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

Contact Information	
1. Sponsoring Agency	City of Goodyear
2. Contact Name	Hugh Bigalk
3. Phone	623-882-7514
4. E-Mail Address	hugh.bigalk@goodyearaz.gov
5. Mailing Address	195 North 145th Avenue, Building D, Goodyear, Arizona 85338

(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 Goodyear for 'Yuma Road - Cotton to Estrella,Cotton Lane - Yuma to Lilac'

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: 12000

b. Please Describe how the ADT was estimated: Tube counts from 2008 along Yuma Road between Cotton Lane & Estrella Parkway

c. When was the ADT estimate developed: 2008

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

e. Starting Limit of the Roadway Section: Cotton Lane

f. Ending Limit of the Roadway Section: Estrella Parkway

g. Length (Miles) 2.5

h. Total Number of Through Lanes on the Roadway Section: 4

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: 37

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
X	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: 37

b. Enter the post-improvement (current) traffic speed of the traffic corridor: 45

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 Goodyear
Other Partnering Agencies	
ITS Project Title:	Yuma Road - Cotton to Estrella,Cotton Lane - Yuma to Lilac
Project Category:	**Arterial ITS**

B. Project Goals & Objectives

Project Goals:

Implement the ability to efficiently manage traffic under normal, congested and incident conditions for the City of Goodyear.

Objectives:

Expand Traffic Management Center (TMC) traffic surveillance and mornitoring capability by connecting to seven existing traffic signals along Cotton Lane and Yuma Road; Facilitate the adjustment of traffic signal timing adjustments at these locations in response to real-time traffic conditions.

C. Project Information

Project Location:

Cotton Lane from Yuma Road to Lilac Street and Yuma Road from Cotton Lane to Estrella Parkway. Intersection 1 - Cotton Lane & Yuma Road, Intersection 2 - Cotton Lane & Development Driveway, Intersection 3 - Cotton Lane & Lilac Street, Intersection 4 - Development Driveway & Yuma Road, Intersection 5 - Sarival Avenue & Yuma Road, Intersection 6 - Wildflower Drive & Yuma Road, Intersection 6 - Goodyear Boulevard & Yuma Road;

Scope of the project:

Purchase and install approximately 5,500 LF of 2-2" conduits, 5,500 3" conduit, 15,000 LF of 96 strand SMFO cable, 8 fiber optic splice enclosures, 7 field hardened Ethernet switches, 7 video codecs and 7 CCTV cameras. This project will connect the City of Goodyear TMC to the seven traffic signals along Cotton Lane and Yuma Road. The City of Goodyear will establish connectivity to this project via MAG TIP project #CM-GDY13-902 in FFY2012.

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	ATMS01,ATMS03
2. Transit Operations Support	No	
3. Communications	Yes	ATMS07
4. Traveler Information	No	
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	$820,001.00	$49,566.00	$869,567.00
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				Nov-2013
Receipt of ADOT project number	Jan-2014	Yes	2	Jan-2014
Initial DCR	Feb-2014	Yes	3	Feb-2014
Final DCR	Mar-2014	Yes	4	Mar-2014
30% Preliminary Plans, Cost Estimate and Report	May-2014	Yes	5	Apr-2014
60% Preliminary Plans, Cost Estimate and Report	Jul-2014	Yes	24	Nov-2015
Final Preliminary Plans, Cost Estimate and Report	Sep-2014	Yes	26	Jan-2016
Environmental Clearance	Jul-2014	Yes	24	Nov-2015
Utility Clearance	Aug-2014	Yes	26	Jan-2016
Right-of-Way Clearance	May-2014	Yes	26	Jan-2016
Approval of IGA	Nov-2014	Yes	24	Nov-2015
Obligation authority of Federal funds	Dec-2014	Yes	27	**Feb-2016**
Advertised Date	Feb-2015	Yes	2	Apr-2016
Final Deployment	Aug-2015	Yes	6	Oct-2016

< ENTER mm/yyyy -- Project Activity S

H. System Maintenance and Operations

Current staff resources available for ITS operations at the local	2
Additional staff resources required for fully utilizing features added by	0
Estimated current annual ITS operations & maintenance budget	$125,000
Estimated additional annual operations & maintenance funds required	$15,000
Estimated DATE from when required additional O&M funds will be	Jul-2014

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

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

ITS Application from City of Goodyear for 'Yuma Road - Cotton to Estrella,Cotton Lane - Yuma to Lilac'

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: Brian Dalke

Name: BRIAN DALKE

Title: INTERIM CITY MANAGER

Date: September 14, 2012

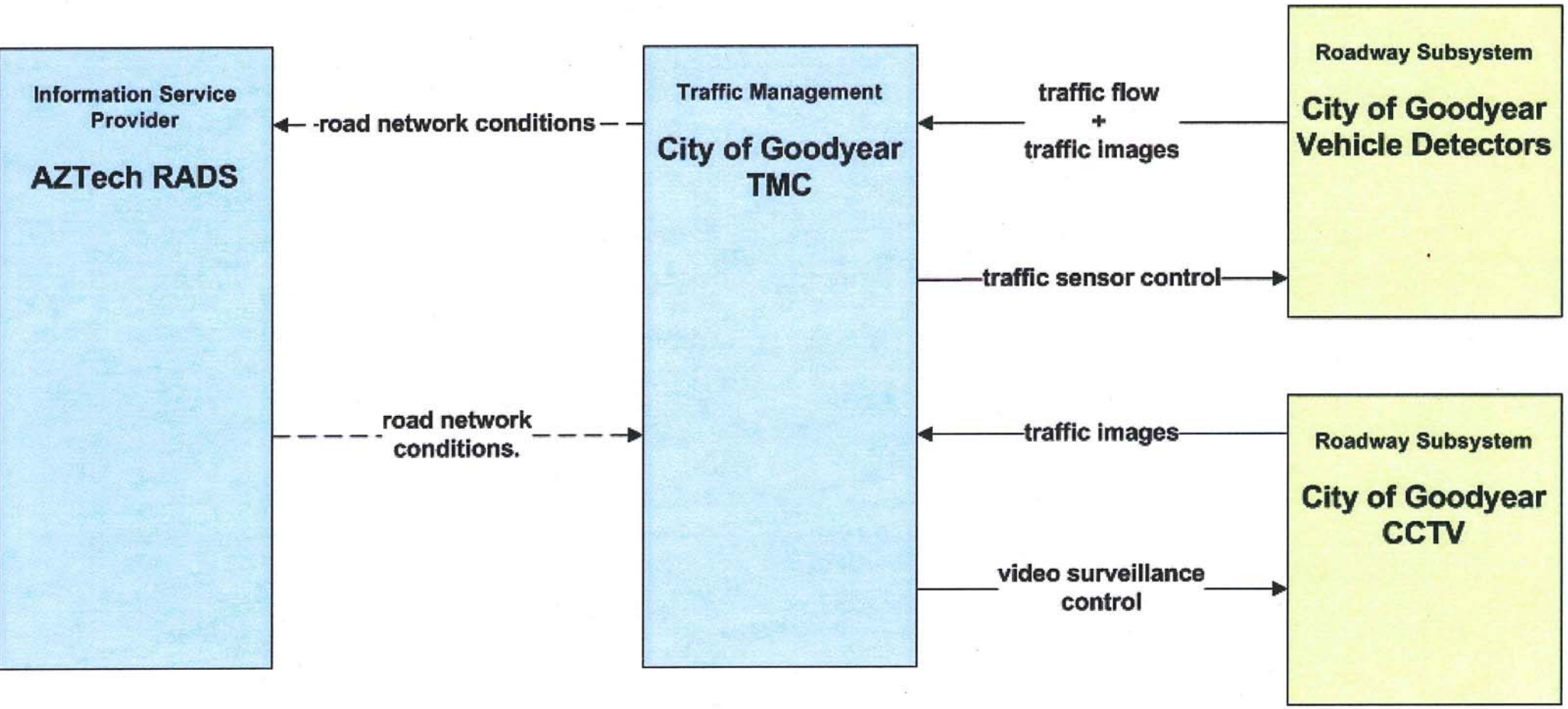
WILL FILL OUT AFTER QUESTIONS APPROVED.

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	Yes
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	Yes
3. Other Improvements - As applicable all fields are completed	Yes
PART C - Total Project Schedule and Budget Including All Segment Fields	**Complete?**
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
PART D - Signature Page Fields	**Complete?**
Form is signed	
Name, title and date fields are completed.	

ATMS01 - Network Surveillance
City of Goodyear



LEGEND

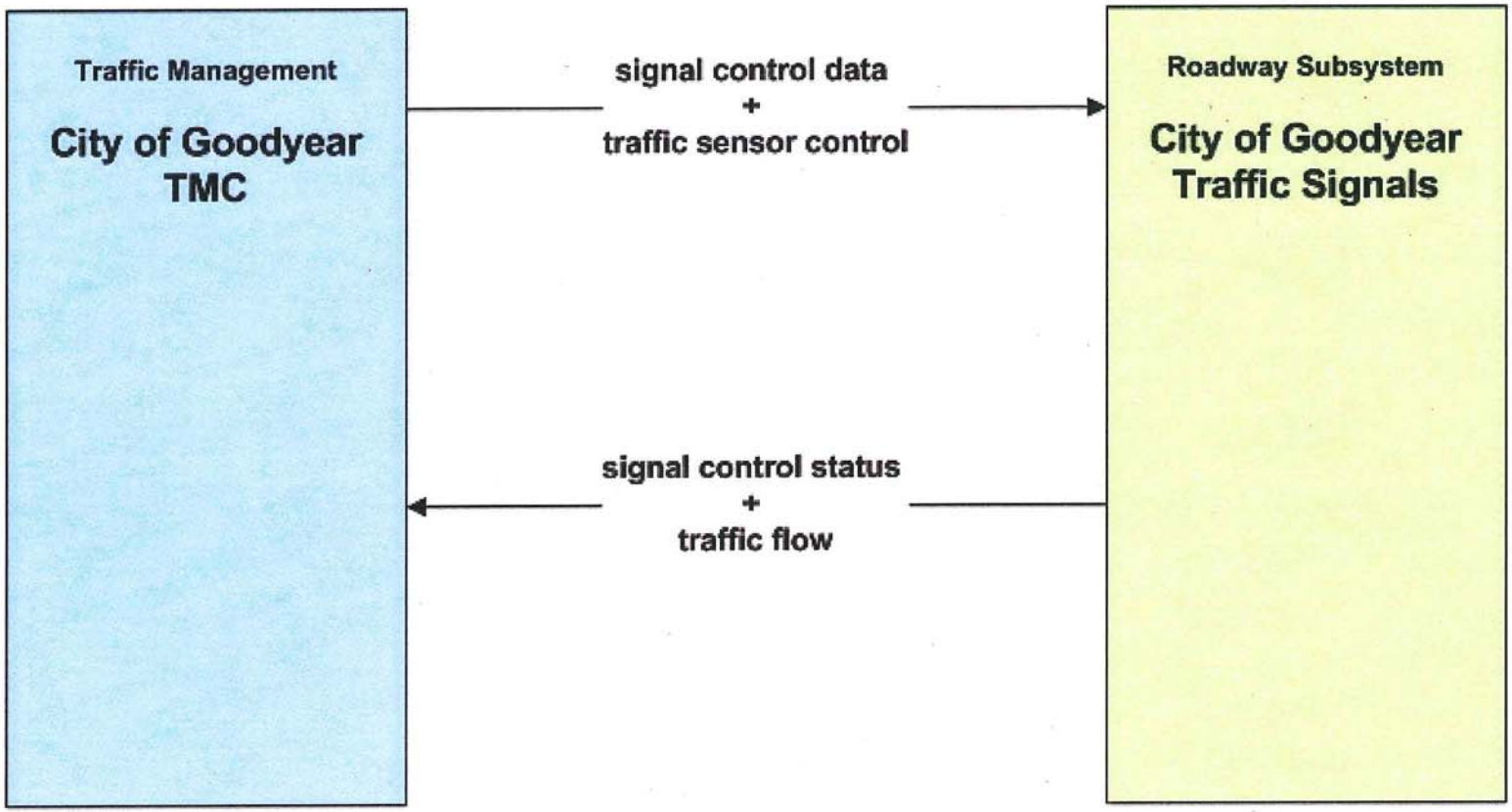
planned and future flow

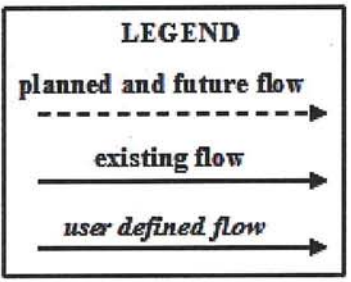
existing flow

user defined flow

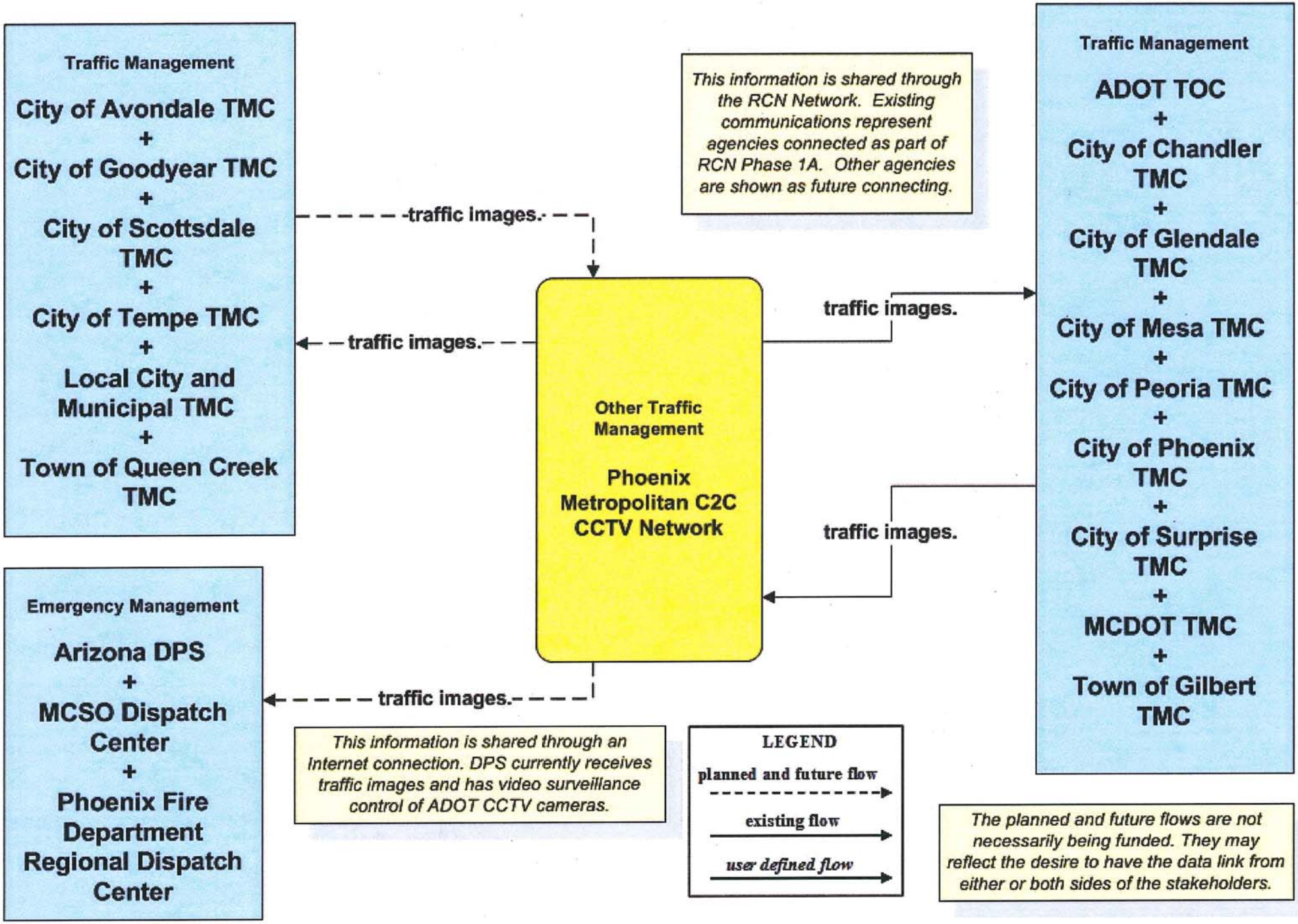
The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

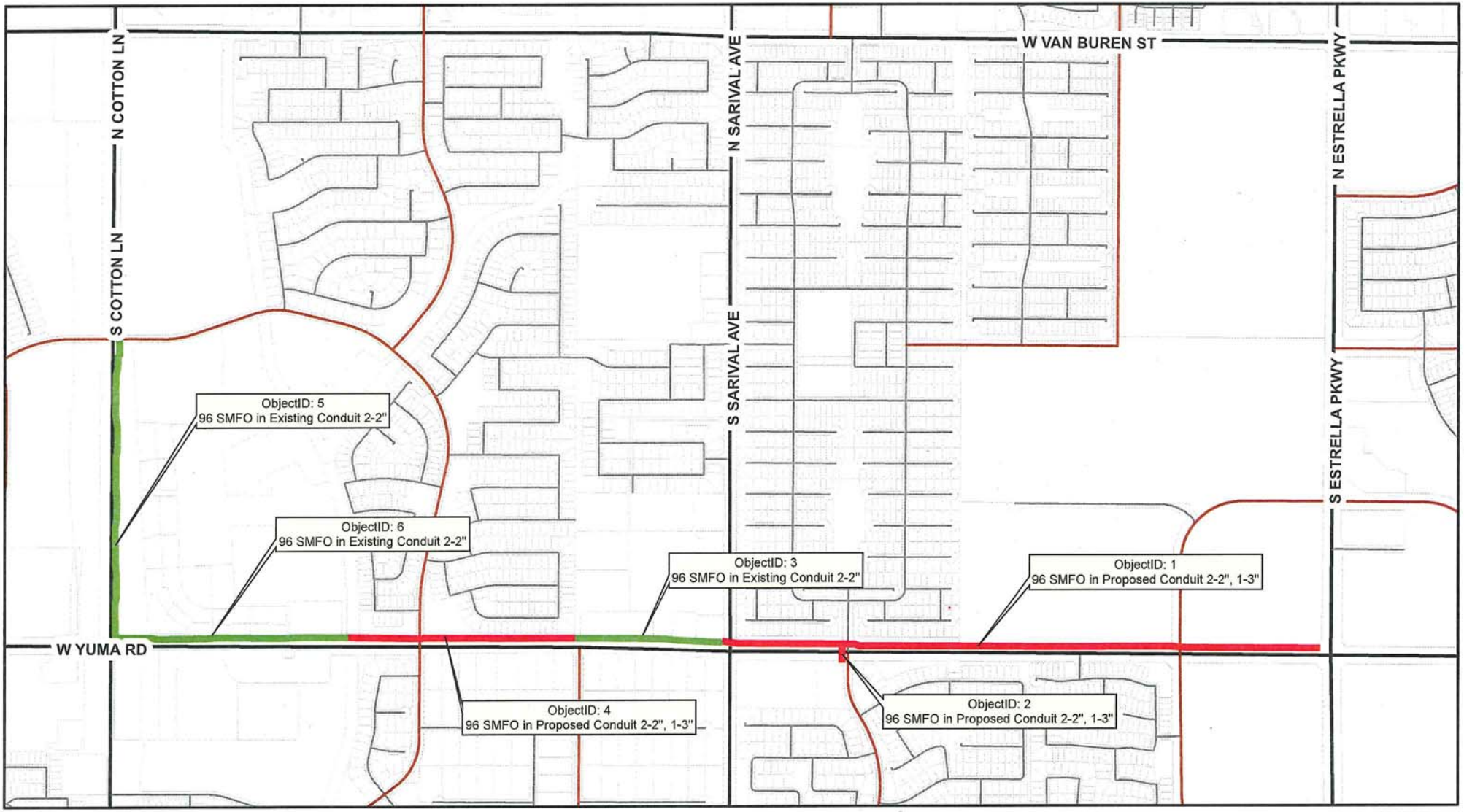
ATMS03 - Surface Street Control
City of Goodyear





ATMS07 - Regional Traffic Management
Phoenix Metropolitan C2C CCTV Network





OBJECTID	Project	Description	SHAPE_Length	Location
1	Yuma Road - Cotton Lane to Estrella Parkway and Cotton Lane - Yuma Road to Lilac Street	96 SMFO in Proposed Conduit 2-2", 1-3"	5,129.07	Yuma Road from Cotton Lane to Estrella Parkway
2	Yuma Road - Cotton Lane to Estrella Parkway and Cotton Lane - Yuma Road to Lilac Street	96 SMFO in Proposed Conduit 2-2", 1-3"	157.62	Yuma Road from Cotton Lane to Estrella Parkway
3	Yuma Road - Cotton Lane to Estrella Parkway and Cotton Lane - Yuma Road to Lilac Street	96 SMFO in Existing Conduit 2-2"	1,269.25	Yuma Road from Cotton Lane to Estrella Parkway
4	Yuma Road - Cotton Lane to Estrella Parkway and Cotton Lane - Yuma Road to Lilac Street	96 SMFO in Proposed Conduit 2-2", 1-3"	1,940.03	Yuma Road from Cotton Lane to Estrella Parkway
5	Yuma Road - Cotton Lane to Estrella Parkway and Cotton Lane - Yuma Road to Lilac Street	96 SMFO in Existing Conduit 2-2"	2,624.88	Cotton Lane from Yuma Road to Lilac Street
6	Yuma Road - Cotton Lane to Estrella Parkway and Cotton Lane - Yuma Road to Lilac Street	96 SMFO in Existing Conduit 2-2"	1,980.52	Yuma Road from Cotton Lane to Estrella Parkway

NORTH

1 inch = 1,200 feet

Goodyear

Goodyear GIS
9/12/2012

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	1	$0.00	$0.00	No
2. PROJECT ASSESSMENT REPORT or DETAILED WORKPLAN	LS	1	$0.00	$0.00	No
3. SYSTEMS ENGINEERING ANALYSIS (must address FHWA requirements)	LS	1	$0.00	$0.00	No
4. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)	LS	1	$30,000.00	$30,000.00	No
5. HAZMAT ASSESSMENT	LS	1	$10,000.00	$10,000.00	No
SUBTOTAL – PROJECT SCOPING COSTS				$40,000.00	$0

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
B. FINAL PRELIMINARY ENGINEERING DESIGN - Stages II, III, IV and PS&E (Not applicable to non-infrastructure projects)					
1. Right-of-Way Acquisition	LS	1	$0.00	$0.00	No
2. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.	LS	1	$0.00	$0.00	No
3. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report	LS	1	$0.00	$0.00	No
4. DRAINAGE REPORT	LS	1	$0.00	$0.00	No
5. Storm Water Pollution Prevention Plan (SWPPP)	LS	1	$0.00	$0.00	No
SUBTOTAL – PROJECT DESIGN COSTS				$0.00	$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?
ELECTRICAL CONDUIT (3")	*LF*	*8,000*	*$20.00*	*$160,000*	Yes
ELECTRICAL CONDUIT (2-2")	*LF*	*8,000*	*$35.00*	*$280,000*	Yes
PULL BOX (NO. 7) (WITH EXTENSION)	*EA*	*8*	*$750.00*	*$6,000*	Yes
PULL BOX (NO. 9)	*EA*	3	$4,000.00	*$12,000*	Yes
SINGLE MODE FIBER OPTIC CABLE (12 FIBERS)	*LF*	600	$5.00	*$3,000*	Yes
SINGLE MODE FIBER OPTIC CABLE (96 FIBERS)	*LF*	15,000	$6.00	*$90,000*	Yes
FIBER OPTIC SPLICE CLOSURE (RESEALABLE)	*EA*	7	$3,000.00	*$21,000*	Yes
ELECTRICAL SYSTEM (FIELD ETHERNET SWITCH)	EA	7	$2,500	*$17,500*	Yes
ELECTRICAL SYSTEM (SINGLE MODE FIBER OPTIC PATCH CORD)	EA	13	$50	*$650*	Yes
ELECTRICAL SYSTEM (SINGLE CHANNEL VIDEO CODEC)	EA	7	$2,500	*$17,500*	Yes
CCTV FIELD EQUIPMENT	EA	7	$10,000	*$70,000*	Yes
MISCELLANEOUS WORK (AS BUILT DRAWINGS)	LS	1	$4,000	*$4,000*	Yes
				$0	No
				$0	No
				$0	No
				$0	No
SUBTOTAL - CONSTRUCTION				$681,650	$681,650

2. PROCUREMENT (Insert additional rows if necessary)

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

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
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	$15,000.00	$20,000.00	Yes
TRAFFIC CONTROL	LS	1	$25,000.00	$15,000.00	Yes
CONSTRUCTION SURVEY & LAYOUT	LS	1	$2,000.00	$2,000.00	Yes
CONSTRUCTION CONTINGENCIES	LS	1	$9,635.00	$35,933.00	Yes
CONSTRUCTION ADMINISTRATION	LS	1	$28,905.00	$114,983.00	Yes
SUBTOTAL – MOBILIZATION & ADMINISTRATION COSTS				$ 187,916	$187,916
TOTAL CONSTRUCTION OR IMPLEMENTATION COST				$ 869,566	$ 869,566

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
D. ADOT Fee for PE Reviews and Staff Charges	LS	1	$17,391	$17,391	No
			TOTAL ADOT Fee COST	$17,391	$0
E. TOTAL PROJECT COST (All subtotals + ADOT local projects review fee)				$926,957	$869,566

F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS

TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION	**$926,957**
TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT	**$869,566**
TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)	**$820,001**
LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)	**$49,565**
LOCAL AGENCY FUNDS NOT ELIGIBLE FOR FEDERAL REIMBURSEMENT	**$57,391**