

August 5, 2014

TO: Members of the MAG Street Committee

FROM: Dana Owsiany, P.E., Phoenix, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Tuesday, August 12, 2014 - 1:00 p.m.
MAG Office, Suite 200, Ironwood Room
302 North First Avenue, Phoenix

The next meeting of the MAG Street Committee will be held at the time and place noted above. Committee members or their proxies may attend in person, via video-conference or by telephone conference call. Those attending video conference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference please contact MAG offices for conference call instructions.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Stephens at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

The next meeting of the MAG Street Committee will be held at the time and place noted above. If you have any questions or need additional information, please contact Teri Kennedy or Steve Tate at (602) 254-6300.

TENTATIVE AGENDA

	<u>COMMITTEE ACTION REQUESTED</u>
<p>1. <u>Call to Order</u></p> <p>For the August meeting, the quorum requirement is 13 committee members.</p>	
<p>2. <u>Introductions and Attendance</u></p> <p>An opportunity for new members to introduce themselves and record member attendance at the meeting will be provided.</p>	2. For information.
<p>3. <u>Approval of the July 22, 2014 Meeting Minutes</u></p>	3. Review and approve the minutes from the July 22, 2014 meeting.
<p>4. <u>Call to the Audience</u></p> <p>An opportunity will be provided to members of the public to address the Street Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Street Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.</p>	4. For information.
<p>5. <u>MAP-21 Changes to Categorical Exclusions</u></p> <p>MAP-21 changed the environmental process to expand the use of group one categorical exclusions for roadway projects. At the meeting, the Committee will be briefed by ADOT on these changes and their implementation.</p>	5. For information and discussion.
<p>6. <u>MAG Federal Fund Programming Guidelines and Procedures Update</u></p> <p>MAG has relied on the MAG Federal Fund Programming Guidelines and Procedures (Guidelines) since November 2011. Since then</p>	6. For information, discussion and possible action to recommend as appropriate.

a new surface transportation program was approved by congress and new ADOT and Federal Highway Administration guidance has been released. Additionally, member agencies and staff have requested changes to the Guidelines.

At the direction of the MAG Manger's Working Group, the Street Committee with the Chairs and Vice Chairs of the Bicycle-Pedestrian Committee, the Intelligent Transportation Systems Committee, and the Transportation Safety Committee as ad hoc members, will review the Guidelines and recommend changes and or modifications to the Guidelines at the Street Committee meetings. Please see attached materials (See Attachment 1 for more information).

7. Bicycle and Pedestrian Pathway/Railroad Crossing Recommendations

Throughout the MAG planning area there are several existing and planned pedestrian/bicycle shared-use paths that cross railroad tracks that are not located on public streets or at intersections. A recent MAG study developed regional guidelines that member agencies may utilize to work with railroads and utility companies to develop safe and appropriate crossing treatments. The recommendations in this document provides a framework for developing crossing treatments for these unique path crossings with railroads (See Attachment 2 for more information).

8. Request for Future Agenda Items

Topics or issues of interest that the Transportation Review Committee would like to have considered for discussion at a future meeting will be requested.

9. Member Agency Update

This section of the Agenda will provide Committee members with an opportunity to share information regarding a variety of transportation-related issues within their respective communities.

7. For information and discussion.

8. For information and discussion.

9. For information.

10. Next Meeting Date

The next regular Street Committee meeting will be scheduled for Tuesday September 9, 2014 at 1:00 p.m. in the MAG Office, Chaparral Room.

Adjournment

10. For information.

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
STREET COMMITTEE

Tuesday July 22, 2014 1:00 p.m.
MAG Offices, Suite 300,
302 North First Avenue, Phoenix, Arizona 85003

MEMBERS ATTENDING

Dana Owsiany, Phoenix, Chair Woman	* Bill Fay, City of Maricopa
* Steve Beasley, ADOT	Jack M. Lorbeer, Maricopa County
Emil Schmid, Apache Junction	# Maria Angelica Deeb, Mesa
Charles Andrews, Avondale	* James Shano, Paradise Valley
Jose Heredia, Buckeye	# Scott Bender, Pinal County
Dan Cook, Chandler	Ben Wilson, Peoria
Chris Hauser, El Mirador	* Janet Martin, Queen Creek
@Tom Deitering for Aryan Lirange, FHWA	Jennifer Jack for Elaine Cabrera, Salt River
# Morris Taylor for Wayne Costa, Florence	Pima-Maricopa Indian Community
Tim Oliver, Gila River Indian Community	Phil Kercher, Scottsdale
Tom Condit, Gilbert	Suneel Garg, Surprise
Purab Adabala for Bob Darr, Glendale	* Isaac Chivera, Tempe
Cato Esquivel for Hugh Bigalk, Goodyear	* Jason Earp, Tolleson
# Thomas Chlebanowski for Darryl Crossman, Litchfield Park	* Grant Anderson, Youngtown

* Members neither present nor represented by Proxy

Members attending by phone

@Ex-officio member, non voting member

OTHERS PRESENT

James Meyer, ADOT	Monique de los Rios-Urban, MAG
Ryan Miles, ADOT	Chaun Hill, MAG
Kristin Myers, Town of Gilbert	Teri Kennedy, MAG
Laurie Kattreh, MCDOT	David Massey, MAG
	Steve Tate, MAG

1. Call to Order

Chair Woman Dana Owsiany called the meeting to order at 1:00 p.m.

2. Introductions and Attendance

A roll call of members attending the meeting was conducted. The following member agencies were not represented at the meeting: ADOT, City of Maricopa, Paradise Valley, Queen Creek, Tempe, Tolleson, Youngtown

3 Approval of the June 10, 2014 Meeting Minutes

Mr. Dan Cook moved approval of the minutes. Mr. Thomas Chlebanowski seconded the motion. The motion carried unanimously.

4 Call to the Audience

No members of the audience requested to speak before the Committee.

5. Revised Principal Arterial Network Proposal

Mr. Stephen Tate briefed the Committee. He presented a map showing the changes as a result of the Committee's action at the June meeting, subsequent requests for changes from member agencies, and one technical correction. The technical correction is regarding Northern Parkway, which was never Federally functionally classified. Northern Parkway would be classified as a principal arterial. Cactus Road would be removed from the Principal Arterial network as it is one mile north of Shea Boulevard. As a result of the previous Committee action, the Principal Arterial classification of MC 85 did not end at a Principal Arterial on the eastern end. MC 85 is now proposed to remain a Principal Arterial east to Cotton Lane. In addition, Cotton Lane will remain a Principal Arterial and remain on the NHS as it is part of the proposed SR 303L corridor. Seventh Street and Happy Valley Road between SR 101L and I-10 would be redesignated as minor arterial. Indian School Road would be retained as a principal arterial between SR 51 and Scottsdale Road, and Camelback Road would be downgraded to Minor Arterial. Frank Lloyd Wright Boulevard from SR 101L to Shea Boulevard would be redesignated as Minor Arterial.

Mr. Kercher inquired regarding Scottsdale Road north of SR 101L. Mr. Tate responded that it would be addressed in the next action.

Mr. Esquivel inquired regarding Cotton Lane. He stated that it is a local street now and asked what the effects would be if it was removed from the NHS and SR 303L is extended south to MC 85. Mr. Tate stated that it is already classified as a principal arterial and the freeway is intended to be built on top of it. Removing Cotton Lane from the NHS would prevent ADOT from using National Highway Performance Program funding on the SR 303L extension.

Mr. Esquivel responded that there is not any state and local funding being used on SR 303L south within the five-year TIP. Mr. Tate stated that the principal arterial network should be contiguous and connected and removing Cotton Lane would provide no connection from MC 85 to another principal arterial.

Mr. Esquivel asked if removing Cotton Lane and MC 85 would cause any problems. Mr. Lorbeer responded that after the removal of Dysart Road from the proposal, the County chose the next logical connection from MC 85 to the north at Cotton Lane.

Mr. Esquivel stated that he does not recall whether there is a connection planned between MC 85 and SR 303L. He then asked that the consequences of removing Cotton Lane be looked into. Mr. Tate responded that the network must be approved by the local office of the

Federal Highway Administration and that the network must be coherent. He added that if Cotton Lane is removed, MC 85 would likely have to be removed entirely. Mr. Esquivel stated that MC 85 is the main east-west truck route in the area east to 51st Avenue and that removing MC 85 from Dysart to 51st Avenue does not make sense to him.

Mr. Cook asked why MC 85 needs to be cut back from Cotton Lane to 51st Avenue when Bell Road and Northern Avenue remain principal arterials for the same distance. Mr. Tate responded that Bell Road and Northern Avenue connect to multiple north-south arterials, and MC 85 would not connect to any north-south principal arterials if Cotton Lane is removed. Mr. Cook responded that there is a connection to SR 85 which connects to I-10. Mr. Tate added that a principal arterial should connect to another principal arterial on both ends. Ms. Kennedy stated that principal arterials either end at another principal arterial or an intermodal facility as the traffic from that principal arterial feeds into other directions.

Mr. Oliver asked whether there would be a logical connection to the proposed SR 202L South Mountain Freeway. Mr. Tate responded that once SR 30 is built, that could be considered a connection from MC 85 to the freeway system. Ms. Kennedy noted that functional classification is done on existing roads, not future roads, and that if Cotton Lane is not functioning as a principal arterial, MC 85 is not functioning as a principal arterial at that point either.

Mr. Esquivel asked why MC 85's principal arterial designation could not be continued to 51st Avenue. Mr. Andrews responded that Avondale has no issue with MC 85 remaining on the principal arterial network. Mr. Lorbeer added that there was a discussion regarding what portions of MC 85 and that there are other cities that should be consulted. Ms. Kennedy noted that removing Cotton Lane would result in losing flexibility of usage of NHPP funding as opposed to half-cent sale tax funds.

Ms. Deeb asked whether the roads could be removed from the principal arterial network and NHS now and re-added when construction is in the TIP window. Mr. Tate responded that the functional classification should represent what is on the ground today and possibly what will be built in the next few years, and that ultimately the network must be approved by the Federal Highway Administration in Washington. He noted that leaving no north-south principal arterials in the East Valley east of Country Club Road or removing four miles of MC 85 does not make sense and would appear to be removing roadways to circumvent or avoid Federal regulations. He added that the FHWA local office has indicated that the proposal would be evaluated as a total package and that removing more roads would endanger the proposal being approved.

Chair Owsiany stated that if this proposal is not approved that the region will go back to having every grid mile on the system and that the region will have many more unfunded responsibilities as a result. She added that Phoenix had 308 miles of roads added and that this current proposal brings them down to 176 miles. She stated that the Committee needs to move forward with a proposal that can be approved by FHWA, knowing that it can be changed in the future.

Mr. Esquivel suggested that if MCDOT could reconsider MC 85 to the east of Cotton Lane as it functions as a major regional roadway with truck traffic. Mr. Lorbeer responded that he would like to know what the process is for updating the network. He added that instead of

taking roadways off and adding them later, the roads could be left on and once the system has been approved, the necessary or desirable adjustments could be made.

Chair Owsiany asked whether functional classification updates could be handled by the FHWA local office. Mr. Deitering noted that he is on the project delivery side, but that he recalled that functional classification would be handled in his office.

Responding to an inquiry, Mr. Tate clarified that the memo for this item should say that Northern Avenue will be reclassified to minor arterial.

Mr. Cook requested some clarification regarding Mr. Esquivel's recommendation that the principal arterial and NHS designation on MC 85 remain east to 51st Avenue. Mr. Esquivel responded that he was correct. Mr. Cook then asked regarding Maricopa County's agreement. Mr. Lorbeer stated that they have not looked at that section of MC 85 and that he is not prepared to make that assessment. Mr. Cook asked regarding the jurisdiction of MC 85. Mr. Lorbeer responded that portions of it pass through Phoenix and Tolleson and that they would like to involve all the partners.

Mr. Tate noted that the network would be reviewed at the Transportation Review Committee and that if the County wished to make changes to the network, they could do so at that time. Mr. Oliver stated that Mr. Tate needs to consult with Goodyear, Avondale, Tolleson, and Phoenix regarding MC 85 as all of those jurisdictions maintain and operate portions of the corridor.

Mr. Cook moved to approve the Option 2E Principal Arterial network as presented with the recommendation that Maricopa County, Goodyear, Avondale, Tolleson, and Phoenix consider what they would like to do with MC 85 and that any desired changes be considered by the Transportation Review Committee. Ms. Deeb seconded the motion. The motion carried with Mr. Lorbeer abstaining.

6. National Highway System (NHS) Designation

Chair Owsiany presented a prepared statement with six bullet points from the City of Phoenix regarding the National Highway System and National Highway Performance Program funding:

60% of federal funding levels into Arizona are based on the number of miles in the NHS inventory.

None of the funding allocated to Arizona related to NHS miles is allocated at the State level to local jurisdictions to maintain roadways in the NHS.

At this point any federal flow down requirements regarding the on-going maintenance and operation of arterial streets have not enforced by ADOT and/or FHWA.

These current changes to the NHS in the Phoenix metropolitan area are in response to MAP-21 requirements.

The new MAP-21 requirements regarding the NHS has not yet translated into a change in funding nor has funding been linked to compliance with these federal requirements.

Phoenix would like to go on record that if at some time in the near future, federal guidance mandates or directs local jurisdictions to comply with federal requirements associated with its NHS roadways, then this would amount to an unfunded mandate. Phoenix would then pursue a change in the funding allocations within the state to provide local jurisdictions with the financial resources to comply and/or proposed future changes to the NHS inventory to reduce Phoenix/local jurisdiction miles.

Mr. Tate then briefed the Committee on the additional proposed NHS designation changes. He noted that this agenda item pertained only to NHS designation and will not affect functional classification. There are certain portions of principal arterials that would be requested for removal from the NHS as they represent stub-endings of NHS designation in largely suburban areas. The roadways requested for removal from the NHS are Scottsdale Road from north of SR 101L to Dynamite Boulevard, Tatum Boulevard from SR 101L to Cave Creek Road, Happy Valley Road from I-17 to 67th Avenue, Elliot Road from Arizona Avenue to McQueen Road, Power Road from SR 202L to Williams Field Road, and Riggs Road from I-10 to Val Vista Drive. Additionally, Northern Parkway would be requested to be added to the NHS. As a result, a total of 29 miles of roadway would be requested for removal from the NHS, and 4 miles would be requested to be added to the NHS. The action would also request for all of the new minor arterials to be removed from the NHS. A total of 601 miles of roadway would be removed from the NHS.

Mr. Cook requested clarification regarding Scottsdale Road north of SR 101L. Mr. Tate responded that it would remain as a principal arterial but would be requested for removal from the NHS.

Mr. Cook moved to recommend the MAG staff proposed changes to the National Highway System to the Transportation Review Committee for consideration. Mr. Garg seconded the motion. The motion carried unanimously.

Ms. Deeb noted that the City of Mesa has two Federally funded projects on Country Club Road and that they are relying on their partners at ADOT for guidance regarding additional requirements due to NHS designation. She added that there is a project on Power Road with only regional funds and requested that MAG staff provide guidance regarding what extra requirements will need to be followed on this project.

Mr. Cook noted that the added requirements are an unfunded mandate that will come down onto the cities, but it is a funded mandate for ADOT. Mr. Cook suggested an exploration of requesting some distribution of the added funding from ADOT to the cities be considered by the Transportation Review Committee and, if necessary, the Transportation Policy Committee and the Regional Council. He added that there are additional costs to the cities which are not being funded. Chair Owsiany stated that the City of Phoenix is in agreement.

Adjournment

The meeting adjourned at 1:44 p.m.

Date: August 1, 2014

To: Members of the MAG Street Committee

FROM: Teri Kennedy, Transportation Programming Manager

SUBJECT: MAG FEDERAL FUND PROGRAMMING GUIDELINES & PROCEDURES UPDATE

On October 26, 2011, the Regional Council approved the MAG Federal Fund Programming Guidelines and Procedures (Guidelines). Since then there have been substantial changes in Federal regulations and ADOT policies. Some MAG member agencies have expressed an interest in reviewing and possibly revising the Guidelines.

These Guidelines were developed to document the application process, project change requests for projects programmed with federal funds, the year-end Closeout process, and other areas related to obligating federal aid local projects. From the request of the MAG Managers Working Group, the Street Committee with the Chairs and Vice Chairs from the Bicycle-Pedestrian, Intelligent Transportation Systems, and Transportation Safety Committees as ad hoc members will review the Guidelines and recommend changes and or modifications to the Guidelines at the Street Committee meetings. At the meeting on August 12, 2014, a brief overview of MAG federally funded programs will be presented, and it is anticipated that the schedule and scope of the review will be discussed.

Current Policy

Located on the MAG TIP website: http://www.azmag.gov/Documents/TIP_2011-11-01_MAG-Federal-Fund-Programming-Principles-Approved-10-26-11.pdf

Methodology

At each meeting of the MAG Street Committee, a portion of the MAG Federal Fund Programming Guidelines and Procedures will be reviewed, discussed and recommendations made as appropriate. It is anticipated that the review will need to address, but not be limited to the following issues:

- the readability of the Guidelines as now written,
- deferment policies and project tracking,
- closeout policies, in particular, with regard to ADOT deadlines and decisions to sweep federal funding, and
- the inclusion of MAP-21 performance and asset management systems in the closeout process.

Timeline

Beginning with the August Street Committee meeting, the Guidelines update will be included in an agenda item and will continue until a target of March 2015 deadline to meet the projected next Call For Projects anticipated in August 2015.

Proposed Change to Policy

Will be collected in a draft document, and at conclusion of the Street Committee recommendation will be reviewed by the Manager's Working Group prior to formal committee review and council approval expected prior to June 2015.

Contact Information

If you have any questions or need additional information, please call me or Mr. Stephen Tate at (602) 254-6300.

Study Site #1 - WESTERN CANAL- Test Case



Site aerial



Typical Site Photos



STEPS 1 & 2 - Existing Crossing Information

Site #1 is located where UPRR's Chandler Branch spur line intersects SRP's Western Canal. The surrounding area is mixed use, with residential and commercial developments. A wide undeveloped area is adjacent to the pathway and provides a buffer to the large warehouses on the fenced properties to south. Residences line Nevada St. and parallel the railroad tracks to the north. They are visually buffered from the track by a large hedge of tamarisk trees. The 8' wide concrete pathway runs along the south bank of the Western Canal and ends with tactile striping at the western edge of the UPRR right of way. The concrete trail continues on the east side of the tracks, but is not in alignment, and trail users must traverse unpaved sections to meet up with the continuing concrete trail away from the power lines, or continue along the dirt path on the canal bank. The trail is also used by utility maintenance vehicles. An unimproved roadway runs along the north bank of the Western Canal but has no official RR crossing identification number. This railroad crossing (DOT#741663C) is an **active private crossing** with lumber cants/railroad ties. "Stop", railroad "No Trespassing" and ENS signs are currently posted at the RR right-of-way.

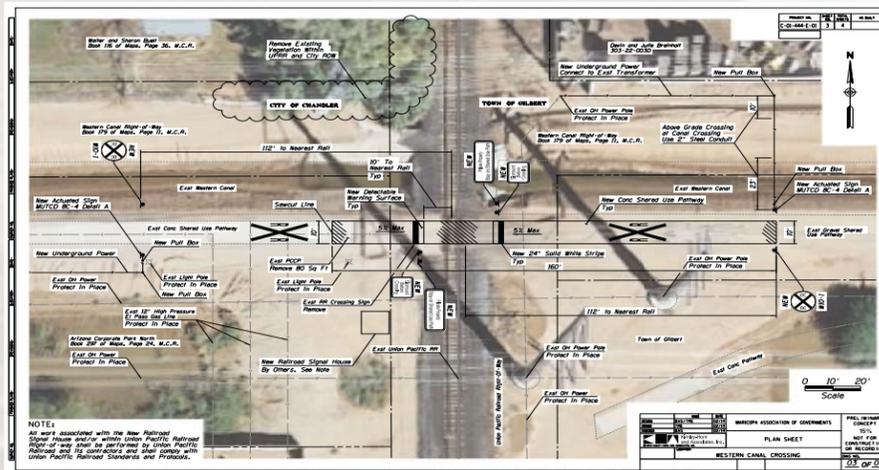
STEP 3- Determine Recommended Crossing Infrastructure Decision Matrix Flowchart Recommendations Summary

Warrant	Description
High Train Speed (>25 mph)	No
Restricted Sight Distance	Yes, Vegetated Hedge
Skewed Angle	No
High Train Frequency (> 20/day)	No (approximately 1 train per day)
Multiple Tracks	No
School Zone	No
High Pedestrian Activity Levels	No
RECOMMENDATION	Regulatory and Advance Warning Signage, Pavement Marking, Striping Channelization, Flashing lights, Audible Device with Automatic Pedestrian Gate

STEP 6 - Dialog with Railroad UPRR recommendations - based on site visit:

- Install new concrete crossing surface
- Install flashing lights
- Install additional signage warning trail users of train crossing
- Install signage directing users to stay on trail and not cross onto UPRR private property
- Remove vegetation on the quadrant of the crossing
- Install new crossing approaches that include tactile warning devices such as tactile warning strips or similar to warn the public and discourage bicyclists from riding their vehicles without stopping.
- Maintain and enhance 'no vehicles' signage
- Execute a four-party agreement for a private crossing with public characteristics between UPRR, SRP, and the two cities.

STEP 3 - Develop Preliminary Design Plans



Regional Bicycle and Pedestrian Pathway/Railroad Crossing Recommendations

EXECUTIVE SUMMARY 2014

The Regional Bicycle and Pedestrian Rail Crossing Recommendations for the Maricopa Association of Governments (MAG) establishes regional recommendations that may be applied to both existing and future pedestrian and bicycle shared-use path crossings at active railroad lines. Within Maricopa County there are currently several existing and planned pedestrian/bicycle shared-use paths that cross railroad tracks not located on public streets or at intersections. At present, no regional guidelines exist for the treatment of these unique pathway crossings of railroads.

Study Stakeholders

The following stakeholders participated in development of these Guidelines: Maricopa Association of Governments (MAG), City of Chandler, Town of Gilbert, City of Tempe, Union Pacific Railroad (UPRR), Salt River Project (SRP), Roosevelt Water Conservation District (RWCD), Arizona Operation Lifesaver (AZOL), Arizona Bicycle Club (ABC), Federal Railroad Administration (FRA), Arizona Corporation Commission (ACC) – Railroad Safety Division and Arizona Department of Transportation (ADOT) – Utilities and Railroad Engineering. The Guidelines are applicable to non-motorized shared use path crossings throughout Maricopa County.

Study Sites

Seven (7) crossings, in Gilbert, Chandler and Tempe, were identified for specific focus of this study. Safety concerns at site 7 prompted the Town of Gilbert to pursue a grade-separated solution.



Site 1: – Western Canal (Country Club/Guadalupe Road, Chandler and Gilbert)



Site 2: – Alameda Crossing (Alameda and Mill Avenue, Tempe)



Site 3: – Consolidated Canal (Riggs Road/Arizona Avenue, Chandler)



Site 4: – Consolidated Canal - Heritage Trail (Gilbert)



Site 5: – Eastern Canal – Santan Vista Trail (Gilbert)



Site 6: – Roosevelt Water Conservation District/East Maricopa Floodway (Gilbert)



Site 7: – Western Canal – Neely Road (Gilbert) – Grade Separated Crossing

Improvement Crossing Checklist

This checklist was developed to guide the process. Before beginning a dialog with the railroad, a comprehensive inventory of existing railroad crossing environment and infrastructure is suggested. Collect detailed information about the railroad crossing location and type, crossing #, crossing surface and approach material, types of warning devices and signage present, location of nearest mass transit and schools, nearby development and current

Your Name/ Agency: _____
 Date: _____
 Describe proposed change to Crossing: _____

STEP 1: Gather Existing Railroad Crossing Information

- Crossing ID Number:** _____
(This is a 7 character identification number, six numbers followed by one letter. If the crossing has a Crossing ID Number, it will be posted at the current intersection)
 - Is there another Crossing within ¼ mile? If so, what is the Crossing ID Number?** _____
(For example, one canal may create two crossings, each with a unique Crossing ID Number and within the same corridor)
 - City in or near:** _____
- For the following information, visit the FRA website and enter the Crossing ID Number into the online query tool found here: <http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx>
- Crossing Easement Holder:** (if known) _____
 - Crossing Position:** ___ At-Grade | ___ RR under Roadway | ___ RR over Roadway
 - Crossing Type:** ___ Public | ___ Private | ___ Pedestrian
 - Signs/Signals:** ___ None | Signs: _____ | Signals: _____
 - Type of Warning Devices:**
 - ___ None
 - ___ Stop Sign
 - ___ Yield Sign
 - ___ ENS (Emergency Notification Sign, a blue sign with white letters providing an emergency phone number to contact and providing the crossing number)
 - ___ Crossbuck (Typical railroad crossing sign in an 'X' configuration)
 - ___ RR Advance Warning Sign
 - ___ Pavement Markings – Stopline
 - ___ Pavement Marking – RR Xing Symbols
 - ___ Gates
 - ___ Barrier Fencing
 - ___ Flashing Lights
 - ___ Audible Device
 - ___ Other
 - Railroad Crossing Approach Surface:** ___ Asphalt | ___ Concrete | ___ Unpaved
(The approach is the area leading to the crossing, not the material directly in the crossing)
 - Railroad Crossing Surface:**
 - ___ Timber
 - ___ Asphalt
 - ___ Concrete
 - ___ Rubber
 - ___ Gravel
 - ___ Other (specify): _____
 - Is Crossing Illuminated?** _____
(Street lights within 50 feet from nearest rail)

- What type of development is within 1000 feet of Crossing?**
 - ___ Open Space (sparsely developed, lightly populated, and/or agricultural)
 - ___ Residential (single family or multi-family residential area)
 - ___ Commercial (retail stores, businesses, offices, and/or personal services)
 - ___ Industrial (manufacturing, construction, factories, and/or warehouses)
 - ___ Institutional (schools, churches, hospitals, parks, and/or community facilities)
- How near is the next available bicycle and pedestrian Crossing?** _____
- Are any schools within 1 mile of Crossing?** _____
(provide name, location and distance from Crossing)
- List the Transit Stops within ¼ mile of Crossing:** _____
(bus stops, shuttle stops, or light rails stops – name, location, and distance)
- Railroad Information:**
 - Check FRA website for additional information about this Crossing – <http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx>
 - **Branch or Line Name:** _____
 - **Quiet Zone:** ___ Yes | ___ No | ___ Unknown
 - **Type of Service:** _____
(AMTRAK, other - commuter, tourist, no passenger service)
 - **Average Train Count Per Day:** _____
 - **# Of Daily Train Movements:** _____
 - **Speed of Train at Crossing:** _____
 - **Type and Number of Tracks (main, spur, etc.):** _____
 - **Does any other RR operate on this track?** ___ Yes | ___ No | ___ Don't know

STEP 2: Determine if Crossing is Public or Private

- Does Railroad Crossing have a Crossing ID Number?**
 - ___ Yes – Continue to next question
 - ___ No – this crossing is, in the view of the Railroad, not a legal Crossing. Unfortunately this project can't continue with improvements until crossing is legally recognized by the Railroad. Proceed to **STEP 5**
- Is the Crossing Public or Private?**
 - ___ Public – Contact Arizona Corporation Commission (ACC) to discuss modifications to railroad crossing. <http://www.cc.state.az.us/divisions/Safety/railroad.asp>
 - ___ Private – Proceed to **STEP 3**

railroad activity. Contact the railroad directly or visit the FRA website for specific railroad data such as train speed, branch and movements. Reference 'At Grade-Crossing Infrastructure Flowchart' to determine recommended safety treatments. Once the budget and preliminary cost of safety improvements have been established, contact with railroad and all agencies involved can be initiated.

STEP 3: Determine Recommended Crossing Infrastructure

- Determine Recommended Crossing Elements**
 Apply the Crossing information collected in STEP 1 to the At-Grade Crossing Infrastructure Flowchart found in this same document ("Bicycle and Pedestrian Pathway/Railroad Crossing Recommendations") to determine recommended infrastructure.
(Note that the UPRR prefers Grade Separated Crossings in all occasions)
- Circle the Flowchart Recommended Treatments:**
 Signage/Crossbuck | Pavement Markings | Channelization - Paving/Delineation | Channelization - Barrier
 Flashing Lights, Audible Signal | Automatic Pedestrian Gate
- Develop Preliminary Design Plans**

STEP 4: Preliminary Cost Estimate

Costs below are preliminary ranges and depend on site conditions

Crossbuck/Emergency Notification Sign (ENS) (\$2500 - \$5000)
Active Warning and Surfacing (\$185,000 to \$400,000)
Grade Separated Railroad Crossing (\$750,000 to \$4,000,000+)
<small>(Cost varies on local site conditions and design)</small>
Project Scoping (\$4,500 - \$25,000)
<small>(This will not be a "0". May include: Survey, Environmental Determination, Hazardous Materials Assessment, and Railroad Preliminary Engineering Service Fees)</small>
NEPA Compliance (\$5,000 - \$20,000)
<small>(This will not be a "0". This is required whenever federal funds are a component of project construction. Complexity will be determined in the scoping document)</small>
Design (\$20,000 – \$75,000)
<small>(Depends on complexity, and includes Plans, Special Provisions, and Cost Estimate. Also includes Geotechnical Report, Drainage Report, Storm Water Pollution Plan – SWPPP – if disturbance is over 1 acre.)</small>
Construction of At-Grade Crossing (\$20,000 - \$1,000,000)
<small>(Greatly depends on project elements and complexity. Includes: Right-Of-Way acquisitions, SWPPP, site preparation, demolition, hazardous materials abatement, utility relocation, earthwork, pathway materials, pavement marking, pedestrian ADA ramp, pedestrian lighting, and signs)</small>
Mobilization and Administration (\$12,000 - \$125,000)
<small>(Contractor mobilization, traffic control, construction survey & layout, construction contingencies, construction administration)</small>
Basic Annual Maintenance (\$4,000 to \$10,000)
Total Anticipated Project Cost
Your Project Budget

- Proceed?**
 - ___ Continue to **STEP 5**

STEP 5: Identify Partners

- Contact Public Affairs Office or Public Project Managers at the agencies:**
 - Railroad, UPRR: http://www.up.com/aboutup/community/community_contacts/index.htm#13
 - Railroad, BNSF: <http://www.bnsf.com/communities/contact-us/>
 - Utilities, SRP: www.srpnet.com/menu/community.aspx
 - Utilities, APS: <http://www.aps.com/en/communityandenvironment/Pages/home.aspx>
 - Maricopa County Flood Control District (if within a river or floodway): <http://www.fcd.maricopa.gov/PIO/contactUs.aspx>
 - Adjacent City, Town, or County
 - Arizona Department of Transportation
 - Arizona Corporation Commission

STEP 6: Official Dialog

- Start official dialog with the Railroad about Crossing Improvements**
- Setup agreement with Railroad for 'Preliminary Engineering Services'**
(This agreement includes RR field review of crossing, RR determination of required crossing safety infrastructure, design review of preliminary plans, development of cost estimates)
- Involve Partners in Design Discussions**
- Negotiate terms of liability, responsibilities and financing**

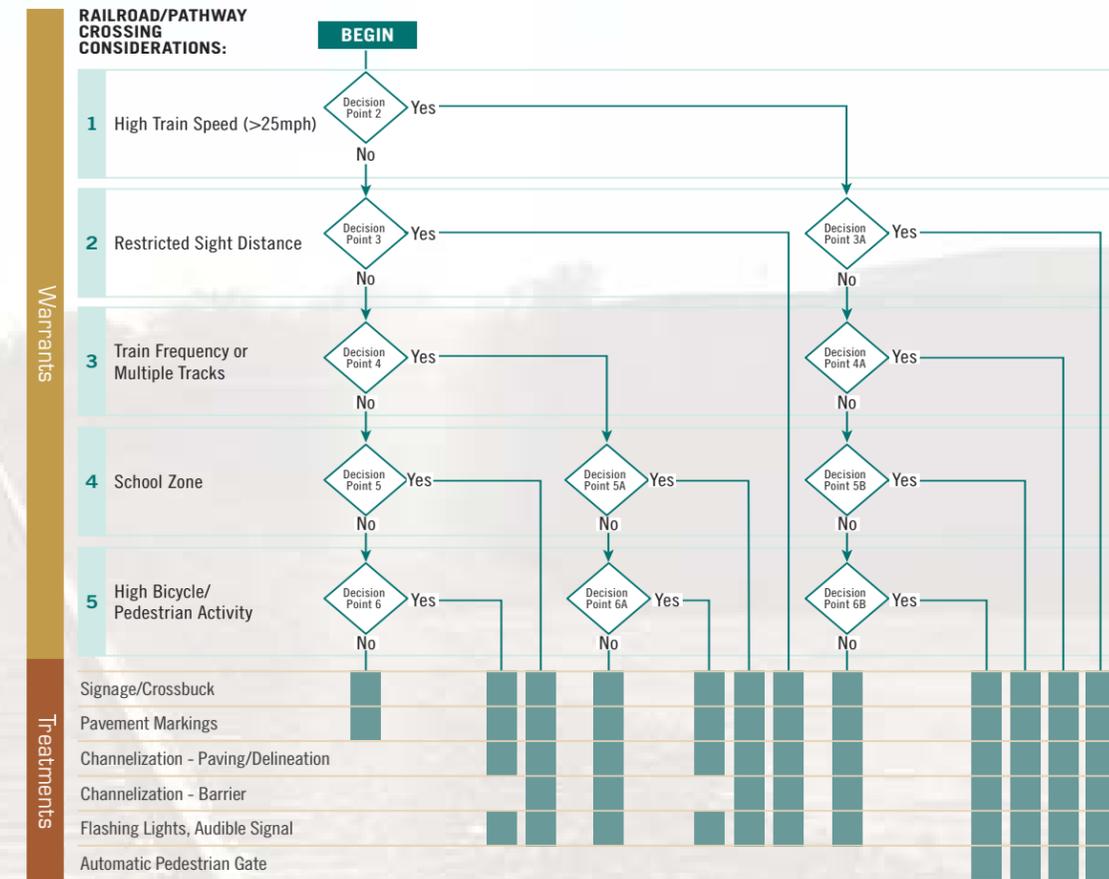
STEP 7: Construction Phase

- Before construction, set up agreements for:**
 - ___ License
 - ___ Rights of Entry
 - ___ Construction and Maintenance
(Involves Railroad, Partners, and Initiating Entity)
(Railroad will expect the City to pay for maintenance of this facility)
 - ___ Execute close out agreements between all agencies that govern use of the Crossing.

At Grade-Crossing Infrastructure Flowchart

This flowchart will help in determining a base point of expected level of improvements at the pedestrian/bicycle pathway crossing with a railroad. The flowchart begins with a review of warrants for crossing infrastructure.

AT GRADE CROSSING INFRASTRUCTURE SELECTION FLOWCHART



Flowchart compilation is based on recommendations from best practice research and input from study Project Management Team. Literature review included documents from Rails-with-Trails, Pedestrian/Railroad Crossing Guidelines from California, Illinois, Oregon and Canada, Railroad Safety Guidelines for UPRR, FHWA, FRA, Arizona Railroad Rules and Regulations, and AASHTO and MUTCD for Traffic Control Devices.

Legal Context and Framework

The seven pathway/private railroad crossing locations in this study exist in a unique legal realm still being formed and explored by several parties. The lack of legal clarity needs to be recognized by municipalities as they consider making improvements to pathway/private railroad crossings.

There are four entities that have vested interests in and legal history with these specific study location crossings. 1) The Union Pacific Corporation is one of the largest and oldest transportation companies in the United States, having prior rights since the late 1880's in Arizona. Recreational pathway users crossing a non-recognized railroad or private crossing are trespassing on UPRR property. Currently, UPRR recommends each crossing obtain a Private Use Agreement between the City and the UPRR. 2) The Arizona Corporation Commission (ACC) is the state agency charged with oversight and regulation of public utilities. Oversight includes railroads when they intersect with City streets and public spaces. The regulatory authority of the ACC has not yet been applied to multi-use pathway railroad crossings. Trail and pathway crossings are built for non-motorized vehicles, and therefore don't fall into the ACC jurisdiction of "public highway or street[s]". 3) Salt River Project (SRP) is a quasi-governmental utility serving Central Arizona, providing approximately 1 million acre-feet of water annually to a 375-square-mile service area. SRP manages an extensive system of reservoirs, wells, canals, and irrigation laterals and has been supportive of recreational use on their canal banks for a number of years. The study locations are at canals or sidewalks that intersect UPRR lines. 4) To respond to demands and needs of their citizens, East Valley incorporated cities and towns are looking at existing infrastructure (canals and railroad corridors) for opportunities for enhanced recreational bicycle and pedestrian facilities. A systematic, predictable, and regionally approved approach to safe and approved recreational pathway/private railroad crossings is warranted.