

Contact Information	
1. Lead Agency	Town of Gilbert
2. Contact Name	Mike Sutton
3. Phone	480-503-6626
4. E-Mail Address	mike.sutton@gilbertaz.gov
5. Mailing Address	900 East Juniper Road, Gilbert, AZ 85234

CMAQ 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 facility type:	158,079
b. Please describe how the ADT was estimated:	Average volumes for each corridor summed. Includes Gilbert Road (23,203), Val Vista Drive (32,378), Higley Road (26,479), Guadalupe Road (17,520), Warner Road (22,766), Williams Field Road (19,113), Germann Road (16,620).
c. When was the ADT estimate developed:	Estimate developed in 2019 using 2018 MAG Transportation Data Management System average weekday AADT.
d. Name of the roadway section used for the ADT estimate:	Total for all roadways: Gilbert Road, Val Vista Drive, Higley Road, Guadalupe Road, Warner Road, Williams Field Road, Germann Road.
e. Starting limit of the roadway section:	Gilbert Road (Baseline Road to Ray Road), Val Vista Drive (Baseline Road to Chandler Heights Road), Higley Road (Baseline Road to Hunt Highway), Guadalupe Road (SR87 to Power Road), Warner Road (McQueen Road to Power Road), Williams Field Road (Gilbert Road to Power Road), Germann Road (Gilbert Road to Power Road).
f. Ending limit of the roadway section:	See above
g. Length (miles):	51
h. Total number of through lanes on the roadway section:	6
i. Federal Functional Classification of the roadway section:	Minor Arterial
Link to ADOT Functional Classification Maps	

CMAQ Data

2. Improvements in Traffic Management & Operations

a. Enter the pre-improvement (current) average corridor traffic speed: 35

b. In the table, check the box that best describes the project (Check only one box):

	Before (pre-improvement) condition	After (post-improvement) condition	Expected increase in speed
<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 checked="" 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	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

NOTE: All ITS projects MUST involve eligible infrastructure improvements.

3. Other Improvements (Check all that apply)

- Traffic signal system improvements at a single agency
- Traffic signal system improvements that apply to more than one agency
- Includes improvements to coordination between arterial and freeway traffic operations
- Project conforms to local land use plans
- 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: (populated from #2a) 35

b. Enter the post-improvement average traffic speed of the corridor: 37

ITS Project Information

Enter information in highlighted cells ONLY. Links to various websites are provided for additional information and help.

1. Project Title & Sponsor

a. Project Title	CCTV and Video Detection Asset Replacement Program - Phase 3
b. Lead Agency	Town of Gilbert
c. Other Partnering Agencies	N/A

2. Project Type

Prioritize SMO Buckets for the funding application

First Priority	Bucket #3 – Local Priority Corridors
Second Priority	(Please Select a Bucket)
Third Priority	(Please Select a Bucket)

3. Project Goals & Objectives

a. Project Goals	Provide asset replacement for important Townwide monitoring and detection infrastructure that supports Town real-time operations. This project is Phase 3 of a replacement program for the Town.
b. Project Objectives	Replacement of Closed-Circuit Television (CCTV) cameras with similar functionality cameras and upgrade of detection at intersections to Video Detection cameras that provide turning movement counts.

4. Project Information

a. Project location description	Devices chosen Townwide that have been identified as reaching life cycle age and/or are not supported anymore by vendor. Note: a PDF file of a map must be submitted to MAG as an attachment.
b. Scope of the project	Replacement of ten CCTV cameras with similar functionality cameras and upgrade of detection at 20 intersections to video detection cameras that provide turning movement counts.

ITS Project Information

5. Identify Project Components in MAG Regional ITS Architecture

Service Area	Addressed in this Project? <small>(Dropdown: Y/N)</small>	Applicable ITS Service Packages
Traffic Management	Yes	ATMS01, ATMS03
Maintenance and Construction		
Public Transportation		
Traveler Information		
Emergency Management		
Archived Data Management	Yes	AD1

NOTE: Insert the relevant ITS Architecture flow diagram in the "ITS Architecture" worksheet.

6. Quantitative Criteria

Enter Quantitative Criteria for Bucket(s) selected in Section 2 "Project Type"

Average Daily Traffic (ADT) from 'CMAQ Data' tab in this funding application.	158,079
Crashes Per Mile Per Year (MAG Will Complete)	
Maximum Peak Period Travel Time Index (MAG Will Complete)	
Percentage network communication connectivity to traffic signals & ITS devices.	100%
Regional Priority Corridor Ranking (Enter shares of work in "Regional Priority - Top 100")	
Latest year of your agency's Operations/Management Center upgrade.	2017

7. Program Year Preference

Preferred Program Year 2022

ITS Project Information				
8. Project Budget by SMO Strategy				
Strategies for Bucket #1 – ICM Corridors	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
2-Real-time CCTV monitoring capabilities at all major-major arterial intersections on ICM corridors				
3-Vehicle and pedestrian actuated detection at all signalized intersections to support signal operations and real-time collection of data collection, including data on turning movement counts				
11-Regional Asset Upgrade/Replace Program - ICM Corridors & Priority Arterials				
Total				
Cost Percentage				
Strategies for Bucket #2 – Regional Priority Arterials	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
8-Real-time visual monitoring capability at all major-major intersections on Priority Arterials				
9-Additional detection at signalized intersections for real-time collection of data, including turning movement counts stored by individual agencies and archived in RADS				
10-Reliable communications between TMCs and major-major intersections to facilitate remote management of traffic operations - Adds both fiber and wireless infrastructure				
11-Regional Asset Upgrade/Replace Program - ICM Corridors & Priority Arterials				
Total				
Cost Percentage				
Strategies for Bucket #3 – Local Priority Corridors	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
12-Local priority ITS projects	\$ 697,857.72			100%
Total	\$ 697,857.72	\$ 42,182.28	\$ 740,040.00	100%
Cost Percentage	94.3%	5.7%		

ITS Project Information	
9. System Maintenance and Operations	
a. Current staff resources available to support ITS operations at the local agency (in FTEs)	4
b. Additional staff resources required for fully utilizing features added by project (in FTEs)	None
c. Agency's estimated current annual ITS operations & maintenance (O & M) budget	\$2,000,000
d. Estimated additional annual O & M funds required for features added by this project	\$0
e. Estimated DATE from when required additional local O & M funds will be available	N/A
f. Other comments	Replacement of outddated and unsupported devices will be incorporated into the Town's existing annual operations and maintenance budget with no new staffing anticipated.
10. Systems Engineering Analysis Requirement	
<p>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. ADOT Systems Engineering Checklist</p>	
<p>The project sponsor/lead agency of this application intends to incorporate the Systems Engineering Analysis in the project's scope of work, following guidance on the ADOT's System Engineering Checklist.</p>	<input checked="" type="checkbox"/> Yes, the agency intents to follow the process.

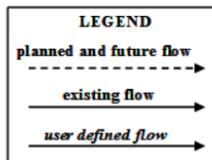
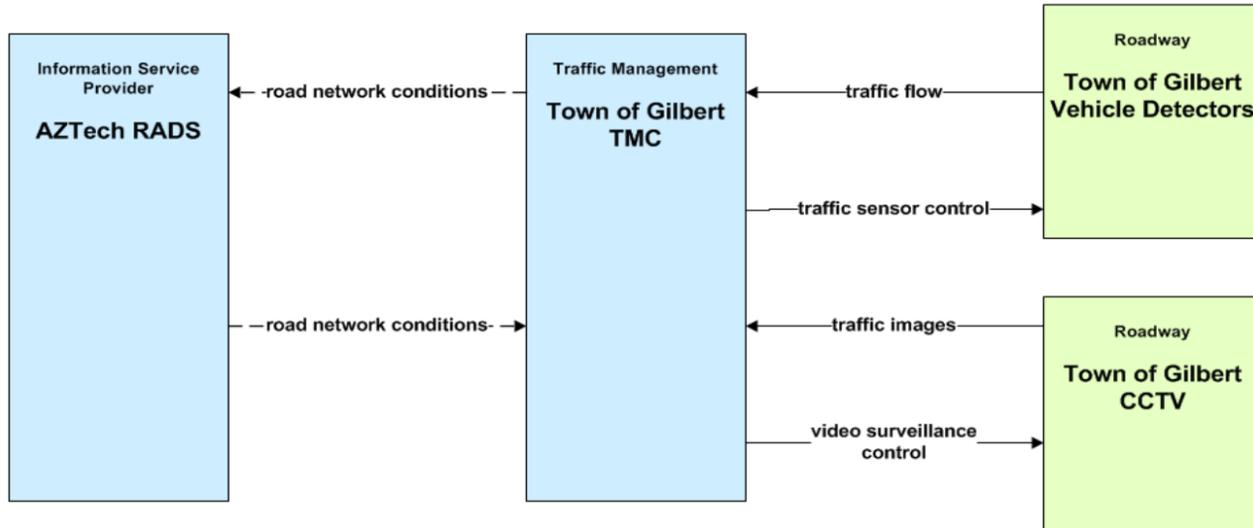
ITS Architecture Flow Diagram

All relevant ITS Architecture Flow Diagrams MUST be inserted below for the relevant ITS 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 federally funded ITS projects.

Find the relevant Service Packages addressed by the project in the MAG ITS Architecture (found in the link below). Copy and paste the graphic in the space provided.

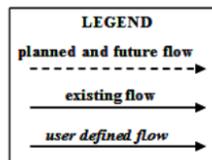
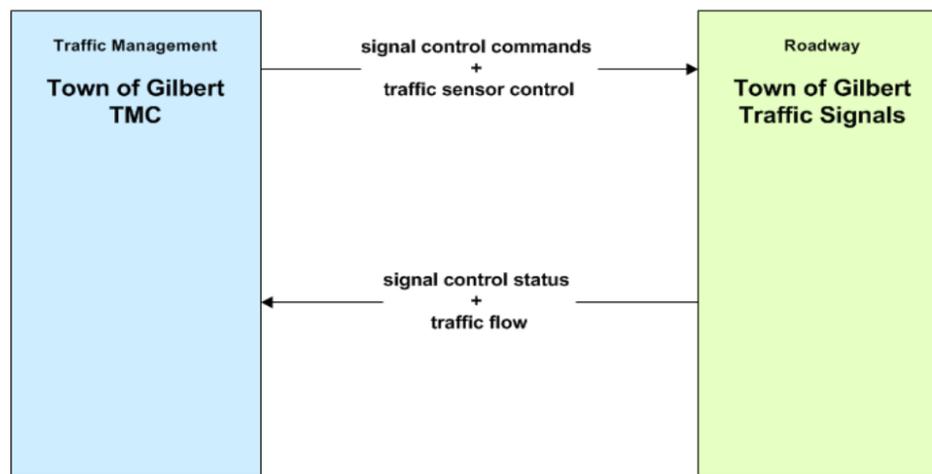
[MAG Regional ITS Architecture](#)

ATMS01 - Network Surveillance Town of Gilbert

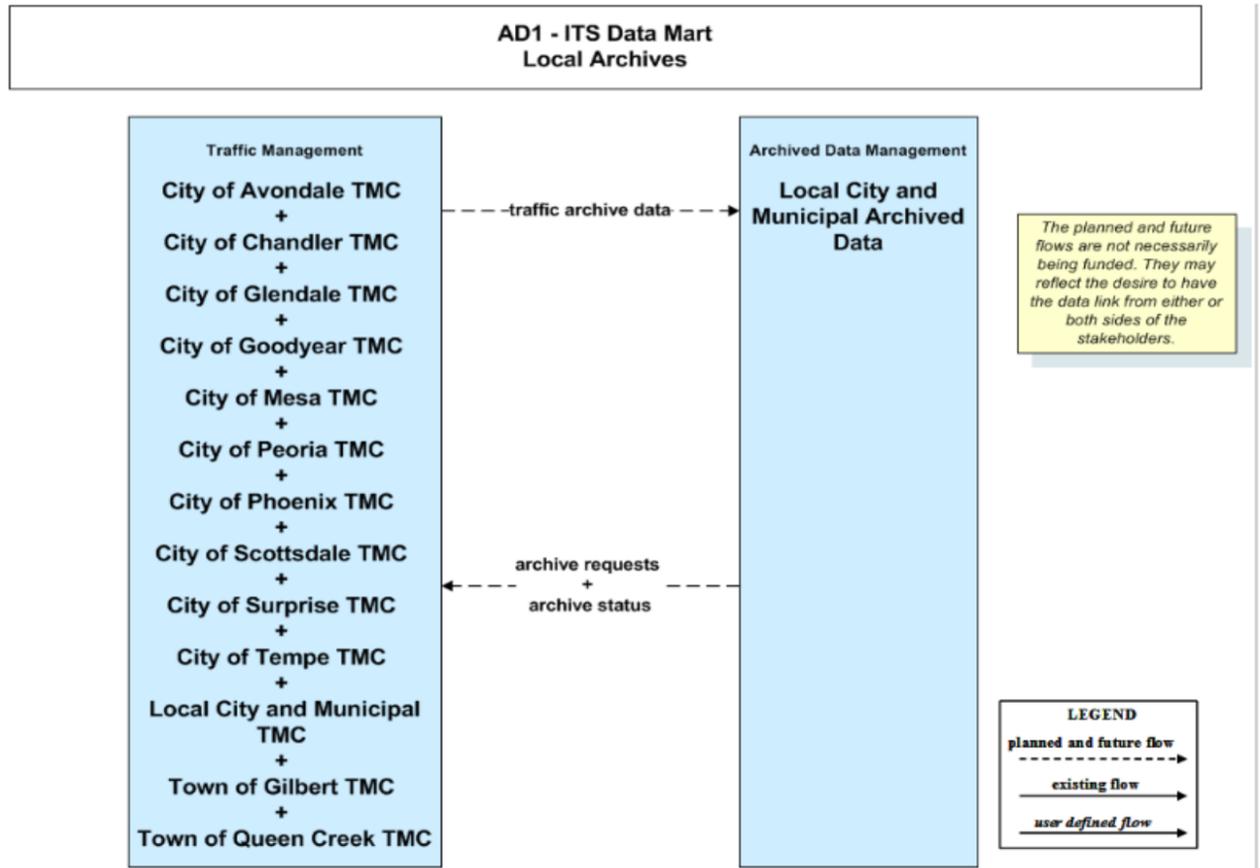


The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS03 - Traffic Signal Control Town of Gilbert



ITS Architecture Flow Diagram



PROJECT COST ESTIMATE WORKSHEET (Cost Estimates Are Required Regardless of Programming)										
DESIGN	REQUESTED PROGRAMMING (Complete if item will be programmed in the MAG TIP)	Location Description								
		Work Description								
		Funding Source								
		Preferred Year to Program Work								
	COST ESTIMATE FOR DESIGN			UNITS	QUANTITY	UNIT COST	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	PRELIMINARY ENGINEERING (15% plans) (Required for Budget)						\$ -	No	-	-
							\$ -	No	-	-
							\$ -	No	-	-
							\$ -	No	-	-
	SUBTOTAL - PRELIMINARY ENGINEERING COSTS						\$ -		-	-
FINAL DESIGN (30, 60, 95, 100% plans) (Required for Budget)						\$ -	No	-	-	
						\$ -	No	-	-	
						\$ -	No	-	-	
						\$ -	No	-	-	
SUBTOTAL - FINAL DESIGN COSTS						\$ -		-	-	
TOTAL PRELIMINARY ENGINEERING AND DESIGN COST AVAILABLE FOR PROGRAMMING						\$ -		-	-	
PROCUREMENT	REQUESTED PROGRAMMING	Location Description	Devices chosen Townwide that have been identified as reaching life cycle age and/or are not supported anymore by vendor.							
		Work Description	Replacement of ten CCTV cameras with similar functionality cameras and upgrade of detection at 20 intersections to Video Detection cameras that provide turning movement counts.							
		Funding Source	CMAQ							
		Preferred Year to Program Work	2022							
	COST ESTIMATE FOR PROCUREMENT			UNITS	QUANTITY	UNIT COST	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	PROCUREMENT COSTS	CCTV Camera	EA	10	6,500	\$ 65,000.00	Yes	61,295	3,705	
		Video Detection System (4 Leg)	EA	20	33,752	\$ 675,040.00	Yes	636,563	38,477	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
					\$ -	Yes	-	-		
					\$ -	Yes	-	-		
					\$ -	Yes	-	-		
TOTAL - PROCUREMENT						\$ 740,040.00	697,858	42,182		
CONSTRUCTION	REQUESTED PROGRAMMING (Complete only if Construction will be programmed in the MAG TIP)	Location Description								
		Work Description								
		Funding Source								
		Preferred Year to Program Work								
	COST ESTIMATE FOR CONSTRUCTION			UNITS	QUANTITY	UNIT COST	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	UTILITY RELOCATIONS (Required for Budget, May be 0 if no Utilities)						\$ -	No	-	-
							\$ -	Yes	-	-
							\$ -	Yes	-	-
							\$ -	Yes	-	-
							\$ -	Yes	-	-
					\$ -	Yes	-	-		
					\$ -	Yes	-	-		
SUBTOTAL - UTILITY RELOCATION COSTS						\$ -		-	-	
CONSTRUCTION (Required for Budget)						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
						\$ -	Yes	-	-	
SUBTOTAL - CONSTRUCTION COST						\$ -		-	-	
MOBILIZATION AND ADMINISTRATION COSTS	CONTRACTOR MOBILIZATION (Typically 8% of construction cost)					\$ -	Yes	-	-	
	TRAFFIC CONTROL (0-8% of construction cost)					\$ -	Yes	-	-	
	CONSTRUCTION SURVEY & LAYOUT (Typically 1% of construction cost)					\$ -	Yes	-	-	
	CONSTRUCTION CONTINGENCIES (Typically 5% of construction cost)					\$ -	Yes	-	-	
	CONSTRUCTION ADMINISTRATION (Averaging 18% of construction cost)					\$ -	Yes	-	-	
SUBTOTAL - MOBILIZATION & ADMINISTRATION COSTS						\$ -		-	-	
TOTAL UTILITIES, CONSTRUCTION AND MOBILIZATION FOR PROGRAMMING						\$ -		-	-	
ADOT REVIEW FEE	Please enter 'Yes' if your agency is certified accepted by ADOT for construction		No							
	ADOT REVIEW FEE			AGENCY TYPE	RATE	HOURS	TOTAL	USES FEDERAL AID	FEDERAL	LOCAL
	Contracts and Specs \ Advertise Project		Non CA	55	100	\$ 5,500	No	-	5,500	
	District \ Review Stage Submittals		Non CA	50	40	\$ 2,000	No	-	2,000	
	Environmental Planning \ Issue Clearance		All	50	40	\$ 2,000	No	-	2,000	
	Right of Way \ Issue Clearance		Non CA	55	24	\$ 1,320	No	-	1,320	
	Compliance Review \ Compliance Review		Non CA	175	40	\$ 7,000	No	-	7,000	
	Project Management Group \ Project Management		Non CA	120	100	\$ 12,000	No	-	12,000	
	Project Management Group \ Project Management		CA Only	120	60	\$ -	No	-	-	
	Utilities and Railroad Sections \ Issue Clearance		Non CA	50	24	\$ 1,200	No	-	1,200	
TOTAL COST ESTIMATE						\$ 771,060	697,858	73,202		

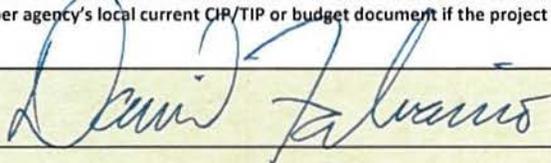
Budget and Signature Page

Phase	Location Description	Work Description	Year to be Programmed	Funding Source	Federal Amount	Local Amount	Total	Local Share
Procurement	Devices chosen Townwide that have been identified as reaching life cycle age and/or are not supported anymore by vendor.	Replacement of ten CCTV cameras with similar functionality cameras and upgrade of detection at 20 intersections to Video Detection cameras that provide turning movement counts.	2022	CMAQ	\$ 697,858	\$ 42,182	\$ 740,040	5.7%
Total Programmed					\$ 697,858	\$ 42,182	\$ 740,040	5.7%
ADOT Design Review Fee					\$ -	\$ 31,020	\$ 31,020	100.0%
Total Cost					\$ 697,858	\$ 73,202	\$ 771,060	9.5%

Signature: To be signed and scanned with PDF copy that is sent to MAG via email

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

Signature:



Name:

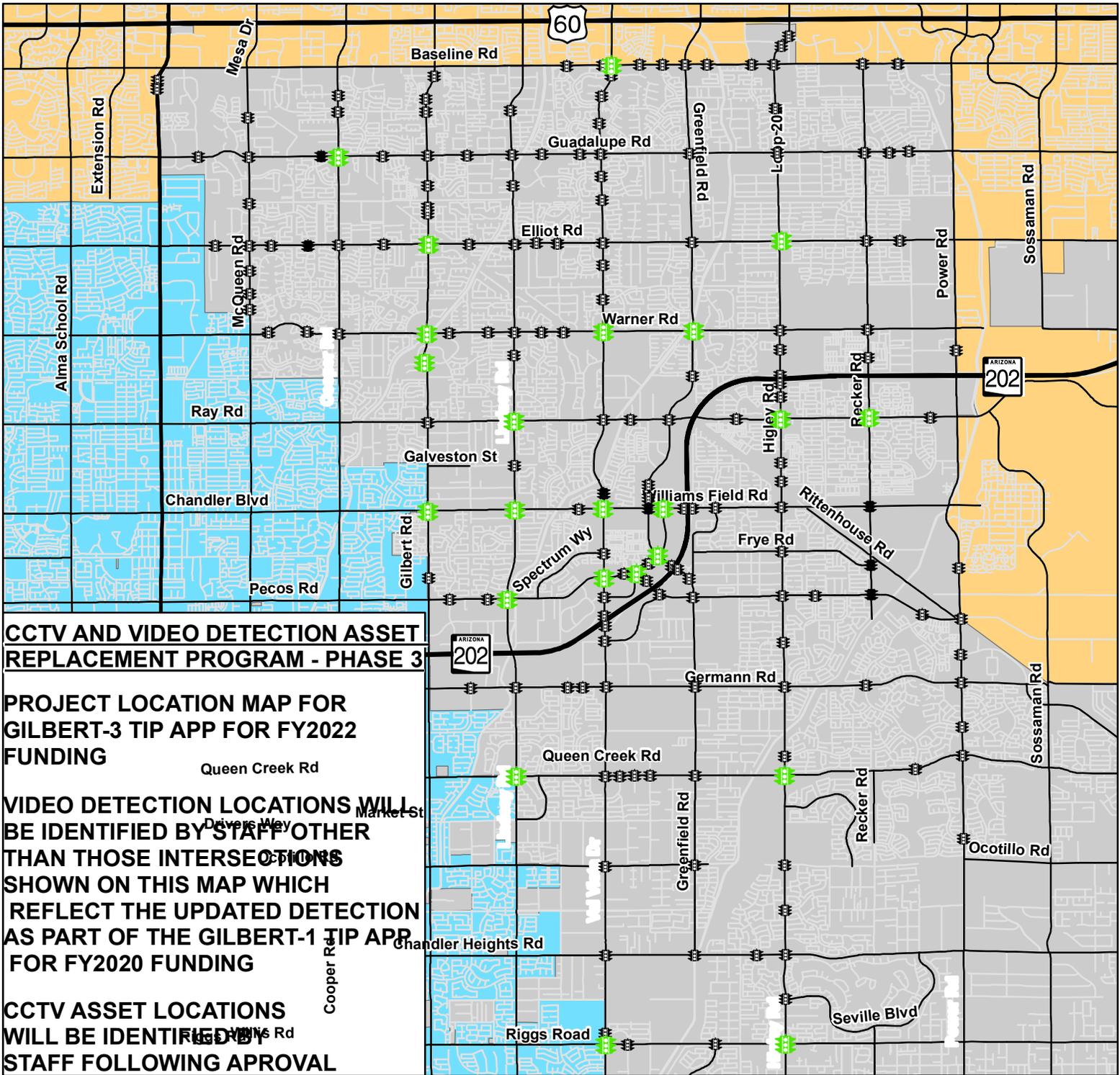
DAVID S. FABIANO, P.E., P.W.L.F.

Title:

TOWN ENGINEER

Date:

16 SEPT 2019



- FY2022 Device Replacement Candidates
 - FY2020 Updated Devices
 - Freeways
 - Arterials
 - Other Streets
- Jurisdiction**
- Chandler
 - Mesa
 - Maricopa County

