Overview of the ITS Project Application & Review Process

August 6, 2019

MARICOPA ASSOCIATION of GOVERNMENTS

ITS TIP Call for Projects - Schedule

July 31st
FY2020 MAG Programming

- Guidebook published
- Application available

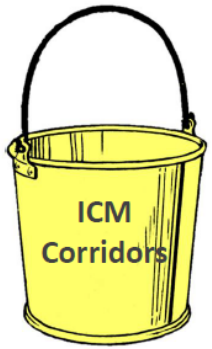
Aug 6th
Federal Fund Project Application Workshop

August 13th
Open Working Group

August 27th
Open Working Group

Sept 16th
10:00 a.m.
Applications Due

SM&O Project "Bucket" Categories



Integrated Corridor Management
Freeways & Adjacent Arterials

Regional Priority Arterials

Local Priority Corridors

SM&O Project "Bucket" Categories

Project	Strategy
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
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
12	Local priority ITS projects

CMAQ available

FY2020:	~$ 13.9M
FY2021:	~$ 15.0M
FY2022:	~$ 15.5M
Total all 3 years:	~$ 44.4M

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Essential Requirements

- Compliance with the Regional ITS Architecture
- Located within the CMAQ eligible area (area map provided)
- Identified on list of strategies recommended in Priority Categories of the SM&O Plan

Project Application Form

- Contact Information
- CMAQ Data
- **ITS Project Information**
- ITS Architecture
- Project Cost Estimate
- Budget & Signature

ITS Project Information

1. Project Title & Sponsor
2. Project Type
3. Project Goals & Objectives
4. Project Information
5. Identify Project Components in MAG Regional ITS Architecture
6. Quantitative Criteria
7. Program Year Preference
8. Project Budget by SMO Strategy
9. System Maintenance and Operations
10. Systems Engineering Analysis Requirement

1. Project Title & Sponsor

- Project Title
- Lead Agency
- Other Partnering Agencies

5	**1. Project Title & Sponsor**	
6		
7	a. Project Title	X functional enhancements along Y corridor
8	b. Lead Agency	City A
9	c. Other Partnering Agencies	City B & City C
10		

2. Project Type

- SM&O Bucket
- Select priority

11	**2. Project Type**	
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13	Prioritize SMO Buckets for the funding application	
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15	First Priority	Bucket #1 – ICM Corridors
16	Second Priority	Bucket #2 – Regional Priority Arterials
17	Third Priority	(Please Select a Bucket)
18		

3. Project Goals & Objectives

- Project Goals
- Project Objectives

19	**3. Project Goals & Objectives**	
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21	a. Project Goals	Long term outcomes City A, B & C want/ need to achieve.
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28	b. Project Objectives	Intended actions and efforts from City A, B & C to accomplish or target.
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4. Project Information

- Project Location Description
  - PDF of a map must be submitted to MAG as an attachment
  - Submitted GIS maps/shape files is optional, but encouraged
- Project Scope of Work

35	**4. Project Information**	
36		
37	a. Project location description	Specific project location described in brief, and a PDF file of a map submitted as an attachment.
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43		Note: a PDF file of a map must be submitted to MAG as an attachment.
44		
45	b. Scope of the project	Purchase and install a total of # CCTV cameras and traffic detection, along Y corridor for each major crossing. Procure and install # wireless radios at various intersections. Install conduit, fiber, and communications equipement at # intersections along Y corridor.
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5. Identify Project Components in MAG Regional ITS Architecture

- Compliance with ITS Architecture
- Service Areas addressed
- Applicable ITS Service Packages

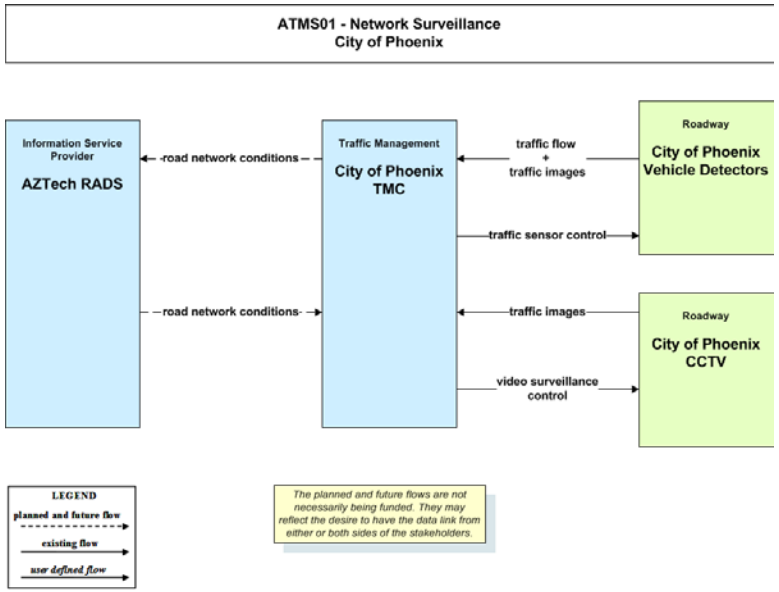
5. Identify Project Components in MAG Regional ITS Architecture

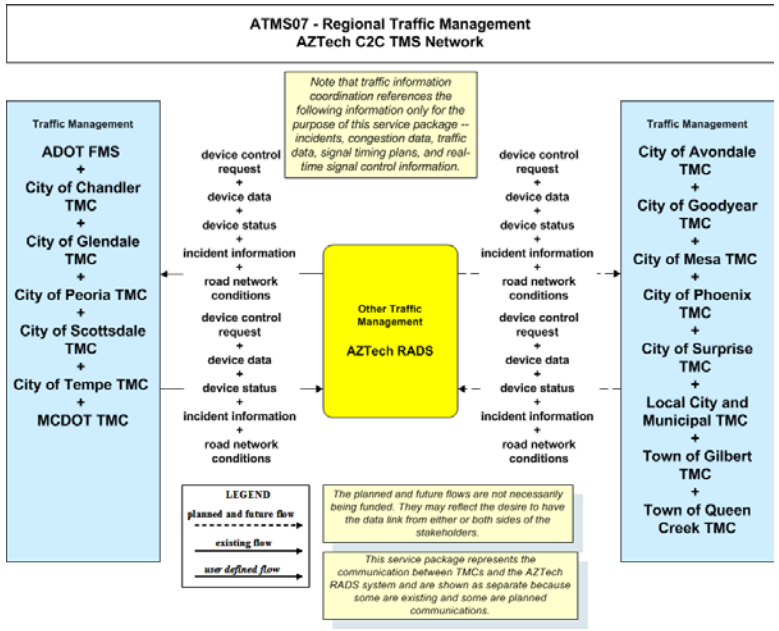
Service Area	Addressed in this Project? (Dropdown: Y/N)	Applicable ITS Service Packages
Traffic Management	Yes	ATMS01, ATMS07
Maintenance and Construction		
Public Transportation		
Traveler Information		
Emergency Management		
Archived Data Management	Yes	AD2

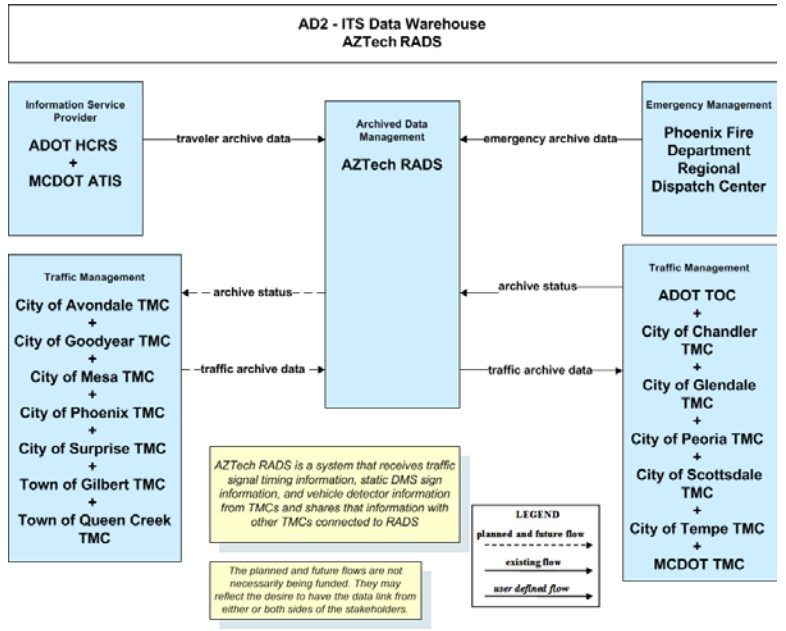
NOTE: Insert the relevant ITS Architecture flow diagram in the "ITS Architecture" worksheet.

5. Identify Project Components in MAG Regional ITS Architecture

- Relevant Architecture Flow Diagrams on "ITS Architecture" worksheet







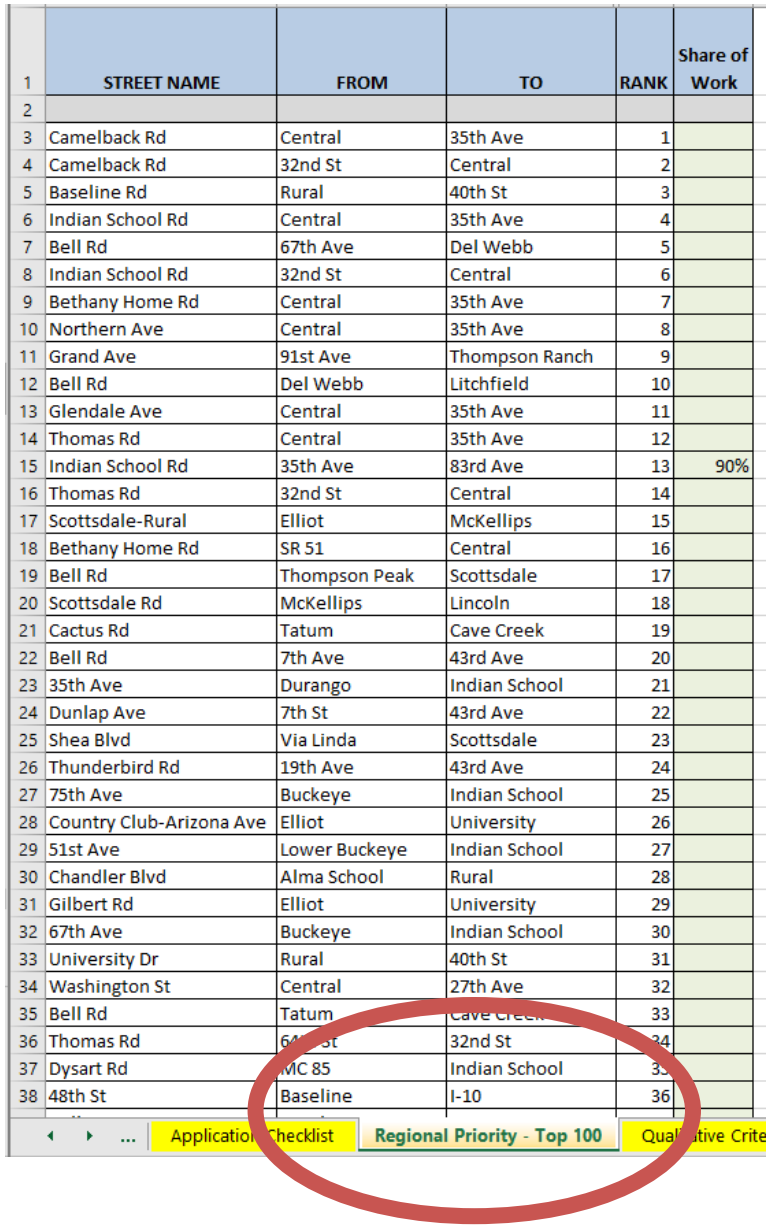
6. Quantitative Criteria

- Based on SM&O Bucket selected
- MAG to fill in #2 & 3 fields after application is submitted

63	**6. Quantitative Criteria**	
64		
65	Enter Quantitative Criteria for Bucket(s) selected in Section 2 "Project Type"	
66		
67	Average Daily Traffic (ADT) from 'CMAQ Data' tab in this funding application.	-
68	Crashes Per Mile Per Year (MAG Will Complete)	
69	Maximum Peak Period Travel Time Index (MAG Will Complete)	
70	Percentage network communication connectivity to traffic signals & ITS devices.	25%
71	Regional Priority Corridor Ranking (Enter shares of work in "Regional Priority - Top 100")	21.8
72	Latest year of your agency's Operations/Management Center upgrade.	
73		

6. Quantitative Criteria

- If Bucket #2 is selected as a Priority, use "Regional Priority - Top 100" worksheet
  - Enter % of work that project will be on corridor, as defined in the table
  - Minimum of 51% of corridor



	STREET NAME	FROM	TO	RANK	Share of Work
2					
3	Camelback Rd	Central	35th Ave	1	
4	Camelback Rd	32nd St	Central	2	
5	Baseline Rd	Rural	40th St	3	
6	Indian School Rd	Central	35th Ave	4	
7	Bell Rd	67th Ave	Del Webb	5	
8	Indian School Rd	32nd St	Central	6	
9	Bethany Home Rd	Central	35th Ave	7	
10	Northern Ave	Central	35th Ave	8	
11	Grand Ave	91st Ave	Thompson Ranch	9	
12	Bell Rd	Del Webb	Litchfield	10	
13	Glendale Ave	Central	35th Ave	11	
14	Thomas Rd	Central	35th Ave	12	
15	Indian School Rd	35th Ave	83rd Ave	13	90%
16	Thomas Rd	32nd St	Central	14	
17	Scottsdale-Rural	Elliot	McKellips	15	
18	Bethany Home Rd	SR 51	Central	16	
19	Bell Rd	Thompson Peak	Scottsdale	17	
20	Scottsdale Rd	McKellips	Lincoln	18	
21	Cactus Rd	Tatum	Cave Creek	19	
22	Bell Rd	7th Ave	43rd Ave	20	
23	35th Ave	Durango	Indian School	21	
24	Dunlap Ave	7th St	43rd Ave	22	
25	Shea Blvd	Via Linda	Scottsdale	23	
26	Thunderbird Rd	19th Ave	43rd Ave	24	
27	75th Ave	Buckeye	Indian School	25	
28	Country Club-Arizona Ave	Elliot	University	26	
29	51st Ave	Lower Buckeye	Indian School	27	
30	Chandler Blvd	Alma School	Rural	28	
31	Gilbert Rd	Elliot	University	29	
32	67th Ave	Buckeye	Indian School	30	
33	University Dr	Rural	40th St	31	
34	Washington St	Central	27th Ave	32	
35	Bell Rd	Tatum	Cave Creek	33	
36	Thomas Rd	64th St	32nd St	34	
37	Dysart Rd	MC 85	Indian School	35	
38	48th St	Baseline	I-10	36	

... Application Checklist | Regional Priority - Top 100 | Qualitative Crite

7. Program Year Preference

- Preferred Program Year
  - FY2020, FY 2021, FY2022

74	**7. Program Year Preference**	
75		
76	Preferred Program Year	2021
77		

8. Project Budget by SMO Strategy

- Estimated cost by Bucket strategy
  - Federal Cost
  - Local Match
  - Total Cost
- Cost Percentage calculated or manually entered
  - Local Match must be a minimum of 5.7%

8. Project Budget by SMO Strategy

- Estimated cost by Bucket strategy (ICM)
  - 1st Priority (EXAMPLE)

78	8. Project Budget by SMO Strategy				
79					
80	**Strategies for Bucket #1 – ICM Corridors**	**Federal Cost**	**Local Match (min 5.7%)**	**Total Cost**	**Share of Total Project**
81	2-Real-time CCTV monitoring capabilities at all major-major arterial intersections on ICM corridors	$ 15,000.00			16%
82	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	$ 20,000.00			21%
83	11-Regional Asset Upgrade/Replace Program - ICM Corridors & Priority Arterials	$ 59,300.00			63%
84	**Total**	$ 94,300.00	$ 5,700.00	$ 100,000.00	100%
85	**Cost Percentage**	94.3%	5.7%		
86					

8. Project Budget by SMO Strategy

- Estimated cost by Bucket strategy (Regional Priority Arterial)
  - 2nd Priority (EXAMPLE)

87	Strategies for Bucket #2 – Regional Priority Arterials	Federal Cost	Local Match (min 5.7%)	Total Cost	Share of Total Project
88	8-Real-time visual monitoring capability at all major-major intersections on Priority Arterials	$ 15,000.00			16%
89	9-Additional detection at signalized intersections for real-time collection of data, including turning movement counts stored by individual agencies and archived in RADS	$ 20,000.00			21%
90	10-Reliable communications between TMCs and major-major intersections to facilitate remote management of traffic operations - Adds both fiber and wireless infrastructure	$ 50,000.00			53%
91	11-Regional Asset Upgrade/Replace Program - ICM Corridors & Priority Arterials	$ 9,300.00			10%
92	**Total**	$ 94,300.00	$ 5,700.00	$ 100,000.00	100%
93	**Cost Percentage**	94.3%	5.7%		
94					

9. System Operations & Maintenance

- Commitment for System Operations & Maintenance
- Current staff resources available to support ITS operations at the local agency (in FTEs)
- Additional staff resources required for fully utilizing features added by project (in FTEs)
- Agency's estimated current annual ITS operations & maintenance (O & M) budget
- Estimated additional annual O & M funds required for features added by this project
- Estimated date from when required additional local O & M funds will be available

9. System Operations & Maintenance

100	**9. System Maintenance and Operations**	
101		
102	a. Current staff resources available to support ITS operations at the local agency (in FTEs)	3
103		
104	b. Additional staff resources required for fully utilizing features added by project (in FTEs)	None
105		
106	c. Agency's estimated current annual ITS operations & maintenance (O & M) budget	$100,000
107		
108	d. Estimated additional annual O & M funds required for features added by this project	$10,000
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110	e. Estimated DATE from when required additional local O & M funds will be available	07/2021
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112	f. Other comments	
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10. 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

119	**10. Systems Engineering Analysis Requirement**	
120		
121	**Commitment to address the federal requirement for Systems Engineering Analysis:**	
122	Agency's intent to follow the process described in the 'V' diagram during the project development process.	
123	ADOT Systems Engineering Checklist	
124	**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.**	☑ Yes, the agency intents to follow the process.
125		
126		

Application Submission

Application Submission

- Submittal instructions
  - Excel application
    - Filename: Avondale-1.xlsx
  - PDF of all application sheets, including
    - Signed, scanned signature page (PDF)
    - Map of project area (PDF)
    - Filename: Avondale-1.pdf
  - Additional attachments of GIS coverage, ex: shapefile, KMZ
- Submittal requirements
  - Steps 1 & 2 required; step 3 highly encouraged

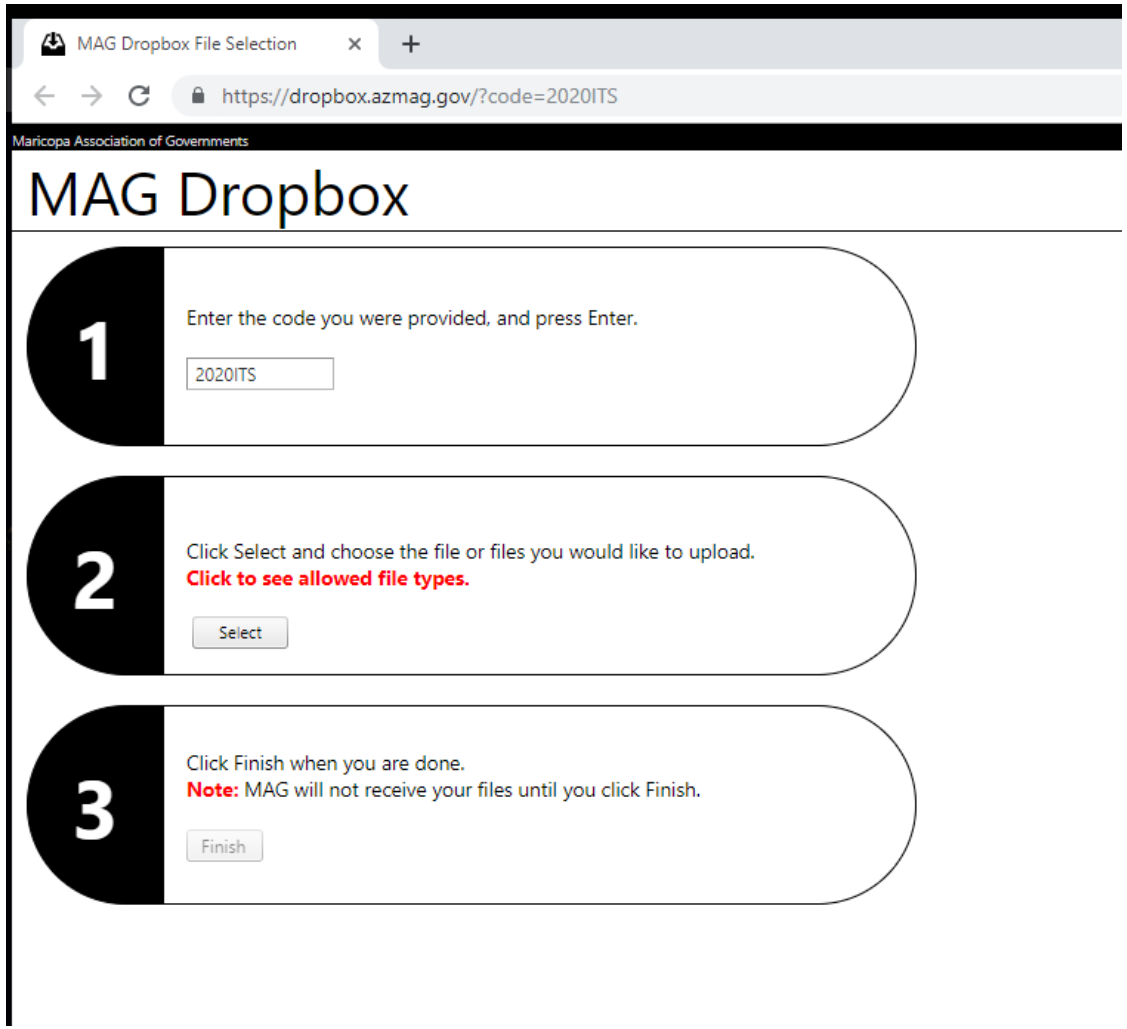
Application Submission

Submission deadline:

10:00 a.m. on Monday, September 16, 2019

Application Submission

- Method 1: email
- Method 2: Dropbox



Application Evaluation Process

Project Evaluation Criteria

1.	**Quantitative Score** – measures specific to priority category	**30%**
2.	**Qualitative Score** – how well project meets objectives specific to priority category	**40%**
3.	**Air Quality Cost Effectiveness Score** – Emissions reduction potential; by Air Quality TAC	**15%**
4.	**Presentation Score** – project meets scope, schedule and budget	**10%**
5.	**Partner Agency/Companion Project Score** – demonstration of regional collaboration with other ITS projects	**5%**
		100%

Project Evaluation Process

Sept 16
10:00 a.m.
Applications Due

Sept 19
Applications posted
- Evaluation form
- Committee review begins

Oct 16 & 17
ITS Committee:
Presentations - Day 1 & Day 2

Oct. 23
Final scores due to MAG

Nov 6th
ITS Committee:
- Add. modifications, if needed
- Scores resubmitted same day

Dec 5th
Air Quality TAC scores available

Jan 8th
ITS Committee:
- Summary of scores
- Recommendation of projects

Jan/Feb
- TRC, MC, TPC, RC approve programing.
- Projects added to the Regional TIP

MARICOPA ASSOCIATION of GOVERNMENTS

Addition Assistance Opportunities

- Open Working Group for project applications
  - MAG Chaparral Room
  - Tuesday, Aug 13th 10:00 a.m. – 11:00 a.m.
  - Tuesday, Aug 27th 1:00 p.m. – 2:00 p.m.
- Contact information
  - MAG phone: 602-254-6300
  - Eric Nava: enava@azmag.gov
  - Jeff Jenq: jjenq@azmag.gov