PART A - CONTACT INFORMATION	
1. Sponsoring Agency	City of Surprise
2. Contact Name	Albert Garcia
3. Phone	623-222-1733
4. E-Mail Address	alber.garcia@surpriseaz.gov
5. Mailing Address	16000 North Civic Center Plaza Surprise, AZ 85374
(OPTIONAL) GIS Submittal Instructions	

PART B - CMAQ Score Data

This part of the form is used to gather project related data to calculate an CMAQ Score and also gather 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 located within a nonattainment area. Please use the map provided in the tab named "Map" to verify that the project is located in a nonattainment area.

1. Traffic Estimate and Roadway Characteristics

a. Current Average Daily Traffic (ADT) on the Facility or the Nearest Parallel Facility of a Similar Type: 14,800

b. Please Describe how the ADT was estimated: The ADT was taken from 2011 MAG Traffic Volume Survey and Traffic Counts Map.

c. When was the ADT estimate developed: 2011

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

e. Starting Limit of the Roadway Section: Greenway Rd at Cotton Lane

f. Ending Limit of the Roadway Section: Greenway Rd at Dysart Rd

g. Length (Miles) 5

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

i. Federal Functional Classification of the Roadway Section: Minor Arterial

Link to Functional Classification Update at the MAG Website

2. Improvements in Traffic Management & Operations.

a. Enter the pre-improvement (current) avg corridor traffic speed: 39

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
X	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

NOTE: All ITS projects MUST involve elegible infrastructure improvements.

3. Other Improvements. Check all that apply:

[X] Traffic signal system improvements at a single agency

PART B - CMAQ Score Data

[ ]	Traffic signal system improvements that apply to more than one agency
[X]	Includes improvements to coordination between arterial and freeway traffic operations
[ ]	Project conforms to local land use plans
[X]	Adds features to traffic signals that would better accommodate seniors at pedestrian crossings

4. Traffic Flow Improvement Due to Project (Not required for Traffic Mgmt & Operations Improvements)

a. Enter the pre-improvement (current) average traffic speed of the corridor:	39
b. Enter the post-improvement (current) average traffic speed of the corridor:	45

PART C1 - ITS Project Information

Please enter information ONLY in highlighted cells
Links to various websites are provided for additional information and help
The worksheet titled "Part C Example" shows an example on how to enter information

Arterial ITS

A. Project Title & Sponsor

Lead Agency	City of Surprise
Other Partnering Agencies	N/A
Project Title	Greenway Road Detection
Project Category	Arterial ITS

B. Project Goals & Objectives

Project Goals:

Implement required infrastructure to provide the ability to efficiently manage, detect, and monitor traffic, and to support the deployment of future Adaptive Signal Control Technology along the Greenway Road corridor.

Project Objectives:

Expand TMC traffic surveillance and monitoring at two intersections and detection at nine signalized intersections along Greenway Road.

C. Project Information

Project Location Description - a PDF file of a map must be submitted to MAG as an attachment:

Install two CCTV cameras at the intersections of Greenway Rd/Cotton Ln and Greenway Rd/157th Ave. Install advanced, stop bar, and departure detection at the intersections of; Greenway Rd/Cotton Ln, Greenway Rd/SR 303L, Greenway Rd/157th Ave, Greenway Rd/Reems Rd, Greenway Rd/Parkview Pl, Greenway Rd/Bullard Ave, Greenway Rd/Litchfield Rd, Greenway Rd/West Point Pkwy, Greenway Rd/Dysart Rd.

Scope of the Project:

Install CCTV cameras at 2 intersections along Greenway Road. In addition, install vehicle detection at 9 intersectuions along Greenway Road. This project is a priority for the City in order to implement a future Adaptive Signal Control technology along Greenway.

PART C1 - ITS Project Information

D. Identify Project Components in MAG Regional ITS Architecture

Service Area	Addressed in this Project (Yes or No)	Applicable ITS Service Packages http://www.azmag.gov/ITS/
1. Traffic Management	Yes	ATMS01, ATMS03
2. Public Transportation		
3. Communications	Yes	ATMS01, ATMS03
4. Traveler Information		
5. Archived Data Mgmt		
6. ITS for Safety		
7. ITS Planning		
8. Fwy-Arterial Operations		

NOTE: Insert the relevant Architecture Flow Diagrams in worksheet: Part C-ITSArchFlowDiags

E. Program Year Preference (enter FY2018 or FY2019)

Preferred program FY	2019

F. Project Budget

	Federal Cost	Local Match (min 5.7%)	Total Cost
Amount	$353,625.00	$21,375.00	$375,000.00
Cost percentage	94.3%	5.7%	

G. System Maintenance and Operations

Current staff resources available to support ITS operations at the local agency (in FTEs)	4
Additional staff resources required for fully utilizing features added by project (in FTEs)	0
Agency's estimated current annual ITS operations & maintenance (O&M) budget	$140,000
Estimated additional annual O & M funds required for features added by this project	$0
Estimated DATE from when required additional local O&M funds will be available	N/A

PART C1 - ITS Project Information

Other comments:

H. Systems Engineering Analysis Requirement

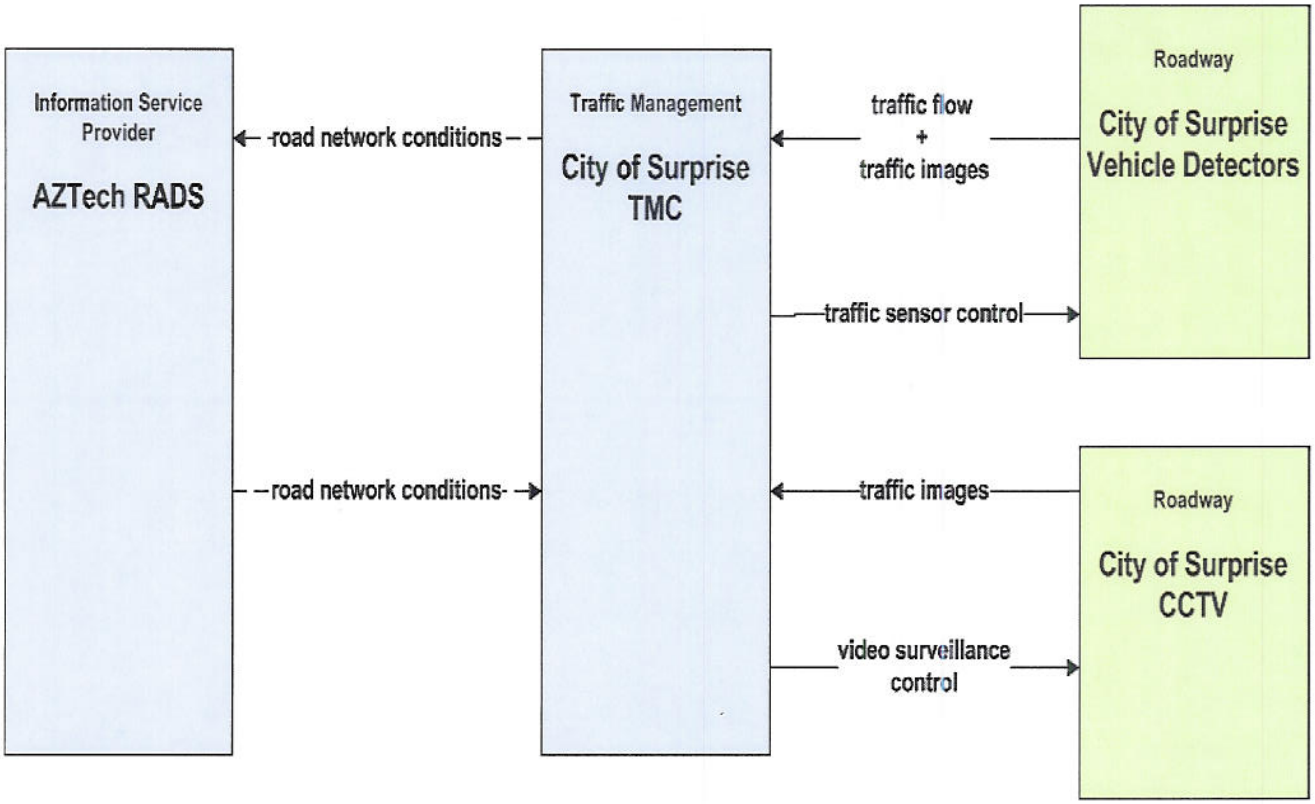
Commitment to address the federal requirement for Systems Engineering Analysis:
Agency's intent to follow the process described in the 'V' diagram
during the project development process

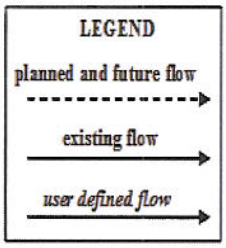
The project sponsor, City of Surprise intends to incorporate the Systems Engineering Analysis in the scope of work for the project, following guidance on the ADOT's System Engineering Checklist provided at:
http://azmag.gov/Documents/ITS_2010-11-22_ITS-Systems-Engineering-and-Architecture-Compliance-Checklist.pdf

PART C2 - ITS Architecture Flow Diagrams

Service Packages addressed by the proposed ITS project. This is to ensure that the project complies with the Regional ITS Architecture and meets a federal requirement for all federaly funded ITS projects.

ATMS01 - Network Surveillance
City of Surprise

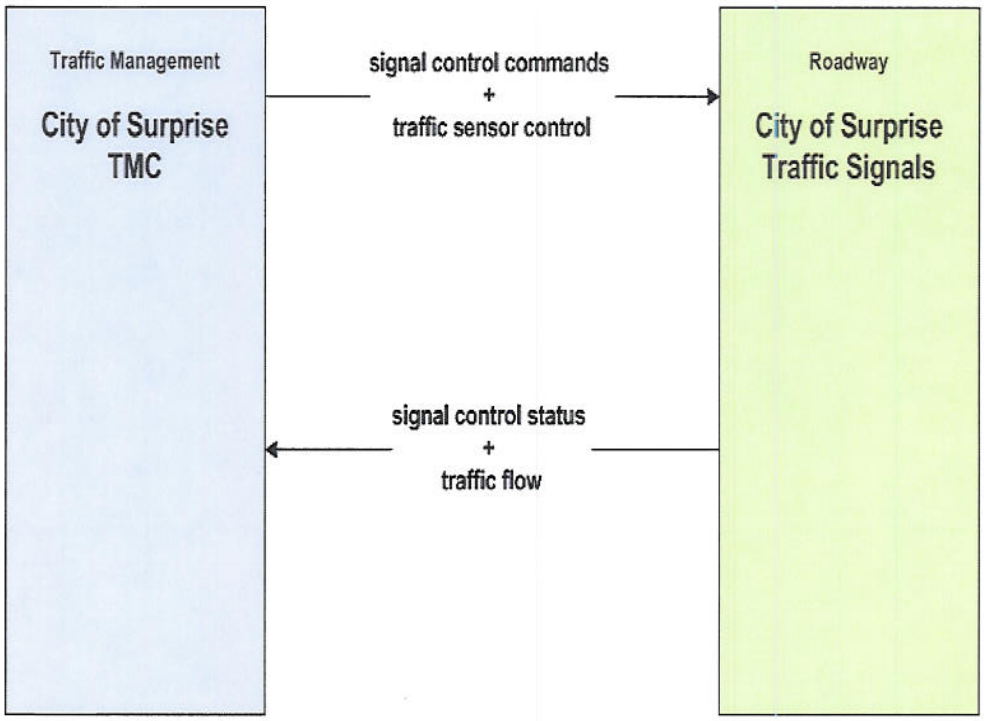


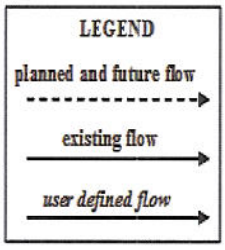


The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

PART C2 - ITS Architecture Flow Diagrams

ATMS03 - Traffic Signal Control
City of Surprise





PART D1 - Detailed Cost Estimate

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
A. SCOPING (15% Preliminary Engineering Design)					
1. SITE TOPOGRAPHIC SURVEY	LS	1		$0.00	No
2. PROJECT ASSESSMENT REPORT or DETAILED WORKPLAN	LS	1		$0.00	No
3. SYSTEMS ENGINEERING ANALYSIS (must address FHWA requirements)	LS	1		$0.00	No
4. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)	LS	1		$0.00	No
5. HAZMAT ASSESSMENT	LS	1		$0.00	No
SUBTOTAL – PROJECT SCOPING COSTS				$0.00	$0

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
B. FINAL PRELIMINARY ENGINEERING DESIGN - Stages II, III, IV and PS&E					
1. Right-of-Way Acquisition	LS	1		$0.00	No
2. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.	LS	1		$0.00	No
3. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report	LS	1		$0.00	No
4. DRAINAGE REPORT	LS	1		$0.00	No
5. Storm Water Pollution Prevention Plan (SWPPP)	LS	1		$0.00	No
SUBTOTAL – PROJECT DESIGN COSTS				$0.00	$0

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
C. CONSTRUCTION OR IMPLEMENTATION					
1. CONSTRUCTION ELEMENTS (Insert additional rows if necessary)					
Vehicle Detection System	*EA*	*9*	*$27,000*	*$243,000*	Yes
CCTV Camera	*EA*	*2*	*$5,000*	*$10,000*	Yes
Communications Module	*EA*	*9*	*$1,000*	*$9,000*	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes

PART D1 - Detailed Cost Estimate					
				$0	Yes
				$0	Yes
			SUBTOTAL - CONSTRUCTION	$262,000	$262,000

PART D1 - Detailed Cost Estimate

2. PROCUREMENT (Insert additional rows if necessary)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
Example: ATMS Server Software	LS			$0	No
Example: TMC Workstations	LS			$0	No
Example: VIDS, 3 approaches	EA			$0	Yes
Example: VIDS, 4 approaches	EA			$0	Yes
Example: CCTV (IP w/ pan/zoom/tilt)	EA			$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
				$0	Yes
SUBTOTAL – PROCURMENT				$0	$0

3. OTHER ITEMS
(Insert additional rows if necessary)

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
Post Design Services	LS	1	$8,000.00	$8,000.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
				$0.00	Yes
SUBTOTAL - OTHER CONSTRUCTION LINE ITEMS				$8,000.00	$8,000

4. MOBILIZATION AND ADMINISTRATION COSTS (Construction Only. If Section 1 is filled out, please fill out this section)

PART D1 - Detailed Cost Estimate

Item Description	Unit	Quant.	Unit Prices	Total	Eligible for CMAQ?
CONTRACTOR MOBILIZATION	LS	1	$27,000.00	$27,000.00	Yes
TRAFFIC CONTROL	LS	1	$27,000.00	$27,000.00	Yes
CONSTRUCTION SURVEY & LAYOUT	LS	1		$0.00	Yes
CONSTRUCTION CONTINGENCIES	LS	1	$14,000.00	$14,000.00	Yes
CONSTRUCTION ADMINISTRATION	LS	1	$37,000.00	$37,000.00	Yes
SUBTOTAL – MOBILIZATION & ADMINISTRATION COSTS				$ 105,000	$105,000
TOTAL CONSTRUCTION OR IMPLEMENTATION COST				$ 375,000	$ 375,000

PART D1 - Detailed Cost Estimate					
D. ADOT Fee for PE Reviews and Staff Charges	LS	1	$30,000	$30,000	No
			TOTAL ADOT Fee COST	$30,000	$0
E. TOTAL PROJECT COST				$405,000	$375,000
F. SUMMARY OF FEDERAL AND NON-FEDERAL FUNDS					
TOTAL COST FOR PROJECT CONSTRUCTION/IMPLEMENTATION					$405,000
TOTAL COST FOR PROJECT ELIGIBLE FOR FEDERAL REIMBURSEMENT					$375,000
TOTAL FEDERAL FUNDS @ 94.3% (.943 x Total Eligible Cost shown highlighted above)					$353,625
LOCAL AGENCY MATCHING FUNDS (.057 x Total Cost shown highlighted above)					$21,375
LOCAL AGENCY FUNDS NOT ELIGIBLE FOR FEDERAL REIMBURSEMENT					$30,000

PART D2 - TOTAL PROJECT BUDGET AND TIP PROGRAMMING
(All Items are Required, Unless Identified as 'Optional')"

Please provide a cost and programming estimate for the total project (e.g. the cost to complete all planned segment improvements). The design for the project should be programmed at least 1 year, preferably 2 years, prior to construction.

Section 1 - Total Project Budget

Cost Estimate for the Project from Part D1	Eligible Federal Cost	Local Cost Only	Total Cost	(Optional) Additional Notes
A. SCOPING (15% Preliminary Engineering Design) (Non-infrastructure projects: Only #2 applies).	$ -	$ -	$ -	
B. FINAL PRELIMINARY ENGINEERING DESIGN - Stages II, III, IV and PS&E (Not applicable to non-infrastructure projects)	$ -	$ -	$ -	
C. CONSTRUCTION OR IMPLEMENTATION				
1. CONSTRUCTION ELEMENTS	$ 262,000	$ -	$ 262,000	
2. PROCUREMENT	$ -	$ -	$ -	
3. OTHER ITEMS	$ 8,000	$ -	$ 8,000	
4. MOBILIZATION AND ADMINISTRATION COSTS (Construction Only)	$ 105,000	$ -	$ 105,000	
SUBTOTAL	$ 375,000	$ -	$ 375,000	
D. ADOT Fee for PE Reviews and Staff Charges	$ -	$ -	$ 30,000	
Total Project Cost	$ 375,000	$ -	$ 405,000	

Agency Programming

Please describe the programming of the project in the agency's own CIP/TIP.	

Requested MAG TIP Programming	Short Work Description (E.g. Construct HAWK)	Year (Choose One)	Local Cost	CMAQ Cost	Total Cost	Local Share
1. Scoping and PE (Optional)				$ -	$ -	
2. Other (Optional)				$ -	$ -	
3. Other (Optional)				$ -	$ -	
4. Construction or Implementation	Construct Greenway Rd Detection	2019	$ 21,375	$ 353,625	$ 375,000	6%
Totals			$ 21,375	$ 353,625	$ 375,000	6%

PART E - SIGNATURE AND CHECKLIST

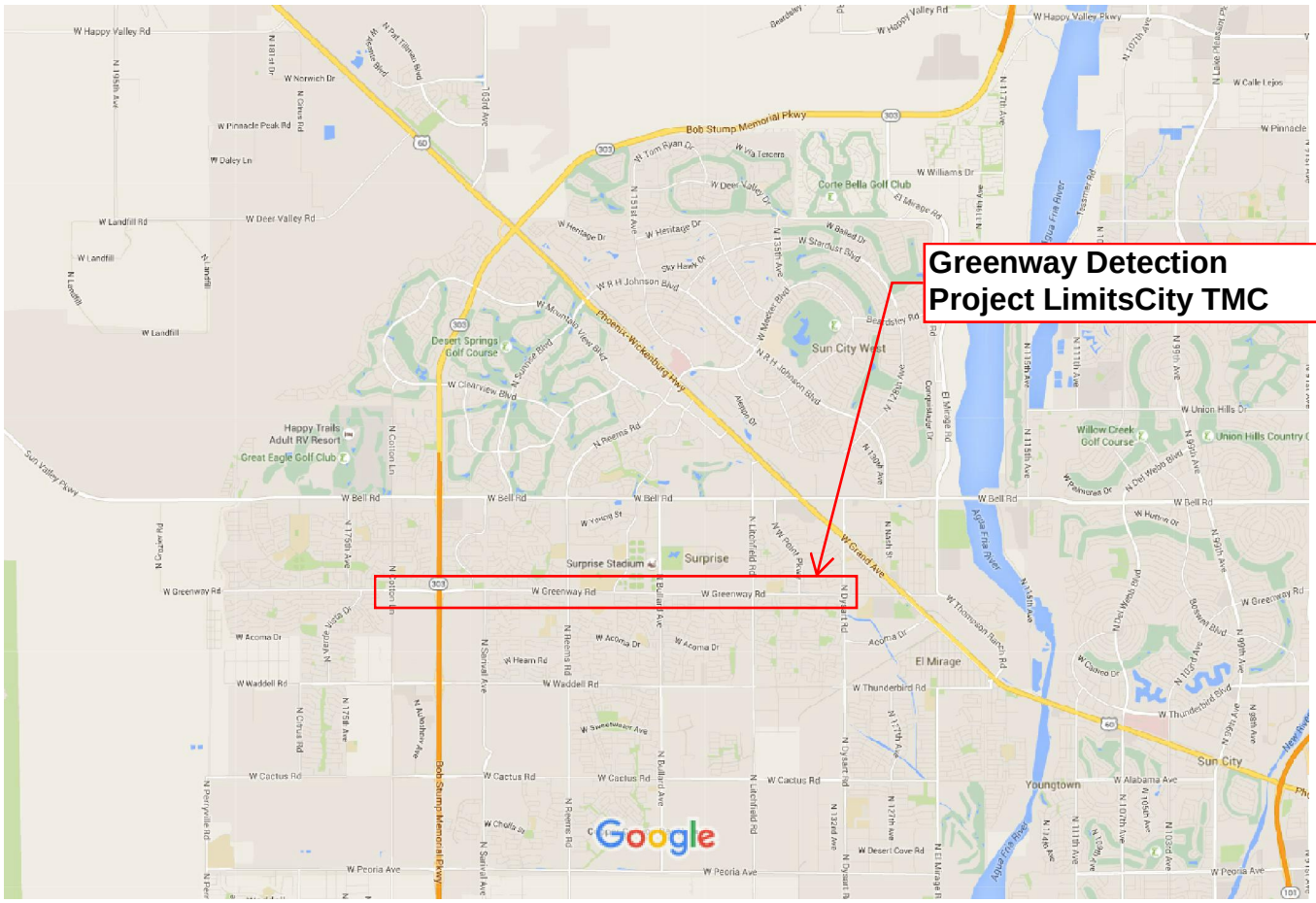
As the jurisdiction's manager/administrator or designated representative, I certify that this application is accurate and complete and that the project will be included in the sponsoring MAG member agency's local CIP/TIP if the project is selected for federal funding.

Signature:	[signature]
Name:	BOB WINGENROTH
Title:	City Manager
Date:	9-18-15

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	
Contact Information, fields 1 – 5 are complete	Yes
PART B - TIP Listing and CMAQ Score Data	
1. Traffic Estimate and Roadway Characteristics - Fields a - i are completed	Yes
2. Improvements in Traffic Management & Operations	Yes
3. Other Improvements - As applicable all fields are completed	Yes
4. Traffic Flow Improvement Due to Project	Yes
PART C1 - ITS Project Information	
Section A is Complete	Yes
Section B is Complete	Yes
Section C is Complete & A PDF file of map will be attached to the submittal to MAG	Yes
Section D is Complete & All relevant Architecture Flow Diagrams have been inserted in the worksheet	Yes
Section E is Complete	Yes
Section F is Complete	Yes
Section G is Complete	Yes
Section H is Complete	Yes
PART C2 - ITS Architecture Flow Diagrams have been inserted	Yes
PART D1 - Detailed Cost Estimate	Yes

PART E - SIGNATURE AND CHECKLIST	
PART D2 - TOTAL PROJECT BUDGET AND TIP PROGRAMMING	Yes
PART E - Signature & Checklist	
Form is signed	Yes
Name, title and date fields are completed.	Yes

City of Surprise Greenway Detection - Vicinity Map