

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)

<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

Contact Information

1. Sponsoring Agency	City of Phoenix
2. Contact Name	Marshall Riegel P.E.
3. Phone	602 534 5351
4. E-Mail Address	marshall.riegel@phoenix.gov
5. Mailing Address	200 W. Washington Street, Phoenix, AZ

(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 Phoenix for 'Corridor CCTV Deployment on the Sevens, Bell Rd and Northern Ave'

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:

Traffic count performed

c. When was the ADT estimate developed:

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

Bell Rd. between 63th St and 51st Ave, Greenway Rd between 35th Ave and SR 51, Thunderbird Rd between 7th Ave and 7th St, Dunlap Rd between I-17 and 7th St, Northern Ave between 43rd Ave and SR51, Glendale Ave between I-17 and 32nd St, 7th Ave and 7th St. between I-10 and SR101

e. Starting Limit of the Roadway Section:

I-10 on the south, I-17 on the west

f. Ending Limit of the Roadway Section:

101 on the North and SR 51 on the east

g. Length (Miles)

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

i. Federal Functional Classification of the Roadway Section:

Principal Arterial - Other

[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 checked="" 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:

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

ITS Application from City of Phoenix for 'Corridor CCTV Deployment on the Sevens, Bell Rd and Northern Ave'

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 Phoenix
Other Partnering Agencies	
ITS Project Title:	Corridor CCTV Deployment on the Sevens, Bell Rd and Northern Ave
Project Category:	Arterial ITS

B. Project Goals & Objectives

Project Goals:
 Improve active signal management through the use of Closed Circuit Television Pan Tilt Zoom Cameras at Strategic locations along the high volume arterials

Objectives:
 Reduce congestion and travel delay by allowing traffic management operators real-time traffic monitoring on identified high volume arterials with corresponding congestion mitigation and vehicle emission reduction.

C. Project Information

A total of approximately 65 locations.
 On 7th Ave at Bell Rd, Greenway Rd., Thunderbird Rd., Peoria Ave, Dunlap Rd., Northern Ave, Glendale Ave, Bethany Home Rd. and on 7th Street at Bell Rd., Greenway Rd., Thunderbird Rd., Dunlap Rd., Northern Ave, Bethany Home Rd., CamelBack Rd., McDowell Rd., as well as on Bell Rd. at 68th St., 64th St., 56th St., Tatum Blvd., 52nd St., 48th St., Cave Creek Rd., 16th St., 19th Ave, 27th Ave, 39th Ave, 47th Ave, 51st Ave. On Greenway Rd at 40th St., 32nd St., 28th St., 20th St., 16th St., 19th Ave, 25th Ave, 29th Ave, 35th Ave. On Northern Ave at 12th St., 7th St., 7th Ave, 25th Ave, 43rd Ave. On Glendale Ave at 28th St., 16th St., 7th Ave, 25th Ave, 15th Ave at Rosevelt St. 7th Ave at Roosevelt St., 7th St. at Roosevelt St., 19th Ave at Van Buren St., 15th Ave at Van Buren St., Central Ave at Van Buren St., 7th Ave at Washington St., 12th St. at Washington St., 7th Ave at Jefferson St., 15th Ave at Buckeye Rd., 7th Ave at Buckeye Rd., Central Ave at Buckeye Rd., 7th St., at Buckeye Rd., 12th St., at Buckeye Rd., 16th St. at Buckeye Rd..

Scope of the project:
 Procure, install and provision the CCTV PTZ traffic monitoring cameras at identified intersections. To provide additional CCTV PTZ traffic monitoring cameras on six major corridors, 7th Avenue and 7th Street for North-South movements and on Bell Road, Greenway Road, Northern Road and Glendale Ave. for East-West movements. All of the CCTV locations are at intersections that are currently or will be connected to the TMC at the time of installation. This project provides for the purchase and installation of the cameras. These cameras are extending the existing coverage along the corridor and/or providing coverage in between existing camera locations.

D. Identify Components in MAG Regional ITS Architecture

ITS applications	Relevant Applications (ENTER: Yes or No)	Applicable ITS Market Packages http://www.azmag.gov/ITS/	Note: Please attach the Architecture Flow Diagram in the application
1. Traffic Management	YES	ATMS01	
2. Transit Operations Support	NO		
3. Communications	YES	ATMS07, ATMS03	
4. Traveler Information	YES	ATMS07, ATMS03	
5. Archived Data Management	NO		
6. ITS for Safety	NO		
7. ITS Plans	NO		
8. Freeway-Arterial Operations	NO		

E. Program Year Preference

First Choice FY2015 FY2016 FY2017
 Second Choice FY2015 FY2016 FY2017
 Third Choice FY2015 FY2016 FY2017

F. Project Budget

	Federal Cost	Local Match (min 5.7%)	Total Cost
Amount	\$752,543.00	\$45,488.00	\$798,031.00
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				Dec-2013
Receipt of ADOT project number	Feb-2014			NA
Initial DCR	Mar-2014			NA
Final DCR	Apr-2014			NA
30% Preliminary Plans, Cost Estimate and Report	Jun-2014			NA
60% Preliminary Plans, Cost Estimate and Report	Aug-2014			NA
Final Preliminary Plans, Cost Estimate and Report	Oct-2014			NA
Environmental Clearance	Aug-2014			NA
Utility Clearance	Sep-2014			NA
Right-of-Way Clearance	Jun-2014			NA
Approval of IGA	Dec-2014			NA
Obligation authority of Federal funds	Jan-2015			NA
Advertised Date	Mar-2015			NA
Final Deployment	Sep-2015			NA

< ENTER mm/yyyy -- Project Activity S

H. System Maintenance and Operations

Current staff resources available for ITS operations at the local	7
Additional staff resources required for fully utilizing features added by	0
Estimated current annual ITS operations & maintenance budget	\$50,000
Estimated additional annual operations & maintenance funds required	\$12,000
Estimated DATE from when required additional O&M funds will be	Sep-2022

Other comments:

While the annual ITS Operations and Maintenance Budget is currently funded at \$50,000 for ITS purposes exclusively, the ITS devices are part of the Traffic Signal Section for operation and maintenance and are equally supported along with the over 900 signalized intersections and the TMC with the full budgeted resources of Traffic Signal Section

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

COP commits to follow the SEA process.

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

MAG CMAQ Project

Intelligent Transportation Systems Project

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
------------------	------	--------	-------------	-------	--------------------

A. SCOPING (15% Preliminary Engineering Design)
(Non-infrastructure projects: Only #2 applies).

1. SITE TOPOGRAPHIC SURVEY	LS	0	\$50,000.00	\$0.00	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	\$10,000.00	\$10,000.00	No
4. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)	LS	1	\$30,000.00	\$30,000.00	No
5. HAZMAT ASSESSMENT	LS	1		\$0.00	No
SUBTOTAL – PROJECT SCOPING COSTS				\$45,000.00	\$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	0		\$0.00	No
2. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.	LS	1	\$28,000.00	\$28,000.00	No
3. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report	LS	0		\$0.00	No
4. DRAINAGE REPORT	LS	0		\$0.00	No
5. Storm Water Pollution Prevention Plan (SWPPP)	LS	0		\$0.00	No
SUBTOTAL – PROJECT DESIGN COSTS				\$28,000.00	\$0

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
SUBTOTAL – PROCURMENT				\$0	\$0
					

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
D. ADOT Fee for PE Reviews and Staff Charges	LS	1	\$5,000	\$5,000	No
TOTAL ADOT Fee COST				\$5,000	\$0
E. TOTAL PROJECT COST (All <u>subtotals</u> + ADOT local projects review fee)				\$853,070	\$775,070
F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS					
TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION					\$853,070
TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT					\$775,070
TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)					\$730,891
LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)					\$44,179
LOCAL AGENCY FUNDS <u>NOT</u> ELIGIBLE FOR FEDERAL REIMBURSEMENT					\$78,000

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: *Rick Naimark*

Name: Rick Naimark

Title: Deputy City Manager

Date: September 18, 2012

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.

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

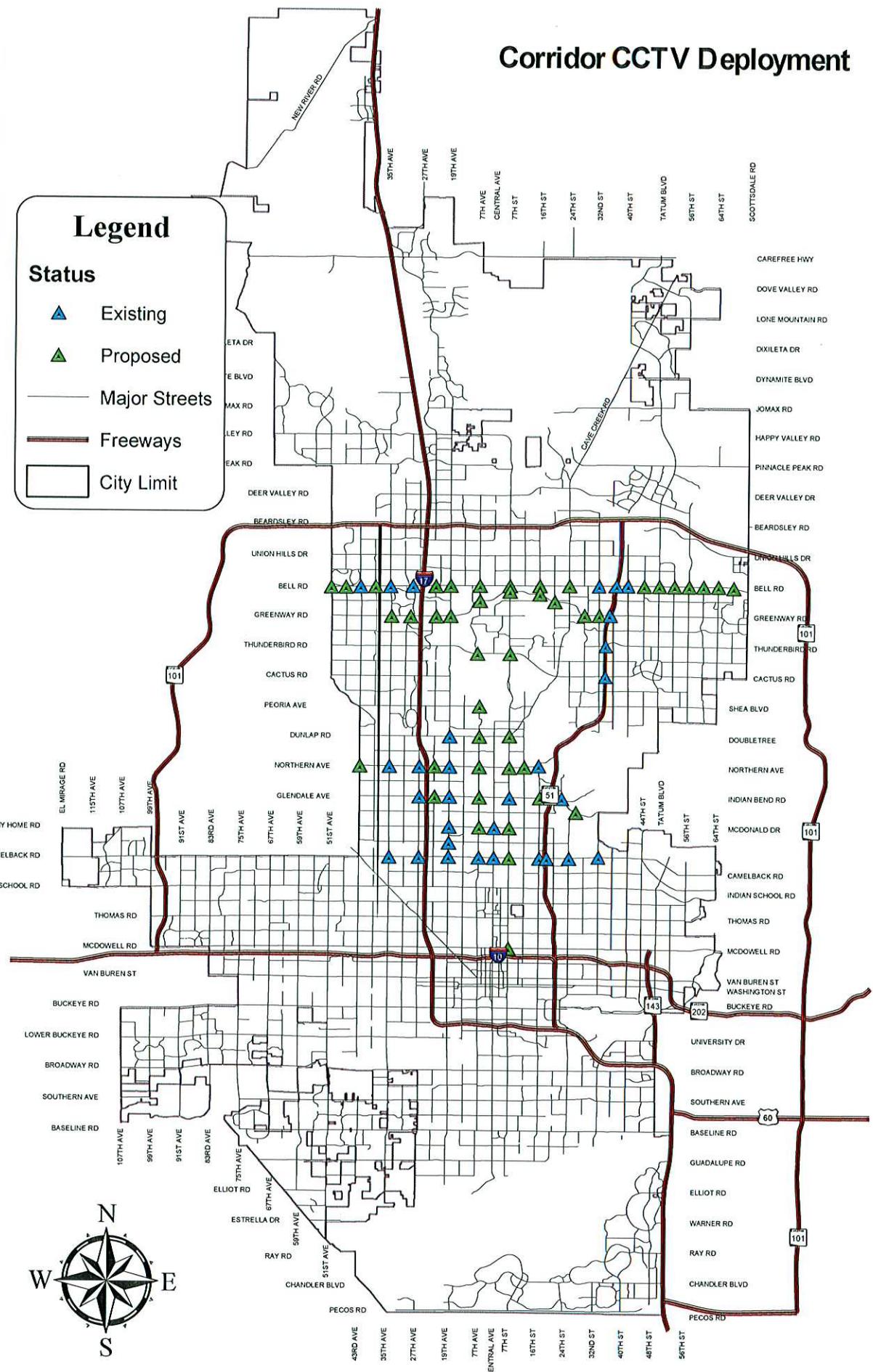
ITS Application from City of Phoenix for 'Corridor CCTV Deployment on the Sevens, Bell Rd and Northern Ave'

Corridor CCTV Deployment

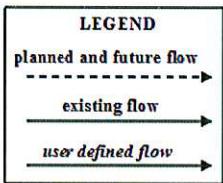
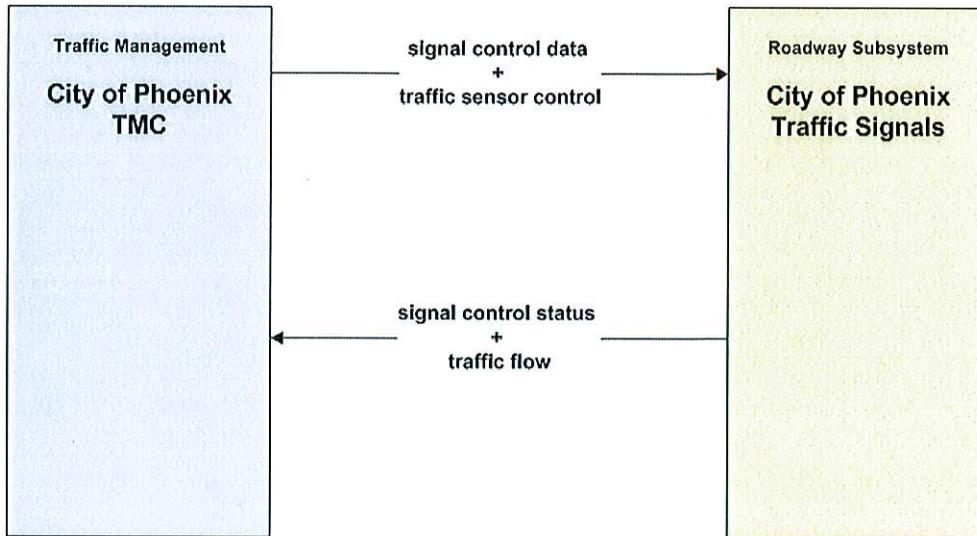
Legend

Status

- ▲ Existing
- ▲ Proposed
-  Major Streets
-  Freeways
-  City Limit



**ATMS03 - Surface Street Control
City of Phoenix**



**ATMS07 - Regional Traffic Management
Phoenix Metropolitan C2C CCTV Network**

