II, III, IV and PS&E**  
(Not applicable to non-infrastructure projects)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
1. Right-of-Way Acquisition	LS	1	\$0.00	\$0.00	No
2. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.	LS	1	\$20,000.00	\$90,000.00	No
3. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report	LS	1	\$500.00	\$10,000.00	No
4. DRAINAGE REPORT	LS	1	\$500.00	\$1,000.00	No
5. Storm Water Pollution Prevention Plan (SWPPP)	LS	1	\$0.00	\$1,000.00	No
<b>SUBTOTAL – PROJECT DESIGN COSTS</b>				\$102,000.00	\$0

**C. CONSTRUCTION OR IMPLEMENTATION**

For non-infrastructure projects (no ground disturbing activities), address only parts 2, 3 and D.

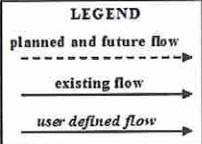
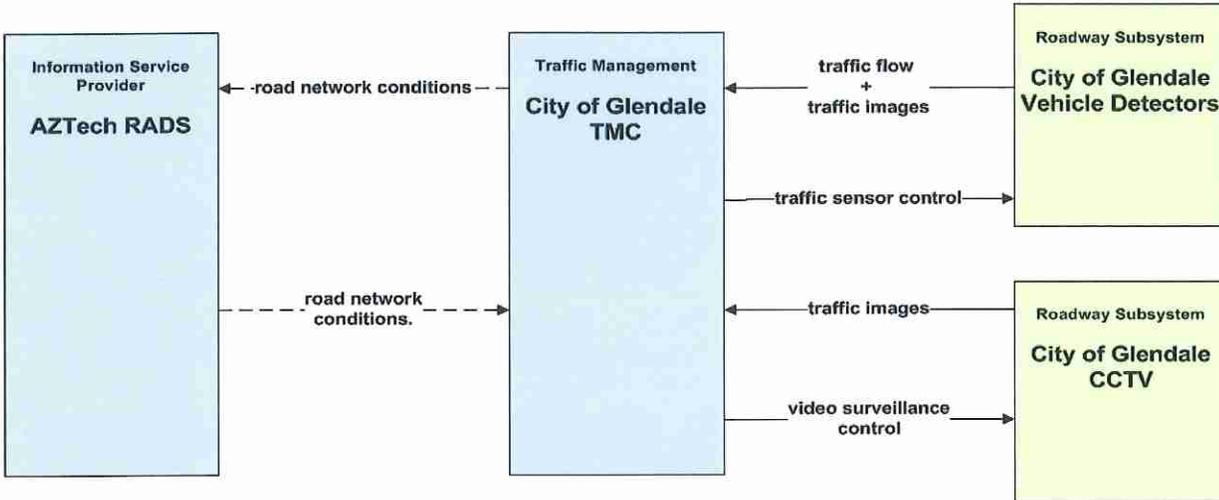
**1. CONSTRUCTION ELEMENTS (Insert additional rows if necessary)**





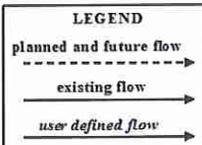
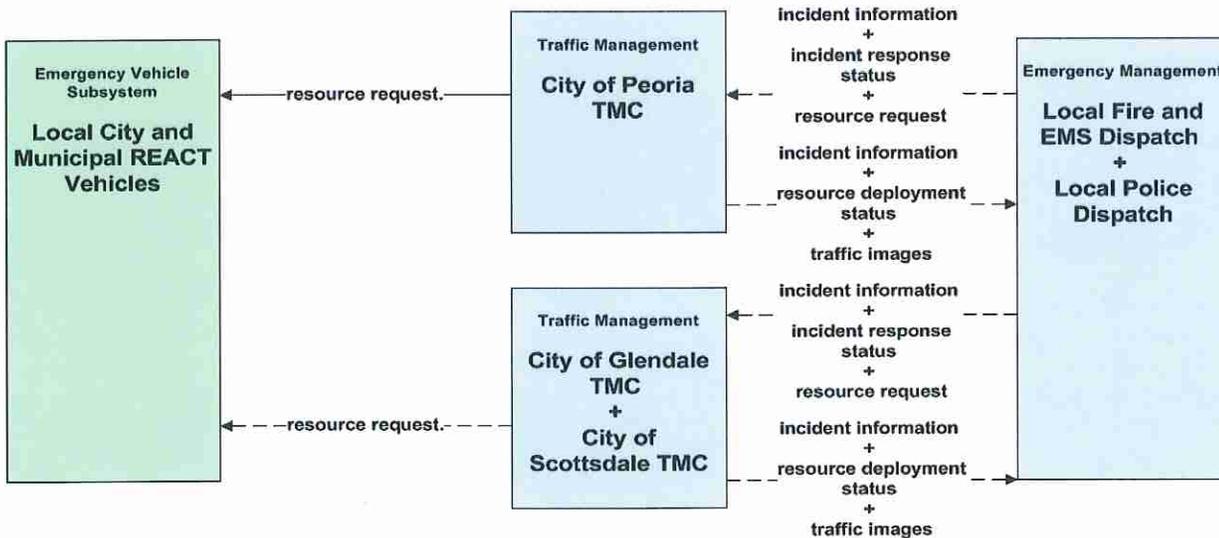


**ATMS01 - Network Surveillance  
City of Glendale**



*The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.*

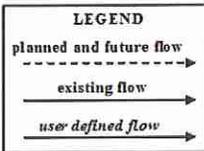
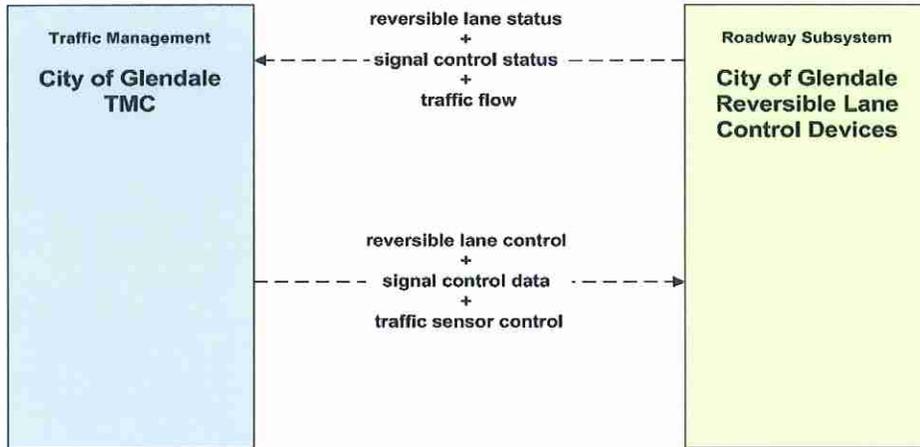
**ATMS08 - Incident Management  
Local Cities and Municipalities (TM to EM)**



*The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.*

*This market package represents the direct information flow between TMCS and their respective public safety agencies rather than a transfer of information from one TMC through an Emergency Management agency to another TMC. TMCs are represented in different boxes due to the status of those information flows*

**ATMS18 - Reversible Lane Management  
City of Glendale**



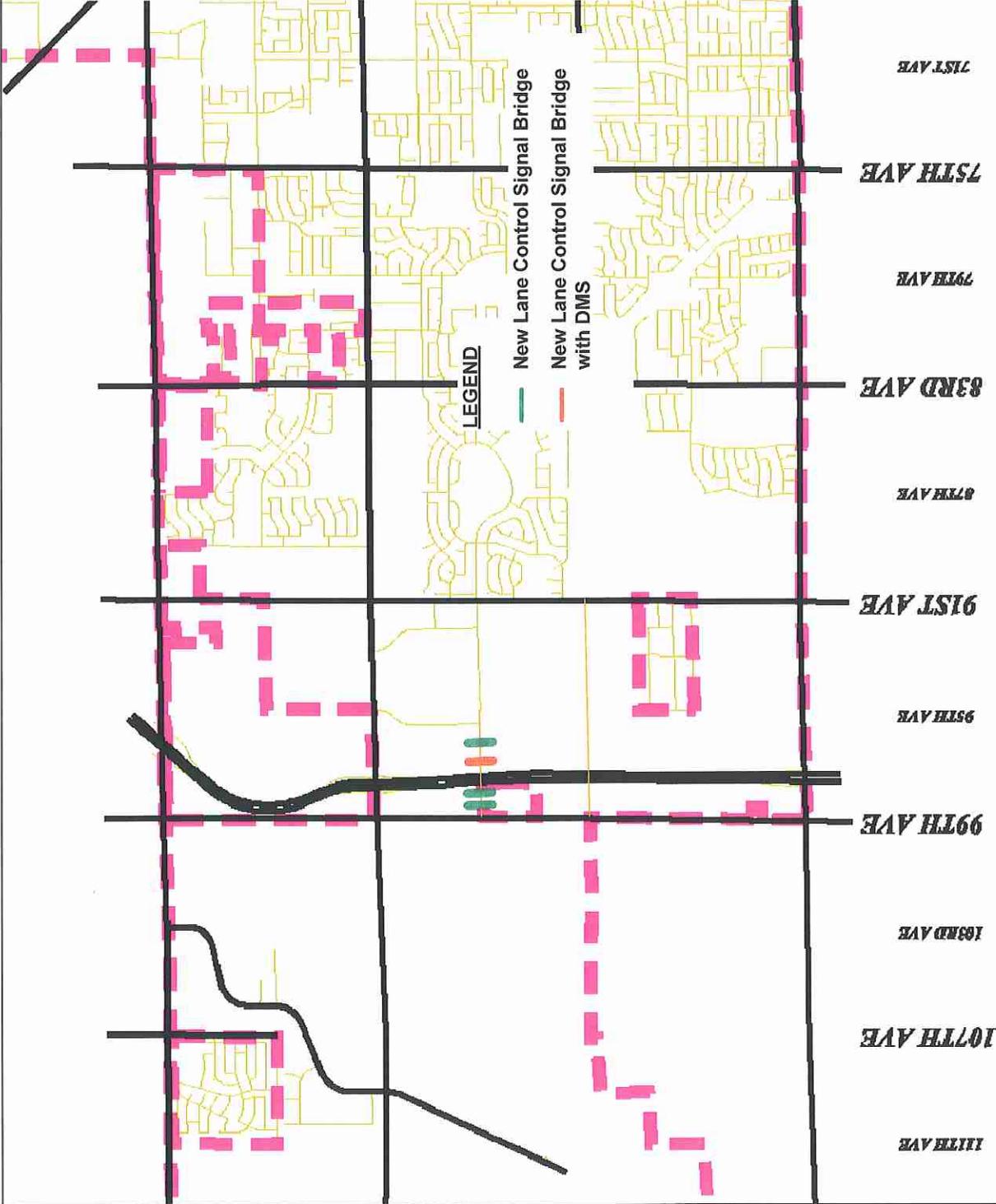
*The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.*



GLENDALE AVENUE

BETHANY HOME ROAD

CAMELBACK ROAD



Maryland Ave Lane Control Signals  
September 2012