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 Phoeinx
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 labed "GIS Transmittal Instructions)

GIS Submittal Instructions

ITS Application from City of Phoeinx for '7th Ave 7th St DMS Deployment'

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: 54464

b. Please Describe how the ADT was estimated: Traffic count performed

c. When was the ADT estimate developed: 4/5/2011

d. Name of the Roadway Section Used for the ADT Estimate: 7th Ave & 7th St. between I-10 and 101

e. Starting Limit of the Roadway Section: I-10 on the south

f. Ending Limit of the Roadway Section: 101 on the North

g. Length (Miles) 22

h. Total Number of Through Lanes on the Roadway Section: 6

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
	Interconnected, pre-timed signals with old timing plan	Advanced computer-based control	17.5 percent
	Non-interconnected signals with traffic-actuated controllers	Advanced computer-based control	16.0 percent
	Interconnected, pre-timed signals with actively managed timing	Advanced computer-based control	8.0 percent
	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
	Non-interconnected, pre-timed signals with old timing plan	Optimization of Signal Timing Plans	7.5 percent

3. Other Improvements. Check all that apply:

- [X] 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: 15

b. Enter the post-improvement (current) traffic speed of the traffic corridor: 25

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:	7th Ave 7th St DMS Deployment
Project Category:	Arterial ITS

B. Project Goals & Objectives

Project Goals:

Provide real-time traveler information on two major corridors in advance of key decision points to allow motorists to seek alternate routes during recurring or non-recurring congestion occurrences to reduce and/or shorten the period of congestion on the affected corridor.

Objectives:

Improve travel time along the corridors, reduce congestion allowing for route selection.

C. Project Information

A total of approximately 8 locations.

On 7th Ave. and 7th Street place dynamic message signs (DMS) southbound ¼ to ½ mile in advance of four key decision points where alternative routes can be reached. The 7th Ave. locations are Northern Ave., Glendale Ave., Camelback Rd., and McDowell Rd. The 7th St. locations are Bell Rd, Thunderbird Rd., Camelback Rd., and McDowell Rd.

Scope of the project:

Procure, install and provision the Dynamic Message Signs near identified intersections. The 7th Avenue portion of the project will install DMS to provide travel times and/or incident messaging to encourage use of adjacent local streets (15thAve., 19th Ave) or I-17 as well as advise the public of downtown incidents and events with the DMS at McDowell Road. The 7th Street portion of the project will install two DMS north of Thunderbird Road to provide travel times and/or incident messaging to encourage use of alternate routes through the hills on alternate routes including I-17, 19th Ave., or AZ 51; one DMS north of Camelback Road to encourage use of Central Ave. as well as advise the public of downtown incidents and events with the last DMS at McDowell Road. Travel time data from existing devices or services will be used to provide the real time traveler information for the DMS along with messages generated by the TMC staff.

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/
1. Traffic Management	YES	ATMS06
2. Transit Operations Support	NO	
3. Communications	YES	ATMS06
4. Traveler Information	YES	ATMS06
5. Archived Data Management	NO	
6. ITS for Safety	NO	
7. ITS Plans	NO	
8. Freeway-Arterial Operations	NO	

Note: Please attach the Architecture Flow Diagram in the application

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	$854,811.00	$51,670.00	$906,481.00
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	$2,000
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

ITS Application from City of Phoenix for '7th Ave 7th St DMS Deployment'

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	$8,000.00	$8,000.00	No
4. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)	LS	1	$20,000.00	$20,000.00	No
5. HAZMAT ASSESSMENT	LS	1		$0.00	No
SUBTOTAL – PROJECT SCOPING COSTS				$33,000.00	$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	$75,000.00	$75,000.00	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				$75,000.00	$0

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

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)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
Structure for DMS (Pole & Foundation)	*EA*	*8*	*$25,000*	*$200,000*	Yes
Power Pedestal for DMS	*EA*	*8*	*$8,000.00*	*$64,000*	Yes
				$0	Yes
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
SUBTOTAL - CONSTRUCTION				$264,000	$264,000

2. PROCUREMENT (Insert additional rows if necessary)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
DMS Assembly (includes cabinet and controller)	*EA*	*8*	*$60,000*	$480,000	Yes
Ethernet Switch	*EA*	*8*	*$1,500*	$12,000	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No
				$0	No

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
SUBTOTAL – PROCURMENT				$492,000	$492,000

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
3. OTHER ITEMS (Insert additional rows if necessary)					
Item Description	**Unit**	**Quant.**	**Unit Prices**	**Total**	**Eligible for CMAQ?**
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
				$0.00	No
SUBTOTAL - OTHER CONSTRUCTION LINE ITEMS				$0.00	$0
4. MOBILIZATION AND ADMINISTRATION COSTS (Construction Only. If Section 1 is filled out, please fill out this section)					
Item Description	**Unit**	**Quant.**	**Unit Prices**	**Total**	**Eligible for CMAQ?**
CONTRACTOR MOBILIZATION	LS	1	$31,680.00	$31,680.00	Yes
TRAFFIC CONTROL	LS	1	$26,400.00	$26,400.00	Yes
CONSTRUCTION SURVEY & LAYOUT	LS	0		$0.00	No
CONSTRUCTION CONTINGENCIES	LS	1	$52,800.00	$52,800.00	Yes
CONSTRUCTION ADMINISTRATION	LS	1	$39,600.00	$39,600.00	Yes
SUBTOTAL – MOBILIZATION & ADMINISTRATION COSTS				$ 150,480	$150,480
TOTAL CONSTRUCTION OR IMPLEMENTATION COST				$ 906,480	$ 906,480
D. ADOT Fee for PE Reviews and Staff Charges	LS	1	$5,000	$5,000	No

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS					
TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION					$1,019,480
TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT					$906,480
TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)					$854,811
LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)					$51,669
LOCAL AGENCY FUNDS NOT ELIGIBLE FOR FEDERAL REIMBURSEMENT					$113,000

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: R. Naimark

Name: Rick Naimark

Title: Deputy City Manager

Date: September 18, 2012

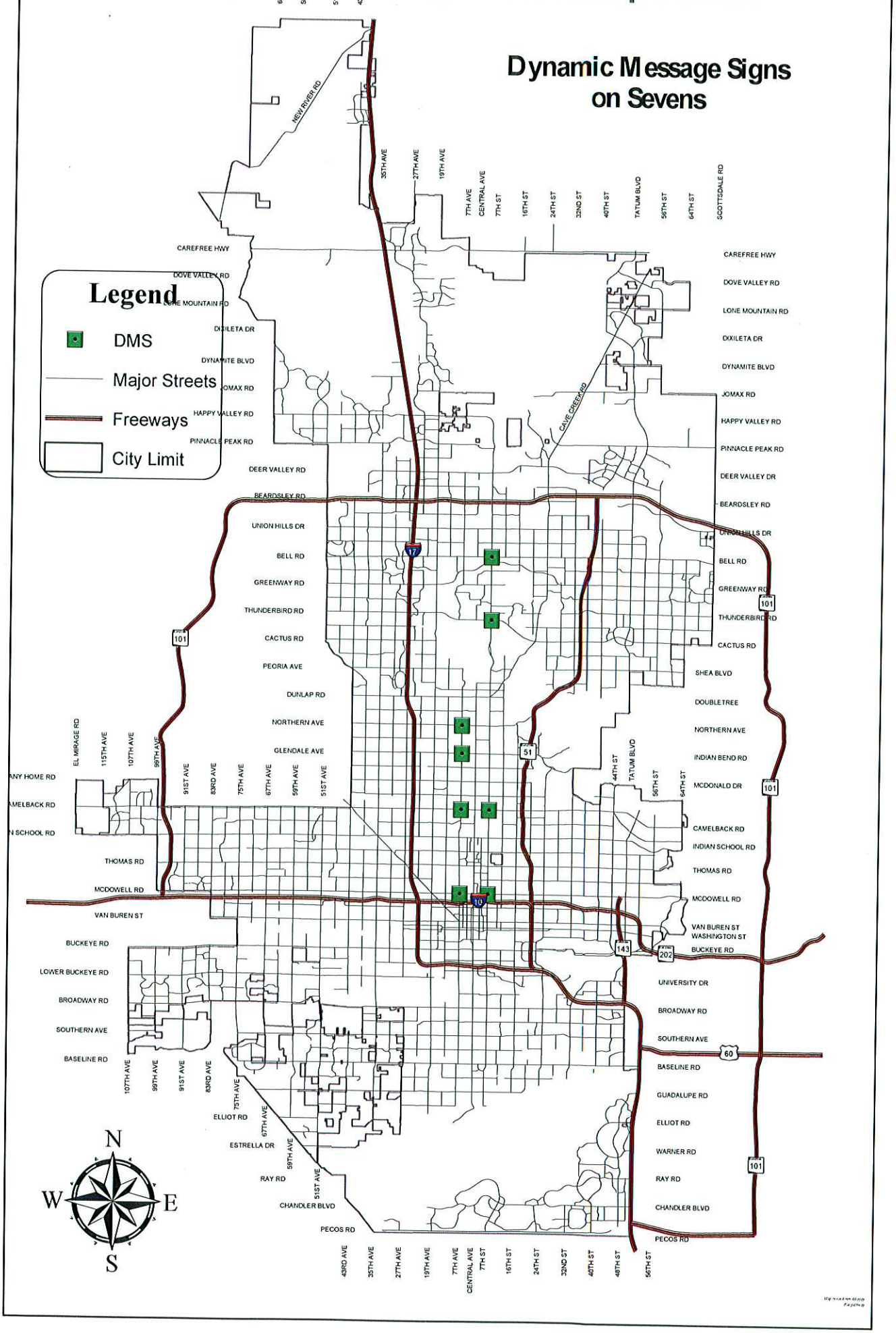
WILL FILL OUT AFTER QUESTIONS APPROVED.

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

City of Phoenix Street Transportation



ATMS06 - Traffic Information Dissemination
City of Phoenix