

ITS PROJECT APPLICATION FORM FY 2009-2013 TIP

General Instructions: This form is to be used to request federal Congestion Mitigation and Air Quality (CMAQ) funding available through the Maricopa Association of Governments for Intelligent Transportation System (ITS) projects to be included in the FY 2009-2013 MAG Transportation Improvement Program. Currently funding is available only for **FY 2013**.

Separate application forms are available for bicycle, pedestrian, air quality, and transit projects. Freeway, street and rail transit projects will be programmed in a separate process.

This application form includes:

- Part A: Project Description and TIP Listing Information. In Part A, the applicant provides the minimum information necessary to list a project in the TIP as required by applicable federal regulations and general descriptive information necessary for MAG staff and technical committees to evaluate the project.
- Part B: Project Congestion Management System (CMS) and Congestion Mitigation Air Quality (CMAQ) Data: In Part B, the applicant provides data necessary for MAG staff to calculate CMS and CMAQ scores for projects.
- Part C: MAG Technical Committee Additional Information. This section is used to collect information requested by the MAG ITS Committee. The MAG ITS Committee is charged with evaluating and recommending ITS projects for federal funding. **PLEASE NOTE: Part C is only available electronically.** It is available at: <http://www.mag.maricopa.gov/project.cms?item=413>, or you can contact Leo Luo: lluo@mag.maricopa.gov, and he will send you the electronic file.

Deadlines and Transmittal Instructions: All sections should be completed and returned to MAG Offices by **5:00 p.m. September 7, 2007**. Please e-mail Judy Tadlock at MAG, jtadlock@mag.maricopa.gov this application (Part A & B). Part C is only available electronically as noted above. Please e-mail Leo Luo the completed Part C, excel file to lluo@mag.maricopa.gov. The mailing address and FAX number for the MAG offices is:

ATTN: Judy Tadlock
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003
FAX Number: (602) 254-6490

Electronic Download Information: A downloadable version of these forms in Microsoft Word is available on the MAG website at <http://www.mag.maricopa.gov/project.cms?item=413>. If requested, MAG staff will also provide these forms via e-mail or FAX.

MAG Contact Information: If you have any questions, please contact Stephen Tate or Eileen Yazzie at (602) 254-6300 or at state@mag.maricopa.gov.

Agency Contact Information: Please complete the following contact information for each project, so that we may contact you should we need additional information.

1. Name of the Agency Contact for the Project Request: City of Goodyear, Luke Albert	2. Telephone: (623) 882-7519
3. E-mail luke.albert@goodyearaz.gov	4. Date: 9/7/07

ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP

Part A: Project TIP Listing Information and Description

Section One: TIP Listing Information.

Please complete the following information for all projects. If the project is accepted for MAG federal funding, the project information provided in this section will appear in the TIP as provided by the applicant

1. Sponsoring Agency Name:

City of Goodyear

2. Year (Please check box):

FY 2013

3. Project Location (The project limits if applicable):

Citywide

4. Type of Work (Description of the work to be performed):

Design and construction of fiber optic interconnect in existing conduit for traffic management through video surveillance and data collection.

5. Amount of Federal Funds Requested (This amount cannot exceed **70.0** percent of the total cost of the project.):

\$891,256

6. Type of Federal Funds Requested (Please check box.):

MAG STP

CMAQ

7. Amount of Local Funds to be Used (This amount cannot be less than **30.0** percent of the total cost of the project.):

\$891,256

8. Type of Local Funds to be Used: (Please check only one box.):

HURF

Impact Fees

General Fund

Bond Proceeds

Sales Tax

Private

Property Tax

Other, Please specify: _____

9. Total Cost of the Project: (This amount must equal the sum of the federal and local amounts requested):

\$1,782,512.00

10. Please attach a map, drawing, photograph, plans or other graphic showing the location of the project. If no graphic is available or it is not feasible to provide one, please indicate this fact in the space below.

The map provided shows the existing and currently planned interconnect conduit and fiber optic cable within the City of Goodyear. Additional interconnect conduit is installed with new development and city projects on arterial streets.

ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP

Part B: CMS and CMAQ Data

General Instructions: In Part B, the applicant provides data necessary for MAG staff to calculate Congestion Management System (CMS) and CMAQ scores for projects.

Section One: Congestion Management System and CMAQ Data

Please complete the following information for all street projects. The information used in this section is used to calculate CMS scores.

<p>1. Current Average Daily Traffic (ADT) on the Facility or the Nearest Parallel Facility of a Similar Type:</p> <p style="text-align: center;">Citywide Project</p>	<p>2. Name of the Roadway Section Used for the ADT Estimate:</p> <p style="text-align: center;">Citywide Project</p>	<p>3. Type of Facility to be Improved (Check only <u>one</u> box):</p> <p><input type="checkbox"/> Arterial > 4 legs (e.g. Grand)</p> <p><input checked="" type="checkbox"/> Arterial Street</p> <p><input type="checkbox"/> Collector Street</p> <p><input type="checkbox"/> Other</p>
<p>4. Number of Through Lanes Currently on the Facility Prior to Project Completion (Do <u>not</u> include right, left or center turn lanes):</p>	<p>5. Number of Through Lanes on the Facility After the Project is Completed (Do <u>not</u> include auxiliary lanes):</p>	<p>6. Length of the Facility (in miles):</p> <p style="text-align: center;">Approximately 15 centerline miles of roadways</p>
<p>7. Township Coordinate of the Midpoint of the Facility:</p>	<p>8. Range Coordinate of the Midpoint of the Facility:</p>	<p>9. Section Coordinate of the Midpoint of the Facility:</p>

10. 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"/>	Non-interconnected, pre-timed signals with old timing plan	Advanced computer-based control	25.0 percent
<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

ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP
Part B: CMS and CMAQ Data

11. Other Project Information: (Check as many as are applicable):

- 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
- The facility is on the adopted MAG Roads of Regional Significance Network
- Adds Traffic Signals that increase pedestrian crossing time for seniors

12 Management System (Please check only one box)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Congestion Management System (CMS) | <input type="checkbox"/> Safety Management System (SMS) |
| <input type="checkbox"/> Bridge Management System (BMS) | <input type="checkbox"/> Intermodal Management System (IMS) |
| <input type="checkbox"/> Pavement Management System (PMS) | <input type="checkbox"/> Other |
| <input type="checkbox"/> Public Transportation Management System (PTMS) | |

13. Please identify the priority the agency places on this project. If for example, the agency is submitting three requests for ITS projects and this is the agency's highest priority, then a "1" should be entered. Each priority entered should be unique – e.g. no two requests for ITS projects should have the same priority.

1

Part C: MAG Technical Committee Additional Information

This section is used to collect information requested by the MAG ITS Committee. The MAG ITS Committee is charged with evaluating and recommending ITS projects for federal funding. **Part C is only available electronically. It is available at: <http://www.mag.maricopa.gov/project.cms?item=413>, or you can contact Leo Luo: lluo@mag.maricopa.gov, and he will send you the electronic file.**

Contact Information

Please contact Sarath Joshua or Leo Luo at (602) 254-6300 or sjoshua@mag.maricopa.gov, lluo@mag.maricopa.gov for additional information or questions.

**FY 2009 - 2013 TIP - Programming 2013
MAG ITS Project Data Form**

Please enter project data ONLY in highlighted cells, save the file with the lead agency name in it - ie. Mesa ITS Projects.xls

Submit this Excel workbook to MAG via email to: LLUO@MAG.MARICOPA.GOV

Please use one worksheet per project, with the tab at the bottom indicating agency priority

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. If errors are detected alerts will pop-up in **red text**.

The worksheet titled "HELP" shows how to figure out your project's ITS Subsystems & Architecture Flows

Please enter required information in highlighted cells

A. Project Title & Sponsor

Lead Agency	City of Goodyear
Other Partnering Agencies	
ITS Project Title:	Citywide Fiber Optic Cable Interconnect Installation

B. Project Goals & Objectives

Project Goals:

Install fiberoptic cable to achieve the ability to efficiently manage traffic under normal, congested, incident, and emergency conditions.

Objectives:

Expand the City's ability to monitor and manage traffic through video surveillance and data collection, as well as remote control of signalized intersections. The objectives will be achieved by installing fiberoptic cable in interconnect duct banks that have been installed and are planned to be installed as parts of city funded and private development projects. In addition, communications equipment will be installed in existing and planned traffic signal cabinets and in the City's Traffic Operations Center.

C. Define ITS Subsystems, Architecture Flows, Communications & Arterial ITS Applications

<u>SELECT ITS Subsystems:</u> http://www.iteris.com/itsarch/html/entity/pae	Yes or No
Center Subsystem	Yes
Traveler Subsystem	No
Field/Roadside Subsystem	Yes
Vehicle Subsystem	No
Communications Subsystem	Yes

Architecture Flows (Information flows among four subsystems: Traveler, Center, Roadside and Vehicle Subsystems)

From Subsystem	To Subsystem	Information flow
Field	Center	Signal Controller Data, Video Output
Center	Field	Signal Timing Changes, Camera Control

Communications: Required communications medium for data sharing with other agencies: (if applicable)

From agency	To agency	data flow	Medium	Existing?	Future (year) mm/yyyy	Check Date with Project Schedule
Goodyear	AZTech Partners	Signal Controller Data, Video Output	Fiber	No	Oct-2013	

<u>Arterial ITS applications</u>	Relevant Applications (ENTER: Yes or No)	<u>Applicable ITS User Services Addressed</u> http://www.iteris.com/itsarch/html/user/userserv.htm	<u>Applicable ITS Market Packages</u> http://www.iteris.com/itsarch/html/mp/mpindex.htm
1. Traffic Management	Yes	1.6	ATMS01, 03, 07, 08
2. Transit Operations Support	No		
3. Interagency Data Sharing and Control	Yes	1.3, 1.6	ATMS01, 03, 07, 08
4. Integrated Traveler Information	No		
5. Archived Data Management	Yes	7.1	ATMS07, 21
6. Incident Management	Yes	1.7	ATMS07, 08
7. Freeway-Arterial Operations	Yes	1.6, 1.7, 4.5, 5.3	ATMS01, 03, 06, 07, 08, 21

D. Project Budget

- (1) The total of all federal funds requested for ITS projects by any MAG member agency should not exceed \$1 million per program year per agency.
- (2) Joint projects that involve 3 or more agencies may exceed \$1m in federal cost. Federal cost of each agency's component will not be counted against the \$1m limit.
- (3) There is no limit on the number of projects that may be submitted by an agency, but each project requires the 30 percent local cost match
- (4) For multijurisdictional projects, the federal and local shares of each partnering agency must be shown below.

	Federal Cost	Local Match (min 30%)	Total Cost
Lead Agency	\$891,256.00	\$891,256.00	\$1,782,512.00
Partnering Agency#1			\$0.00
Partnering Agency#2			\$0.00
Partnering Agency#3			\$0.00
Total	\$891,256.00	\$891,256.00	\$1,782,512.00
Cost percentage	50.0%	50.0%	

Note: Each participating agency should provide at least 30% local match for its share of the total cost

E. Project Schedule

The following project milestones and schedules are based on a typical project procurement process. Please select applicable milestones. Some ITS projects may follow an abbreviated process. ENTER estimated time for such a process

Standard Project Milestones	Default Schedule for Process	Applicable Milestones (ENTER - Yes OR No)	Estimated Time to Milestone (ENTER #Months)	Estimated Date (Enter> mm/yyyy)
Apply for ADOT project number				Nov-2011
Receipt of ADOT project number	Jan-2012	Yes	2	Jan-2012
Initial DCR	Feb-2012	Yes	4	Feb-2012
Final DCR	Mar-2012	Yes	5	Mar-2012
30% Preliminary Plans, Cost Estimate and Report	May-2012	Yes	7	May-2012
60% Preliminary Plans, Cost Estimate and Report	Jul-2012	Yes	9	Jul-2012
Final Preliminary Plans, Cost Estimate and Report	Sep-2012	Yes	11	Oct-2012
Environmental Clearance	Jul-2012	Yes	9	Aug-2012
Utility Clearance	Aug-2012	Yes	10	Aug-2012
Right-of-Way Clearance	May-2012	Yes	10	Sep-2012
Approval of IGA	Nov-2012	Yes	14	Jan-2013
Obligation authority of Federal funds	Dec-2012	Yes	15	Jan-2013
Advertised Date	Feb-2013	Yes	18	Apr-2013
Final Deployment	Aug-2013	Yes	24	Oct-2013

F. System Maintenance and Operations

Current staff resources available for ITS operations at the local agency (FTEs)	1.5
Additional staff resources required for fully utilizing features added by project (FTEs)	0
Estimated current annual ITS operations & maintenance budget	\$200,000
Estimated additional annual operations & maintenance funds required for features added by project	\$20,000

Estimated DATE from when required additional O&M funds will be available

Nov-2012

Other comments:

The installation of fiber optic cable will improve the City's ability to control traffic from the newly constructed TMC under any given condition. Over the past 12 months, two new signals have been installed with CCTV and will need to be interconnected into the City's system. Over the next three years, over twenty additional traffic signals with video observation capabilities will be installed. These installation of these facilities are an important element of regional traffic management that directly affects neighboring cities and I-10.

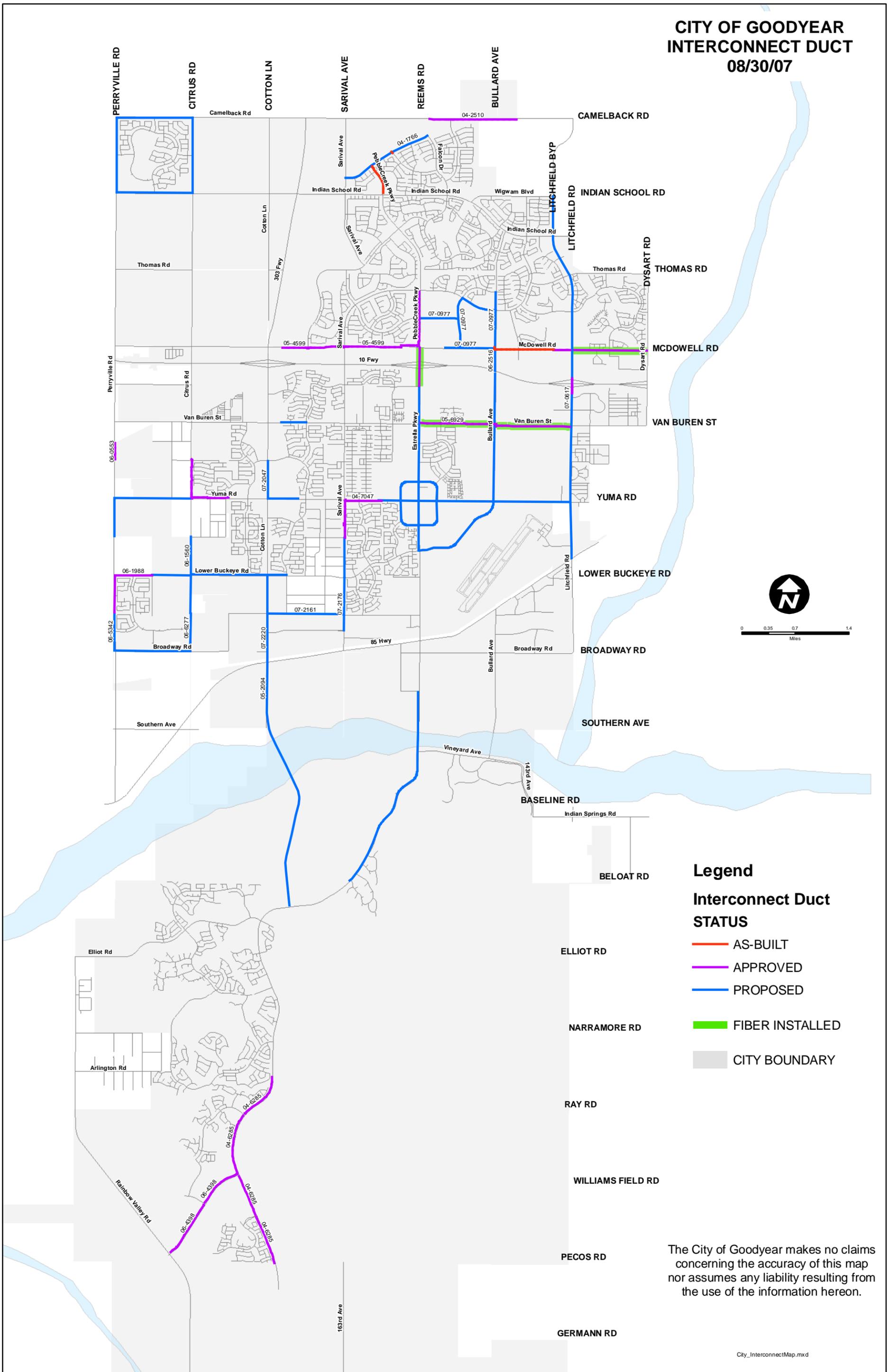
G. Systems Engineering Analysis Requirement

Commitment to address the federal requirement for Systems Engineering Analysis:

Agency's intent to follow the process described in the 'V' diagram (See Appendix A of Arterial ITS Plan) during the project development process

The project sponsor or lead agency intends to incorporate the Systems Engineering Analysis in the scope of work for the project's Design Concept Report. The Systems Engineering Analysis will be carried out based on the document Systems Engineering for ITS published by FHWA in January 2007. A guidelines document prepared by FHWA (AZ office) and MAG dated August 2006 is also available (both are posted at the MAG website).

CITY OF GOODYEAR INTERCONNECT DUCT 08/30/07



The City of Goodyear makes no claims concerning the accuracy of this map nor assumes any liability resulting from the use of the information hereon.