



Transportation Alternatives / CMAQ Application for
FY 2018, 2019, and 2020 Projects

2018 Phoenix Pedestrian and Bicycle HAWK Crossing Project

Phoenix

**APPLICATIONS ARE DUE AT MAG OFFICES BY
Monday, September 21, 2015 at 10:00 a.m.**

(LATE AND/OR INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED)

Phoenix: 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program**PART A - CONTACT AND PROJECT DESCRIPTION****Contact Information**

1. Name of Sponsoring Agency	Phoenix
2. Agency Contact Name	Kerry Wilcoxon
3. Phone Number of Agency Contact	602-262-4613
4. E-Mail Address of Agency Contact	kerry.wilcoxon@phoenix.gov
5. Mailing Address of Agency Contact	City of Phoenix, Street Transportation Department, 200 W. Washington St., 6th Floor, Phoenix, AZ 85003

Project Description

6. Please provide the Project Title.	2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program
7. Please provide a concise, specific description of the project (250 character limit):	<p>The City of Phoenix has for many years now been a federal focus city for pedestrian safety. Over the last ten years (2005-2014), the city has seen an average of 549 pedestrian and 473 bicycle crashes each year. A predominant crash mode has been pedestrians or bicyclists being hit while crossing arterial or collector streets. The intent of this project is to improve pedestrian and bicycle safety by providing positive traffic control at crossing sites of high volume arterial streets. To accomplish this, the city is requesting funding for 8 pedestrian hybrid beacons or HAWKs, a proven safety counter-measure, at sites throughout Phoenix with established pedestrian and bicycle traffic patterns. Most of the eight crossing locations are currently operating as non-signalized, high-visibility crosswalks and, six locations are operating as 15-mph school crossing zones to elementary or middle school sites as part of existing Safe Route to School walking and biking networks. The City of Phoenix estimates that the total adjusted cost of this project would be \$2,044,000. The City is requesting \$1,770,011 in federal funding and would provide \$273,989 in matching funds. If approved in full, the city would install all eight crossings in FFY18. None of these eight locations would require purchase of right-of-way or easements so the funding would be used for design and construction only. The HAWK signals would be designed to current city, state and federal standards and once operational would be maintained by the City of Phoenix.</p>
8. Please provide the project limits:	McDowell Road crosswalk (west leg) at 41st, McDowell Road crosswalk (east leg) west of 67th Avenue, 19th Avenue crosswalk (south leg) at Pima Street, Deer Valley Road crosswalk (east leg) at 33rd Avenue, Van Buren Street crossing (west leg) at 36th Street, 15th Avenue crossing (south leg) at Whitton Avenue, 15th Avenue crossing (north leg) at Highland Avenues, Lower Buckeye Road crossing (west leg) at 72nd Avenue

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

This part of the form identifies the current characteristics and proposed improvements for each project.

The purpose of Part B is to provide sufficient information to evaluate the cost estimate for the project and to provide assurance that the project will be capable of meeting the ADOT administered federal design review and clearance process. This process requires environmental, ROW and utilities clearances and a bid ready design prior to FHWA approval to encumber federal funding for construction.

NOTE: For Part B, Questions 14-20, the specified distance will vary (and update automatically) depending on the project type identified in Part B, Question 1. Pedestrian-only projects will use a distance of 1/4 mile, while bicycle and Shared-Use projects will use a distance of 1/2 mile.

1. Please select which funding source(s) this project is applying for. Check all that apply.

- Congestion Mitigation and Air Quality (CMAQ)
- Transportation Alternatives (TA)

2. What type of project is this? (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Bicycle Lane (4' min. w/o curb/gutter) | <input type="checkbox"/> Shoulder paving is within 4-miles of a PM-10 Monitor |
| <input type="checkbox"/> Bicycle Lane (5' min. with curb/gutter) | <input type="checkbox"/> Wide Sidewalk (8' min.) |
| <input type="checkbox"/> Buffered Bike Lane | <input type="checkbox"/> Detached Sidewalk with 4' min. buffer |
| <input type="checkbox"/> Protected Bike Lane | <input checked="" type="checkbox"/> Signalized Crossing |
| <input type="checkbox"/> Shared-use path (10' min.) | Other: |
| <input type="checkbox"/> Sidewalk (5' min.) | <input type="text"/> |
| <input type="checkbox"/> Planning Study | |

3. What other major elements are included in this project? (Check all that apply)

- | | |
|---|----------------------|
| <input type="checkbox"/> Bridge (overpass) | Other: |
| <input type="checkbox"/> Tunnel (underpass) | <input type="text"/> |
| <input checked="" type="checkbox"/> Signalized midblock crossing/HAWK | |
| <input checked="" type="checkbox"/> Countdown Pedestrian Signal | |

4. What amenities are included in this project?

- | | |
|---|--|
| <input type="text" value="0"/> Number of Bike racks/lockers | <input type="text" value="0"/> Number of Seating/Rest Area(s) |
| <input type="text" value="0"/> Number of Drinking Fountains | <input type="text" value="0"/> Number of bicycle/pedestrian counting devices |
| <input type="text" value="0"/> Number of Way-finding Signs | <input type="text" value="0"/> Number of bicycle/pedestrian counting devices |
| <input type="text" value="0"/> Number of Trash receptacles | Other: |
| <input type="text" value="0"/> Number of Trees | <input type="text"/> |
| <input type="text" value="0"/> Number of new openings in street walls | |
| <input type="text" value="0"/> Number of Shade Structures | |

5. Please describe the existing condition of the project site and any problem(s) being addressed.

Crosswalks exist at all eight proposed HAWK locations. All of these crosswalks were installed to assist pedestrians crossing busy arterial or collector streets by improving pedestrian visibility to approaching drivers. These crossing locations are all marked in one of four configurations. Six crossings are in existing 15 mph school zones with four (Van Buren St at 36th St, McDowell Rd west of 67th Ave, 15th Ave at Whitton and Highland Aves) consisting of standard yellow crosswalks and two (Deer Valley Rd at 33rd Ave and Lower Buckeye Rd at 72nd Ave) consisting of yellow ladder crosswalks. The remaining two locations are marked crosswalks outside of school zones. One of these, McDowell Road at 41st Ave is a standard white crosswalk and the other location, 19th Ave at Pima St is a white ladder crosswalk.

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

6. Please describe the work being done and improvements being made as part of this project.

In all cases, the existing crossing location would be signalized with pedestrian hybrid beacons or HAWKs to provide positive traffic control to assist in the crossings. Where the existing crossing is located in a 15 mph school zone, the school zone and crossing guard would remain but the 15 mph speed limit would be removed.

7. What do you hope to achieve with this project?

By signalizing all 8 crossing locations, the city hopes to save the lives of pedestrians and bicyclists including school children, parents and teachers, crossing guards and members of the general public by providing positive, pedestrian activated traffic control at these locations.

8. Safety improvements to be included for this project: (Check all that apply)

<input type="checkbox"/>	Medians with pedestrian crossing islands	Other Pedestrian activated hybrid crossing beacons or HAWKs
<input type="checkbox"/>	Roadway Reconfiguration (Road Diet)	
<input type="checkbox"/>	Striping/re-striping to narrow vehicle lanes	
<input type="checkbox"/>	Color pavement or similar treatment	
<input checked="" type="checkbox"/>	Lighting	
<input type="checkbox"/>	Landscape buffer between sidewalk and roadway	
<input type="checkbox"/>	Rectangular Rapid Flash Beacon (RRFB)	
<input type="checkbox"/>	Driver Feedback Sign	

9. Does this project include a road safety education component?

<input checked="" type="checkbox"/>	Yes
<input type="checkbox"/>	No

Please Explain:

Prior to activating any HAWK signals the city of Phoenix does and will conduct public outreach in the form of neighborhood meetings or school assemblies to describe the operation of the HAWK and pedestrian/bicyclist safety information

10. How does this project or planning study address safety?

By providing HAWK signals at these 8 crossing locations, the city hopes to provide positive, pedestrian activated traffic control to make crossing safer.

11. How does the project improve ADA facilities for persons with disabilities?

HAWK signals improve ADA facilities by providing the same types of positive, pedestrian activated traffic control as mentioned previously. HAWKs are typically adjusted to the 3.5 feet/second walking speed recommended in the MUTCD which allows disabled or handicapped pedestrians more time to cross and bigger gaps to cross the roads in.

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

12. Describe how this project will improve access from nearby neighborhoods and/or adjacent uses:

In all eight cases, the roads being crossed and the traffic they support, act as a physical barrier to pedestrians and bicyclists with effectively prevents cross access. The HAWK signals provide for a legal break in traffic that allows free flow of pedestrians and bicyclists from one side of the street to the next.

13. How does the project create a sense of place?

Where ever HAWK signals are installed here in Phoenix, they create connections between and among neighborhoods and often encourage more residents are able and willing to explore their neighborhoods on foot or by bike.

14. Connectivity: (Check all that apply)

Project fills a gap in the system

Explain:

All locations fill gaps in the walking and biking infrastructure by providing safe crossing locations

Project connects to other local bikeways

List of connected bikeways:

All locations allow for improved mobility between existing bike lanes ore unmarked bike networks

Multi Jurisdictional Project (please include letter of support (See Part C)

List of Participating Jurisdictions:

Total length of bikeways directly connected by this project (in miles)

15. Number of transit stops this project will connect to. Do NOT count major transit facilities (park and rides, transit centers, etc.) in this question. List associated route(s) and their peak frequency, using Valley Metro as the source.

Within 1/4 mile

16. Number of transit routes serviced by the transit stops in question 15 that this project will connect to. List associated route(s) and their peak frequency, using Valley Metro as the source.

Within 1/4 mile

List routes and frequency:

Van Buren at 36th Street (Route 3 - 152 trips/day), McDowell west of 67th Ave (Rt 67 - 62 t/d and Rt 17 - 90 t/d), McDowel at 41st Ave (Rt 17 - 138 t/d), 19th Ave and Pima (Rt 19 - 86 t/d), Deer Valley at 33rd Ave (Rt 35 - 72 t/d), 15th Ave at Whitton and Highland (Rt 15 - 68 t/d), Lower Buckeye at 72nd Ave (Rt 28 - 75 t/d)

17. Number of major transit facilities (park and rides, transit centers, etc.) served by this project:

Within 1/4 mile

List:

Van Buren at 36th Street HAWK is within 1/4 mile of Washington at 38th Street LRT Park and Ride

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

18. Number of non-commercial activity centers (parks, libraries, senior centers, recreational centers, etc.) this project will benefit:

0 Within 1/4 mile

List:

None

19. Number of commercial and employment destinations (malls, retail centers, business parks, etc.) this project will benefit (for example, a mall is ONE destination; do NOT count every store in a mall as a separate destination):

5 Within 1/4 mile

List:

Retail Centers (3) Grocery Store Plazas (2): Food City, Family Dollar

20. Number of K-8 public schools this project will benefit:

6 Within 1/4 mile

List:

Osborn Middle School, Santa Maria Middle School, Encanto School, Clarendon School, Mitchell Elementary School, David Crocket Elementary School, Clarendon Elementary School

21. Number of other schools (charter schools, high schools, colleges, and universities) this project will benefit:

4 Within 1/4 mile

List:

Charter School (3): AmeriSchools Academy - Camelback, Academy of Excellence, Imagine Desert West College (1): Gateway Community College

22. Number of activity centers for air quality cost effectiveness (i.e. bank, church, hospital, health care facility, light rail station, park-and-ride lot, office park, post office, public library, shopping area, grocery store, university or junior college):

8 Within 1/4 miles

List:

Church (5): All Nations Baptist Church Inc, Gateway Church Of God, Monte Sinai Ministries, St Anthony Roman Catholic Parish Phoenix, Antioch Missionary Baptist Church Bank (1): Bank of America Grocery Store (2):

11 1/4 miles to 1/2 miles

List:

Church (5): Pentecostal Church Of God (2), Roman Catholic Diocese Of Phoenix, Emmanuel Church Of God In Christ Inc, Phoenix Korean Presbyterian Church Grocery Store (3): Smart and Final, Walgreen,

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

23. What are the demographics of the area served:

[MAG Demographic Mapping](#) People Per Square Mile % Families in Poverty

Use the MPO/COG Demographic Mapping link above. Zoom in to your project area. On the right-hand side of the screen, under "Reporting," select "Custom Summary." Next, select "Corridor of Interest." Left-click to begin drawing. Draw a line through all census block groups adjacent to your project, left-clicking where needed to change the direction of the line. Double-click to finish drawing the line. The selected census block groups will become highlighted in blue. A pop-up box will appear with "Results for Selected Block Groups." Select the "Summary Report" tab, and use the data found there. You may export the results to Excel (click the printer icon at the top-right side of the pop-up window) for your records.

24. Please provide the following information on the facility on which the improvement will be located.

For a linear project, please enter the Facility Name,
Starting Limit and Ending Limit:

For a point project (e.g. an intersection or crossing),
please enter a Facility Name and a Crossing Feature:

Federal Functional Classification of the Facility:

[Link to MAG webpage for Federal Functional Classification Map](#)

Type of Facility the Improvement will be located on:

 Length (in Miles) Posted Speed Limit (MPH) Number of Travel Lanes Before Project Number of Travel Lanes After Project

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

25. Please provide an estimated traffic volume (ADT) on the nearest parallel arterial.

ADT Estimate

Date Counted

Name of road the traffic count was taken from

Description of Methodology and Source used for the ADT Estimate

26. Federal law requires that all federally funded projects comply with a federal environmental clearance. For projects that have a minimum ground disturbance, environmental surveys are required and an environmental document will need to be prepared, which typically requires 12 months to complete.

Describe any known cultural, historical and biological resources, hazardous materials or other environmental issues that could affect work on the segment.

27. Current ROW: (Check all that apply)

- Agency owns all ROW Needed
- ROW to be acquired
- Owners will donate ROW

- Agency owns easement
- Agency has right-of-use (i.e. canal)
- Condemnation may be required

28. Please describe any right of way issues associated with the project.

29. Please indicate whether all parcels for this project have been inventoried.

Yes

No

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

30. Current Utilities in or abutting the alignment: (Check all that apply)

<input type="checkbox"/>	No Utility in or abutting the alignment	<input type="checkbox"/>	Private Structures
<input type="checkbox"/>	Canals & Drainage		
<input checked="" type="checkbox"/>	Power Lines & Cables		Other:
<input checked="" type="checkbox"/>	Pipelines, Sewer and Water		<input type="text"/>

31. Please describe any utility conflicts that will need to be addressed.

Specific utility conflicts at any of the eight locations is unknown at this point however, such conflicts are not unusual and when encountered staff develop ways to avoid the conflicts up to and including moving of the signal equipment to different legs of the intersection.

32. Guidelines used to develop project: (Check all that apply)

<input checked="" type="checkbox"/>	AASHTO Guide for Bicycle Facilities	Other:
<input checked="" type="checkbox"/>	MAG Pedestrian Policies and Design Guidelines	Phoenix Bicycle Master Plan and Phoenix Complete Street Ordinance
<input checked="" type="checkbox"/>	MAG Complete Streets Guide	
<input checked="" type="checkbox"/>	MAG Designing Transit Accessible Communities	
<input type="checkbox"/>	MAG Valley Path Brand & Wayfinding Signage Guidelines	
<input checked="" type="checkbox"/>	NACTO Urban Bikeway Design Guide	
<input checked="" type="checkbox"/>	RPTA Bus Stop Program and Standards	

33. Jurisdiction has the following policies for improved bicycle/shared use facilities:

With new development and capital improvement projects, bike lanes on arterial streets are:	<input type="text" value="Recommended"/>
With new development and capital improvement projects, bike lanes on collector streets are:	<input type="text" value="Required"/>
With pavement restoration or regular pavement maintenance on arterial streets, bike lanes are:	<input type="text" value="Recommended"/>
With new development or during development retrofits, shared-use paths are:	<input type="text" value="Recommended"/>
Bicycle program implemented, including bike education, safety events, and bike maps	<input type="text" value="Yes"/>
Complete Streets Policy	<input type="text" value="Yes"/>

34. The project is: (Check one)

<input type="checkbox"/>	Identified in General Plan, council adopted policy, or Capital Improvements Program (provide source) List: <input type="text"/>
<input checked="" type="checkbox"/>	Consistent with general policy/practices, but not formally identified (provide source) Explain: <input type="text" value="Phoenix Bicycle Master Plan and Complete Streets Ordinance"/>
<input type="checkbox"/>	Not addressed by jurisdiction's plans, policies, or practices Explain: <input type="text"/>

Phoenix : 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART B-DETAILED PROJECT DESCRIPTION

35. How will the applicant measure the success of this project?

Success will be measured in three ways, the first and most obvious will be reduced pedestrian and bicycle crashes at the crossing. The second will be increased pedestrian and bicycle activity as measured by activations of the signal and the third will be a decrease in unsafe crossing activity observed in the surrounding area.

36. Will bicycle/pedestrian count technology be incorporated? Will the devices broadcast automatic updates or require manual data collection? If manual, how will the agency identify staff resources to dedicate to collecting the data?

Activation data is automatically collected however, no equipment has been included to conduct counting of individual bicyclist or pedestrians using the HAWK

37. Will the project include an education/marketing component upon completion of construction, to publicize the project and increase citizen awareness of the project impact and benefits? If yes, please describe below.

Yes, all HAWK signals installed by the City of Phoenix include a public outreach component in the form of a school assembly or neighborhood meeting to advise users of the function of the HAWK, how to properly cross and watch of traffic and general pedestrian and bicycle safety

38. Will the project include wayfinding signage elements? If yes, please describe below.

No

Phoenix: 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART D - TRANSPORTATION ALTERNATIVES COST ESTIMATE FORM													
Please provide a detailed cost estimate for this project. The data entered in this cost estimate sheet will automatically transfer into the correct fields in Part E. Rows 1-9 will remain visible at the top of this page at all times.													
Sponsoring Agency:		Phoenix	Project Title:		2018 Phoenix Pedestrian and Bicycle HAWK Crossing Project		Application Date:		9/20/2015				
Part	Item Description			Unit	Quan.	Unit Price	Total	Federally Eligible	Federal Funds (94.3%)	Local Funds (5.7%)	Note(s)		
A. Scoping (15% Preliminary Engineering Design)	1. SITE TOPOGRAPHIC SURVEY			LS	1	\$0.00	\$0.00	No	\$0.00	\$0.00			
	2. PROJECT ASSESSMENT REPORT or DETAILED WORKPLAN			LS	1	\$25,000.00	\$25,000.00	No	\$0.00	\$25,000.00			
	3. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)			LS	1	\$30,000.00	\$30,000.00	No	\$0.00	\$30,000.00			
	4. HAZMAT ASSESSMENT			LS	1	\$15,000.00	\$15,000.00	No	\$0.00	\$15,000.00			
Subtotal Scoping (Part A)						\$70,000.00		\$0.00	\$70,000.00				
B. Final Preliminary Engineering Design - Stages II, III, IV And PS&E	1. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.			LS	8	\$5,000.00	\$40,000.00	No	\$0.00	\$40,000.00			
	2. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report			LS	8	\$0.00	\$0.00	No	\$0.00	\$0.00			
	3. DRAINAGE REPORT			LS	8	\$0.00	\$0.00	No	\$0.00	\$0.00			
	4. SWPPP			LS	8	\$0.00	\$0.00	No	\$0.00	\$0.00			
Subtotal PE (Part B)						\$40,000.00		\$0.00	\$40,000.00				
Subtotal Preliminary Engineering (Part A + Part B)						\$110,000.00		\$0.00	\$110,000.00				
C. Right-of-Way Acquisition	1. Right-of-Way Acquisition			LS	1	\$0.00	\$0.00	No	\$0.00	\$0.00			
Subtotal Right-of-Way Acquisition (Part C)						\$0.00		\$0.00	\$0.00				
D. Utility Relocation	1. Utility Relocation			LS	1	\$0.00	\$0.00	No	\$0.00	\$0.00			
Subtotal Utility Relocation (Part D)						\$0.00		\$0.00	\$0.00				
E. Construction Or Implementation [For Non-Infrastructure Projects (No Ground Disturbing Activities), Address Only Part 4]	1. Hardscape Construction			Installation Of SWPP Measures		LS	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Site Preparation		LS	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Demolition		Sawcut	LF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Remove Structures and Obstructions	LS	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Remove Fencing	LF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Remove Structural Concrete	CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Remove Asphaltic Concrete Pavement	CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
				Remove Concrete Sidewalks, Slabs		CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Hazmat Abatement		LS	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Retaining Wall - Reinforced Concrete Cantilevered		SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Earthwork		General Excavation	CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Drainage Excavation	CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Structural Excavation	CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Structural Backfill	CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
				Borrow (In Place)		CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Curb & Gutter		LF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Aggregate Base		CY	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Pathway Or Sidewalk Materials		Concrete	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Colored Concrete	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Stamped Color Concrete	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Precast Concrete Pavers	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Asphaltic Concrete	Ton	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
				Polymer or Resin Stabilized Surface		SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00	
				Crosswalk Enhancement		Concrete Pavers	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Stamped Asphalt	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Stamped Concrete	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
						Concrete	SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00
Integral Color Concrete		SF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00					
Pedestrian ADA Ramp		SF	8	\$5,000.00	\$40,000.00	Yes	\$37,720.00	\$2,280.00	Assume 2 new ramps/location				
Culvert Extensions		LF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00					
Pedestrian Lighting Including Conduit And Trenching		Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00					
Handrail		Standard	LF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00				
		Decorative	LF	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00				
Subtotal Hardscape Construction						\$40,000.00		\$37,720.00	\$2,280.00				

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Sponsoring Agency:		Phoenix	Project Title:		2018 Phoenix Pedestrian and Bicycle HAWK Crossing Project		Application Date:		9/20/2015				
Part	Item Description			Unit	Quan.	Unit Price	Total	Federally Eligible	Federal Funds (94.3%)	Local Funds (5.7%)	Note(s)		
E. Construction Or Implementation [For Non-Infrastructure Projects (No Ground Disturbing Activities), Address Only Part 4]	2. Landscaping & Irrigation Items	Trees Above 15 Gallon In Size As Required Per Local Code Or Special Design Requirements			Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00		
		Trees (15 Gallon Size)			Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00		
		Trees (5 Gallon Size)			Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00		
		Shrubs (5 Gallon Size)			Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00		
		Shrubs (1 Gallon Size)			Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00		
		Cactus (5 Gallon Size)			Each	1	\$0.00	\$0.00	Yes	\$0.00	\$0.00		
		Mulch		Decomposed Granite		CY	1	\$0	\$0	Yes	\$0	\$0	
				Organic		CY	1	\$0	\$0	Yes	\$0	\$0	
		Topsoil			CY	1	\$0	\$0	Yes	\$0	\$0		
		Seeding			Acre	1	\$0	\$0	Yes	\$0	\$0		
		Turf Sod			SY	1	\$0	\$0	Yes	\$0	\$0		
		Boulders			Each	1	\$0	\$0	Yes	\$0	\$0		
		Irrigation System		Drip		SF	1	\$0	\$0	Yes	\$0	\$0	
				Turf		SF	1	\$0	\$0	Yes	\$0	\$0	
		Sleeving For Irrigation System		Directional Bore		LF	1	\$0	\$0	Yes	\$0	\$0	
			Cut and Patch		LF	1	\$0	\$0	Yes	\$0	\$0		
	Landscape Header Curb			LF	1	\$0	\$0	Yes	\$0	\$0			
	Landscape Establishment			LS	1	\$0	\$0	Yes	\$0	\$0			
	Subtotal Landscaping & Irrigation Items						\$0	\$0		\$0	\$0		
	3. Site Furnishings	Benches			Each	1	\$0	\$0	Yes	\$0	\$0		
		Seatwalls			LF	1	\$0	\$0	Yes	\$0	\$0		
		Bike Racks			Each	1	\$0	\$0	Yes	\$0	\$0		
		Trash Receptacles			Each	1	\$0	\$0	Yes	\$0	\$0		
		Drinking Fountains			Each	1	\$0	\$0	Yes	\$0	\$0		
		Signage (Standard Traffic Control)			Each	8	\$500	\$4,000	Yes	\$3,772	\$228		
		Signage (Wayfinding)			Each	1	\$0	\$0	Yes	\$0	\$0		
		Tree Grates			Each	1	\$0	\$0	Yes	\$0	\$0		
		Subtotal Site Furnishings						\$4,000	\$3,772		\$228		
		4. Other Construction Items. Also, Itemized Line Items For Non-Infrastructure Projects. (Insert Additional Rows If Necessary)	Sign Structure			Each	8	\$55,000	\$440,000	Yes	\$414,920	\$25,080	
	Foundation			Each	8	\$32,000	\$256,000	Yes	\$241,408	\$14,592			
	Counduits & Conductors			LS	8	\$20,000	\$160,000	Yes	\$150,880	\$9,120			
	Communication Devices			Each	8	\$15,000	\$120,000	Yes	\$113,160	\$6,840			
	Power Pedestal			Each	8	\$45,000	\$360,000	Yes	\$339,480	\$20,520			
	Controller			Each	8	\$40,000	\$320,000	Yes	\$301,760	\$18,240			
					1		\$0	Yes	\$0	\$0			
					1		\$0	Yes	\$0	\$0			
					1		\$0	Yes	\$0	\$0			
					1		\$0	Yes	\$0	\$0			
	Sutotal Other Construction						\$1,656,000	\$1,561,608		\$94,392			
	5. Mobilization And Administration Costs	Contractor Mobilization			LS	1	\$47,000	\$47,000	No	\$0	\$47,000		
		Traffic Control			LS	1	\$38,000	\$38,000	Yes	\$35,834	\$2,166		
		Construction Survey & Layout			LS	1	\$4,000	\$4,000	Yes	\$3,772	\$228		
		Construction Contingencies			LS	1	\$75,000	\$75,000	Yes	\$70,725	\$4,275		
		Construction Administration			LS	1	\$60,000	\$60,000	Yes	\$56,580	\$3,420		
	Subtotal Mobilization & Administration Costs						\$224,000	\$166,911		\$57,089			
Subtotal Construction Or Implementation Cost (Part E)						\$1,924,000	\$1,770,011		\$153,989				
F. Total Scoping, PE, Right-of-Way Acquisition, Utility Relocation, and Construction (Part A, B, C, D, and E)						\$2,034,000	\$1,770,011		\$263,989				
G. Adot Fee Review Fee - \$10,000 for Certified Accepted agencies, otherwise \$30,0000						\$10,000	No	\$0	\$10,000				
H. Total Project Cost Including ADOT Fees (Part F + Part G)						\$2,044,000		\$1,770,011	\$273,989				

Phoenix: 2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program

PART E - TOTAL PROJECT SCHEDULE AND BUDGET

Please verify that the cost and programming estimates for the total project are correct below. The numeric values on this sheet (in GREY) are automatically populated from the cost estimate sheet (Part D) and cannot be modified. If there are any errors in the numeric values on this sheet, please verify and correct the numbers you have entered into the cost estimate sheet (Part D). You MUST fill in the GREEN portions of Part E manually.

The design for the project should be programmed at least 1 year, preferably 2 years, prior to construction. Utilities and right of way should be programmed at least 1 year prior to construction, but may occur in the same year as construction depending on utility and right of way concerns that are identified in questions 24-27 in Part B.

Cost Estimate for the Project Including ALL Segments	Cost	Additional Notes (if needed)
1. ADOT Fee	\$10,000	
2. Design	\$110,000	
3. Right of way	\$0	
4. Utilities	\$0	
5. Construction	\$1,849,000	
6. Contingency	\$75,000	No more than 20% of Construction Cost
7. Total Cost	\$2,044,000	

8. Will the agency maintain the improvement after it is completed?

9. Expected Annual Maintenance Cost

10. Identify Source of Maintenance Funds

Requested MAG Programming	Year	Short Work Description (E.g. Construct Multiuse Path)	Local Funding Source	Local Cost	Federal Cost	Total Cost	Local Share
11. Design (Optional)	2017		General Fund	\$120,000	Not Available	\$120,000	100.0%
12. Right of way (Optional)			General Fund	\$0	Not Available	\$0	
13. Utilities (Optional)			General Fund	\$0	Not Available	\$0	
14. Other (Optional)			General Fund	\$0	Not Available	\$0	
15. Construction	2018		General Fund	\$153,989	\$1,770,011	\$1,924,000	8.0%
16. Total Costs				\$273,989	\$1,770,011	\$2,044,000	13.4%

PART F - SIGNATURE(S)

Checklist

This checklist is included to facilitate applicant review and verification that all required fields in the form have been completed.

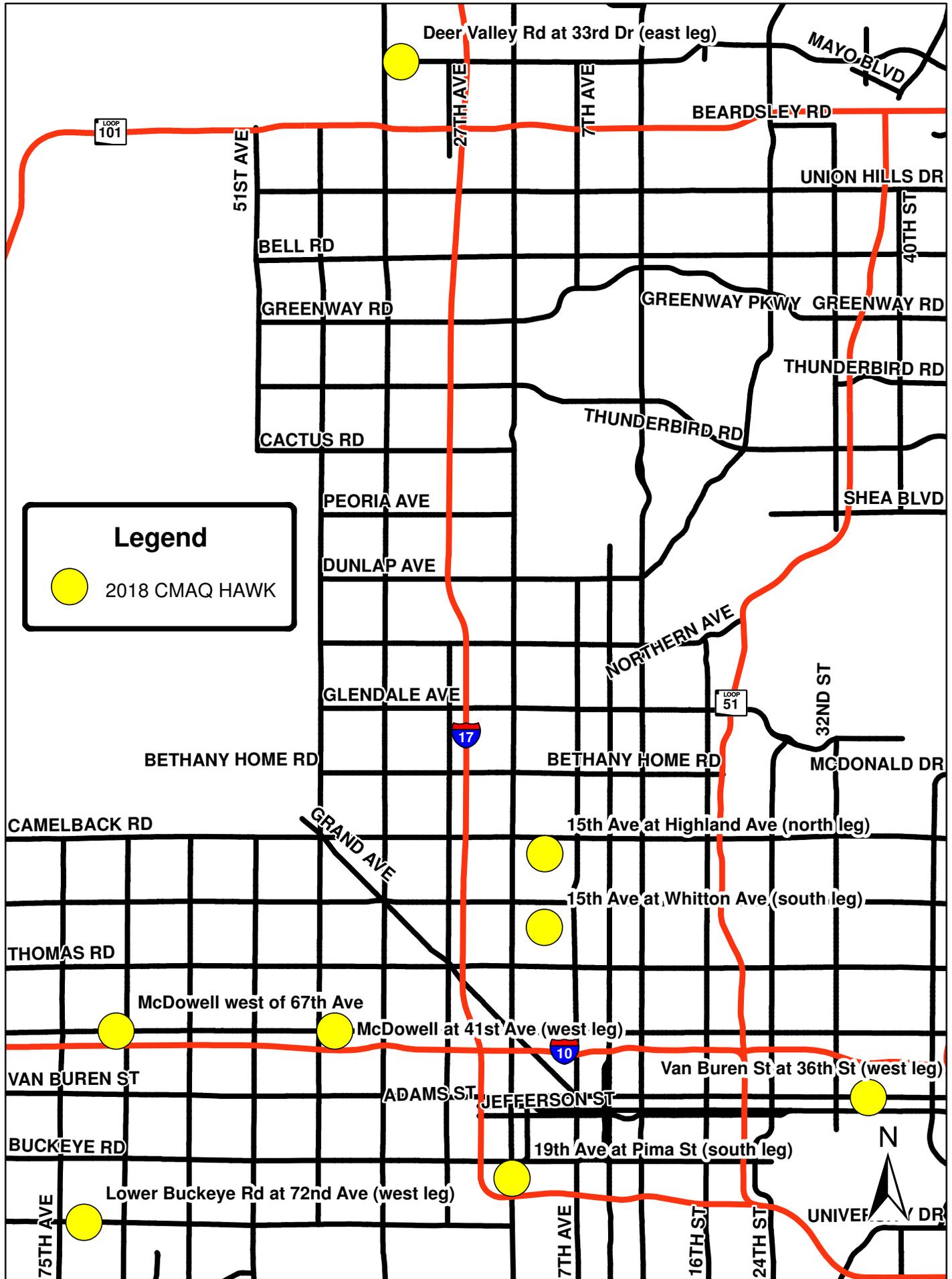
	Complete?
COVER SHEET	Complete?
Cover Sheet is completely filled out	Y
PART A - Contacts and Project Description Fields	Complete?
Contact Information, fields 1 – 5 are complete	Y
Project Description, fields 6 - 8 are complete	Y
PART B - Project Description	Complete?
Fields 1 - 14 (Project Description) are complete	Y
Fields 15 - 17 (Transit) are complete	Y
Fields 18 – 22 (Attractors and Demographics) are complete	Y
Fields 23 – 30 (Traffic, Environmental, ROW, and Utilities) are complete	Y
Fields 31 – 33 (Guidelines, Policies, and Plans) are complete	Y
Fields 34 – 37 (Maintenance, Performance Measurement, and Wayfinding) are complete	Y
PART C - Required Attachments	Complete?
Field 1 - Map showing the general location of the proposed project in relation to the region, including a north arrow provided in the printed application and the PDF application.	Y
Field 2 - Map with streets labeled showing the detailed location(s) of the proposed project, including a north arrow provided in the printed application and the PDF application.	Y
Field 3 - Up to four (4) photos of existing conditions are provided in the printed application and the PDF application (two 4x6 per page).	Y
Field 4 - Simple diagram of the current typical cross section of the segment, that shows the right of way limits, widths, sidewalks and shoulders (if any), and the lanes of travel in the printed application and the PDF application.	Y
(OPTIONAL) - Up to two (2) photos/renderings of the completed project are provided in the printed application and the PDF application.	
(OPTIONAL) - Up to three (3) letters of support for the project are provided in the printed application and the PDF application.	
(OPTIONAL) - GIS coverage (shapefile or geodatabase) is provided on the CD with the application.	
PART D - Cost Estimate Worksheet	Complete?
Sponsoring Agency, Project Title, and Application Date are complete	Y
Part A - Scoping is complete	Y
Part B - Final Preliminary Engineering Design is complete	Y
Part C - Right-of-Way Acquisition is complete	Y
Part D - Utility Relocation is complete	Y
Part E - Construction or Implementation is complete	Y
Parts F, G, and H - Costs are complete and accurate	Y
PART E - Total Project Schedule and Budget Including All Segment Fields	Complete?
Fields 1 – 7 are complete and costs are accurate	Y
Field 8 - 10 are complete	Y
Fields 11 – 15 Years are complete	Y
Fields 11 – 15 Local Funding Sources are complete	Y
Fields 11 – 15 Local Costs are complete and accurate	Y
Field 11 - 15 Federal Costs are complete and accurate	Y
Field 16 Total Costs are complete and accurate	Y
PART F - Signature and Checklist	Complete?
Entire checklist is completed.	Y
Form is signed by MAG member agency's manager/administrator or designated representative.	Y
Name, title and date fields under the signature are completed.	Y

SIGNATURE(S):

As the MAG member agency'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.

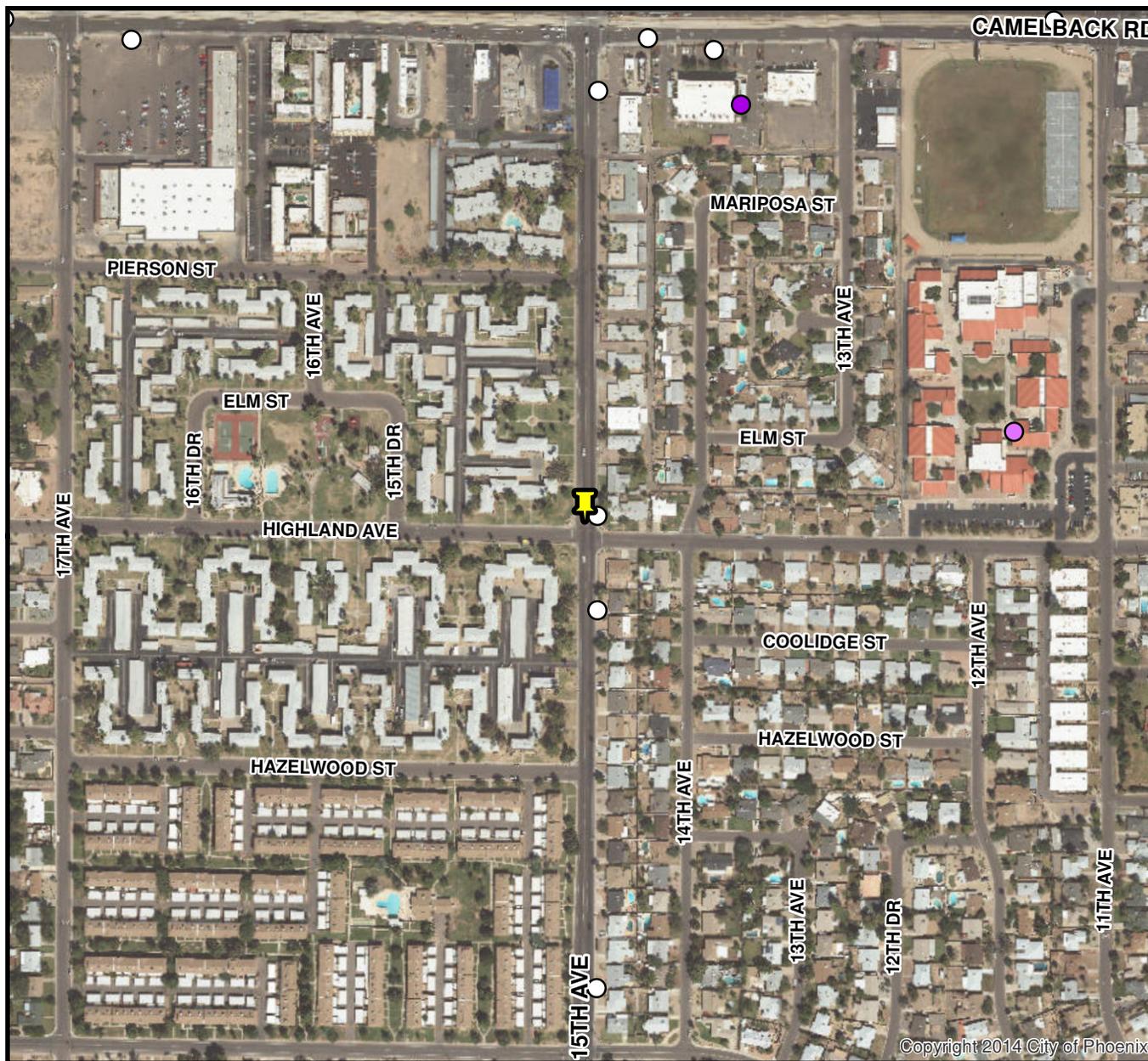
Signature:	
Name:	Name: Ray Dovalina, P.E.
Title:	Title: Street Transportation Director
Date:	Date: September 16, 2015

2018 HAWK LOCATIONS



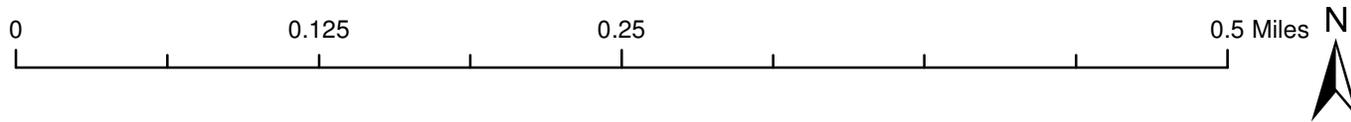
2018 HAWK LOCATION

15th Avenue at Highland Avenue (North Leg)



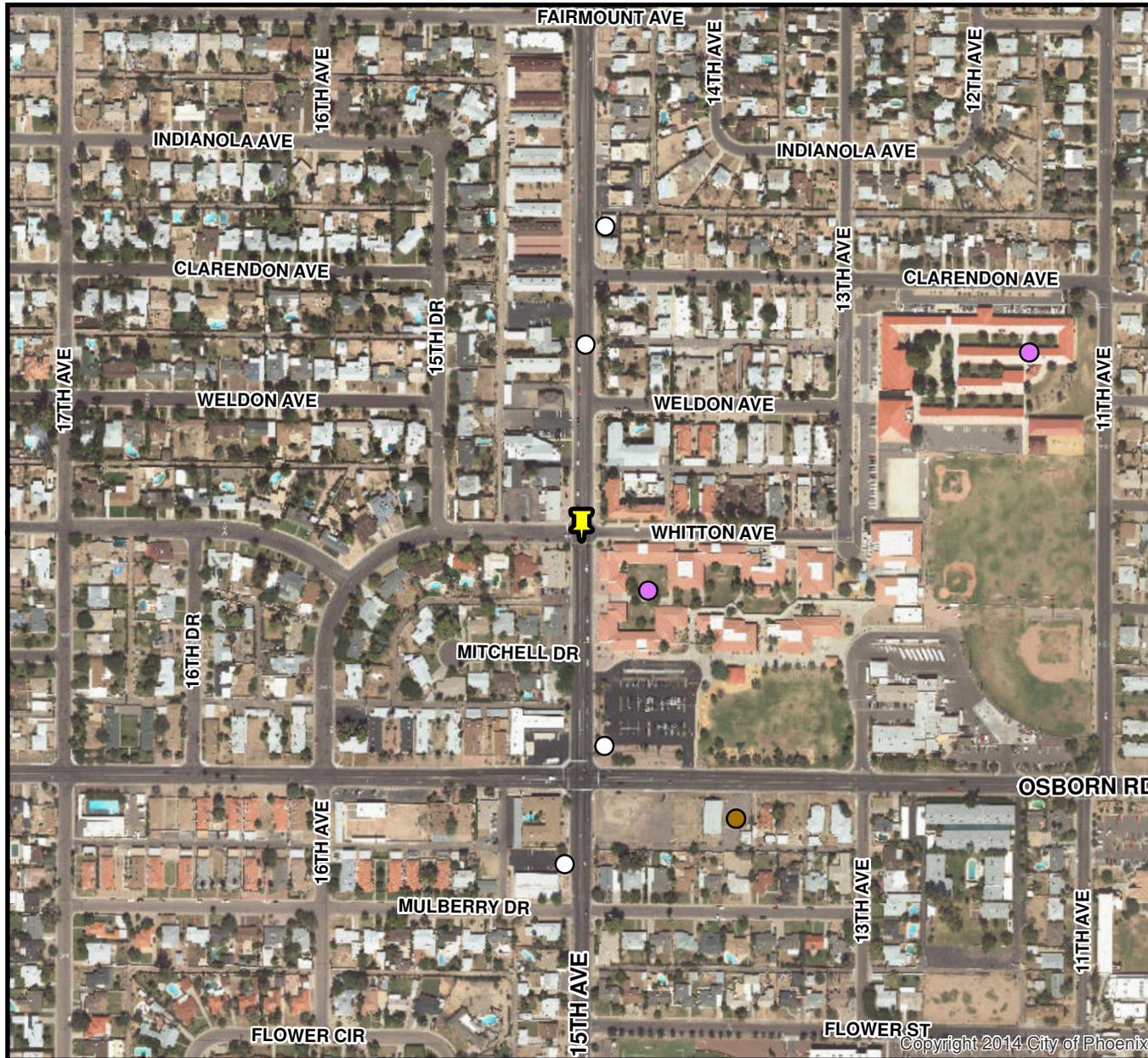
Legend

-  2018 CMAQ HAWK
-  School Location P-8
-  School Location Charter
-  Bus Stops



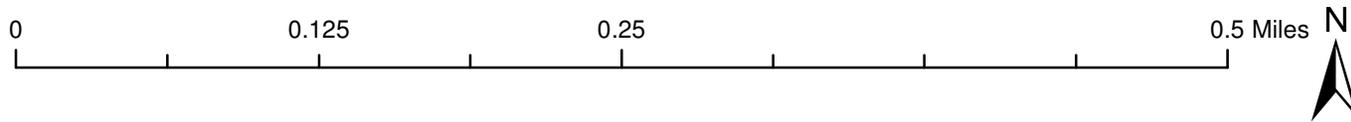
2018 HAWK LOCATION

15th Avenue at Whitton Avenue (South Leg)



Legend

-  2018 CMAQ HAWK
-  School Location P-8
-  Church
-  Bus Stops



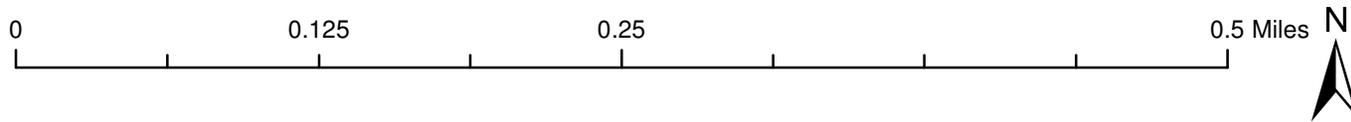
2018 HAWK LOCATION

19th Avenue at Pima Street (South Leg)



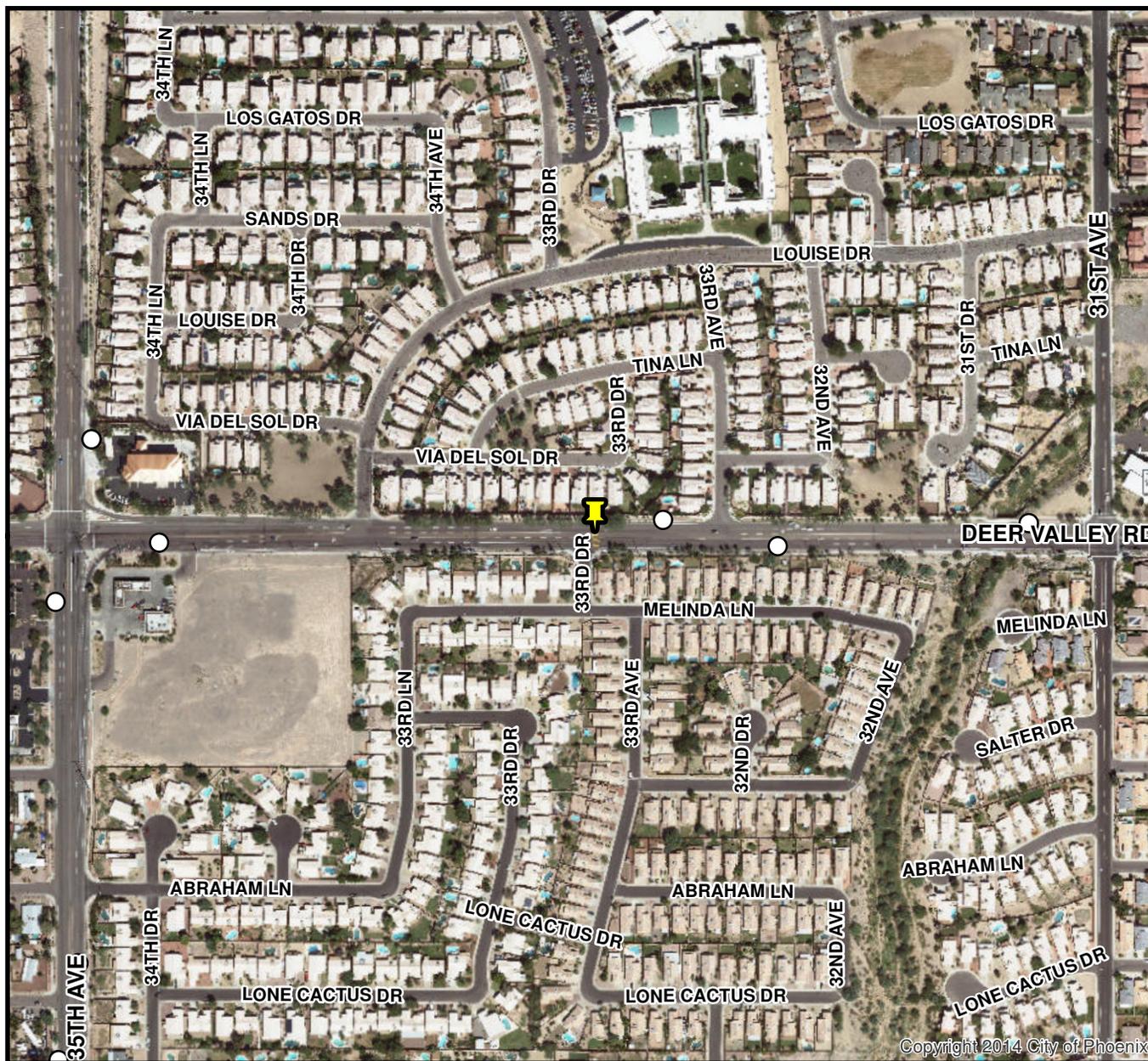
Legend

-  2018 CMAQ HAWK
-  School Location P-8
-  Church
-  Bus Stops



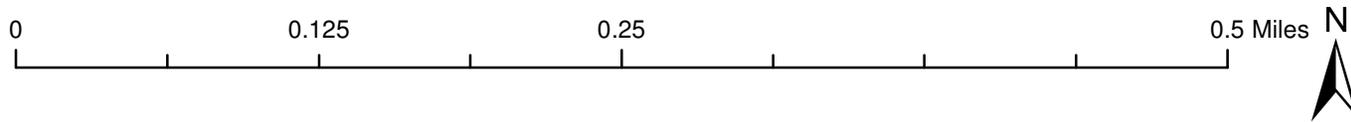
2018 HAWK LOCATION

Deer Valley Road at 33rd Drive (East Leg)



Legend

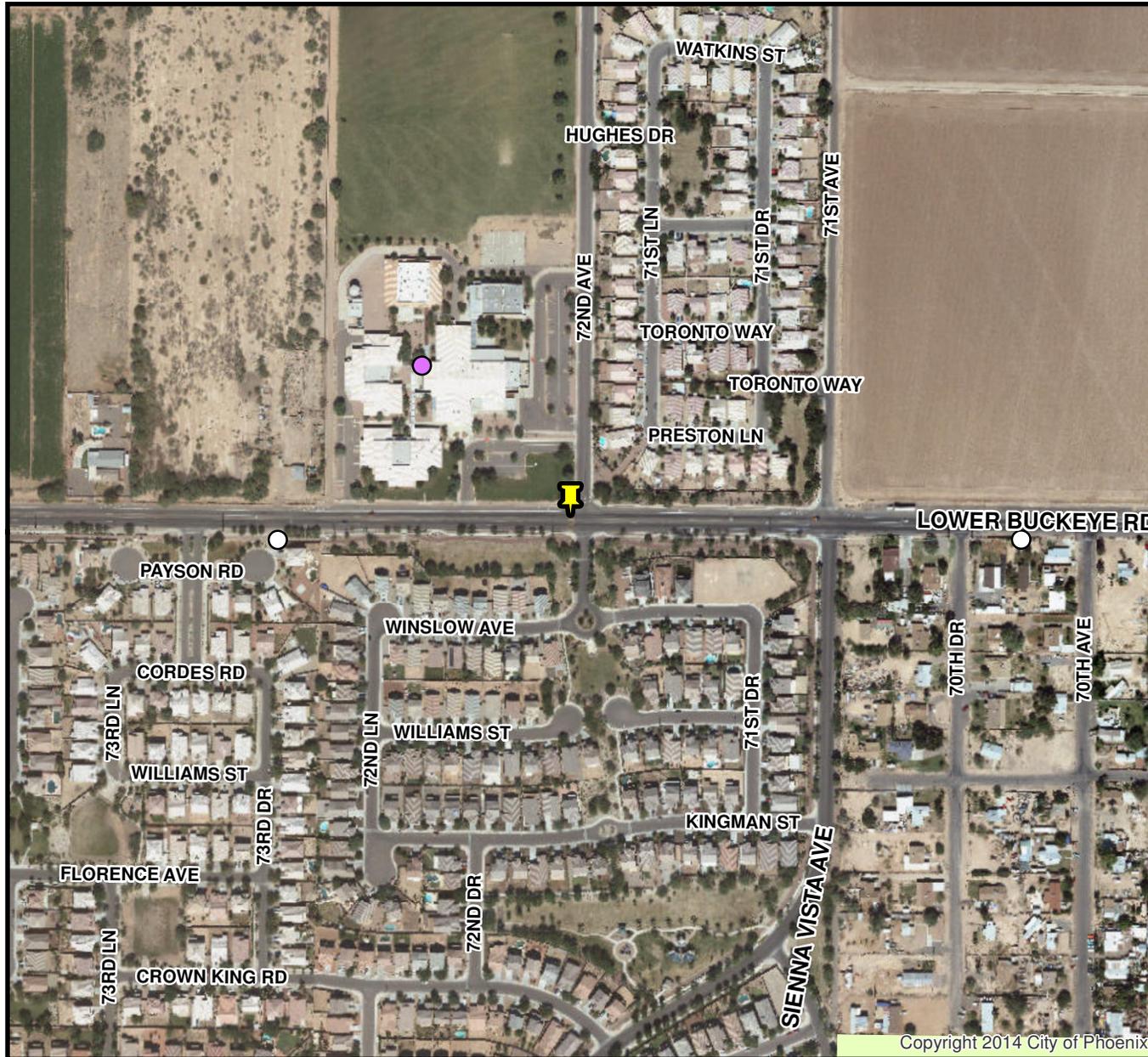
-  2018 CMAQ HAWK
-  Bus Stops



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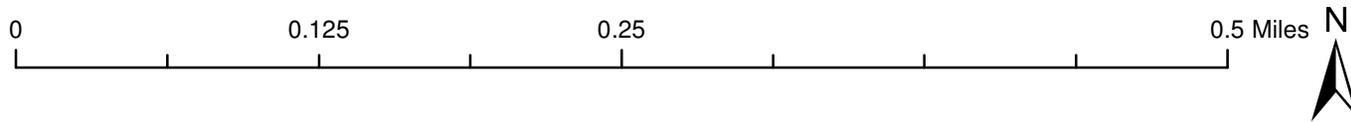
2018 HAWK LOCATION

Lower Buckeye Road at 72nd Avenue (West Leg)



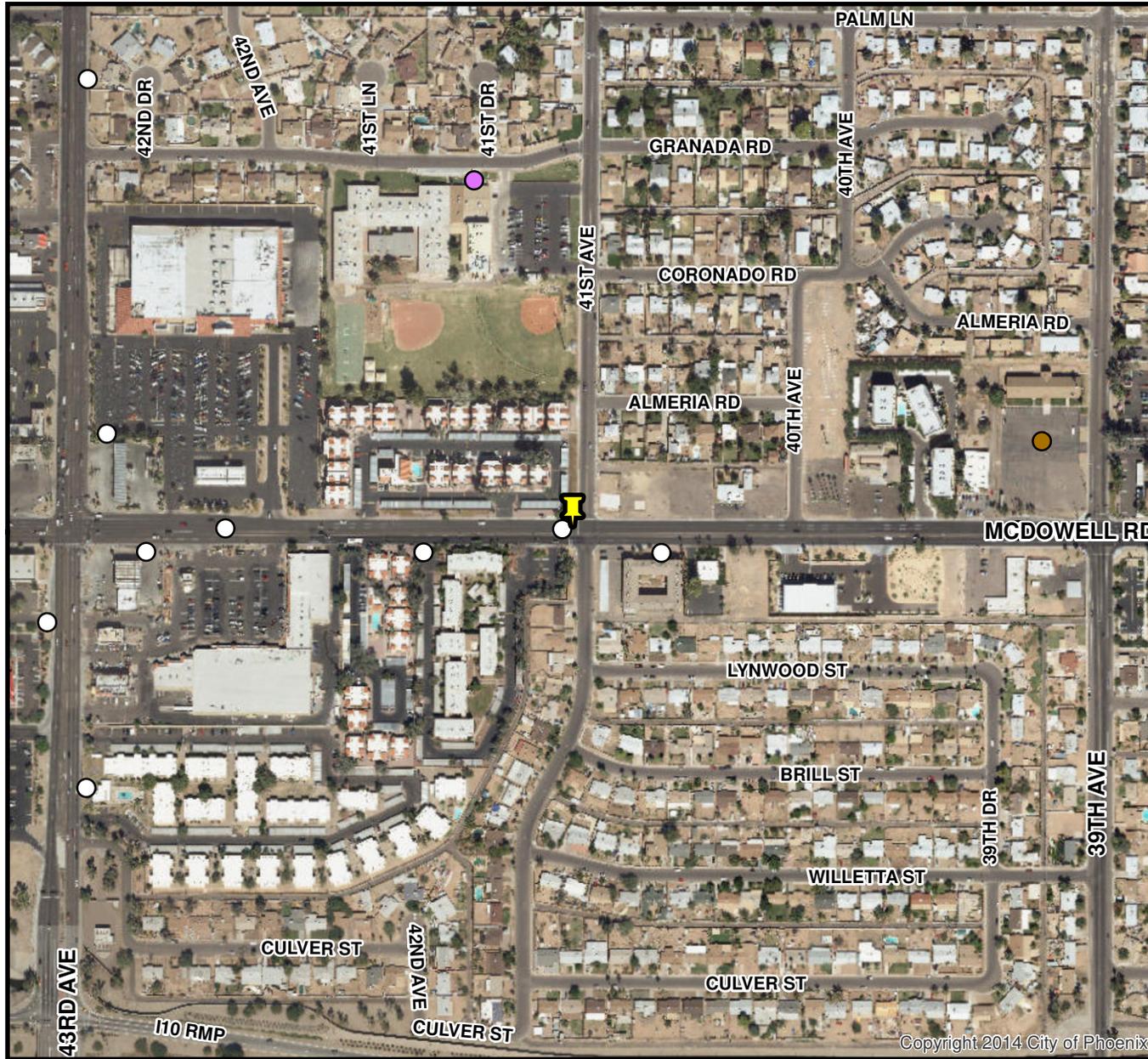
Legend

-  2018 CMAQ HAWK
-  School Location P-8
-  Parks
-  Bus Stops



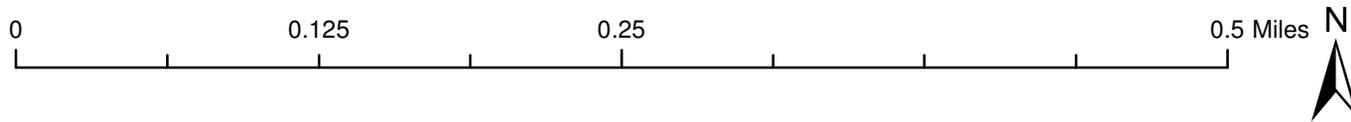
2018 HAWK LOCATION

McDowell Road at 41st Avenue (West Leg)



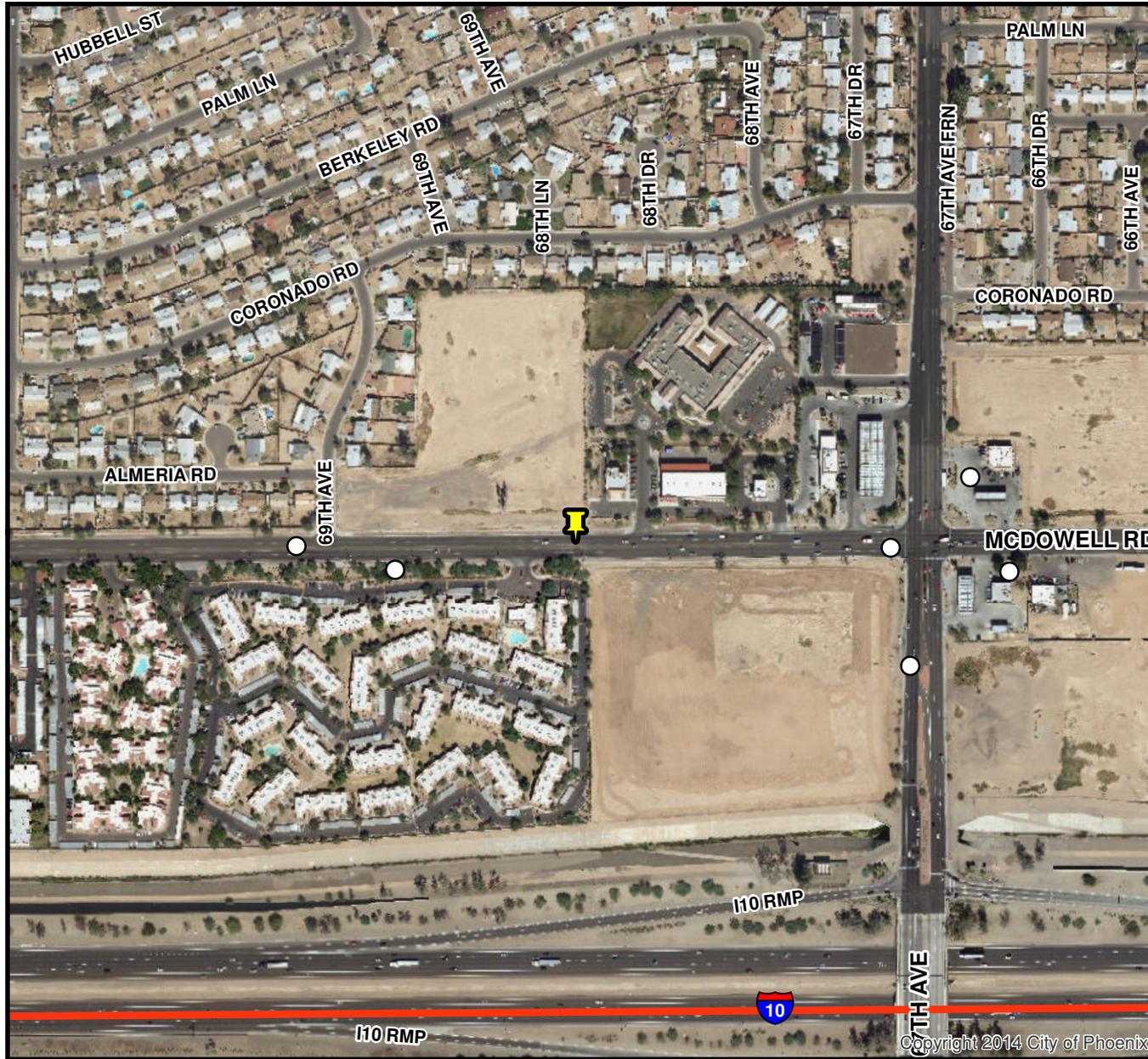
Legend

-  2018 CMAQ HAWK
-  School Location P-8
-  Church
-  Parks
-  Bus Stops



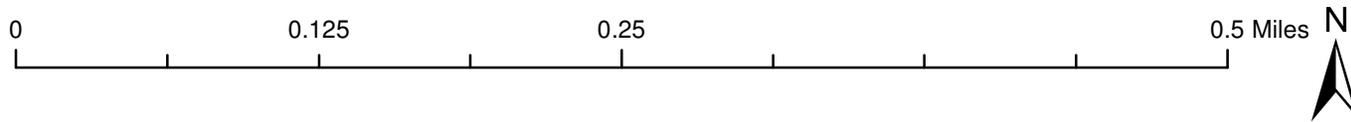
2018 HAWK LOCATION

McDowell Road west of 67th Avenue



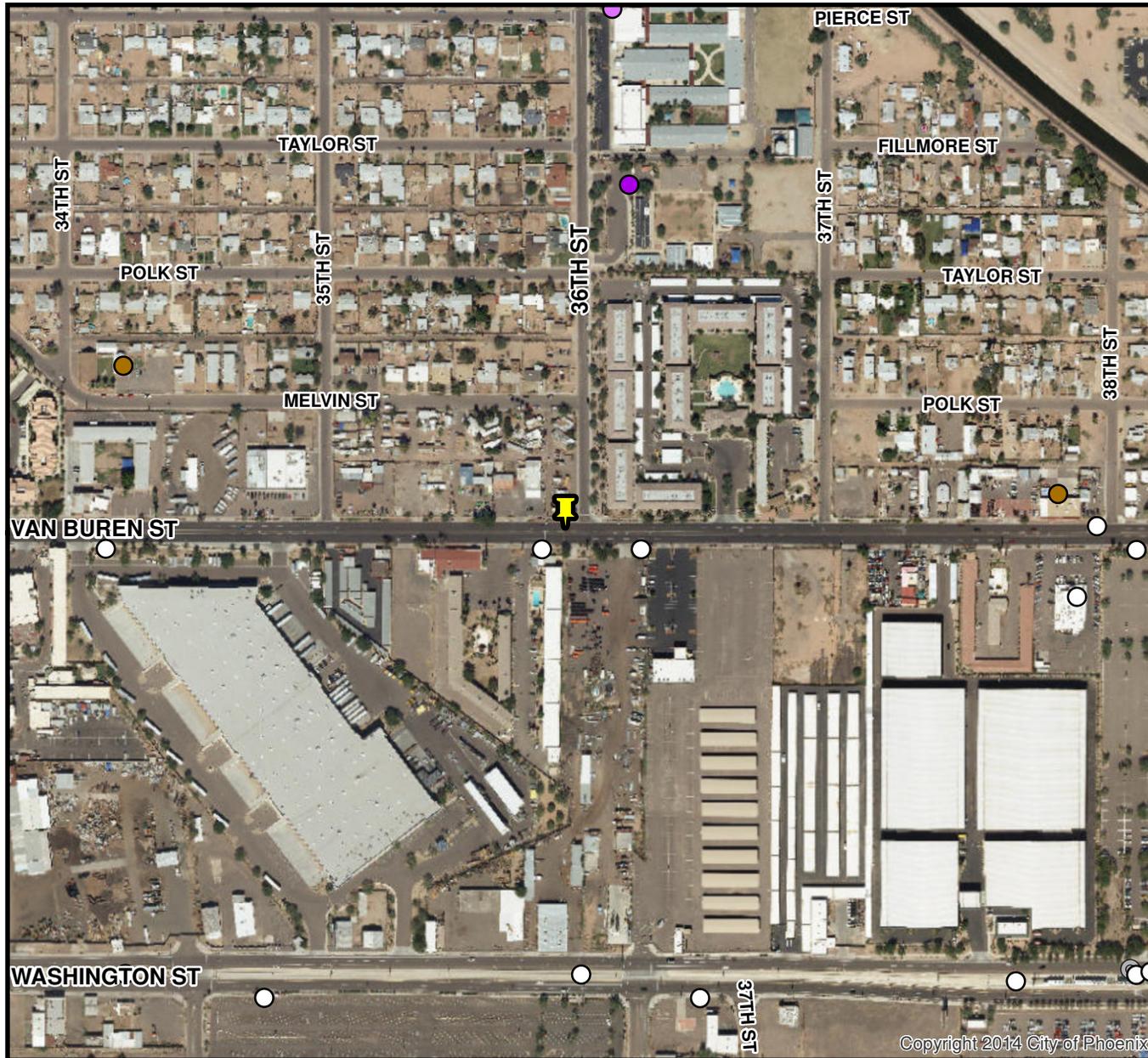
Legend

-  2018 CMAQ HAWK
-  Bus Stops



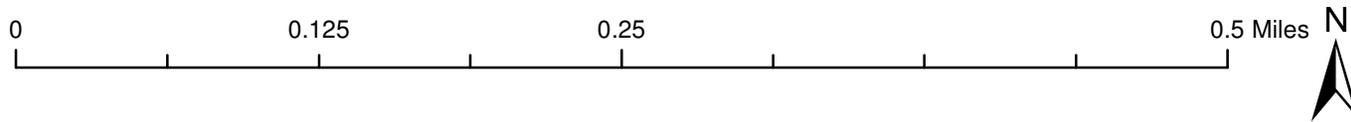
2018 HAWK LOCATION

Van Buren Street at 36th Street (West Leg)



Legend

- 2018 CMAQ HAWK
- School Location P-8
- School Location Charter
- Church
- Bus Stops
- Light Rail Stops



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2018 Phoenix Pedestrian and Bicycle HAWK Signalized Crossing Program Photographs



Figure 1. McDowell Road at 41st Avenue - Existing standard white crosswalk



Figure 2. 19th Avenue at Pima Street - Existing high-visibility white (ladder) crosswalk



Figure 3. Deer Valley Rd at 33rd Dr - Existing high-visibility yellow (ladder) crosswalk in 15-mph school zone



Figure 4. 19th Avenue at Pima Street - Existing standard yellow crosswalk in 15-mph school zone

15th Avenue north of Highland (North Leg) R.O.W.

63'

Sidewalk
6'

BL
6'

SB
16'

TLTL
13'

NB
11'

BL
6'

Sidewalk
5'



19th Avenue at Pima Street (South Leg) R.O.W.

82'

Sidewalk
5'

Parking
8'

SB
12'

SB
10'

TLTL
10'

NB
10'

NB
10'

NB
12'

Sidewalk
5'



15th Avenue south of Whitton Avenue (South Leg) R.O.W.

61'

Sidewalk
5'

BL
6'

SB
12'

TLTL
15'

NB
12'

BL
6'

Sidewalk
5'



Deer Valley Road at 33rd Drive (East Leg) R.O.W.
97'

Sidewalk/Buffer
14'

BL
6'

WB
12'

WB
12'

TLTL
12'

EB
12'

EB
12'

BL
6'

Sidewalk/Buffer
11'



Lower Buckeye Road at 72nd Avenue (West Leg) R.O.W.
87'

Sidewalk/Buffer
11'

WB
29'

TLTL
10'

EB
10'

EB
14'

Sidewalk/Buffer
14'



McDowell Road at 41st Avenue (West Leg) R.O.W.
74'

Sidewalk
6'

WB
12'

WB
10'

WB
10'

TLTL
9'

EB
10'

EB
11'

Sidewalk
6'

McDowell Road at 67th Avenue (West Leg) R.O.W.
90'

Sidewalk/Buffer
15'

WB
16'

WB
10'

TLTL
9'

EB
10'

EB
16'

Sidewalk/Buffer
14'



Van Buren Street at 36th Street (West Leg) R.O.W.
78'

Sidewalk/Buffer
12'

WB
12'

WB
10'

TLTL
10'

EB
10'

EB
12'

Sidewalk/Buffer
12'

