

# Hayden-Winkelman Street Improvement Project

## Final PARA Pre-Scoping Report

ADOT Planning Bid/Proposal Number: ADOT11-0000507

Prepared for:



Prepared by:

### **BURGESS & NIPLE**

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November 19, 2015

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## 1.0 PARA Program Pre-Scoping Process

The Planning Assistance for Rural Areas (PARA) program is sponsored by the Arizona Department of Transportation (ADOT) Multimodal Planning Division (MPD) to provide funding and assistance to Local Public Agencies (LPAs) for Preliminary Scoping (Pre-Scoping) project development.

### Pre-Scoping Goals

The primary goal of the Pre-Scoping Process is to define a concept level scope, schedule, and budget while identifying potential risks and constraints that might impact the project development process through the design and construction phases. A benefit of taking projects through the Pre-Scoping Process is to reduce potential scope changes, reduce project delays, avoid unexpected budget increases, and avoid Transportation Improvement Program (TIP) amendments.

### Pre-Scoping Report

This Pre-Scoping Report includes Kick-off Meeting and field review documentation (**Attachment A**), input from stakeholders and technical review disciplines, Pre-Scoping Report outline (**Attachment B**), and a Field Review Report (**Attachment C**). It also includes the project background, risks, scope, schedule, and budgets for improvements requested through the PARA Pre-Scoping Application.

## 2.0 General Project Information

This Pre-Scoping Report describes the improvements requested by the Town of Hayden (Hayden) and Town of Winkelman (Winkelman) as described in the joint application for PARA Pre-Scoping federal aid assistance. The state location map is included as **Attachment D**. The ADOT Project Manager with the ADOT MPD is Ms. Charla Glendening. The ADOT Project Number is P8600.

The Hayden-Winkelman Street Improvement Project (Project) limits include South Golf Course Boulevard in Hayden from State Route (SR) 177 to the Hayden-Winkelman town line and Quarelli Street from the town line to SR 77 in Winkelman, as shown in the study area map, **Attachment E**. South Golf Course Boulevard and Quarelli Street are represented as one continuous roadway, which changes names at the town boundary crossing at the Ray Avenue alignment. The total length of roadway is approximately 7,000 linear feet (1.325 miles). The posted speed within the project limits is 25 mph. Winkelman has requested the project limits be extended beyond SR 77 to the intersection at Gila Avenue (east of SR 77). The potentially extended limits are not part of the PARA Pre-Scoping Application therefore are not included in this Pre-Scoping Report. Extending the limits will be addressed during the design phase of project development.

This Project was established to request funding to provide pavement preservation, roadway widening, and system enhancement along South Golf Course Boulevard and Quarelli Street. The

project area consists of right-of-way owned by Hayden and Winkelman, as well as private land owned by the American Smelting and Refining Company (ASARCO).

### 3.0 Local Public Agency or Tribal Government Information

The LPAs are Hayden and Winkelman. Hayden and Winkelman are adjacent towns within Gila County in southeast Arizona, within ADOT's Southeast District, and are members of Central Arizona Association of Governments (CAAG).

The LPA applicant and points of contact include Sylvia Kerlock, Winkelman Town Clerk, and Gloria Ruiz, Winkelman Deputy Town Clerk.

### 4.0 Project Need

Hayden and Winkelman own South Golf Course Boulevard and Quarelli Street, respectively. These roadways provide access to an area central to recreational and outdoor activities including the Hayden Public Golf Course, Bobby Bracamonte Little League Field, Hastings Park and Winkelman Flats Park which serve Hayden, Winkelman and the Copper Basin Community. A field review was conducted to identify the issues and deficiencies within the project limits. Photos from the field review are included in **Attachment F**.

The Towns identified the need for street improvements due to the condition of the existing facility and rising safety concerns. The existing pavement is in visibly poor condition with cracking and deterioration of roadway edges along both South Golf Course Boulevard and Quarelli Street for the extents of the project limits.

Additional issues of the existing transportation facility include:

- Varying roadway widths;
- Lack of pavement markings;
- Lack of pedestrian pathway in most areas;
- Lack of roadway/pedestrian lighting; and
- Minimal signing.

Hayden and Winkelman identified the need for safety improvements within the project limits. The roadway's horizontal curvature and limited sight distance, paired with high speed driving, have been identified as safety deficiencies that may be contributing to local crashes, including two fatalities. The facility lacks both roadway/pedestrian lighting and a separated pedestrian pathway. This creates safety concerns as there are both decreased nighttime visibility and considerable pedestrian traffic during the weekends and holidays.

## 5.0 Project Purpose

The purpose of the Project is to provide a safe transportation system that better serves the community and expands the regional recreational opportunities. The goal is to improve South Golf Course Boulevard and Quarelli Street including pavement preservation, roadway widening, drainage, and system enhancements. The following improvements were identified to address the existing concerns and deficiencies:

- Full depth pavement reconstruction and/or mill and overlay existing pavement;
- Turnouts and/or driveways;
- Detached multi-use pedestrian pathway paved with asphaltic concrete pavement or a widened shoulder on the proposed roadway typical section;
- Roadway and/or pedestrian lighting;
- Signing upgrades; and
- Speed calming techniques.

Potential enhancements include landscaping, fence replacement, cattle guards, and a golf course entrance feature.

## 6.0 Project Type

The primary focus of the Project is pavement preservation, roadway widening, and system enhancement. South Golf Course Boulevard and Quarelli Street, the study roadways, are in need of pavement preservation including full depth replacement. Roadway widening is also necessary to create a continuous roadway width along the study limits. System enhancements including pavement markings, roadway lighting, and a detached multi-use pathway are necessary to address safety concerns.

## 7.0 Project Risks

### Access / Traffic Control / Detour Issues

Both South Golf Course Boulevard and Quarelli Street can access SR 177; closing through access in the middle would still allow access from either side. Limiting work zone lengths between major access points may limit restrictions and maintain access throughout construction. Under this condition, limited variable access from each end of the project would be controlled throughout the duration of construction.

Alternatively, eastbound and westbound lanes can be constructed in a two-phase operation, allowing through traffic at all times. This would likely require one-way / two-direction flagging operation to maintain traffic flow from both ends of the project. Several segments of the existing roadway have narrow widths that could constrain temporary access and maintenance of traffic during construction. Alternatively, consideration for short-term closures of varying segments could be utilized to expedite construction.

Maintenance of traffic plans should be prepared during final design to ensure access is maintained during phased construction.

#### Constructability / Construction Window Issues

The project area within Hayden and Winkelman in ADOT's Southeast District will not have any unique paving windows for construction beyond those outlined in Section 416 of ADOT's Standard Specifications for Road and Bridge Construction.

#### Stakeholder Issues

In addition to the Towns of Hayden and Winkelman, ASARCO will be a major stakeholder in the project development process. ASARCO owns much of the adjacent land within Hayden and utilizes a segment of the roadway on the west end of the project as well as the railroad for their mining operations. Although large industrial trucks are not anticipated to use South Golf Course Boulevard, several private/commercial pick-up trucks will access the roadway.

#### Structures & Geotechnical

There are no minor or major structures impacting this project.

The asphaltic concrete (AC) pavement is in visibly poor condition with "alligator cracking" throughout most of the project. The pavement surface in Winkelman appears to be in visibly better condition than the Hayden section as a result from Winkelman performing a resurfacing project in 2007. There are some segments that appear to have Portland cement concrete pavement (PCCP) roadway base, primarily in depressed area of pavement and stormwater crossing toward the west end of the project in Hayden.

ADOT will require a geotechnical investigation consisting of test boring/test pits every 800 feet to identify deficiencies in subsurface material and for the development of pavement design parameters. In addition, cores of the existing AC and/or PCCP pavement will be required for the purpose of determining the thickness of the existing roadway pavement for future design and construction considerations.

#### Right-of-Way

It is likely that new right-of-way will be required in some areas to accommodate the proposed new roadway width and detached multi-use / pedestrian pathway. Existing and required right-of-way will be determined during the final design phase and an ADOT approved right-of-way consultant will be required for acquisition and clearance process.

#### Environmental Considerations

If federal funds will be utilized for a future project, compliance with the National Environmental Policy Act (NEPA) is required. Based on the current anticipated scope of work, the anticipated level of documentation is a Categorical Exclusion (CE). Coordination with the ADOT Environmental Planning Group (EPG) and the Federal Highway Administration (FHWA) should occur during the predesign stage to confirm.

The project area is within designated critical habitat for the Southwestern Willow Flycatcher. Because of this, seasonal restrictions (avoidance of the breeding season May-Aug) may be required and would need to be considered for the construction schedule. The project is also within proposed critical habitat for the Yellow-Billed Cuckoo and Northern Mexican Garter snake. Although no impacts to these species are anticipated based on the current scope of work, the Project would need to evaluate impacts to these species as part of the environmental clearance process. Informal consultation with the US Fish and Wildlife Service may be needed due to the presence of critical habitat within the project area. The drainage crossing (2 pipe culverts) may be a jurisdictional water of the US. If a future project includes work in this area, a Section 404 permit would likely be required. A Jurisdictional Delineation would need to be completed and approved by the US Army Corps of Engineers to determine the area that would be subject to Section 404 permitting. As shown in the Federal Emergency Management (FEMA) Flood Insurance Rate Map (FIRM) (**Attachment G**), the project is located within the 100-year floodplain; therefore, project plans would need to be provided to the Gila County Floodplain Administrator for review.

The ASARCO Hayden Plant has operated a smelter for nearly 100 years. These activities have resulted in aerial deposition of lead, arsenic, and copper across the surface soil of both Hayden and Winkleman. Currently the site is being administered through Administrative Settlement Agreement and Administrative Order on Consent (AOC) between the U.S. Environmental Protection Agency (EPA), ASARCO and the Arizona Department of Environmental Quality (ADEQ). Remediation efforts at many residential properties has been completed. As part of any future project, topsoil that would be disturbed within the project area should be encapsulated under impervious or stabilized material. This can include utilizing the topsoil as fill material under the proposed roadway improvements. Also any contractor shall notify his employees prior to ground disturbing activities that arsenic is present in the soil at levels above the US Department of Labor Occupational Safety and Health Administration detection level. As part of the notification, the contractor shall make the United States Department of Public Health and Human Services Toxicological Profile for Arsenic available to workers.

There are several historic buildings adjacent to the project area south of Quarelli Street. Also the railroad which parallels the project is historic. Lastly, there is also a historic cemetery on the north side of Quarelli Street. Impacts to these properties should be avoided if possible. Cultural resources consultation with the State Historic Preservation Office as well as other interested parties would be conducted by FHWA with assistance from the ADOT EPG Historic Preservation Team in accordance with Section 106 of the National Historic Preservation Act.

The project is located within a non-attainment area for sulphur dioxide (SO<sub>2</sub>) and Particulate Matter (PM<sub>10</sub>). Because the project would not alter the roadway alignment or capacity, no impacts to air quality are anticipated. A qualitative air quality analysis would be included in the CE.

The environmental clearance process should begin during the predesign stage once the scope of work for the project is fully identified through the completion of the scoping document. The

geotechnical investigation clearance will be included as part of the project environmental clearance document. The process is likely to take 12 months to complete and may cost \$30,000 or more.

### Drainage Considerations

The majority of the project is in FEMA floodplain Zone AE, which will require coordination with the local floodplain administrator. Improvements within the existing floodplain will require coordination with the floodplain administrator.



There are two 48-inch CMPs that cross under the railroad (left) along the study roadway with discharge flow crossing the roadway surface in a location of vertical sag. The pavement in this area appears to consist of PCCP. Offsite flows from the two 48-inch CMPs cross South Golf Course Boulevard and are conveyed southwesterly. This is a critical location which will require attention during the design phase to include flood warning signs at both ends of the section at a minimum.



During the field review, a fairly significant erosion cut (right) was observed along the southern edge of the roadway for approximately the first 600 feet at the west end of the project limits in Hayden. This causes storm water to flow on the roadway between two elevated railroad track alignments. As the railroads diverge, the storm water continues along the south edge to a local depression, and then veers away from the road. This drainage channel will need to be addressed to protect the roadway from further erosive cutting.



#### Utility & Railroad Considerations

ASARCO plans to install a new water line along the south side of South Golf Course Boulevard from the golf course toward Hayden to SR 177, which may create a potential conflict. There are three ASARCO railroad crossings at the west end of the project limits. Hayden has suggested a change in the project scope to set the project western limit to 25 feet east of the third railroad crossing to avoid any issues with the Copper Basin Railway and impacts to the project.

Other utilities observed along the corridor include fiber optic communications cable, overhead electric, natural gas and water service.

#### Other Considerations

This Project must comply with the Americans with Disabilities Act (ADA) to receive federal funds. An ADA Compliance and Feasibility Report will need to be prepared during the scoping or design phase. The report will address existing conditions; identify non-compliant features, and proposed mitigation measures for improvements and compliance.

An American Association of State Highway and Transportation Officials (AASHTO) Controlling Design Criteria Report will need to be prepared to identify design exceptions and variances to roadway and roadside geometric features. Locations and conditions requiring improvements to roadside cross slope will be identified and addressed.

## 8.0 Project Scope

This section of the Pre-Scoping Report describes the project development process design scope of work and construction elements proposed for this project.

### Design

Project design will include the following elements:

- Supplemental Reports
  - Drainage Report
  - Materials Memorandum
  - Pavement Design Summary
  - Geotechnical Report
  - ADA Compliance and Feasibility Report
  - Utility Report
  
- Stage submittals
  - Stage I (15%)
  - Stage II (30%)
  - Stage III (60%)
  - Stage IV (95%)
  - Stage V (100%) Final Plans, Specifications, and Estimate
  
- Clearances
  - Environmental Clearance
  - Utility Clearance
  - Right-of-Way Clearance

### Roadway

The ADOT *Roadway Design Guidelines* state the minimum roadway typical section for application on very low volume, low speed connecting roads, where the roadway functions as a collector or local facility, and where there is not a large proportion of heavy vehicles may consist of lane widths of 10-12 feet with shoulder widths of 2-4 feet with the upper end of each range being the desirable width.

Since the roadway base appears to be poor at the west end of the project, yet in relatively sound condition adjacent to the golf course in Hayden and through Winkelman, the roadway scope of work will be divided into two separate proposed structural sections. The segment of roadway from SR 177 to the golf course entrance will require full depth pavement reconstruction. The segment of roadway from the golf course entrance to SR 77 requires mill and overlay with 2 inches of new asphaltic concrete pavement. In summary:

- ***The proposed typical section for this project will generally consist of two 12-ft travel lanes with 2-ft shoulders on each side for a total of 28 feet from edge to edge of pavement.***
- ***Full depth pavement reconstruction between SR 177 and the golf course entrance.***
- ***Mill & Overlay (2 inches) of asphaltic concrete pavement from golf course entrance to SR 77.***

#### Pedestrian Connectivity

A multi-use pedestrian pathway will be included in the project. It is anticipated that the pathway will have a width of 10 feet and will be detached and separated from the roadway edge of pavement. This may require additional right-of-way. It will be constructed with asphaltic concrete pavement over compacted subgrade. The use of recycled millings should be considered during the final design phase of the project. In summary:

- ***The proposed pathway typical section for this project will be 10 feet of asphaltic concrete pavement for the length of the project.***
- ***The potential alignment of the proposed pathway will likely follow the north edge of the roadway due to available right-of-way and level terrain. Crossings will be identified to access community attractions with consideration of signing and sight distances for safety. The Towns prefer the pathway to be detached from the roadway pavements where possible.***
- ***A consideration will be made for any potential utility conflicts due to the potential alignment of the proposed pathway.***

#### Drainage

The offsite drainage crossing from the two 48-inch CMPs crossing the railroad and discharging across the existing roadway surface will need to be addressed. One option would be to raise the roadway approximately 6 feet at the culvert crossing along with varied embankment on the approaches and extend the culverts across the road. This option would require approximately 2,400 cubic yards of new roadway embankment and about 160 feet of 48-inch CMP. Another alternative would be to construct a new safety end treatment access prevention screening along the existing slope and on the end of the two CMPs, and to construct a PCCP roadway section at the outlet of the CMPs with a concrete cutoff wall and energy dissipating erosion protection on the opposite side of the new roadway to protect the roadway slopes.

A drainage report will need to be prepared during the design phase of the project to identify the sources of runoff and further define the magnitude of mitigation measures required. In summary:

- ***Construct safety end treatments at the outlet of the existing dual 48-inch CMPs with PCCP roadway section apron and concrete cutoff wall.***

- ***Install roadside slope armor along with channel lining for slope protection at the west end of the project to preserve the reconstructed roadway structural section from further erosive action.***
- ***A drainage easement may be required to construct and maintain cutoff walls and/or slope protection adjacent to the roadway in this area.***

#### Signing and Striping

There is minimal traffic signing throughout the project limits. Recommended signing and striping improvements include:

- ***A sign inventory will be performed during the final design and upgraded sign standards will be applied as necessary.***
- ***The project will use yellow center lane pavement markings to designate two-way directional traffic on the new roadway.***

#### Lighting

Due to a history of night time crashes involving pedestrians, the Towns have requested a roadway and pedestrian lighting system. Coordination will be required during final design to identify power service source and location. In summary:

- ***An ADOT standard roadway lighting system will be designed to light the roadway and detached multi-use pedestrian pathway.***

#### Other Enhancements

The Towns have suggested other potential enhancements along this roadway corridor including landscaping, fencing, and a decorative golf course entry feature. These items are likely not eligible for federal funding. These enhancements can possibly become a separate project funded by the Towns following the federal-aid project.

### **9.0 Funding Source(s)**

The Project is anticipated to obtain federal funding for project design/construction through the Highway Safety Improvement Program (HSIP). The Towns have requested \$20,000 for funding for the PARA Pre-Scoping.

## 10.0 Cost Estimate

The order of magnitude estimate of the total project cost for proposed improvements is \$2,621,700. A preliminary probable cost distribution is shown below in **Table 1**.

<b>Table 1 – Preliminary Probable Cost Distribution</b>		
	<b>Cost</b>	<b>Cost Summary</b>
<b>Town of Hayden Subtotal</b>		\$2,160,900
Full Depth Segment	\$1,421,500	
Mill & Overlay Segment	\$739,400	
<b>Town of Winkelman Subtotal</b>		\$460,800
Mill & Overlay Segment	\$460,800	
<b>TOTAL</b>		<b>\$2,621,700</b>

Itemized preliminary cost estimates are included in **Attachment H**. The general scope of the project consists of the following major construction items along with approximate values:

Full depth pavement reconstruction:	2,620 LF
Mill and overlay existing pavement:	4,380 LF
Multi-use pedestrian pathway:	7,000 LF
Roadway/Pedestrian Lighting:	7,000 LF
Drainage Improvements	5% - 10% of Construction Items
Signing and Pavement Marking	5% - 10% of Construction Items
Utility Relocations	5% - 10% of Construction Items

Other project wide construction cost percentages include:

Maintenance and Protection of Traffic	15%
Dust and Water Palliative	0.75%
Quality Control	2%
Construction Survey	1%
Erosion Control	1%
Mobilization	12%

Unidentified Items are estimated at 15% of the sum of Project Wide Subtotal for this pre-scoping level order-of-magnitude cost estimate.

Other project cost values include:

Construction Engineering	15%
Construction Contingencies	5%
Engineering Design	8%
Consultant Services	1%
Environmental Clearance	\$30,000

Project Management Design Review                      \$30,000

The estimated unit costs are based on prices obtained from recent ADOT bid results. The following is a list of assumptions that were used for the cost estimate:

- Hayden segment extends from the west end of the project at SR 177 to the Ray Avenue alignment. Winkelman segment extends from the Ray Avenue alignment to the east end of the project at SR 77.
- Existing roadway requires full depth replacement from SR 177 to the approximate location of the golf course entrance. Otherwise, it is assumed that mill and overlay will be adequate for roadway preservation.
- Full depth pavement replacement assumes that one foot of roadway excavation is required to grade the roadway base.
- There are no anticipated utility relocations included in this cost estimate. A utility report will be prepared during the final design phase for further determination of potential conflicts.
- New right-of-way cost is not included in the preliminary cost estimate. Record drawings, as-builts, or right-of-way plans were unavailable from the Towns during the pre-scoping phase of this project.

### 11.0 Project Delivery

A project development schedule is shown below with tentative milestone activity durations.

Task	Duration				
	Jan '16 - June '16	July '16 - Dec. '16	Jan '17 - June '17	July '17 - Dec '17	Jan '18 - June '18
<b>Scoping Phase</b>	[Bar with diamond milestone at end]				
<b>Clearances</b>	[Bar with diamond milestone at end]				
Environmental	[Bar]				
Utilities	[Bar]				
Right-of-Way	[Bar]				
<b>Design Phase</b>	[Bar with diamond milestone at end]				
30% Plans	[Bar]				
60% Plans	[Bar]				
95% Plans	[Bar]				
100% Plans	[Bar]				
<b>Construction Phase</b>	[Bar with diamond milestone at end]				
Milestone					

***ATTACHMENT A***

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**Kick-off Meeting Notes (Field Review)**



## MEETING SUMMARY NOTES

**SUBJECT:** Hayden-Winkelman Street Improvement Pre-Scoping Kick-off-Meeting & Field Review  
**DATE:** August 20, 2015  
**TIME:** 9:30am – 12:00pm  
**LOCATION:** Winkelman Town Hall, 206 Griffin Avenue, Winkelman Arizona 85192

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- **INTRODUCTIONS AND PRE-SCOPING PROCESS** – Charla Glendening, ADOT MPD Project Manager
  - The PARA Pre-Scoping Program is to help the Local Public Agency through the process of developing a project scope, schedule, and budget prior to ending up in the TIP.
  - ADOT Globe District added that this process will assist the local public agencies to better define a project before requesting funding. In the past on other projects, often the available funding does not align with the local public agency desired project scope.
- **BACKGROUND DATA** – Todd Cencimino (Burgess & Niple) / Project Owners (Hayden-Winkelman)
  - **Project Need** – The Towns of Hayden and Winkelman have identified the need for roadway improvements along Golf Course Road (Hayden) and Quarelli Street (Winkelman). These roadways provide access from SR 77 and SR 177 to an area central to recreational and outdoor activities including a golf course and a community park that serves the Copper Basin Community.
    - Representatives from Hayden and Winkelman added/emphasized the following items:
      - There have been two fatalities in the past due to speeding
      - Cattle guards need to be addressed
      - The Towns would like a wider roadway with safe pedestrian facilities
  - **Project Goals** – The goal of this project is to provide a safe transportation system that better serves the community and expands the regional recreational opportunities. The Towns intend doing this by improving South Golf Course Road (Hayden) and Quarelli Street (Winkelman) including pavement preservation, drainage, roadway widening, and system enhancements. In addition, the Towns would like street lighting and bicycle/walking lanes along the road as another form of transportation. Other potential enhancements may include landscaping, fence replacement, golf course entrance feature, and improved signage.
  - **Initial Scope of Work** – The initial scope of work includes a kick-off meeting and field review, meeting documentation, and Preliminary Scoping Report (PSR). The PSR will better define project scope, schedule, and budget as well as identify engineering and environmental constraints and overall project development process concerns.

➤ **PROJECT OVERVIEW** – Todd Cencimino (Burgess & Niple)

- ***Project study limits***

- Hayden suggested that the project limits should not include the railroad crossings near the SR 177 intersection. The project limits should begin approximately 25 feet away from the railroad crossing.
- Winkelman suggested that they would like to extend the limits beyond SR 77 to the intersection at Gila Avenue (east of SR 77). The segment of roadway east of SR 77 is currently unpaved.
- The Hayden and Winkelman boundary with each other is approximately at the Ray Avenue alignment.

➤ **ROADWAY/PAVEMENT/MATERIALS** – Hussein Hussein (ADOT Roadway Predesign) and Koumou Keita (ADOT Roadway Pavement)

- ***Existing conditions***

- Roadway width varies throughout the project limits. Narrow roadway will require widening to the minimum roadway required width.
- Winkelman section appears that there may have been sections of asphalt overlay on top of PCCP.

- ***Known engineering deficiencies***

- Pavement is in visibly poor condition with “alligator cracking” throughout most of the project. The pavement surface in Hayden appears to be in relatively worse condition than the Winkelman section. There was a Winkelman resurfacing project in 2007.
- ADA compliance will have to be addressed with this project. Since federal funds will be utilized, ADA Feasibility and Compliance Report will have to be prepared during the scoping or design phase (even if the existing sidewalks will not be impacted). The report will address the existing condition and if features are non-compliant, mitigation measures or improvements will have to be proposed to bring those items into compliance.

- ***Potential improvements***

- Roadway improvements:
  - Full-depth pavement reconstruction or mill and replace existing pavement or a combination of both.
- Pedestrian (multi-use) facility
  - Detached multi-use path paved with asphaltic concrete pavement (desired) or a widened shoulder on proposed roadway typical section or a combination of both.
- There is a paving project currently at 60% design level for SR77 from SR 177 to milepost 145.

➤ **GEOTECHNICAL** – Patrice Brun (ADOT Geotechnical)

- **Existing conditions**

- The existing pavement exhibits cracking and the roadway edges are deteriorating.

- **Pavement section rehabilitation**

- ADOT will require test boring/test pits every 800 feet for pavement design.

➤ **DRAINAGE** – Weiwei Mu (ADOT Roadway Drainage)

- **Existing conditions**

- Hayden and Winkelman indicated that there are no local drainage concerns.
- The only time they recall having drainage issues were during the 1983 & 1993 flood events.
- ASARCO has constructed a dike to divert storm water flow away from the roadway.

- **Known engineering deficiencies**

- The majority of the project is in a FEMA floodplain Zone AE. Roadway improvements will require coordination with the local floodplain administrator.
- The ASARCO dike might physically modify the floodplain limits; however, a Letter of Map Revision (LOMR) would be required to remove the area from the designated FEMA floodplain area, if possible.
- A fairly significant erosion cut was observed along the southern edge of the roadway near the western project limits in Hayden. It appears that storm water may flow on the roadway between the two elevated railroad track alignments. As the railroads diverge, the storm water continues along the south edge for several hundred feet to local depression then veers south away from the road.
- There are two 48" CMP's that cross under the railroad between South Golf Course Road and SR 177. The outlet inverts of the CMP's are at grade with the top of existing roadway.
- The 2-48" CMPs are located at the sag section of the existing roadway; the pavement at this location is PCCP. Offsite flows from the 2-48" CMPs cross Golf Course road and are conveyed southwesterly. I believe this is a critical location that presents a safety hazard and at a minimum should include flood warning signs at both ends of the tangents.

➤ **TRAFFIC** – Abdulkarim Rashid (ADOT) or representative

- **Existing conditions**

- Travel traffic minor, mostly recreational for use of parks and golf course.
- Traffic increases on weekends and Holidays up to 400-500 pedestrians
- No traffic counts are currently available

- Hayden and Winkelman indicated there is a low volume of heavy truck traffic. Counts will be required during the project development process.
- **Signals/Lighting**
  - There is no current lighting. Roadway and/or pedestrian lighting will be included in the pre-scoping project scope.
- **Signing and Pavement Marking**
  - Existing signing is minimal. Upgrades to signing will be included in the pre-scoping project scope.
  - There are no pavement markings on the existing roadway. At a minimum, a centerline stripe and edge stripes will be included in the pre-scoping project scope. Considerations will be made for bicycle lane and/or shared lane striping.
- **SAFETY – Pradeep Tiwari (ADOT) or representative**
  - **Existing conditions**
    - Hayden and Winkelman have concerns of high speed driving as a cause for crashes. It appears that the horizontal curvature and limited sight distance along with speed might be contributing to safety deficiencies.
    - There is currently no roadway lighting. Many of the activities taking place at the park and ball fields occur at night. There is low visibility for nighttime drivers as well as a number of children walking and on bicycles that have unsafe refuge from vehicular traffic.
  - **Opportunities for safety improvements**
    - An AASHTO Controlling Design Criteria report should be completed in order to define geometric deficiencies.
    - Speed bumps and/or other speed calming techniques should be considered.
    - A recreational pedestrian pathway separated from the roadway where possible is preferred for pedestrian safety.
    - Roadway safety lighting and/or pedestrian lighting should be considered for nighttime safety.
- **BRIDGE – DESIGN/HYDROLOGY – J.J. Liu (ADOT) or representative**
  - **Existing conditions**
    - There are no existing bridges within the project limits
    - There is a bridge project in the scoping phase for the Gila River Bridge on SR 77. The TRACS number for the bridge project is H8416 and is programmed for construction in FY19. The preliminary preferred alternative is a bridge replacement. The Gila River Bridge extends over Quarelli Street at the eastern terminus of the project. The bridge will have no impact on this project.

- **DISTRICT – CONSTRUCTABILITY/MAINTENANCE** – Wayne Grainger (ADOT Globe District)
  - The Globe District will be responsible to administer construction of the project once it is funded, designed, and advertised.
  - Include review fees of \$30k
- **ENVIRONMENTAL** – Justin Hoppmann (AZTEC) / Ralph Ellis (ADOT) or representative
  - Federal funds require compliance with the National Environmental Policy Act. The anticipated level of documentation is a Categorical Exclusion
  - The project area is within designated critical habitat for the Southwestern Willow Flycatcher. Seasonal restrictions (avoidance of the breeding season May-Aug) may be an issue. The project is also within proposed critical habitat for the Yellow-Billed Cuckoo and Northern Mexican Garter Snake.
  - The drainage crossing (2 CMP pipe culverts) may be a jurisdictional water of the US. The project is located within the 100-year floodplain. Project plans would need to be provided to the Floodplain Administrator for review.
  - There are several historic buildings adjacent to the project area south of Quarelli Street. Also the railroad adjacent to the project is historic. There is also a historic cemetery on the north side of Quarelli Street. Impacts to these properties should be avoided if possible.
  - The project is located within a non-attainment area for sulphur dioxide (SO<sub>2</sub>) and Particulate Matter (PM<sub>10</sub>). Because the project would not alter the roadway alignment or capacity, no impacts to air quality are anticipated.
- **RIGHT-OF-WAY** – Louis Malloque (ADOT) or representative
  - Existing right-of-way was undetermined at the time of the meeting.
  - The Town of Winkelman will provide their right-of-way information and the Town of Hayden will provide their right-of-way information. ASARCO might need to be contacted for that information as well.
- **UTILITIES** – Mohammed Noun (ADOT) or representative
  - **Existing utilities**
    - CenturyLink owns underground fiber optic lines which run along Golf Course Road.
    - APS owns overhead power.
    - Southwest Gas runs along Golf Course Road on the south side.
    - Arizona Water Company
    - During project development a prior rights claim request will be issued to utility owners and potential conflicts will be identified for potential relocation.
  - **Potential conflicts**

- ASARCO has plans to run a new water line along Golf Course Road from the golf course toward Hayden to SR 177. This line will run along the south side of the roadway.
  - Contact Joe Wilhelm at ASARCO

- ***Railroad***

- There are three ASARCO Mine railroad crossings at the west end of the project limits. Hayden suggested that the project would not include the railroad crossings but start at approximately 25 feet east of the third crossing.

- **OPEN DISCUSSION** – Todd Cencimino (Burgess & Niple) / Team
- **FIELD REVIEW REPORT** – Charla Glendening (ADOT)

***ATTACHMENT B***

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**Preliminary Scoping Report Outline**

## PRELIMINARY SCOPING REPORT

GENERAL PROJECT INFORMATION	
Date: September 30, 2015	ADOT Project Manager: Charla Glendening
Project Name: Hayden-Winkelman Street Improvement Project	
City/Town Name: Hayden & Winkelman	County: Gila County
Primary Route/Street: South Golf Course Boulevard and Quarelli Street	
Beginning Limit: State Highway 177 West End	
End Limit: State Highway 77 East End	
Project Length: 1.325 miles	
Right-of-Way Ownership(s) (where proposed project construction would occur): <i>(Check all that apply)</i> <input checked="" type="checkbox"/> City/Town; <input type="checkbox"/> County; <input checked="" type="checkbox"/> ADOT; <input checked="" type="checkbox"/> Private; <input type="checkbox"/> Federal; <input type="checkbox"/> Tribal; <input type="checkbox"/> Other:	
Adjacent Land Ownership(s): <i>(Check all that apply)</i> <input type="checkbox"/> City/Town; <input type="checkbox"/> County; <input checked="" type="checkbox"/> ADOT; <input checked="" type="checkbox"/> Private; <input type="checkbox"/> Federal; <input type="checkbox"/> Tribal; <input checked="" type="checkbox"/> Other: ASARCO Inc. <a href="http://gis.azland.gov/webapps/parcel/">http://gis.azland.gov/webapps/parcel/</a>	

LOCAL PUBLIC AGENCY (LPA) or TRIBAL GOVERNMENT INFORMATION <i>(If applicable)</i>	
LPA/Tribal Name: Town of Winkelman	
LPA/Tribal Contact: Sylvia Kerlock, Town Clerk	
Email Address: <a href="mailto:skerlock@townofwinkelman.com">skerlock@townofwinkelman.com</a>	Phone Number:
Administration: <input checked="" type="checkbox"/> ADOT Administered <input type="checkbox"/> Self-Administered <input type="checkbox"/> Certification Acceptance	

PROJECT NEED
<ul style="list-style-type: none"> <li>Roadway cracking and deterioration</li> <li>Varying roadway width</li> <li>Lack of pavement markings</li> <li>Lack of pedestrian pathway in most areas</li> <li>Lack of roadway/pedestrian lighting</li> <li>Minimal signing</li> </ul>

PROJECT PURPOSE			
What is the Primary Purpose of the Project?	Preservation <input checked="" type="checkbox"/>	Modernization <input type="checkbox"/>	Expansion <input type="checkbox"/>
<ul style="list-style-type: none"> <li>Full depth pavement reconstruction and/or mill and replace existing pavement</li> <li>Detached multi-use pedestrian pathway paved with asphaltic concrete pavement or a widened shoulder</li> <li>Roadway and/or pedestrian lighting</li> <li>Drainage upgrades</li> <li>Signing upgrades</li> <li>Speed bumps and/or other speed calming techniques</li> </ul>			

PROJECT TYPE		
Pavement Preservation <input checked="" type="checkbox"/>	Roadway Widening <input checked="" type="checkbox"/>	System Enhancement <input checked="" type="checkbox"/>
Bridge Scour/Rehab <input type="checkbox"/>	Bridge Replacement <input type="checkbox"/>	Sign Replacement <input type="checkbox"/>
Other <input type="checkbox"/> :		



## PRELIMINARY SCOPING REPORT

PROJECT RISKS	
Check any risks identified that may impact the project's scope, schedule, or budget:	
<input type="checkbox"/> Access / Traffic Control / Detour Issues	<input checked="" type="checkbox"/> Right-of-Way
<input type="checkbox"/> Constructability / Construction Window Issues	<input checked="" type="checkbox"/> Environmental
<input type="checkbox"/> Stakeholder Issues	<input checked="" type="checkbox"/> Utilities
<input checked="" type="checkbox"/> Structures & Geotech	<input type="checkbox"/> Other:
<b>Risk Description:</b> <i>(If a box is checked above, briefly explain the risk)</i> <ul style="list-style-type: none"> <li>ADOT will require test boring pits every 800 feet to identify deficiencies in subsurface material</li> <li>It is likely that new right-of-way will be required for the pedestrian pathway</li> <li>Seasonal restrictions of Flycatcher breeding season may be required which could alter the schedule</li> <li>ASARCO has plans to run a new water line along South Golf Course Blvd. which may create a potential conflict</li> </ul>	

FUNDING SOURCE(S)			
Anticipated Project Design/Construction Funding Type: <i>(Check all that apply)</i>	<input type="checkbox"/> STP	<input type="checkbox"/> TAP	<input checked="" type="checkbox"/> HSIP
	<input type="checkbox"/> Local	<input type="checkbox"/> Private	<input type="checkbox"/> State
	<input type="checkbox"/> Other:		

COST ESTIMATE				
Preliminary Engineering \$99,600	Design/Env. Clearance \$159,600	Right-of-Way N/A	Construction \$2,013,400	Total \$2,173,000

PROJECT DELIVERY		
<b>Delivery:</b> <input type="checkbox"/> Design-Bid-Build <input checked="" type="checkbox"/> Design-Build <input type="checkbox"/> Other:		
<b>Design Program Year:</b> FY 2016		
<b>Construction Program Year:</b> FY 2017		

***ATTACHMENT C***

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**Field Review Report**



## PRE-SCOPING FIELD REVIEW REPORT

The purpose of Preliminary Scoping (Pre-Scoping) is to more accurately develop a project's Scope of Work (SOW), Schedule, and Itemized Cost Estimate prior to programming a project in a Transportation Improvement Program (TIP). This process will help to streamline project design by reducing upfront work, scope changes, project delays, and TIP Amendments.

The information gathered from the Pre-Scoping Field Review Report will be used to develop the project's SOW, Schedule, and Itemized Cost Estimate, which will be summarized in the Pre-Scoping Report.

Pre-Scoping Field Review Forms are to be completed by functional groups responsible for each area as needed (based on the project scope). Not all projects will require all Field Review Forms to be filled out.

Field Review Form	Name	Date Completed
Background Data	<b>Todd Cencimino</b> Burgess & Niple	
Bridge – Design	<b>David Benton</b> (or assigned Bridge Design representative)	
Bridge – Hydrology	<b>Pe-Shen Yang</b> (or assigned Bridge Preservation representative)	
District – Constructability	<b>Jesse Gutierrez</b> (or assigned District representative)	
District – Maintenance	<b>Jesse Gutierrez</b> (or assigned District representative)	
Environmental	<b>Ralph Ellis</b> (or assigned EPG representative)	
Materials/Geotech	<b>Ali Zareh /Patrice Brun</b> (or assigned Pavement/Materials representative)	
Right-of-Way	<b>Louis Malloque</b> (or assigned R/W Section representative)	
Roadway/Pavement	<b>Reed Henry</b> (or assigned Roadway Section representative)	
Traffic	<b>Abdulkarim Rashid</b> (or assigned Traffic Section representative)	
Utilities	<b>Mohammad Noun</b> (or assigned Utility/RR Section representative)	

Others:	Name	Date Completed
Roadway Drainage	<b>Ken Akoh-Arrey</b> (or assigned Drainage Section representative)	
Traffic Safety	<b>Pradeep Tiwari</b> (or assigned Safety Section representative)	

Name: Hayden-Winkelman Street Improvement Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 8/20/2015

**BACKGROUND DATA**  
**(To be completed prior to KOM and Field Review)**

ADOT Project Number	Begin Milepost / Cross Street	End Milepost / Cross Street	Length (miles)	As-Built Date	Description
P8600	SR 177	SR 77	1.325		South Golf Course Blvd (Hayden) Quarelli Street (Winkelman)

To 'check' boxes, double click and select 'checked' in the Default value box

ITEM	YES	NO	If Yes, Describe (or see below)
Past Study Completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Findings:  N/A
Project included in TIP?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed Design FY: Proposed Construction FY:
What's the <a href="#">AADT</a> ?			<b>Year</b>
			<b>AADT</b> (Annual Average Daily Traffic)
Is crash data available?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, attach available crash data to this form
Known Transit needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Known Freight needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Known Railroad needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Known Airport needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Known Bike needs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bicycle facilities, shared or divided
Known Pedestrian / ADA needs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pedestrian facilities, detached if possible
Other needs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Roadway/pedestrian lighting

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

**BRIDGE DESIGN FIELD REVIEW FORM**

**BRIDGE NO.** \_\_\_\_\_

To 'check' boxes, double click and select 'checked' in the Default value box

ITEM	ITEM NEEDED			NOTES (Quantity/Cost estimate and other comments)
	YES	NO	MAYBE	
Replace Bridge <sup>b</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Span Bridge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Box Culvert	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Unique Structure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Replace Bridge Deck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Widen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rail/Sidewalk Barrier	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Corrosion Protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Structural Repairs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Deck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Superstructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Substructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Concrete Wearing Course	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Expansion Joints	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Approach Panels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Erosion/Scour Protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Painting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Over Water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Utility accommodation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Need Asbestos Assessed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Removals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Br Inventory Sheet indicates that Accelerated Bridge Construction (ABC) should be considered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			If yes, Project Manager should complete Stage 2 ABC selection process.
Other <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Concur by C.O. Bridge	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Date:	

(<sup>a</sup> these items and any other out-of-the ordinary major quantity item needs a quantity and cost estimate)    (<sup>b</sup> include bridge materials)

**RETURN FORM TO PROJECT MANAGER BY:**

Name: Hayden-Winkelman Street Improvements Project

Project Limits: State Highway 177 to State Highway 77

Project #: P8600

Date: 09/16/2015

Note: For bridge projects, the District Bridge Engineer should forward this Scoping Worksheet to CO Regional Bridge Engineer for their comments.

### BRIDGE HYDRAULICS FIELD REVIEW FORM

To 'check' in the check boxes, double click and click on 'checked' in the Default value box

ITEM	ITEM NEEDED			Struc. # If any	RP	NOTES (or see below) (Quantity/Cost estimate and other comments)
	YES	NO	MAYBE			
Mainline Culverts <input type="checkbox"/> Repair <input type="checkbox"/> Line <input type="checkbox"/> Replace <input type="checkbox"/> Extend	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Sideline Culverts <input type="checkbox"/> Replace <input type="checkbox"/> Extend	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Tile	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Storm Sewer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Erosion Repairs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Waterway analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Risk Assessment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Ditch Hearing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Special Structures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Weirs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Vortex	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Fish Passage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Ponds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Note: any out-of-the ordinary major quantity item needs a quantity and cost estimate

**For projects that require waterway analysis, risk assessment or scour evaluation, the district hydraulics engineer should forward this scoping worksheet to Bridge Hydraulics for their comments.**

Comments and Risk Identification:

Name: Hayden-Winkelman Street Improvements Project  
Project Limits: State Highway 177 to State Highway 77  
Project #: P8600

Date: 09/16/2015

### DISTRICT - CONSTRUCTION FIELD REVIEW FORM

To 'check' boxes, double click and select 'checked' in the Default value box

ITEM	ITEM NEEDED			NOTES (or see below) (Quantity/Cost estimate and other comments)
	YES	NO	MAYBE	
Detour <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Temporary Construction <sup>a</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Staging <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Stockpiling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Innovative Contracting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

(<sup>a</sup> these items and any other out-of-the ordinary major quantity item needs a quantity and cost estimate)

Comments and Risk Identification:

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

### DISTRICT - MAINTENANCE FIELD REVIEW FORM

To 'check' boxes, double click and select 'checked' in the Default value box

ITEM	ITEM NEEDED			NOTES (or see below) (Location, Quantity/Cost estimate and other comments)
	YES	NO	MAYBE	
Striping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Along entire roadway length
Signing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Along entire roadway length
Curb & Gutter	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Low gravel shoulder correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard Rail Repair	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Fencing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Noisewall	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Drainage Repair	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drainage upgrades in Hayden
Erosion Area Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Flooding Area Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Snow Trap, Storage, Icing Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RWIS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Anti-Icing System	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Frost Heave Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rest Area Work	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Landscaping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Millings needed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other salvage items	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

any out-of-the ordinary major quantity item needs a quantity and cost estimate

Comments and Risk Identification:



Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

### ENVIRONMENTAL FIELD REVIEW FORM

To 'check' boxes, double click and select 'checked' in the Default value box

ITEM	YES	NO	MAYBE	Comments	Schedule Impacts	Budget Impacts
4(f) / 6(f) sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Historic Railroad intersects project limits. Historic buildings south of Quarelli St. Historic Cemetery North of project.	None anticipated	None anticipated
Extensive Cultural/Historical Work	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		None anticipated	None anticipated
Title VI/Environmental Justice Populations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		None anticipated	None anticipated
Noise Concerns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		None anticipated	None anticipated
Jurisdictional Waters or Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gila River adjacent. Not anticipated to be impacted	None anticipated	None anticipated
Floodplain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gila River Floodplain	None anticipated	None anticipated
State/Federal T&E Species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW Willow Flycatcher Critical Habitat	Dependent of vegetation removal	None anticipated
Hazmat or Contaminated site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		None anticipated	None anticipated
Prime or Unique Farmland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prime farmland if irrigated and either protected from flooding or not frequently flooded during growing season	None anticipated	None anticipated
Air Quality Nonattainment or Maintenance Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SO2 Nonattainment & PM10 Nonattainment	None anticipated	None anticipated
Noxious or Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		None anticipated	None anticipated
Visual Quality Concerns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		None anticipated	None anticipated
Public Involvement Required	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		None anticipated	None anticipated
Significant Environmental Impacts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		None anticipated	None anticipated
Avoidance Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		None anticipated	None anticipated
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
Project Limits: State Highway 177 to State Highway 77  
Project #: P8600

Date: 09/16/2015

<b>Anticipated NEPA Clearance Type</b>	Categorical Exclusion (CE) <input checked="" type="checkbox"/>	Environmental Assessment (EA) <input type="checkbox"/>	Environmental Impact Statement (EIS) <input type="checkbox"/>
<b>Anticipated Permits Needed</b>	Section 404 Permit: Nationwide Permit <input type="checkbox"/> Individual Permit <input type="checkbox"/>	Individual Section 401 Certification <input type="checkbox"/>	Section 402 Permit: AZPDES <input checked="" type="checkbox"/> NPDES <input type="checkbox"/>

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

**MATERIALS/ GEOTECH FIELD REVIEW FORM**

To 'check' in the check boxes, double click and click on 'checked' in the Default value box

ITEM		ITEM NEEDED			Approx. RP		NOTES (or see below) (Quantity/Cost estimate and other comments)
		YES	NO	MAYBE	From	To	
Bituminous	Paving	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			12' lanes
	Reclamation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Pavement Milling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Millings re-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Concrete	Paving	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			12' lanes
	Joint Repairs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Dowel Bars	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Planing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Major CPR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Minor CPR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Sub-surface	Base Repairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Muck, groundwater, rock	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<i>(include shoulder width)</i>
Shl-der	Shoulder Work	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Edge Drains	Edge Drain Video Insp	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	Edge Drain Flushing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
	New Edge Drains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Are borings needed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			Borings are needed every 800'
If yes, will a Geotech environmental clearance be required prior to the project clearance?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Comments and Risk Identification:

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

**RIGHT-OF-WAY FIELD REVIEW FORM**

To 'check' boxes, double click and select 'checked' in the Default value box

Route	Existing ROW Width	Owner	Comments

List all adjacent land owners within the project limits	<b>ASARCO Inc.</b>
---	--------------------

ITEM	YES	NO	MAYBE	Comments / Location / Parcel #	Schedule Impacts	Budget Impacts
Potential Full-Parcel ROW Take	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Potential Partial-Parcel ROW Take	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For pedestrian pathway		
Access Issues	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Temporary Construction Easement (TCE) required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Plats needed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Comments and Risk Identification:

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

### ROADWAY/PAVEMENT FIELD REVIEW FORM

To 'check' boxes, double click and select 'checked' in the Default value box

ITEM	ITEM NEEDED			NOTES (or see below) (Location, Quantity/Cost estimate and other comments)
	YES	NO	MAYBE	
Design Exception	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CSS Design Flexibility	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Hor. Curve Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vert. Curve Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Crown Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Super Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Side Slope Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Shlder slope correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Flatten Entrance Slopes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sight-line Obstr. Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guardrail	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Curb & Gutter	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ped. Ramps/Accomodation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ADA compliance is required
Retaining Walls	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Municipal Agreements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RR Agreements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The project limits will begin 25' away from the railroad crossings in Hayden
Utilities Relocation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
69kV lines Steel Poles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note: any out-of-the ordinary major quantity item needs a quantity and cost estimate

Comments and Risk Identification:

RETURN FORM TO PROJECT MANAGER BY:

Name: Hayden-Winkelman Street Improvements Project  
 Project Limits: State Highway 177 to State Highway 77  
 Project #: P8600

Date: 09/16/2015

### TRAFFIC SCOPING WORKSHEET

To 'check' in the check boxes, double click and click on 'checked' in the Default value box

ITEM	ITEM NEEDED			NOTES (or see below) (Location, Quantity/Cost estimate and other comments)
	YES	NO	MAYBE	
Horizontal Curve Correct	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vertical Curve Correct	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Super Correction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rumble Strips - Shoulder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rumble Strips - Centerline	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard Rail <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Striping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Striping is required along the entire roadway length
Median Barrier	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Signing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lighting is necessary along the entire roadway width
Turn Lanes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intersection Revision <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Traffic Signals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RR Crossing Work <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Path/Trail Crossing Work	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access Changes <sup>a</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Significant project under FHWA Final Rule for Safety and Mobility in Work Zones?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Proposed Traffic Control				
Road Safety Review	Any special concerns:			

(<sup>a</sup> these items and any other out-of-the ordinary major quantity item needs a quantity and cost estimate)

Comments and Risk Identification:

Name: Hayden-Winkelman Street Improvements Project  
Project Limits: State Highway 177 to State Highway 77  
Project #: P8600

Date: 09/16/2015

**UTILITIES FIELD REVIEW FORM**

<b>Company</b>	<b>Utility</b>	<b>Phone Number</b>
U.S. West	Fiber Optic Cable	
Southwest Gas Corporation	Gas Pipeline	

**\*Additional information to be included based on coordination with ADOT Utilities section.**

RETURN FORM TO PROJECT MANAGER BY:

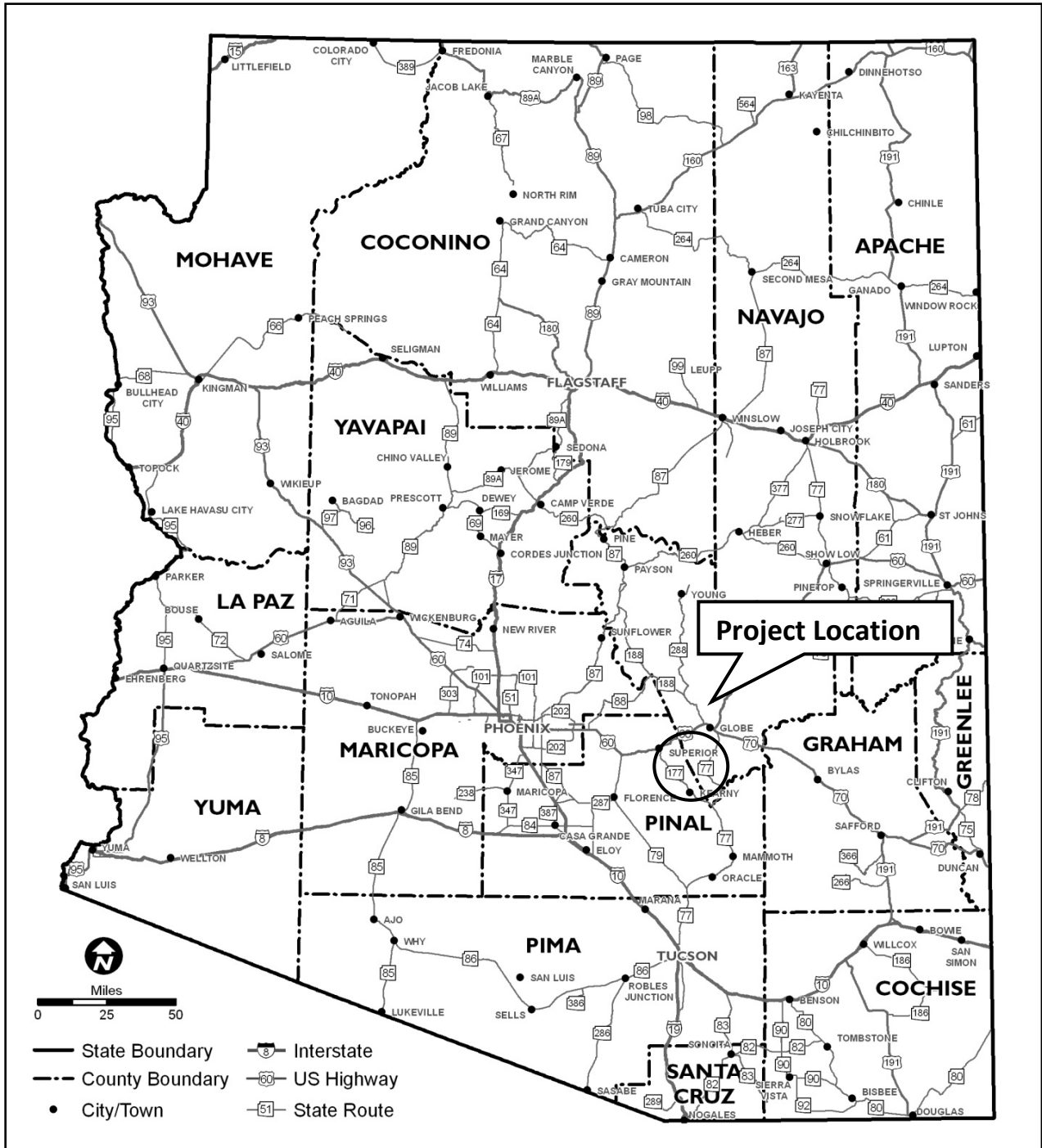
***ATTACHMENT D***

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**State Location Map**



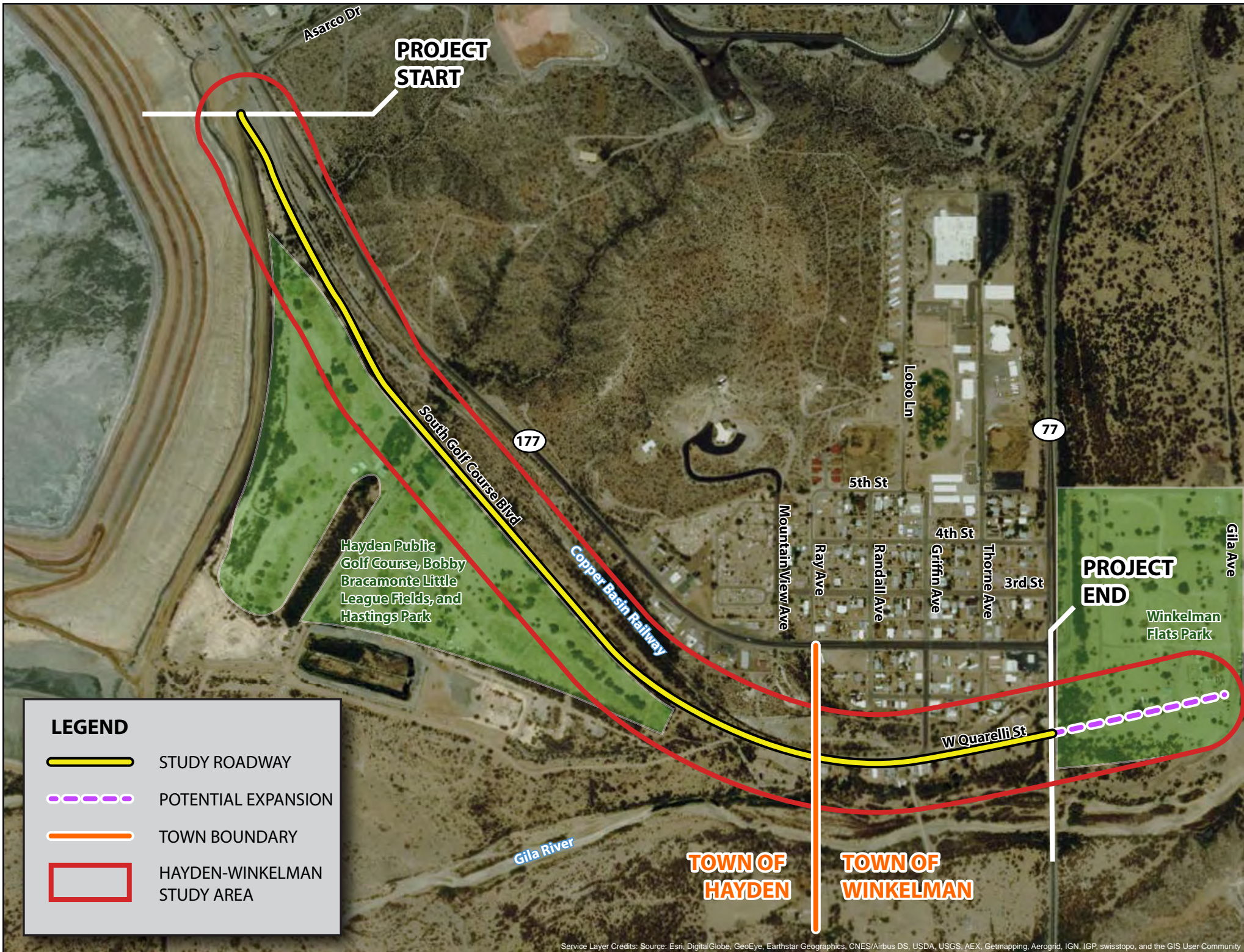
# State Location Map



***ATTACHMENT E***

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**Study Area Map**



Asarco Dr

**PROJECT  
START**

177

77

Hayden Public  
Golf Course, Bobby  
Bracamonte Little  
League Fields, and  
Hastings Park

South Golf Course Blvd

Copper Basin Railway

5th St

Mountain View Ave

Ray Ave

Randall Ave

Griffin Ave

Thorne Ave

3rd St

Lobo Ln

**PROJECT  
END**

Winkelman  
Flats Park

Gila Ave




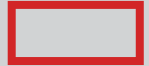
W Quarelli St

Gila River

**TOWN OF  
HAYDEN**

**TOWN OF  
WINKELMAN**

**LEGEND**

-  STUDY ROADWAY
-  POTENTIAL EXPANSION
-  TOWN BOUNDARY
-  HAYDEN-WINKELMAN STUDY AREA

---

***ATTACHMENT F***

**Field Review Photos**



Figure 1 – Cracked Pavement in Hayden



Figure 2 – ASARCO Railroad Crossings



Figure 3 – Erosion Cuts



Figure 4 – Two 48-inch CMP



Figure 5 – Hayden Roadway Conditions



Figure 6 – Cattle Guard



Figure 7 – Varying Roadway Width



Figure 8 – Existing Gas Pipeline



Figure 9 – Hayden Recreational Area



Figure 10 – Hayden Public Golf Course Entrance



Figure 11 – Utilities



Figure 12 – Winkelman Roadway Conditions



**Figure 13 – Utilities**



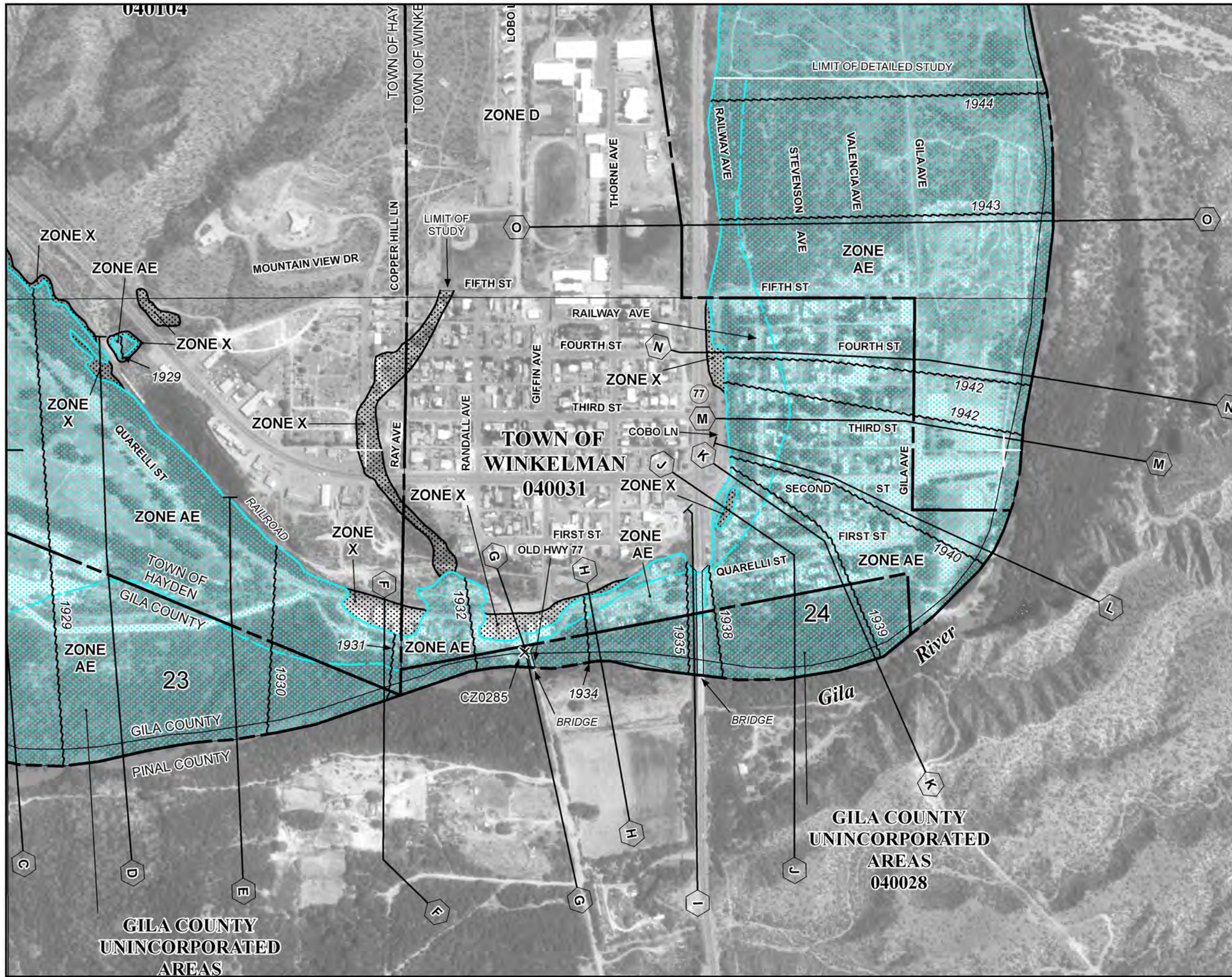
**Figure 14 – Winkelman Flats Park**

***ATTACHMENT G***

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**FEMA Flood Insurance Rate Map**

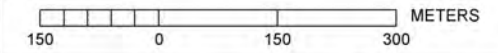




Insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 500'



PANEL 2582D

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**GILA COUNTY,**  
**ARIZONA**  
**AND INCORPORATED AREAS**

**PANEL 2582 OF 2595**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
GILA COUNTY, UNINCORPORATED AREAS	040028	2582	D
HAYDEN, TOWN OF	040104	2582	D
WINKELMAN, TOWN OF	040031	2582	D

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**04007C2582D**

**EFFECTIVE DATE**  
**DECEMBER 04, 2007**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

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***ATTACHMENT H***

**Cost Estimate**

## Town of Hayden Cost Estimate Summary

Date: 11/19/2015

ITEMS	Units	Quantity	Unit Price (\$)	Amount (\$)
REMOVAL OF ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)	SY	6,073	\$ 4.00	\$ 24,300
ROADWAY EXCAVATION	CY	2,717	\$ 7.00	\$ 19,100
ASPHALTIC CONCRETE PAVEMENT (2" OVERLAY)	SY	9,209	\$ 9.00	\$ 82,900
REMOVE BITUMINOUS PAVEMENT (MILLING) (2")	SY	9,209	\$ 3.25	\$ 30,000
ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)	SY	8,151	\$ 35.00	\$ 285,300
PERMANENT PAVEMENT MARKING (PAINTED) (WHITE)	LF	5,580	\$ 0.15	\$ 900
PERMANENT PAVEMENT MARKING (PAINTED) (YELLOW)	LF	5,580	\$ 0.15	\$ 900
CONCRETE SIDEWALK	SF	55,800	\$ 3.00	\$ 167,400
ROADWAY LIGHTING	LS	1	\$ 199,300.00	\$ 199,300
DRAINAGE CHANNEL	LS	1	\$ 100,000.00	\$ 100,000
CLEARING AND GRUBBING	LF	5,580	\$ 3.00	\$ 16,800
			<b>ITEM SUBTOTAL</b>	<b>\$ 926,900</b>
<b>MISCELLANEOUS ITEMS</b>				
MISCELLANEOUS WORK (DRAINAGE)	COST	5%	\$ 45,600	\$ 45,600
MISCELLANEOUS WORK (SIGNING)	COST	5%	\$ 45,600	\$ 45,600
MISCELLANEOUS WORK (UTILITY RELOCATIONS)	COST	5%	\$ 45,600	\$ 45,600
			<b>MISCELLANEOUS ITEM SUBTOTAL</b>	<b>\$ 136,800</b>
			<b>ITEM TOTAL</b>	<b>\$ 1,063,700</b>
<b>PROJECT WIDE</b>				
Maintenance and Protection of Traffic (15%)	COST	15%	0%	\$ 159,600
Dust and Water Palliative (0.75%)	COST	0.75%	0%	\$ 8,100
Quality Control (2%)	COST	2%	0%	\$ 21,300
Construction Survey (1%)	COST	1%	0%	\$ 10,700
Erosion Control (1%)	COST	1%	0%	\$ 10,700
Mobilization (12%)	COST	12%	0%	\$ 127,700
			<b>PROJECT WIDE SUBTOTAL</b>	<b>\$ 338,100</b>
Unidentified Items (15% of Items and Project Wide Subtotals)	COST	15%		\$ 210,400
			<b>PROJECT WIDE TOTAL</b>	<b>\$ 548,500</b>
<b>OTHER COSTS</b>				
Construction Engineering (15%)	COST	15%	\$ 241,900	\$ 241,900
Construction Contingencies (5%)	COST	5%	\$ 80,700	\$ 80,700
Engineering Design (8%)	COST	8%	\$ 129,000	\$ 129,100
Consultant Services (1%)	COST	1%	\$ 16,200	\$ 16,300
Right of Way Costs	COST	5%	\$ 80,700	\$ 80,700
			<b>OTHER COSTS TOTAL</b>	<b>\$ 548,700</b>
<b>SUMMARY</b>				
			<b>ITEM TOTAL</b>	<b>\$ 1,063,700</b>
			<b>PROJECT WIDE TOTAL</b>	<b>\$ 548,500</b>
			<b>OTHER COSTS TOTAL</b>	<b>\$ 548,700</b>
			<b>TOTAL PROJECT COST</b>	<b>\$ 2,160,900</b>

## Town of Winkelman Cost Estimate Summary

Date: 11/19/2015

ITEMS	Units	Quantity	Unit Price (\$)	Amount (\$)
REMOVAL OF ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)	SY	0	\$ 4.00	\$ -
ROADWAY EXCAVATION	CY	0	\$ 7.00	\$ -
ASPHALTIC CONCRETE PAVEMENT (2" OVERLAY)	SY	4,418	\$ 9.00	\$ 39,800
REMOVE BITUMINOUS PAVEMENT (MILLING) (2")	SY	4,418	\$ 3.25	\$ 14,400
ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)	SY	0	\$ 35.00	\$ -
PERMANENT PAVEMENT MARKING (PAINTED) (WHITE)	LF	1,420	\$ 0.15	\$ 300
PERMANENT PAVEMENT MARKING (PAINTED) (YELLOW)	LF	1,420	\$ 0.15	\$ 300
DETACHED PEDESTRIAN PATHWAY	SF	14,200	\$ 3.00	\$ 42,600
ROADWAY LIGHTING	LS	1	\$ 50,700.00	\$ 50,700
DRAINAGE CHANNEL	LS	0	\$ 100,000.00	\$ -
CLEARING AND GRUBBING	LF	1,420	\$ 3.00	\$ 4,300
			<b>ITEM SUBTOTAL</b>	<b>\$ 152,400</b>
<b>MISCELLANEOUS ITEMS</b>				
MISCELLANEOUS WORK (DRAINAGE)	COST	10%	\$ 14,900	\$ 14,900
MISCELLANEOUS WORK (SIGNING)	COST	10%	\$ 14,900	\$ 14,900
MISCELLANEOUS WORK (UTILITY RELOCATIONS)	COST	10%	\$ 14,900	\$ 14,900
			<b>MISCELLANEOUS ITEM SUBTOTAL</b>	<b>\$ 44,700</b>
			<b>ITEM TOTAL</b>	<b>\$ 197,100</b>
<b>PROJECT WIDE</b>				
Maintenance and Protection of Traffic (15%)	COST	15%	0%	\$ 29,600
Dust and Water Palliative (0.75%)	COST	0.75%	0%	\$ 1,500
Quality Control (2%)	COST	2%	0%	\$ 4,000
Construction Survey (1%)	COST	1%	0%	\$ 2,000
Erosion Control (1%)	COST	1%	0%	\$ 2,000
Mobilization (12%)	COST	12%	0%	\$ 23,700
			<b>PROJECT WIDE SUBTOTAL</b>	<b>\$ 62,800</b>
Unidentified Items (15% of Items and Project Wide Subtotals)	COST	15%		\$ 39,000
			<b>PROJECT WIDE TOTAL</b>	<b>\$ 101,800</b>
<b>OTHER COSTS</b>				
Construction Engineering (15%)	COST	15%	\$ 44,900	\$ 44,900
Construction Contingencies (5%)	COST	5%	\$ 15,000	\$ 15,000
Engineering Design (8%)	COST	8%	\$ 24,000	\$ 24,000
Consultant Services (1%)	COST	1%	\$ 3,000	\$ 3,000
Right of Way Costs	COST	5%	\$ 15,000	\$ 15,000
			<b>OTHER COSTS TOTAL</b>	<b>\$ 101,900</b>
<b>SUMMARY</b>				
			<b>ITEM TOTAL</b>	<b>\$ 197,100</b>
			<b>PROJECT WIDE TOTAL</b>	<b>\$ 101,800</b>
			<b>OTHER COSTS TOTAL</b>	<b>\$ 101,900</b>
			<b>TOTAL PROJECT COST</b>	<b>\$ 400,800</b>

## Hayden-Winkelman Street Improvement Cost Estimate Summary

Date: 11/19/2015

ITEMS	Units	Quantity	Unit Price (\$)	Amount (\$)
REMOVAL OF ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)	SY	6,073	\$ 4.00	\$ 24,300
ROADWAY EXCAVATION	CY	2,717	\$ 7.00	\$ 19,100
ASPHALTIC CONCRETE PAVEMENT (2" OVERLAY)	SY	13,627	\$ 9.00	\$ 122,700
REMOVE BITUMINOUS PAVEMENT (MILLING) (2")	SY	13,627	\$ 3.25	\$ 44,400
ASPHALTIC CONCRETE PAVEMENT (FULL DEPTH)	SY	8,151	\$ 35.00	\$ 285,300
PERMANENT PAVEMENT MARKING (PAINTED) (WHITE)	LF	7,000	\$ 0.15	\$ 1,200
PERMANENT PAVEMENT MARKING (PAINTED) (YELLOW)	LF	7,000	\$ 0.15	\$ 1,200
CONCRETE SIDEWALK	SF	70,000	\$ 3.00	\$ 210,000
ROADWAY LIGHTING	LS	1	\$ 250,000.00	\$ 250,000
DRAINAGE CHANNEL	LS	1	\$ 100,000.00	\$ 100,000
CLEARING AND GRUBBING	LF	7,000	\$ 3.00	\$ 21,100
			<b>ITEM SUBTOTAL</b>	<b>\$ 1,079,300</b>
<b>MISCELLANEOUS ITEMS</b>				
MISCELLANEOUS WORK (DRAINAGE)	COST			\$ 60,500
MISCELLANEOUS WORK (SIGNING)	COST			\$ 60,500
MISCELLANEOUS WORK (UTILITY RELOCATIONS)	COST			\$ 60,500
			<b>MISCELLANEOUS ITEM SUBTOTAL</b>	<b>\$ 181,500</b>
			<b>ITEM TOTAL</b>	<b>\$ 1,260,800</b>
<b>PROJECT WIDE</b>				
Maintenance and Protection of Traffic (15%)	COST	15%	0%	\$ 189,200
Dust and Water Palliative (0.75%)	COST	0.75%	0%	\$ 9,600
Quality Control (2%)	COST	2%	0%	\$ 25,300
Construction Survey (1%)	COST	1%	0%	\$ 12,700
Erosion Control (1%)	COST	1%	0%	\$ 12,700
Mobilization (12%)	COST	12%	0%	\$ 151,400
			<b>PROJECT WIDE SUBTOTAL</b>	<b>\$ 400,900</b>
Unidentified Items (15% of Items and Project Wide Subtotals)	COST	15%		\$ 249,400
			<b>PROJECT WIDE TOTAL</b>	<b>\$ 650,300</b>
<b>OTHER COSTS</b>				
Construction Engineering (15%)	COST	15%	\$ 286,700	\$ 286,800
Construction Contingencies (5%)	COST	5%	\$ 95,600	\$ 95,700
Engineering Design (8%)	COST	8%	\$ 152,900	\$ 153,100
Consultant Services (1%)	COST	1%	\$ 19,200	\$ 19,300
Environmental Clearance	LS	1	\$ 30,000	\$ 30,000
Project Management Design Review	LS	1	\$ 30,000	\$ 30,000
Right of Way Costs	COST	5%	\$ 95,600	\$ 95,700
			<b>OTHER COSTS TOTAL</b>	<b>\$ 710,600</b>
<b>SUMMARY</b>				
			<b>ITEM TOTAL</b>	<b>\$ 1,260,800</b>
			<b>PROJECT WIDE TOTAL</b>	<b>\$ 650,300</b>
			<b>OTHER COSTS TOTAL</b>	<b>\$ 710,600</b>
			<b>TOTAL PROJECT COST</b>	<b>\$ 2,621,700</b>

---

***ATTACHMENT I***

**Summary of Comments**

## Hayden-Winkelman Street Improvements Project (P8600)

<b>Submittal</b>	Pre-Scoping Report	<b>Project Name</b>	Hayden-Winkelman Street Improvements Project
<b>Return Date</b>	October 30, 2015	<b>Federal Project No</b>	
<b>Reviewed By</b>	Project Review Team	<b>ADOT Project No</b>	P8600
<b>Discipline/Office</b>	Various	<b>Designer/Consultant</b>	Burgess & Niple
<b>Fax Number</b>	XXX-XXX-XXXX	<b>ADOT Project Manager</b>	Charla Glendening

Discipline	ITEM	DWG/SHT	Comment By	COMMENTS SUBMITTED 10/30/15	DISPOSITION		RESPONSE / COMMENT
					INITIAL	FINAL	
Bridge	1	General	Pe-Shen Yang	Since there is no bridge therefore no comments from Bridge Group except there is no Globe District anymore. I think it belongs to Southeast (Safford District).	A	A	<i>All references to Globe District will be updated to the Southeast District due to re-districting boundaries.</i>
R/W	2	General	Louis Malloque	If new R/W is required then both Towns will need to hire an R/W consultant for the acquisition process. Contact Louis Malloque for a list of ADOT approved R/W consultants.	A	A	<i>A statement will be added to indicate that specific R/W needs will be determined during final design and an ADOT approved R/W consultant will be required for acquisition and clearance process.</i>
Roadway	3	Page 8	Hussein Hussein	I did not see the proposed alignment for the multi-use path, did you have a proposed alignment and will that require new right of way? Consider adding an approximate right-of-away acquisition cost to the cost estimate based on the location of the multi-use path. Also include the possible utility conflicts based on the proposed alignment and the field review observations.	A	A	<i>A bullet point will be added to discuss the potential alignment for the multi-use path. An assumption of potential right-of-way requirements will be added to the document and cost estimate.  A bullet point can be added to discuss potential utility conflicts based on the proposed reconstruction elements.</i>
Roadway	4	Page 8	Hussein Hussein	Can you add some discussions about the possible drainage easement to construct the drainage channel and cutoff walls. I believe the land adjacent to the roadway in this area is owned by ASARCO. Consider adding a statement that a drainage easement might be required to construct the drainage improvements.	A	A	<i>Agreed. A statement will added to indicate that a drainage easement may be required to maintain cutoff walls and/or slope protection adjacent to the roadway in this area.</i>
Roadway	5	Appendix H (Cost Estimate)	Hussein Hussein	I believe an approximate right of way acquisition cost and possible utility relocation cost is needed based on the multi-use pathway alignment. The total project cost is \$ 2.1 million and the right of way acquisition cost could significantly increase the project cost depending on the alignment.	A	A	<i>A value for right-of-way acquisition and a value for utility relocation will be added to the cost estimate.</i>
Roadway	6	Appendix H (Cost Estimate)	Hussein Hussein	Clearing and Grubbing will also be required for the Multi-use path.	A	A	<i>Will add line item for Clearing and Grubbing the Multi-use Path.</i>
Roadway	7	Appendix H (Cost Estimate)	Hussein Hussein	Mobilization % should be 12% since the project is less than \$5 million.	A	A	<i>Will revise estimate.</i>

**DISPOSITION ACTION CODES:**

A = WILL COMPLY

B = CONSULTANT/DESIGNER TO EVALUATE

C = ADOT TEAM TO EVALUATE

D = DESIGN TEAM RECOMMENDS NO FURTHER ACTION

## Hayden-Winkelman Street Improvements Project (P8600)

Discipline	ITEM	DWG/SHT	Comment By	COMMENTS SUBMITTED 10/30/15	DISPOSITION		RESPONSE / COMMENT
					INITIAL	FINAL	
Roadway	8	Appendix H (Cost Estimate)	Hussein Hussein	Historically for scoping estimating purposes we have used the following percentages and a more detailed estimate can be made during final design. Maintenance the Protection of Traffic 15%, Quality Control 2% (based on items that require QA/QC), Construction Survey 1%, and Erosion Control and Pollution Prevention 1%.	A	A	<i>Will revise estimate percentages.</i>
Pavement	9	Page 3	Koumou Keita	SECTION 5.0 - Project Purpose Would there be any Turnouts and/ or Driveways improvement in the project?	A	A	<i>Yes. Will include that in the list of improvement items.</i>
Pavement	10	Page 4	Koumou Keita	SECTION 7.0 - Structures & Geotechnical In the last paragraph of this subsection, add coring of the existing AC pavement in conjunction with the "test boring /test pits" activities.	A	A	<i>Will revise.</i>
Pavement	11	Page 8	Koumou Keita	SECTION 8.0 - Project Scope In the last sentence of the summary for the subsection Roadway, is the reference "Mill & Overlay" the same as "Mill and Replace"? or "Mill, Replace and Overlay"? Please clarify.	A	A	<i>The intent was to perform milling of the top 2" of AC and add a new 2" AC overlay. Will check and revise the report for consistency.</i>
Geotechnical	12	Page 2 Page 4	Patrice Brun	Correct District name from Globe to Southeast in 3.0 and Constructability/Construction Window Issues in 7.0	A	A	<i>All references to Globe District will be updated to the Southeast District due to re-districting boundaries.</i>
Geotechnical	13	Page 4	Patrice Brun	In 7.0 Structures & Geotechnical, add the following to the sentence in the 3rd paragraph: "ADOT will require a <b>geotechnical investigation consisting of test boring/test pits...</b> "	A	A	<i>Will revise.</i>
Geotechnical	14	Page 4	Patrice Brun	In 7.0 Structures & Geotechnical, add the following sentence to any portion of the section: <b>In addition, cores of the existing AC and/or PCCP pavement will be required for the purpose of determining the thickness of the existing roadway pavement for future design and construction considerations.</b>	A	A	<i>Will revise.</i>
Geotechnical	15	Page 5	Patrice Brun	In 7.0 Environmental Considerations, add the following to any portion of the section: <b>The geotechnical investigation clearance will be included as part of the project environmental clearance document.</b>	A	A	<i>Will revise.</i>
Geotechnical	16	Page 7	Patrice Brun	In 8.0 Design, in the Supplemental Reports bullet items, add Geotechnical Report.	A	A	<i>Will revise.</i>

DISPOSITION ACTION CODES:

A = WILL COMPLY

B = CONSULTANT/DESIGNER TO EVALUATE

C = ADOT TEAM TO EVALUATE

D = DESIGN TEAM RECOMMENDS NO FURTHER ACTION



## Hayden-Winkelman Street Improvements Project (P8600)

Discipline	ITEM	DWG/SHT	Comment By	COMMENTS SUBMITTED 10/30/15	DISPOSITION		RESPONSE / COMMENT
					INITIAL	FINAL	
MPD	17	General	Charla Glendening	<p>Please adjust the budget to reflect the following ADOT fees:</p> <p><b>ADOT Construction Administration Costs</b>                      ADOT requires the following fees based on the final project construction cost estimate to be included in all projects:</p> <ul style="list-style-type: none"> <li>• 15% for construction engineering (i.e., construction administration) to cover ADOT administration costs during the construction phase of the project.</li> <li>• 5% for construction contingency to account for potential cost overruns.</li> <li>• 1% for consultant services to cover the postproject fee for postdesign activities.</li> </ul>	A	A	<i>Will adjust percentages.</i>
MPD	18	General	Charla Glendening	The 15% construction engineering fee (i.e., construction administration fee), 5% construction contingency, and 1% consultant services postproject fee for postdesign activities are due before advertisement for bid. These costs are eligible for federal reimbursement at the pro rata rate for the program in which the project is funded. Unused local matching funds can be refunded by ADOT. Refer to Table 2-1 of the Local Public Agency Manual for a summary of estimated costs for ADOT to administer LPA projects.	A	A	<i>Will adjust percentages.</i>
MPD	19	General	Charla Glendening	<b>Project Management Design Review (PMDR) Fees</b> ADOT will require a \$30,000 PMDR Fee when the project is initiated.	A	A	<i>Will add item below the line as well as description in cost estimate summary.</i>
MPD	20	General	Charla Glendening	ADOT only applies ICAP to facilities on the State System so that cost can be removed.	A	A	<i>Will remove ICAP.</i>
Environmental	21	Page 5	Justin Hoppmann	The ASARCO Hayden Plant has operated a smelter for nearly 100 years. These activities have resulted in aerial deposition of lead, arsenic, and copper across the surface soil of both Hayden and Winkelman. Currently the site is being administered through Administrative Settlement Agreement and Administrative Order on Consent (AOC) between the U.S. Environmental Protection Agency (EPA), ASARCO and the Arizona Department of Environmental Quality (ADEQ). Remediation efforts at many residential properties has been completed. As part of any future project, topsoil that would be disturbed within the project area should be encapsulated under impervious or stabilized material. This can include utilizing the topsoil as fill material under the proposed roadway improvements. Also any contractor shall notify his employees prior to ground disturbing activities that arsenic is present in the soil at levels above the US Department of Labor Occupational Safety and Health Administration detection level. As part of the notification, the contractor shall make the United States Department of Public Health and Human Services Toxicological Profile for Arsenic available to workers.	A	A	<i>Will revise.</i>

**DISPOSITION ACTION CODES:**

- A = WILL COMPLY
- B = CONSULTANT/DESIGNER TO EVALUATE
- C = ADOT TEAM TO EVALUATE
- D = DESIGN TEAM RECOMMENDS NO FURTHER ACTION

## Hayden-Winkelman Street Improvements Project (P8600)

Discipline	ITEM	DWG/SHT	Comment By	COMMENTS SUBMITTED 10/30/15	DISPOSITION		RESPONSE / COMMENT
					INITIAL	FINAL	
	22	Page 4	Wayne Grainger	Constructability / Construction Window Issues: "Paving operation can generally occur between March 15 and May 31, and between September 15 and October 31." These are the required dates for chip seal, ACFC, or ARACFC which are seal coats for AC pavement. Because of the low volume of traffic the seal coat has the possibility of being omitted. With the use of AC only, the construction window improves considerably. Please refer to Stand Spec for 416.	A	A	<i>Will refer to Section 416 of the Standard Specifications for seasonal requirements for AC Pavement.</i>

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B = CONSULTANT/DESIGNER TO EVALUATE

C = ADOT TEAM TO EVALUATE

D = DESIGN TEAM RECOMMENDS NO FURTHER ACTION