

Sunset Road: Silverbell Road to I-10 (Segment I)

Final Environmental Assessment and Mitigation Report

Prepared for:

Pima County Department of Transportation
201 North Stone Avenue, 4th Floor
Tucson, Arizona 85701-1207
Pima County Project Number 4RTSUN



Prepared by:

EcoPlan Associates, Inc.
78 West Cushing Street
Tucson, Arizona 85701
EcoPlan Project Number 13-477



November 10, 2014

This page intentionally left blank

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



CONTENTS

Acronyms and Abbreviations	v
Executive Summary	ES-1
Mitigation Measures	ES-5
1.0 Background	1
1.1 Project Description.....	1
1.2 Project Cost and Funding.....	4
1.3 Direction by Board of Supervisors	4
1.4 Project Design Process.....	4
2.0 Project Purpose and Need	7
2.1 Project Need.....	7
2.2 Project Purpose	7
3.0 Project Setting	9
3.1 Existing Conditions.....	9
3.1.1 Built Environment	9
3.1.2 Natural Environment	11
4.0 Proposed Project	13
4.1 Roadway Section	13
4.2 Bridge Section.....	13
4.3 Silverbell Road/Sunset Road Intersection	13
4.4 Drainage Improvements.....	14
4.5 Right-of-Way	14
4.6 Utility and Improvements	14
4.7 Landscaping	14
4.8 Public Art.....	15
5.0 Environmental Screening.....	17
6.0 Environmental Assessment and Mitigation.....	19
6.1 Natural/Physical Environment	19

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



6.1.1	Biological Resources	19
6.1.2	Drainage and Clean Water Act.....	22
6.1.3	Floodplains	24
6.1.4	Air Quality.....	25
6.1.5	Noise.....	26
6.1.6	Utilities	26
6.1.7	Hazardous Materials.....	28
6.1.8	Construction	29
6.1.9	Historic/Cultural Resources	31
6.1.10	Visual Resources	32
6.2	Neighborhood/Social Environment	33
6.2.1	Right-of-Way Acquisition and Displacement	33
6.2.2	Temporary and Permanent Access and Parking Impacts	34
6.2.3	Neighborhood Disruption.....	35
6.2.4	Parks and Recreation Areas.....	37
6.2.5	Consistency with Other Plans.....	37
7.0	Agency Coordination	39
7.1	Federal Agency Coordination.....	39
7.2	State Agency Coordination	39
7.3	County Agency Coordination	39
7.4	Local Governments Coordination.....	40
7.5	Continuing Coordination	40
8.0	Public Participation	41
8.1	Public Participation Plan.....	41
8.2	Public Meetings	41
8.3	Citizen Advisory Committee	42
8.4	Community Comments	42
9.0	Conclusion and Recommendations	43
10.0	References.....	47

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



TABLE

Table 1 Summary of Potential Impacts and Proposed Mitigation43

FIGURES

Figure 1 Project Location2
Figure 2 Project Vicinity3
Figure 3 Segment I10
Figure 4 Project Limits.....36

APPENDIX

- Board of Supervisors Memorandum
- U.S. Fish and Wildlife Service Technical Advisory Letter, September 11, 2014
- Arizona State Historic Preservation Office Consultation Letter
- June 9, 2014, Open House Public Notice
- June 9, 2014, Open House Agenda
- October 30, 2014, Open House Public Notice
- October 30, 2014, Open House Agenda

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



DOCUMENTS AVAILABLE ON PROJECT WEBSITE

<http://roadprojects.pima.gov>

(then select "Sunset Road - Silverbell Road to River Road")

Draft Design Concept Report	Structural Grace, Inc.	October 2014
Silverbell Road Technical Memorandum	Structural Grace, Inc.	March 2014
Sunset Road Bridge at Santa Cruz River Structure Selection Memorandum	Structural Grace, Inc.	November 2014
Initial Drainage and Hydrology Report	Parsons Brinckerhoff	October 2014
Final Traffic Engineering Report	AECOM	August 2014
Environmental Screening Questionnaire, Impact Summary Matrix, and Results Memorandum	EcoPlan Associates, Inc.	March 2014
Preliminary Jurisdictional Delineation and Wetland Delineation	EcoPlan Associates, Inc.	May 2014
Biological Evaluation	EcoPlan Associates, Inc.	October 2014
Preliminary Initial Site Assessment (hazardous materials)	EEC Consultants, Inc.	September 2014
Visual Assessment Report	Wheat Design Group	September 2014
Environmentally Sensitive Roadway Vegetation Inventory and Relevé Analysis Report	Wheat Design Group	October 2014

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



ACRONYMS AND ABBREVIATIONS

ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AGFD	Arizona Game and Fish Department
Anza Trail	Juan Bautista de Anza Trail
ASM	Arizona State Museum
CalPortland	CalPortland Company
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
EAMR	Environmental Assessment and Mitigation Report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
I-10	Interstate 10
IPaC	Information, Planning, and Conservation
kV	kilovolt
Loop Trail	Pima County Loop Trail
PAG	Pima Association of Governments
PCDOT	Pima County Department of Transportation
PCRFCDD	Pima County Regional Flood Control District
PDEQ	Pima County Department of Environmental Quality
PISA	Preliminary Initial Site Assessment
ROW	right-of-way
RTA	Regional Transportation Authority
SHPO	State Historic Preservation Office
TEP	Tucson Electric Power
TIP	Transportation Improvement Program
USFWS	U.S. Fish and Wildlife Service
vpd	vehicles per day

This page intentionally left blank



EXECUTIVE SUMMARY

Final Environmental Assessment and Mitigation Report Sunset Road: Silverbell Road to I-10 (Segment I), 4RTSUN

Project Location

The project is in metropolitan Tucson in east-central Pima County (see Figure 1, page 2) within Sections 17 and 18 of Township 13 South, Range 13 East on the Gila and Salt River Base Line and Meridian.

Project Limits

The Sunset Road project in east-central Pima County, Arizona, is divided into two segments: Silverbell Road to Interstate 10 (I-10) Eastbound Frontage Road—Segment I and I-10 to River Road—Segment II. This document addresses Segment I, which includes approximately 2,960 feet of mostly undeveloped land. Segment II will be addressed in future documentation. The project limits include a segment in the city of Tucson west of I-10 south of the existing right-of-way (ROW) alignment for Sunset Road. The remainder of the project is on unincorporated Pima County land. Town of Marana limits are about 1,500 feet to the northwest. The Town of Oro Valley limits are approximately 4 miles to the northeast (Figure 2, page 3).

Project Scope

The project is included in the Regional Transportation Authority (RTA) Plan approved by Pima County voters in 2006. The project was identified as Pima County Sunset Road: Silverbell Road to River Road (RTA 8). Project funding comes from the Pima Association of Governments (PAG) RTA Plan and local funds from Pima County and the City of Tucson. The RTA Plan identifies funding in the amount of \$22,764,000 for Segments I and II. The estimated cost for Segment I is \$19,976,893, including design, environmental clearance, ROW, utilities, and construction. The RTA funding is expected to be available in Period 2 (2012–2016). The future Segment II will be a jointly funded effort by the Arizona Department of Transportation (ADOT), the RTA, Pima County, and the City of Tucson. Project construction is planned to begin in fiscal year 2016.

Project Purpose and Need

Sunset Road once extended from Silverbell Road to I-10 across the Santa Cruz River. In 1983, severe flooding throughout the greater Tucson area destroyed the bridge over the Santa Cruz River at Sunset Road as well as a significant portion of the roadway adjacent to the river. No part of the old Sunset Road bridge remains. Due to growth in the northwest Tucson region, the connection of Silverbell Road to I-10 and ultimately to River Road is needed to improve operations, increase mobility, improve safety, and reduce congestion.

The project purpose is to build a new bridged connection between I-10 and Silverbell Road to provide an alternative route during the upcoming reconstruction of the I-10 traffic interchanges,

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



relieve traffic congestion, and improve travel safety during construction. This project will re-establish an important link between I-10 and Silverbell Road, providing additional capacity for existing and future travel needs. The new roadway will improve bike and pedestrian mobility to the Pima County Loop Trail (Loop Trail) and provide a bridged crossing of the Santa Cruz River.

Project Elements

The proposed project will construct a new Sunset Road from Silverbell Road to the I-10 eastbound frontage road as a two-lane roadway with a continuous center turn lane. A new six-span concrete girder bridge (approximately 724 feet in length) will be built over the Santa Cruz River, with earthen and soil cement approach embankments on each side. The roadway and bridge will be constructed to allow for future inclusion of the Loop Trail multi-use path on the east side of the river and the Juan Bautista de Anza Trail on the west side of the river. Bike and pedestrian facilities will be included on the bridge. The new intersection of Sunset Road and Silverbell Road will be constructed at current grade, signalized, and will include pedestrian facilities.

In accordance with the Pima County community participation and mitigation ordinance (Pima County Code 10-560.010 et seq.), an Environmental Assessment and Mitigation Report (EAMR) is required for major transportation projects. This document complies with the ordinance and is consistent with EAMR guidance in the Pima County Roadway Design Manual.

Project Impacts and Recommended Mitigation

Reports, studies, and analyses used for the preparation of the EAMR are noted throughout the document and are included in the References section and posted on the project website, as noted on page iv.

Biological Resources: The proposed project will have temporary and permanent impacts on riparian habitat, upland habitat, and native plants. Those impacts are reduced through context-sensitive design and mitigation measures, including avoiding wetlands. Impacts to riparian habitat are primarily associated with the bridged crossing of the Santa Cruz River and are unavoidable. Mitigation measures for regulated riparian habitat under the Pima County Regional Flood Control District riparian ordinance will be included.

Drainage and Clean Water Act: The Santa Cruz River bridge and approach roads will impact waters of the United States. Coordination with the U.S. Army Corps of Engineers resulted in a Preliminary Jurisdictional Determination issued on April 25, 2014. Preparation of a Pre-Construction Notification to work under a Clean Water Act Section 404 Nationwide Permit 14 with Section 401 Water Quality Certification is under way. A Clean Water Act Section 402 Storm Water Pollution Prevention Plan will be prepared by the Pima County Department of Transportation, and a Notice of Intent will be submitted to the Arizona Department of Environmental Quality.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Floodplains: The project will result in impacts to a 100-year floodplain. Design elements to reduce the impacts in compliance with Federal Emergency Management Agency and Pima County Regional Flood Control District requirements are incorporated, and a Floodplain Use Permit will be obtained.

Air Quality: The project will only have temporary, short-term impacts on particulate matter (dust) during construction activities. Those impacts will be minimized by a Pima County Fugitive Dust Activity Permit and Pima County Department of Transportation standard specifications for dust control.

Noise: No noise impacts other than temporary increases during construction are anticipated. No noise barriers are required.

Utilities: Utility impacts are limited to overhead power transmission lines and telecommunications lines. A Western Area Power Administration line and a Tucson Electric Power (TEP) line need to be heightened to provide line clearance over the bridge approach roads west of the Santa Cruz River. A TEP overhead service line in the Silverbell Road ROW also will need to be shifted to the west side of Silverbell Road. The shift of the TEP service line to the west will include adjustments to the overhead CenturyLink and TW Telecom facilities on those poles.

Hazardous Materials: No recognized environmental conditions (leaking underground storage tanks, landfills, or land uses associates with hazardous materials) have been identified within the project limits. Prior to removal/demolition of building structures on the residential property to be acquired, an investigation for lead-based paint or asbestos-containing materials will be conducted.

Construction: Minimal construction impacts on existing traffic operations are expected because Sunset Road will be built on a new alignment.

Historic/Cultural Resources: The project will impact cultural and historic resources. Extensive cultural survey and testing has occurred through the Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division. Planning for data recovery prior to construction is ongoing. All activities have been coordinated with the Arizona State Historic Preservation Office, the Arizona State Museum, and Native American tribes.

Visual Resources: Much of the project corridor is highly disturbed by past and ongoing activities and appears somewhat barren. Roadway construction will have negligible negative visual impact to these areas. In contrast, the Santa Cruz River corridor is densely vegetated with riparian species, and this area has the potential to be negatively impacted. These impacts will be mitigated with restorative plantings. Public art incorporated into the bridge features and careful selection of project materials will help enhance the project appearance.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Right-of-Way Acquisition/Displacement: Planned ROW for the project is almost all on land owned by the Pima County Regional Flood Control District. Two private parcels will be acquired, resulting in one residential displacement. A ROW Encroachment Permit from ADOT will be required for the connection to the I-10 eastbound frontage road.

Access and Parking: Access will be maintained to adjacent properties, including the California Portland Cement–leased operations on Pima County Regional Flood Control District lands. No parking is currently available within the project limits. Minor traffic delays may occur on Silverbell Road and the I-10 frontage road as the Sunset Road connections are completed. A traffic control plan will be implemented by the contractor in conjunction with the Pima County Department of Transportation Field Engineering Division.

Neighborhood Disruption: No impacts to neighborhoods or social services are expected.

Parks and Recreation: Temporary impacts may occur to the Loop Trail at the I-10 eastbound frontage road. The construction contractor will designate pedestrian and bicycle routes around the work zone.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



MITIGATION MEASURES

Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
Removal of native plants (Section 6.1.1)	Protected native plants are to be preserved in place or mitigated in accordance with the Arizona Native Plant Law, the Environmentally Sensitive Roadway Design Guidelines, the Pima County Regional Flood Control District Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines, and Section 404 of the Clean Water Act, as applicable.	Arizona Department of Agriculture	Pima County Department of Transportation and contractor
Management of invasive plant species	Implement invasive species management measures as guided by Pima County specification 201-3.04, Noxious and Invasive Vegetation.	Pima County Department of Transportation	Pima County Department of Transportation and contractor
Impact to burrowing owls (Section 6.1.1)	Identify potential presence of Western burrowing owls prior to construction; no construction activities shall take place within 100 feet of any active burrow until the owls are relocated; relocate owls by a biologist holding a U.S. Fish and Wildlife Service permit.	U.S. Fish and Wildlife Service	Pima County Department of Transportation and contractor

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
<p>Impacts to waters of the United States (Section 6.1.2)</p>	<p>Pima County will submit a Pre-Construction Notification to work under a Clean Water Act Section 404 Nationwide Permit with Section 401 Water Quality Certification, and the contractor shall comply with the permit conditions.</p> <p>Pima County will pay an in-lieu fee to the U.S. Army Corps of Engineers for permanent impacts.</p> <p>The construction contractor will be required to conduct work from both banks or via a temporary access bridge across the Santa Cruz River.</p> <p>The required Section 402 mitigation measures will be determined during preparation of the Arizona Pollutant Discharge and Elimination System Permit application and Storm Water Pollution Prevention Plan.</p> <p>The Pima County Department of Transportation and the contractor will prepare and file separate Notices of Intent with Arizona Department of Environmental Quality.</p> <p>Pima County will prepare a Storm Water Pollution Prevention Plan and the contractor will implement the Storm Water Pollution Prevention Plan.</p>	<p>U.S. Army Corps of Engineers, Arizona Department of Environmental Quality, Pima County Department of Environmental Quality</p>	<p>Pima County Department of Transportation and contractor</p>
<p>Regulated riparian habitat impacts (Section 6.1.2)</p>	<p>Visual enhancements will include restorative landscape plantings throughout the project, public art incorporated into bridge features, and appropriate color and texture selection of materials.</p>	<p>Pima County Regional Flood Control District</p>	<p>Pima County Department of Transportation and contractor</p>
<p>Impacts to floodplains (Section 6.1.3)</p>	<p>Prepare a Conditional Letter of Map Revision and Letter of Map Revision to re-establish the floodplains and floodway limits on the Santa Cruz River.</p>	<p>Federal Emergency Management Agency</p>	<p>Pima County Department of Transportation and contractor</p>
<p>Construction dust control (Sections 6.1.4 and 6.1.8))</p>	<p>Comply with all dust control measures identified in the Pima County Department of Transportation standard specifications for construction, the Storm Water Pollution Prevention Plan, and the Pima County Department of Environmental Quality Fugitive Dust Activity Permit.</p>	<p>Pima County Department of Environmental Quality</p>	<p>Pima County Department of Transportation and contractor</p>

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
Utility service interruptions (Section 6.1.6)	Coordination and planning with the utility companies to determine any service interruptions, and notify customers 14 days in advance.	Multiple utilities	Utility or contractor
Maintenance of access (Sections 6.1.8, 6.2.2, and 6.2.4)	Implementation of a traffic control plan and maintenance of access to CalPortland Company, I-10 frontage road, Silverbell Road, and Loop Trail. Preparation of an Arizona Department of Transportation Encroachment Permit.	Pima County Department of Transportation, Arizona Department of Transportation	Pima County Department of Transportation and contractor
Construction noise (Section 6.1.8)	Construction equipment noise minimized by use of properly muffled equipment, maintenance of equipment, and placement of equipment away from residential receivers. Compliance with Pima County noise ordinance (Pima County Code Chapter 9.30.070).	Pima County Department of Transportation	Pima County Department of Transportation and contractor
Cultural resource site impacts (Section 6.1.9)	Preparation of a Phase II data recovery plan and consultation with the Arizona State Historic Preservation Office, the Arizona State Museum, and the Native American tribes. Conduct Phase II data recovery activities and prepare an end of field report prior to roadway construction activities. If previously unidentified cultural resources are encountered during construction, construction work at that location shall be halted immediately and the resources shall be secured and protected. The Arizona State Museum and the Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division shall be contacted immediately.	Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division, Arizona State Historic Preservation Office, Arizona State Museum	Pima County Department of Transportation and contractor
Visual impacts due to road and bridge construction (Section 6.1.10)	Incorporate landscaping, reseed, structural treatments and public art where practical.	Pima County Department of Transportation	Pima County Department of Transportation and contractor
Acquisition of private property (Section 6.2.1)	A property acquisition program would be implemented in accordance with federal and state law. Private property owners would be compensated at fair market value.	Pima County Department of Transportation	Pima County Department of Transportation

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
Potential presence of asbestos-containing material and lead-based paint (Section 6.1.7)	Prepare a Phase I Site Assessment to determine the potential for asbestos-containing material or lead-based paint and whether sampling and lab analysis are needed to determine their presence in building materials.	Pima County Department of Transportation	Pima County Department of Transportation and contractor

Agency Coordination

Agency coordination has occurred with the following agencies and will continue through design, permitting, and construction:

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Western Area Power Administration
- Federal Emergency Management Agency
- Arizona Department of Transportation
- Arizona Department of Environmental Quality
- Arizona Game and Fish Department
- Arizona State Historic Preservation Office
- Pima County Regional Flood Control District
- Pima County Department of Environmental Quality
- Pima County Office of Sustainability and Conservation
- Pima Association of Governments Regional Transportation Authority
- Pima County Natural Resources Parks and Recreation Department
- City of Tucson

Public Participation

Extensive public involvement has occurred over several years. The concept of a Sunset Road extension was placed in the voter approved PAG Regional Transportation Plan in 2006. Subsequent transportation planning for I-10—Ina Road to Ruthrauff Road and Silverbell Road—Ina Road to Grant Road has included the Sunset Road extension between Silverbell Road and River Road. Over a dozen public meetings, including an open house for the project on June 9, 2014, have taken place since 2009. Letters and flyers have been mailed to over 2,000 individuals and businesses providing public input opportunities. A project website, <http://roadprojects.pima.gov>, is available for current project status and technical reports.

PCDOT held a Public Open House on June 9, 2014, at the Pima County Natural Resources Parks and Recreation Department facility on 3500 W. River Road. The meeting was announced

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



through a local media press release, the project website, public notices in the *Arizona Daily Star* and *Arizona Territorial* newspapers, and mailings to approximately 600 addresses in the project vicinity. The meeting was attended by about 75 citizens. See the Appendix for the Open House public notice and agenda. The second public open house will be held on October 30, 2014, at the Pima County Natural Resources Parks and Recreation Department facility on 3500 W. River Road (see the Appendix for public notice and agenda).

Due to the close relationship between the proposed project and the planned I-10 improvements between Ina Road and Ruthrauff Road, the Sunset Road extension has been presented and discussed at multiple I-10 meetings related to the Final Environmental Assessment for that project (ADOT 2012), as follows:

- I-10 Ina Road to Ruthrauff Road Scoping Meeting—November 18, 2009
- I-10 Ina Road to Ruthrauff Road Public Property Owner Briefing 1—October 4, 2010 (two meetings held on this date, one in Marana and one in Tucson)
- I-10 Ina Road to Ruthrauff Road Public Property Owner Briefing 2—November 8, 2010
- I-10 Ina Road to Ruthrauff Road Public Information Meeting—March 10, 2011
- I-10 Ina Road to Ruthrauff Road Public Hearing—June 21, 2012

The Sunset Road extension was also presented in conjunction with the planning for Silverbell Road (Kittleson 2011), as follows:

- Silverbell Road, Ina Road to Grant Road Initial Public Open House—August 12 and 19, 2009
- Silverbell Road, Ina Road to Grant Road Interim Public Open House—June 7 and 9, 2010
- Silverbell Road, Ina Road to Grant Road Final Public Open House—October 19 and 21, 2010

Based on the extensive previous public involvement and fact that most of the ROW needed for the project is owned by Pima County, the Board of Supervisors issued a waiver from forming a Citizens Advisory Committee (see the Appendix for Board of Supervisors Memorandum).

This page intentionally left blank

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



1.0 BACKGROUND

1.1 PROJECT DESCRIPTION

Project Name: Sunset Road: Silverbell Road to I-10 (Segment I)

Pima County Project Number: 4RTSUN

Project Location and Limits: The project is approximately 6 miles northwest of downtown Tucson in eastern Pima County, Arizona (Figure 1). The project is between Silverbell Road and the Interstate 10 (I-10) eastbound frontage road just south of the Sunset Road alignment (Figure 2). The project is in Sections 17 and 18 of Township 13 South, Range 13 East on the Jaynes (1992), Arizona, U.S. Geological Survey 7.5-minute quadrangle. The project limits include a segment in the city of Tucson west of I-10 just south of the existing right-of-way (ROW) alignment for Sunset Road. The remainder of the project is on unincorporated Pima County land. The Town of Marana limits are about 1,500 feet to the northwest, and the Town of Oro Valley limits are approximately 4 miles to the northeast (Figure 2). Adjacent lands are owned by Pima County and private parties.

In accordance with the Pima County community participation and mitigation ordinance (Pima County Code 10-560.010 et seq.), an Environmental Assessment and Mitigation Report (EAMR) is required for major transportation projects. This document complies with the ordinance requirements and is consistent with Pima County Department of Transportation (PCDOT) Pima County Roadway Design Manual (PCDOT 2013) guidance for the preparation of a project EAMR.

In May 2006, the Pima Association of Governments (PAG) Regional Transportation Authority (RTA) Plan (PAG 2006) and sales tax were approved by Pima County voters. One of the roadway projects included in the RTA Plan is Pima County Sunset Road: Silverbell Road to River Road (RTA 8). Sunset Road once extended from Silverbell Road to I-10 across the Santa Cruz River. In 1983, severe flooding throughout the greater Tucson area destroyed the bridge over the Santa Cruz River at Sunset Road as well as a significant portion of the roadway adjacent to the river. No part of the old Sunset Road bridge remains. A dirt access road serving a CalPortland Company (referred to collectively as CalPortland) operation exists west of the I-10 eastbound frontage road. Due to growth in the northwest Tucson region, the connection of Silverbell Road to I-10 and ultimately River Road is needed to improve operations, increase mobility, improve safety, and reduce congestion.

PCDOT, in cooperation with the RTA, proposes to extend the existing Sunset Road from its current terminus at the eastbound I-10 frontage road westward to Silverbell Road, with a bridge over the Santa Cruz River. This is referred to as Segment I. The second phase of the project, Segment II, will begin just west of I-10 and continue east over a future reconstructed I-10, the Union Pacific Railroad, and the Rillito River, to tie into River Road. The project location and the relationship of Segments I and II are shown on Figure 2.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report

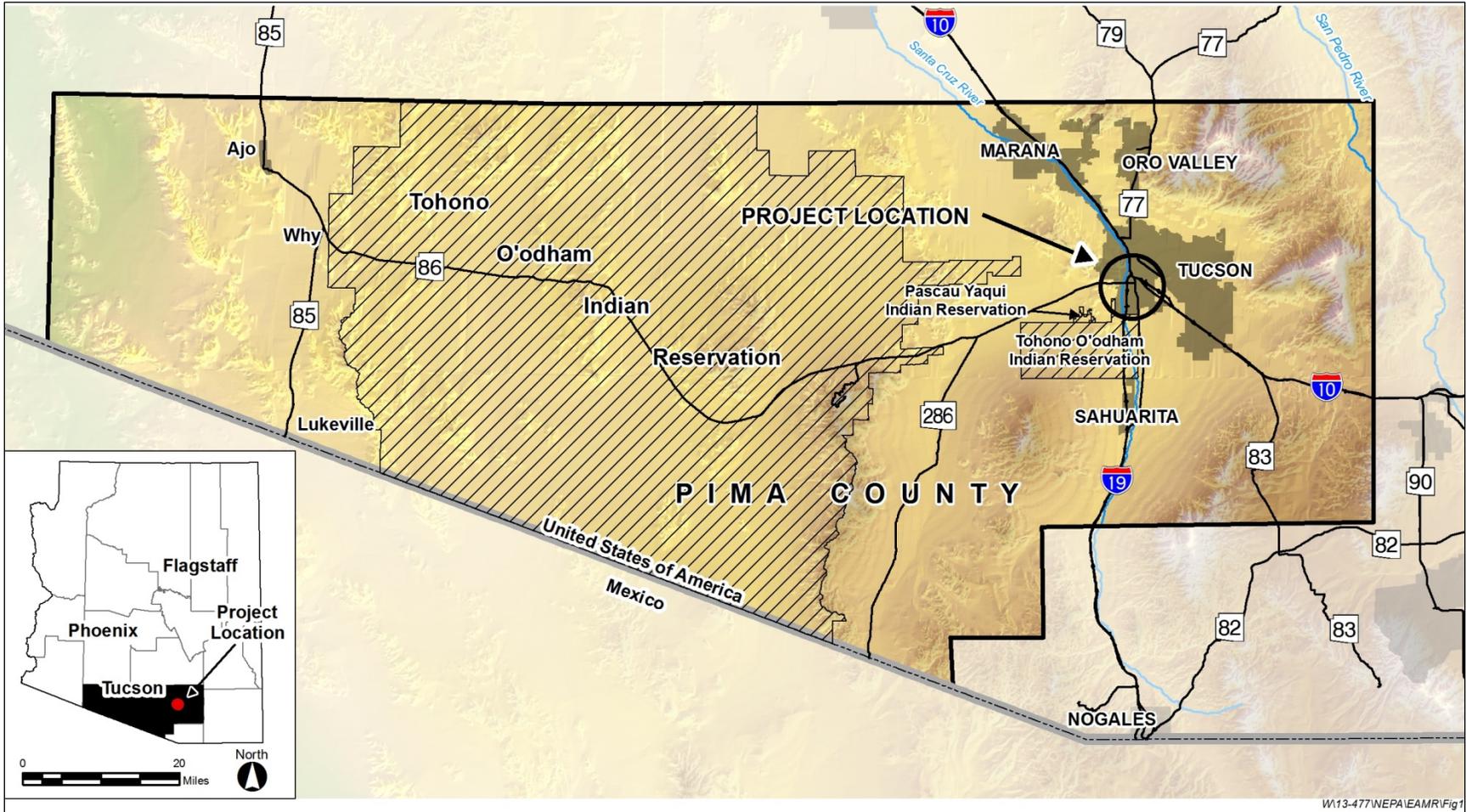


Figure 1. Project Location

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Figure 2. Project Vicinity

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



The future Sunset Road/I-10 traffic interchange will be constructed by the Arizona Department of Transportation (ADOT) as part of continuing I-10 upgrades from Tangerine Road to Prince Road. The reconstruction of the Sunset Road traffic interchange will elevate Sunset Road over I-10. Thus the Sunset Road Segment II project will need to reconstruct about 1,000 feet of the Segment I project west of I-10 to match the new grade of Sunset Road. This document addresses Sunset Road Segment I only.

1.2 PROJECT COST AND FUNDING

Project funding comes from the PAG RTA Plan (Transportation Improvement Program [TIP] 35.05, Fiscal Year [FY] 2015–2019) and local funds from Pima County and the City of Tucson. The RTA Plan identifies funding in the amount of \$22,764,000 for Segments I and II. The estimated cost for Segment I is \$19,976,893, to include design, environmental clearance, ROW, utilities, and construction. Though the project was programmed for Period 3 (2017–2021), the RTA is expected to make funding available in Period 2 (2012–2016). The future Segment II will be a jointly funded effort by ADOT, RTA, Pima County, and the City of Tucson.

1.3 DIRECTION BY BOARD OF SUPERVISORS

The project is part of an approved Regional Transportation Plan to be funded by the RTA. The Pima County Board of Supervisors approved entering into a contract for Roadway Planning and Design Engineering Services for Sunset Road: Silverbell Road to River Road on June 4, 2013, and issued a Notice to Proceed under Contract No. CT-TR-14*181 on November 13, 2013, to Structural Grace, Inc. The Board of Supervisors, by resolution and action in 2012 (Resolution and Order 2012-113), identified and acquired property from CPC Southwest Materials, Inc., and CalPortland. This property was acquired for the multiple purposes of flood control, habitat restoration, public recreation, and expansion of Sunset Road to Silverbell Road (Board of Supervisors Memorandum in the Appendix).

1.4 PROJECT DESIGN PROCESS

The development of the proposed project is following the Pima County Roadway Design Manual, Chapter 3, and has included the following engineering design and environmental documents to date:

- A Cultural Resources Survey for Tres Rio Del Norte El Corazon Project, Pima County, Arizona (November 2012)
- A Class III Cultural Resources Inventory for the El Corazon Project—West Bank of the Santa Cruz River: El Camino del Cerro to Sunset Road, Pima County, Arizona (November 2013)
- Environmental Screening Questionnaire, Impact Summary Matrix, and Results Memorandum (February 2014)
- Sunset Road and Silverbell Road Intersection, Interim Versus Ultimate Configurations Conceptual Design Option Comparison Technical Memorandum (March 2014)
- Clean Water Act Section 404 Preliminary Jurisdictional Delineation (April 2014)

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



- Initial Traffic Engineering Report: Segment I (May 2014)
- Final Traffic Engineering Report (August 2014)
- Biological Evaluation (July 2014)
- Visual analysis (October 2014)
- Environmentally Sensitive Roadway Vegetation Inventory and Relevé Analysis Report (October 2014)
- Sunset Road Bridge at Santa Cruz River Structure Selection Memorandum (November 2014)
- Initial Drainage and Hydrology Report (October 2014)
- Draft Preliminary Initial Site Assessment (September 2014)
- Geotechnical/Pavement Design Report (October 2014)
- Draft Design Concept Report (October 2014)
- Stage II Roadway Design Plans (October 2014)

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



This page intentionally left blank



2.0 PROJECT PURPOSE AND NEED

The bridged connection between Silverbell Road and I-10 across the Santa Cruz River was washed out during flooding in 1983. The loss of the bridged crossing at the Sunset Road alignment has resulted in a 3-mile gap between bridged river crossings. Bridged crossings occur at Camino del Cerro (Ruthrauff Road) 1 mile south and Ina Road 2 miles north of Sunset Road. Sunset Road west of Silverbell Road serves a growing residential population and, with the implementation of Segment II, the road would connect to the major arterial, River Road.

2.1 PROJECT NEED

The need for an additional river crossing becomes more acute with the planned reconstruction of the I-10 Ina Road and Ruthrauff Road (Camino del Cerro) traffic interchanges by ADOT from FY 2018 through FY 2020. With temporary travel restrictions during the reconstruction of I-10 and the interchanges, alternative routes to get motorists across the Santa Cruz River to Silverbell Road will be critical. Current traffic volumes on Sunset Road west of Silverbell Road are approximately 1,400 vehicles per day (vpd). The PAG regional travel demand model predicts a traffic demand of 8,750 vpd upon opening a Sunset Road extension in 2018 and 10,750 by 2025 (Pima County 2014a).

2.2 PROJECT PURPOSE

The project purpose is to build a new bridged connection between I-10 and Silverbell Road to provide an alternative route during the upcoming reconstruction of the I-10 traffic interchanges, relieve traffic congestion, and improve travel safety during construction. This is supported by the Pima County request to the RTA to advance funding in Period 2. The project will re-establish an important link between I-10 and Silverbell Road, providing additional capacity for existing and future travel needs. The new roadway will improve bike and pedestrian mobility to the Pima County Loop Trail (Loop Trail) and provide a bridged crossing of the Santa Cruz River.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



This page intentionally left blank



3.0 PROJECT SETTING

3.1 EXISTING CONDITIONS

The project area is in northwest Pima County in the west portion of the greater Tucson metropolitan area. The project is on unincorporated county land and within the City of Tucson limits. The general project limits extend between the I-10 eastbound frontage road and Silverbell Road just south of the existing Sunset Road alignment (Figure 3).

3.1.1 Built Environment

Silverbell Road abuts the west end of the project limits, and areas west of Silverbell Road support relatively low-density residential development on larger lots. I-10 abuts the east end of the project limits, and land use east of I-10 is characterized as urban and includes commercial, industrial, and relatively high-density residential development.

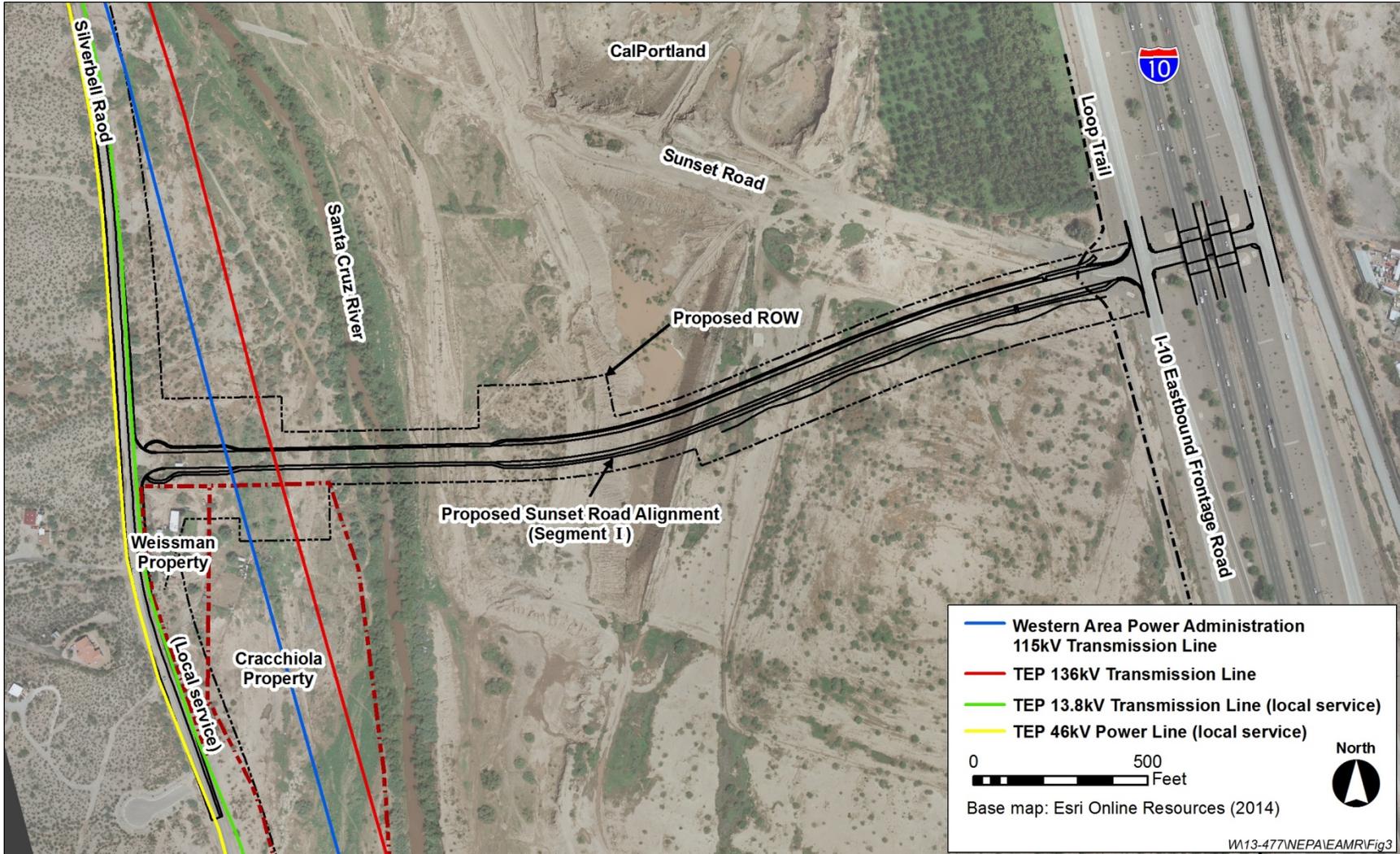
Within the project limits, no formal roadway currently exists, and no visible remnants of the prefabricated truss bridge structure at the old Sunset Road alignment that washed away in 1983 remain. The few short remaining segments of the old Sunset roadway are primarily dirt or gravel and provide access to the CalPortland sand and gravel mining operation near the I-10 eastbound frontage road. Surface drainage throughout the area is unimproved, with no culverts, outfalls, or other drainage structures.

Current land use in the project area is primarily sand and gravel mining by CalPortland. This operation is under a 15-year lease from the Pima County Regional Flood Control District (PCRFC) and will expire in 2027. By the lease agreement, the area for the Sunset Road extension is exempt from sand and gravel mining. West of the Santa Cruz River, a single residential property is present. West of Silverbell Road, several single-family homes on large lots are adjacent to the roadway.

Previous land use has included agriculture and a dump site associated with a former dairy. The dump site consists primarily of discarded glass milk bottles. No hazardous waste component is known to be present. Remnants of the agricultural use—pecan groves—remain just north of the project limits west of I-10.

The existing Loop Trail accesses the eastern edge of the project limits adjacent to the I-10 eastbound frontage road. This part of the Loop Trail is paved and connects with the Rillito River Park to the north and the Santa Cruz River Park to the south.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Several overhead utilities occur between Silverbell Road and the Santa Cruz River. The Western Area Power Administration owns and maintains a 115-kilovolt (kV) transmission line running northeasterly–southeasterly between Silverbell Road and the Santa Cruz River. Tucson Electric Power (TEP) has a 136kV transmission line just east of the Western Area Power Administration and two service lines (46kV and 13.8kV) that parallel Silverbell Road on the west and east sides. Tucson Water has two potable water lines (12- and 42-inch-diameter) and one reclaimed water line (24-inch-diameter) in the Silverbell Road ROW.

3.1.2 Natural Environment

The Santa Cruz River, a Water of the United States, and its floodplain dominate the environment in the project site. A majority of the area is within the Federal Emergency Management Agency (FEMA) 100-year floodplain of the river, and its incised channel prevents east–west access through the project area (FEMA 2011). The Santa Cruz River in this area is a relatively low-gradient perennial stream, flowing southeast to northwest. The river here is fed primarily by outflow from the Agua Nueva Water Reclamation Facility (formerly Roger Road Wastewater Treatment Plant) approximately 2 miles upstream. Twelve small unnamed ephemeral washes (also waters of the United States) drain to the river in the project area. Eleven of these washes drain into the Santa Cruz River from lightly developed residential areas west of the project area. One wash drains the undeveloped but highly disturbed area along the east bank of the river (EcoPlan Associates, Inc. 2014a).

Outside of the river channel, vegetation is sparse and highly disturbed by sand and gravel mining, off-road vehicle use, and former agricultural activities. No undisturbed habitat occurs outside of the river channel.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



This page intentionally left blank



4.0 PROPOSED PROJECT

This section is a summary of the proposed project description in the Design Concept Report (Structural Grace, Inc. 2014a), Technical Memorandum—Sunset Road and Silverbell Road Intersection Conceptual Design Option Comparison, Interim Versus Ultimate Configurations, (Structural Grace, Inc. 2014b), Initial Drainage Report (Parsons Brinckerhoff 2014), and the Environmentally Sensitive Roadway Vegetation Inventory and Relevé Analysis Report (Wheat Design Group 2014a). For additional information, please refer to the documents on the project website: <http://roadprojects.pima.gov>.

The proposed project includes the following elements.

4.1 ROADWAY SECTION

From Silverbell Road to the I-10 eastbound frontage road, the project will construct approximately 2,960 feet of two-lane roadway with a continuous center turn lane. The cross-section will include two 11-foot-wide travel lanes, a 12-foot-wide center turn lane, 6-foot-wide paved shoulders on each side, graded shoulders, a 5-foot-wide paved pedestrian path on the north side, and an 8-foot-wide multi-use path on the south side. On the south side, a 20-foot-wide utility corridor will be designated, landscaping will be added, and an open water harvesting channel with basins will be constructed. The roadway section will be contained within a 150- to 200-foot-wide ROW.

The design speed will be 40 miles per hour, with a posted speed of 35 miles per hour.

4.2 BRIDGE SECTION

A new six-span concrete girder bridge will be built over the Santa Cruz River. Bridge length will be 724 feet, with earthen approach embankments on each side. The pier configuration will avoid locations within waters of the United States and live river flows. The east and west bridge abutments will be constructed to allow for future inclusion of the Loop Trail multi-use path on the east side of the river and the Juan Bautista de Anza Trail (Anza Trail) on the west side of the river. Bike and pedestrian facilities will be included on the bridge.

4.3 SILVERBELL ROAD/SUNSET ROAD INTERSECTION

Long-range transportation planning for the Silverbell Road corridor from Grant Road to Ina Road calls for major improvements to Silverbell Road, including widening and elevating the roadway to reduce or eliminate current travel restrictions due to flooding impacts. The Technical Memorandum noted earlier evaluated intersection concepts for an “ultimate” elevated connection with Silverbell Road and an “interim” at-grade connection. The analysis concluded that the connection at Silverbell Road will occur at the current roadway vertical elevation. The intersection will be signalized and lighted and will include pedestrian crossing and widening of Silverbell Road to provide a southbound left-turn lane and a northbound right-turn lane.



4.4 DRAINAGE IMPROVEMENTS

Drainage work will include roadway storm drains, a roadside drainage channel for off-site runoff, a floodplain drainage channel, and bridge abutment protection measures. The roadside drainage channel along the south side of Sunset Road west of the I-10 eastbound frontage road will include water harvesting features to assist in the establishment of landscaped vegetation. The floodplain drainage channel on the west side of the Santa Cruz River is needed to reduce flooding impacts to upstream properties due to the bridge and approach embankment within 100-year floodplains. This will also help protect the western bridge abutment. The western and eastern bridge abutments will also receive sloping soil cement.

4.5 RIGHT-OF-WAY

The proposed project will require new ROW from the PCRFC and from two private parcels. The ROW from the PCRFC will occur as an administrative transfer from the PCRFC to PCDOT. This county ROW transfer will total about 14.47 acres in a 150- to 200-foot-wide corridor from the I-10 eastbound frontage road to Silverbell Road. The two private parcel acquisitions are just east of Silverbell Road at the new Sunset Road intersection. Approximately 1.43 acres of private land are needed for the intersection connection and drainage improvements (Figure 3).

4.6 UTILITY AND IMPROVEMENTS

Utility conflicts will occur with the existing Western Area Power Administration and TEP power transmission lines east of Silverbell Road. Due to the height of the east bridge approach, the required clearance distance between the roadway and the power line sag will not be met. Therefore, the 115kV Western Area Power Administration line and the 136kV TEP line will need to be heightened. Coordination with both utilities indicates one pole on each side of the new Sunset Road would need to be heightened to provide the required clearance. The subject poles/towers are situated outside the future Sunset Road ROW in easements from Pima County and private landowners. The TEP 13.8 kV power line on the east side of Silverbell Road will be relocated to the west side of Silverbell Road. CenturyLink and TW Telecom have communication lines on those poles and will be relocated to the west side of the road. CenturyLink may underground their communication line. There are no affected utilities along the I-10 frontage road.

Underground Tucson Water reclaimed and potable water lines will not be impacted other than potential manhole adjustments.

4.7 LANDSCAPING

The Sunset Road landscape concept takes into account the unique mesoriparian plant community, the presence of delineated wetlands, wildlife species present, and the recreational nature of the area. Sunset Road offers an important link for trail users, providing a connection between the Loop Trail along the I-10 frontage road and the future Anza Trail alignment planned for the west bank of the Santa Cruz River.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Landscaping will consist of species native to the Tucson Basin that are appropriate in the project's vegetative communities. Native plant species identified on-site during the plant inventory and relevé process will be supplemented with additional species commonly occurring in the respective plant communities. The landscaping design will focus on sustainable objectives, using native species that will require minimal irrigation and maintenance, and water harvesting, where possible. Plantings will be placed within the ROW to provide aesthetic qualities to the corridor. The planting plans will be in accordance with Pima County Environmentally Sensitive Roadway Guidelines. Disturbed areas that will not be paved or otherwise stabilized will be reseeded with a mix native to the project area.

4.8 PUBLIC ART

Conceptual metal sculptures resembling desert blooms have been developed by the project artist for the Santa Cruz River bridge. Final concepts will occur during final project design.

This page intentionally left blank



5.0 ENVIRONMENTAL SCREENING

As required by the Pima County Roadway Design Manual, the environmental screening process for this project began at the onset of the engineering design process in December 2013. After field reviews and coordination with regulatory agencies, an Environmental Screening Questionnaire, Impact Summary Matrix, and Results Memorandum was prepared to identify potential environmental impacts to resources (EcoPlan Associates, Inc. 2014b). The process considered construction activities and regulatory permitting issues and needs, including water resources, biological resources, cultural resources, air quality, noise, hazardous materials, and neighborhood/socioeconomic issues. The reports completed for these resource topics are available on the project website: <http://roadprojects.pima.gov>. The findings of the reports and analyses conducted during the environmental screening process have been carried forward into this EAMR as appropriate. For each environmental aspect in the following section, existing conditions are described, potential impacts are identified, mitigation measures are recommended, and permits necessary for project construction are noted.

This page intentionally left blank



6.0 ENVIRONMENTAL ASSESSMENT AND MITIGATION

6.1 NATURAL/PHYSICAL ENVIRONMENT

This section discusses and evaluates the full range resources in the natural, social, and cultural environment in the project area. The evaluation of impacts is documented in the various technical reports referenced throughout the section.

6.1.1 Biological Resources

A Biological Evaluation, Relevé Survey, and Protected Native Plant Survey were prepared for the project area. These included plant and animal species surveys, review of the Arizona Game and Fish Department (AGFD) On-line Environmental Review Tool (AGFD 2014), and review of the U.S. Fish and Wildlife Service (USFWS) list of endangered, threatened, proposed, and candidate species for Pima County. In addition, the Biological Evaluation addressed species included on the Pima County Priority Vulnerable Species list as well as Section 10 Habitat Conservation Plan species. The Biological Evaluation (EcoPlan Associates, Inc. 2014c) and the Environmentally Sensitive Roadway Vegetation Inventory and Relevé Analysis Report (Wheat Design Group 2014a) are available on the project website: <http://roadprojects.pima.gov>.

6.1.1.a Existing Conditions

The project area lies between approximately 2,220 and 2,230 feet elevation¹ in the Santa Cruz River Valley that divides the Tucson Mountains to the west from the Santa Catalina Mountains to the northeast. The project limits cross the Santa Cruz River, its floodplain, and adjacent upslope areas. In the project area, the Santa Cruz River is a perennially flowing waterway resulting from effluent that is discharged into the river approximately 1.5 miles upstream by the Agua Nueva Wastewater Reclamation Facility. The base flow in the river is augmented seasonally by precipitation. Several small ephemeral tributaries flow into the Santa Cruz River from the west side.

The project area is mapped within the Sonoran Desertscrub biome with a riparian corridor along the Santa Cruz River. The project area is highly disturbed east of the river by past (agricultural) and ongoing (sand and gravel mining) land uses. West of the river, habitat is degraded by off-road vehicle use, electric power transmission lines, and a residential property.

The Santa Cruz River mesoriparian habitat supports an extensive tree canopy of Goodding's black willow (*Salix gooddingii*) and Athel tamarisk (*Tamarix aphylla*), with an occasional velvet mesquite (*Prosopis velutina*). Several wetland features have been mapped (EcoPlan Associates, Inc. 2014c) within the project limits and are characterized by dock-leaf smartweed (*Persicaria lapathifolia*) and southern cat-tail (*Typha domingensis*), with occasional areas of giant-reed (*Arundo donax*).

¹ Elevations in this document are referenced to mean sea level.



6.1.1.b Habitat Connectivity

Previous studies related to long-range improvement plans for Silverbell Road identified a wildlife linkage between the Tucson Mountains and Santa Cruz River (SWCA 2010). An area east of Silverbell Road in the vicinity of the proposed new Sunset Road connection was noted as a Priority Crossing Zone—Habitat Protection Priority Area. The focus was on drainages that cross Silverbell Road and then discharge to the Santa Cruz River. Multiple tributary drainages cross Silverbell Road in the vicinity of the Sunset Road connection. When Silverbell Road is improved, those drainage crossings could provide an opportunity to design culverts to accommodate wildlife movement.

6.1.1.c Sensitive Habitats

The Santa Cruz River in the project vicinity is defined as an “Important Riparian Area” under the Pima County Multi-Species Conservation Plan (Pima County Office of Sustainability and Conservation 2011). The Pima County Multi-Species Conservation Plan identifies priority conservation areas for 44 species in Pima County. The project area includes Priority 1 conservation areas for three species: Abert’s towhee (*Pipilo aberti*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), and Western burrowing owl (*Athene cunicularia hypugaea*). Only the Abert’s towhee was recorded during field surveys.

6.1.1.d Sensitive Species

The Biological Evaluation (EcoPlan Associates, Inc. 2014c) and a Technical Assistance Letter were prepared for the project and reviewed by the USFWS. These documents addressed federally listed, state-listed, and Pima County–listed sensitive species. The USFWS Information, Planning, and Conservation (IPaC) System website was accessed on June 17, 2014, to obtain an official species list for the project area (USFWS 2014). The USFWS responded to the Technical Assistance Letter (see the Appendix), confirming that the application of the proposed conservation and mitigation measures will likely reduce effects on listed species and migratory birds to insignificant or discountable levels. The following species were identified for detailed analysis in the Biological Evaluation:

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered with Critical Habitat
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Proposed Threatened*
Tucson shovel-nosed snake	<i>Chionactis occipitalis klauberi</i>	Candidate**

* Subsequently, the yellow-billed cuckoo was listed as threatened by the USFWS (Federal Register 2014a)

** Subsequently, the Tucson shovel-nosed snake was removed from the candidate list by the USFWS (Federal Register 2014b)

The assessment concluded that the project limits and project vicinity do not provide suitable nesting habitat for the endangered Southwestern willow flycatcher or the proposed threatened yellow-billed cuckoo though riparian habitat within the project limits may be used as stopover

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



habitat by individuals of both species during migration. No records of the Southwestern willow flycatcher are from the project vicinity, but the yellow-billed cuckoo has been recorded along the Santa Cruz River about 1 mile upstream of the project limits.

6.1.1.e Potential Impacts

Habitat Connectivity: The proposed Sunset Road will not alter any drainages crossing Silverbell Road and will not preclude the future installation of culverts or other crossing facilities when Silverbell Road is widened in the future. The acquisition of the private parcel east of the road could facilitate connectivity improvements in the future as the existing structures on the property will be removed. No mitigation measures are required or recommended.

Sensitive Habitats: Impacts to the riparian corridor are expected to total about 0.3 acre of permanent disturbance (bridge piers and abutments) and about 0.4 acre of temporary construction disturbance. Project impacts would result in about 0.3 acre of permanent impacts to potential nesting habitat for Abert's towhee along the Santa Cruz River. Western burrowing owl and cactus ferruginous pygmy-owl were not observed. The project limits are unlikely to support the pygmy-owl; however, suitable habitat is present for the burrowing owl (see Mitigation Measures, Section 6.1.1f).

Sensitive Species: Project construction will overlap the spring migration period and breeding season for the flycatcher and the cuckoo. The presence of Tucson shovel-nosed snake appears unlikely due to habitat disturbance and the lack of records for this subspecies in Pima County over the past 35 years. No impacts to any other threatened, endangered, candidate, or proposed species are anticipated. No mitigation measures are required or recommended.

6.1.1.f Mitigation Measures

- Pima County will employ a biologist to complete a survey for burrowing owls 90 days and 30 days prior to construction in all suitable habitats that will be disturbed. The biologist will possess a burrowing owl survey protocol training certificate issued by the Arizona Game and Fish Department.
- If any burrowing owls are located during the survey and are unable to be relocated on-site, Pima County will employ a biologist holding a permit from the U.S. Fish and Wildlife Service to relocate burrowing owls from the project area.
- If burrowing owls are located during construction, the contractor shall employ a biologist holding a permit from the U.S. Fish and Wildlife Service to relocate owls from the project area, as appropriate.
- If burrowing owls or active burrows are identified during the survey or during construction, no construction activities shall take place within 100 feet of any active burrow until the owls are relocated.
- A Landscape Plan will identify protected native plants that are to be preserved in place or mitigated in accordance with the Arizona Native Plant Law, Environmentally Sensitive

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Roadway Design Guidelines, the Pima County Regional Flood Control District, and Section 404 of the Clean Water Act, as applicable.

- Pima County and the contractor will develop and implement an invasive species management plan.
- The Pima County Department of Transportation will file a Notice of Intent to Clear Land with the Arizona Department of Agriculture 60 days before removal of protected native plants.

6.1.1.g Permits

- If burrowing owl relocation is necessary, the wildlife biologist conducting the work will possess a USFWS Special Purpose Permit.

6.1.2 Drainage and Clean Water Act

This section identifies drainages present, potential impacts to those resources, and permitting needs under Clean Water Act (CWA) Section 404 and Section 401 as regulated by the U.S. Army Corps of Engineers (Corps) and Section 402 as regulated by the Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ). The Initial Drainage Report and the Preliminary Jurisdictional Delineation are available on the project website: <http://roadprojects.pima.gov>.

6.1.2.a Existing Conditions

The Santa Cruz River is a perennially flowing waterway in the survey area resulting from effluent that is discharged into the river approximately 1.5 miles upstream of the survey area from the Agua Nueva Wastewater Reclamation Facility. The base flow is augmented seasonally by precipitation. The Corps has designated the reach of the Santa Cruz River between the Wastewater Reclamation Facility and the Pima–Pinal county line, including the portion of the river in the survey area, as a Traditional Navigable Water under Section 404 of the CWA. As such, the Santa Cruz River in the survey area is jurisdictional. In addition to the river, 11 tributary washes are within the project limits.

A Preliminary Jurisdictional Determination (Corps File No. SPL-2014-00196 KWG) for the project was issued April 25, 2014, in response to the Preliminary Jurisdictional Delineation and Wetland Delineation (EcoPlan Associates, Inc. 2014a). The extent of jurisdictional waters of the United States in the survey area, including wetlands, was mapped in anticipation of the potential need to obtain a CWA Section 404 permit to construct Segment I and to enable project designers to avoid impacts to waters of the United States to the maximum extent practicable.

6.1.2.b Potential Impacts

The proposed project bridge will cross the Santa Cruz River and one wash. Improvements at the Silverbell Road intersection will impact one wash, and the drainage channel east of the west bridge abutment will impact three washes. All proposed construction will avoid the mapped wetlands, and the bridge structure clear-spans waters of the United States and the live flow in the

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



river. To minimize contractor activities in the river channel, the contractor will have the option of constructing a temporary access bridge over the river or constructing from the east and west banks of the river (see Mitigation Measures, Section 6.1.2c).

Because more than 1 acre of land will be disturbed during project construction, a CWA Section 402 Arizona Pollutant Discharge Elimination System Permit will be required. A Notice of Intent and a Notice of Termination will be prepared and submitted to the ADEQ at the appropriate times. As required by the permit, a Storm Water Pollution Prevention Plan will be prepared.

6.1.2.c Mitigation Measures

- The Pima County Department of Transportation and its contractor will file Notices of Intent to use the state Construction General Permit (CGP AZG 2013-001) with the Arizona Department of Environmental Quality and implement a Storm Water Pollution Prevention Plan. The Storm Water Pollution Prevention Plan will include temporary and permanent sediment and erosion control measures, and good housekeeping practices to control and prevent release of potential water pollutants.
- An in-lieu fee will be provided to the U.S. Army Corps of Engineers for impacts to waters of the United States.
- Pima County will submit a Pre-Construction Notification to work under a Clean Water Act Section 404 Nationwide Permit 14 with Section 401 State Water Quality Certification at the completion of Stage III or 60 percent design.
- The Pima County Department of Transportation and the construction contractor will comply with all conditions of the Nationwide Permit 14 obtained from the U.S. Army Corps of Engineers.
- The construction contractor shall not be allowed to repeatedly traverse the Santa Cruz River. Operations shall be conducted from both banks or via a temporary access bridge across the river.

6.1.2.d Permits

- A Preliminary Jurisdictional Determination for the project was issued by the Corps on April 25, 2014. Preliminary design indicates the permanent impacts to waters of the United States will be less than 0.5 acre and will avoid wetlands, thus qualifying the project to work under a CWA Nationwide Permit 14 with a Pre-Construction Notification. Nationwide Permit 14 will provide conditional water quality certification for the jurisdictional washes in the project area in compliance with Section 401 of the CWA.
- A Section 402 Arizona Pollutant Discharge Elimination System Permit will be required. A Notice of Intent and a Notice of Termination will be prepared and submitted to the ADEQ. PCDOT and the contractor will file Notices of Intent with the ADEQ and receive authorizations for construction. As required by the permit, PCDOT will prepare a Storm Water Pollution Prevention Plan.



6.1.3 Floodplains

This section evaluates potential impacts to floodplains as defined by FEMA and the PCRFC. Floodplains are identified by FEMA Flood Insurance Rate Maps. The project area is also subject to requirements of the PCRFC floodplain and riparian ordinance. The following information is summarized from the Initial Drainage Report, which is available on the project website: <http://roadprojects.pima.gov>.

6.1.3.a Existing Conditions

Floodplains in the project area have been mapped by FEMA, as depicted in Flood Insurance Rate Map 04019C1666L, June 16, 2011. The area, including the Santa Cruz River and west to Silverbell Road, is in Zone AE (area within the 100-year flood zone where base elevations have been determined). Portions of the project area east of the river are in Zone X (area of 500-year flood; or area of 100-year flood with average depths of 1 foot; or drainage area of less than 1 square mile). The Santa Cruz River includes a strand of mesoriparian habitat and the tributaries on the west side of the river include xeroriparian habitat.

6.1.3.b Potential Impacts

The Santa Cruz River is a FEMA-regulated watercourse. The addition of the Sunset Road bridge and approach road encroaches on the floodplain, resulting in a minor rise in the 100-year flood surface elevation. To minimize the elevation change, the project design includes a graded channel west of the river under the bridge approach. This will limit the impact on upstream properties. Though water elevations will increase by a few inches, no additional properties will be subject to flooding. In current conditions, properties between Silverbell Road and the river are subject to flooding, including Silverbell Road and limited flooding on the west side of Silverbell Road. Design measures include scour protection along Silverbell Road and for the bridge abutments. The interim tie-in point with Silverbell Road will allow floodwaters to overtop the proposed Sunset Road. Ford walls are proposed to mitigate the scour effects of flowing water along the east edge of Silverbell Road and where floodwaters cross Sunset Road. Once the ultimate condition is constructed, the Ford Wall mitigation measures will no longer be needed because the entire 100-year flood flow will be contained east of Silverbell Road, and overtopping of Sunset Road will no longer occur.

A Conditional Letter of Map Revision and Letter of Map Revision are required to re-establish the floodplain and floodway limits within the project reach. A floodplain study is being conducted to document the impacts and mitigate any upstream water surface elevation change. Off-site drainage facilities to collect storm water flows will be incorporated along the new Sunset Road to maintain the general area drainage patterns.

6.1.3.c Mitigation Measures

- The Pima County Department of Transportation will prepare a Conditional Letter of Map Revision and Letter of Map Revision to document changes to the floodplain and floodway in accordance with Federal Emergency Management Agency requirements.



- The Pima County Department of Transportation will provide on-site landscaping mitigation for impacts to regulated riparian habitat in accordance with the Pima County Regional Flood Control District floodplain and riparian ordinance.

6.1.3.d Permits

- A Floodplain Use Permit from the PCRFCFCD will be required because more than 0.33 acre of riparian habitat will be impacted.

6.1.4 Air Quality

This section evaluates potential impacts related to criteria pollutants as established by the EPA for National Ambient Air Quality Standards. The pollutants addressed by the standards are ground-level ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead.

6.1.4.a Existing Conditions

The project area is within the Tucson Maintenance Area for carbon monoxide and is outside the limits of the Rillito Non-Attainment Area for particulate matter (dust). Metropolitan planning organizations are required by the Clean Air Act to ensure that all transportation projects are in conformity with the approved air quality State Implementation Plan. This project is in the PAG FY 2014–2018 TIP, which was adopted by PAG Regional Council on May 22, 2014. The TIP conforms to the State Implementation Plan and, therefore, the project is in conformity with air quality standards.

6.1.4.b Potential Impacts

The proposed project will have temporary local impacts to particulate levels during construction. These impacts will be reduced by PCDOT standard specifications for dust suppression during construction. The project may improve long-term air quality by decreasing congestion at nearby I-10 interchanges on Ina Road and Ruthrauff Road.

6.1.4.c Mitigation Measures

- The contractor shall comply with all dust control measures identified in the Pima County Department of Transportation standard specifications for construction.
- The contractor shall comply with all dust control measures identified in the Storm Water Pollution Prevention Plan (Drainage, Section 6.1.2).
- The contractor shall comply with all dust control measures identified in the Pima County Department of Environmental Quality Fugitive Dust Activity Permit.

6.1.4.d Permits

- The contractor shall obtain a Fugitive Dust Activity Permit from the PDEQ prior to any construction activities.



6.1.5 Noise

The analysis of, and mitigation for, project-related noise impacts are guided by the Pima County Noise Analysis and Mitigation Guidance for Major Roadway Projects, amended April 8, 2008 (PCDOT 2008). As a major roadway project, the Sunset Road extension is subject to the guidance.

6.1.5.a Existing Conditions

One sensitive receiver (a mobile home residence, 5380 N. Silverbell Road) is within the project limits immediately east of Silverbell Road at the proposed connection of Sunset Road and Silverbell Road. Seven single-family homes west of Silverbell Road are on large lots in the vicinity of the proposed Sunset Road/Silverbell Road intersection. The lots range from about 300 feet to 1,000 feet from the proposed intersection. All are accessed off Silverbell Road.

6.1.5.b Potential Impacts

Based on the limited potential for impacts to sensitive receivers, a qualitative analysis was conducted for the project. The single residence (5380 N. Silverbell Road) within the project limits has been identified for full acquisition because the western bridge embankment encroaches on this residence. The seven homes within 1,000 feet of the project are expected to be minimally impacted by the Sunset Road extension due to the distance from Sunset Road and the elevation above Silverbell Road. Four of the seven homes are 10–20 feet higher in elevation than the Sunset/Silverbell Road proposed intersection. The three homes that are less than 10 feet above Silverbell Road are 1,000 feet south of the proposed Sunset/Silverbell Road intersection.

Sensitive receptors in the project area will not be impacted due to (1) acquisition of the 5380 N. Silverbell Road property, (2) no capacity or speed changes on Silverbell Road, (3) relatively low speeds on Sunset Road due to a signalized intersection, and (4) the distance/elevation change between Sunset Road and the identified sensitive receivers.

6.1.5.c Mitigation Measures

No mitigation measures are required.

6.1.5.d Permits

No permits are required.

6.1.6 Utilities

This section identifies utilities present in the project area and describes potential impacts to those utilities. Additional information regarding utility coordination can be found in the Design Concept Report on the project website: <http://roadprojects.pima.gov>.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



6.1.6.a Existing Conditions

No utilities are present between the Santa Cruz River and the I-10 eastbound frontage road. Between Silverbell Road and the river, the following utilities are present:

- Western Area Power Administration 115kV overhead transmission line
- TEP 136kV overhead transmission line
- TEP 13.8kV overhead transmission line (within the Silverbell Road ROW, east side)
- TEP 46kV overhead transmission line (within the Silverbell Road ROW, west side)
- Tucson Water 12- and 42-inch-diameter potable water lines (within the Silverbell Road ROW)
- Tucson Water 24-inch-diameter reclaimed water line (within the Silverbell Road ROW)
- CenturyLink and TW Telecom (on the TEP lines within the Silverbell Road ROW)

6.1.6.b Potential Impacts

Impacts to utilities will occur as a result of the bridge crossing of the Santa Cruz River and the intersection connection at Silverbell Road. The western bridge approach will be elevated approximately 20 feet above current ground elevation. This will place the roadway in conflict with the desired 25-foot clearance between roadways and the power line sag (the height of the lines during warmest months when the lines stretch or dip). This affects the Western Area Power Administration 115kV line and the TEP 136kV line, requiring both lines to be elevated. Coordination with the utilities is ongoing. Preliminary plans call for the replacement of the structures with taller steel monopoles to obtain the necessary clearance. The replacement of the Western Area Power Administration line is consistent with its Southline Transmission Project, which will upgrade the 115kV line to 230kV. The Southline Transmission Project extends from just south of Las Cruces, New Mexico, to the Saguaro Substation near Marana, Arizona.

The intersection connection of Sunset/Silverbell Road will conflict with the TEP 13.8kV line on the east side of Silverbell Road. The wider pavement section for intersection turning lanes places several wood poles within the roadway clear zone (recovery area for motorists that should be free of large obstacles). Thus, the poles will need to be relocated. Coordination is ongoing to determine whether the poles will be relocated on the east side of the roadway or shifted to the west side. Long-range planned improvements for Silverbell Road will require the TEP 13.8kV line to be placed on the west side of Silverbell Road. The outcome of the power pole shift will affect the TW Telecom and CenturyLink line. The intersection connection will not require any relocation of Tucson Water potable or reclaimed water lines. Minor manhole adjustments may be required.

The new Sunset Road will have a designated utility corridor established for future below-ground utilities that may wish to parallel the roadway. The corridor will be 20 feet wide on the south side of the roadway.



6.1.6.c Mitigation Measures

- Ongoing coordination and planning with the utility companies will occur throughout design development. Determination of any service interruptions will be considered in the coordination and planning stages.
- Customers shall be notified 14 days in advance of any planned utility service interruptions.

6.1.6.d Permits

- Prior to utility relocations, those utilities within PCDOT ROW must obtain a Pima County ROW Use Permit.

6.1.7 Hazardous Materials

This section evaluates the project impacts relative to potential hazardous materials in the project area. A Preliminary Initial Site Assessment (PISA) was prepared to identify potential recognized environmental conditions in the project area and to identify properties needing additional evaluation (EEC Consultants, Inc. 2014). The PISA included site reconnaissance, limited historical analysis, and federal and state environmental records review. The PISA is available on the project website: <http://roadprojects.pima.gov>.

6.1.7.a Existing Conditions

A records search of regulatory hazardous materials databases was conducted for the project area on September 13, 2014. The records search identified several potential hazardous waste sites within a 0.5-mile radius of the project limits.

No recognized environmental conditions, such as leaking underground storage tanks, landfills, or uses associated with hazardous waste products, were identified. One Water Quality Assurance Revolving Fund site was identified approximately 0.4 mile from the project limits. This is the El Camino del Cerro Water Quality Assurance Revolving Fund site that resulted from a former landfill and oil recycling business. The site has been under evaluation, remediation, and monitoring since the early 1990s. The contaminated groundwater plume has not migrated toward the Sunset Road project limits.

The database identified one underground storage tank and one leaking underground storage tank in the study area; however, both were well outside the project limits and had no unresolved issues. The underground storage tank identified north of the project limits was removed and meets ADEQ closure standards. The leaking underground storage tank was identified approximately 0.4 mile southeast of the project area. That case was closed by the ADEQ, and soils meet non-residential levels. Groundwater flow is away from the site.

The former Sunset Dairy dump site is not a registered landfill and does not appear in any database. The site is known from project site visits and cultural resources investigations in the area. Visual inspection and cultural resource studies in the area indicate that the dump was used to discard glass bottles and not hazardous materials.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



The materials imported to fill the Sunset Pit (former CalPortland excavation pit) were not characterized in the PISA. The material is known to originate from the PCDOT project on Orange Grove Road and consists of overburden and milled asphalt.

6.1.7.b *Potential Impacts*

Based on the findings of the PISA, the project excavation and earthmoving activities are not likely to encounter hazardous materials. No evidence of regulated hazardous materials is present within the project limits, and the PISA concluded that there are no issues of concern and that no additional investigation is recommended. The preliminary investigations did not examine the structures on the property to be acquired at 5380 N. Silverbell Road. It is not known whether the structures (mobile home and outbuildings) contain any hazardous materials, including asbestos or lead-based paint.

6.1.7.c *Mitigation Measures*

- Prior to property acquisition at 5380 North Silverbell Road, Pima County will perform a Phase I Environmental Site Assessment of the property and structures to determine whether any hazardous materials are present.
- If any hazardous materials are encountered during construction, work shall cease at the location and the Pima County Engineer shall be contacted to arrange for the proper assessment, treatment, and disposal of those materials.
- Prior to demolition or disposal of structures, an Asbestos Hazard Emergency Response Act–certified building inspector shall conduct sampling on all suspect asbestos-containing materials.
- If asbestos-containing materials are present, a certified asbestos abatement contractor shall develop and implement an Asbestos Removal and Disposal Plan.
- Prior to demolition or disposal of building surfaces painted before 1978, these shall be tested for lead and disposed of as hazardous waste.
- If asbestos-containing materials are present in structures to be demolished, the contractor shall contact the Pima County Department of Environmental Quality and prepare a National Emissions Standards for Hazardous Air Pollutants notification.

6.1.7.d *Permits*

If property acquisition will require the removal of asbestos-containing material, permits will be determined.

6.1.8 *Construction*

This section discusses impacts that may result from activities related to project construction, including traffic control, dust control, and construction noise. Construction activities include earthwork (excavation and filling), bridge construction, establishment and use of staging areas, and other actions related to road construction.



6.1.8.a Existing Conditions

The project will be built on new alignment; therefore, no current paved roadway or existing traffic exists. The current Sunset Road is a dirt service road used by CalPortland and is not on the planned alignment of the new Sunset Road. The project limits are free of obstacles other than existing sand and gravel pit (Sunset Pit) between the I-10 eastbound frontage road and the Santa Cruz River. This pit has been partially filled with overburden from nearby county projects. Geotechnical investigation will determine if the fill material requires removal and compaction or other stabilization measures. Drainage analysis will investigate measures to protect the pit from flood events that might allow water to reach the fills. The CalPortland lease agreement allows continued mining-related activities in the vicinity of the planned Sunset Road and the Sunset Pit, with a 300-foot setback from the roadway ROW. Coordination with CalPortland will need to occur with respect to any activities that may encroach on the Sunset Pit fill material.

6.1.8.b Potential Impacts

Project construction is expected to begin in fall 2015 and last approximately 12 months. No access restrictions will be required of any properties. Temporary lane closures may be needed for the connections to the I-10 eastbound frontage road and Silverbell Road. These will be of short duration and will not require any detour. The project environmental review and clearance process has included potential contractor staging areas near the I-10 eastbound frontage road and Silverbell Road. Noise abatement will be implemented in accordance with the Pima County Ordinance for Construction of Buildings and Other Properties. Dust control will be implemented in accordance with measures related to the Pima County Department of Environmental Quality (PDEQ) Fugitive Dust Activity Permit (see Air Quality, Section 6.1.4.)

6.1.8.c Mitigation Measures

- A traffic control plan will be implemented by the contractor in conjunction with the Pima County Department of Transportation Field Engineering Division and guidelines specified in the Manual on Uniform Traffic Control Devices.
- The contractor shall maintain access to CalPortland leased operations north of the project area.
- Noise impacts from construction equipment shall be minimized by use of properly muffled equipment, maintenance of equipment, and placement of equipment away from residential receivers.
- The contractor shall comply with the Pima County noise ordinance (Pima County Code Chapter 9.30.070), which sets construction start and stop times to avoid nighttime noise disruptions. If nighttime work is required, the contractor shall obtain a permit from Pima County.
- The contractor shall comply with dust control measures identified in the Storm Water Pollution Prevention Plan (see Drainage and Clean Water Act, Section 6.1.2), and Fugitive Dust Activity Permit (see Air Quality, Section 6.1.4).

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



- The contractor shall provide documentation of environmental clearances if a site outside of the locations provided by Pima County is used.

6.1.8.d Permits

- PDEQ Fugitive Dust Activity Permit.
- ADOT Tucson District Encroachment Permit for any work in the I-10 eastbound frontage road ROW.

6.1.9 Historic/Cultural Resources

This section discusses potential archaeological and historical impacts to cultural resources. Resource assessments have been conducted through the Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division. Two survey reports cover the overall Sunset Road Segment I project limits (WSA 2012 and SWCA 2013).

6.1.9.a Existing Conditions

The general project vicinity contains many historic and prehistoric sites associated with occupations at the confluence of the Santa Cruz and Rillito rivers. Two archaeological sites are identified within the project limits: AZ AA: 12:11(ASM) and AZ AA:12:788 (ASM), the latter also known as the Rillito Fan Site. In addition, along Silverbell Road, there is the proposed Silverbell Archaeological District. This district has not yet been evaluated regarding its possible eligibility to the National Register of Historic Places, and this evaluation is pending future action by the Corps related to future Silverbell Road improvements. No archaeological sites are identified along the portion of Silverbell Road that is within the Sunset Road project area. Within the Sunset Road project limits, no cultural resources sites overlap waters of the United States; therefore, no federal nexus applies with respect to the National Historic Preservation Act.

6.1.9.b Potential Impacts

The proposed project will impact sites AZ AA:12:11(ASM) and the Rillito Fan Site. Pima County has consulted with the Arizona State Historic Preservation Office (SHPO), the Arizona State Museum (ASM), and the Native American tribes (see SHPO letter in the Appendix, October 29, 2013) with a recommendation of “adverse effect.” The consultation was based on an Intergovernmental Agreement between SHPO and Pima County for projects with no federal nexus. A Phase I data recovery research design and plan of work was approved by SHPO, and field work was completed in July 2014. Pima County has committed to a Phase II data recovery for the Sunset Road project. Implementation of data recovery will be based on the final area of potential effects determined by the project design plans. Data recovery will occur prior to project construction activities.

6.1.9.c Mitigation Measures

- The Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division will ensure that a Phase II data recovery plan is prepared and submit the

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



plan to the Arizona State Historic Preservation Office, the Arizona State Museum, and the Native American tribes.

- The Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division will ensure that Phase II data recovery activities are conducted and an end of field report is prepared, and will consult with the Arizona State Historic Preservation Office, the Arizona State Museum, and Native American tribes.
- If previously unidentified cultural resources are encountered during construction, construction work at that location shall be halted immediately and the resources shall be secured and protected. The Arizona State Museum and the Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division shall be contacted immediately.

6.1.9.d Permits

- The Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division will ensure that the necessary permits from the ASM are secured.

6.1.10 Visual Resources

This section describes the viewsheds in the project vicinity and analyzes impacts to viewers and viewsheds. The existing conditions and analysis is documented in the Visual Assessment Report (Wheat Design Group 2014b). For more information, please refer to the document on the project website: <http://roadprojects.pima.gov>.

6.1.10.a Existing Conditions

The Sunset Road project is in the northwest region of the Greater Tucson Basin. The Tucson Basin is surrounded by several mountain ranges: the Tortolita and Santa Catalina Mountains to the north, the Rincon Mountains to the east, the Tucson Mountains to the west, and the Santa Rita Mountains to the south. The project area lies between two rivers: the Santa Cruz and the Rillito. The Santa Cruz River is the dominant natural visual element, with a tall overstory of riparian vegetation (mesquite and willow trees up to 25 feet in height) lining both banks of the river. The terrain generally slopes toward the Santa Cruz River, with the foothills of the Tucson Mountains in the background west of Silverbell Road and a highly modified landscape east of the Santa Cruz River. The lands east of the river have been modified by previous agricultural use and ongoing mining. A triangular-shaped mining pit, approximately 10.4 acres, is midway between the I-10 eastbound frontage road and the Santa Cruz River. Immediately north of the project limits, active materials processing at CalPortland is clearly visible, with piles of earthen materials in excess of 30 feet high. Between the river and Silverbell Road, two major overhead power lines cross the project limits and are visible throughout the project vicinity. Outside of the narrow vegetated ribbon along the river, the project area can be characterized as highly modified.



6.1.10.b Potential Impacts

Viewshed impacts were evaluated for six user groups: residents west of Silverbell Road, Silverbell Road motorists, I-10 motorists, Loop Trail recreation users, future Anza Trail recreation users, and future Sunset Road motorists. Views from foreground, middle ground, and long range were considered. In general, the addition of new roadway and a bridge over the Santa Cruz River will introduce a new visual element that will vary from a few feet above current grade to about 30 feet above the Santa Cruz River. The loss of vegetation at the river will be minimized with the combination of replanting and natural regrowth, and the river corridor is expected to be restored to its original quality. The placement of artwork on the bridge will also add a visual element consistent with the setting.

6.1.10.c Mitigation Measures

- The landscaping plans will incorporate vegetation and reseeding in disturbed areas. The plant selection will include native plants found in the surrounding project area, including riparian species at the bridge crossing.
- A public art component will be added to the bridge, capturing designs consistent with the natural character and history of the area.

6.1.10.d Permits

No permits are required.

6.2 NEIGHBORHOOD/SOCIAL ENVIRONMENT

This section discusses impacts to the built environment, including neighborhoods, commercial property, and social services, and consistency with local jurisdiction planning.

6.2.1 Right-of-Way Acquisition and Displacement

This section describes existing land use, zoning, and planning in the project vicinity and identifies potential impacts resulting from ROW needs and construction impacts.

6.2.1.a Existing Conditions

Land uses in the project vicinity are limited to commercial mining, utility corridors, and dispersed residential development adjacent to Silverbell Road. Zoning primarily falls under the City of Tucson jurisdiction, with the areas east of the river zoned Industrial (I-1), west of the river Residential (RX-1), and the river corridor Open Space (O-3). Pima County zoning includes Rural Residential (GR-1), Suburban Homestead (SH), and a small area at I-10 designated as General Business Zone (CB-2). No state or public lands occur adjacent to the project limits other than the public ROW on I-10 and lands owned by PCRFC.



6.2.1.b Potential Impacts

All ROW needed for the project is owned by the PCRFC, except for two parcels at the west end of the project. There will be one full acquisition of a 0.83-acre privately owned parcel on the east side of Silverbell Road and the new Sunset Road intersection (Weissman property, 5380 N. Silverbell Road). This will require a residential relocation. In addition to a mobile home on the property, several outbuildings exist. The second property is a partial acquisition of approximately 0.63 acre of a 19.54-acre parcel (Cracchiola property) (Figure 3). No physical improvements are on this property. The property is needed for drainage improvements at the west bridge abutment. Work in the ADOT ROW for the connection at I-10 frontage road will require a permit from ADOT Tucson District office. No ROW is needed from ADOT.

6.2.1.c Mitigation Measures

- A property acquisition program will be implemented in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) and Uniform Relocation Act Amendments of 1987 (Public Law 100-17).
- Private property owners will be compensated at fair market value for land and improvements to be acquired.

6.2.1.d Permits

PCDOT will obtain an Encroachment Permit from ADOT for construction activities at the I-10 frontage road.

6.2.2 Temporary and Permanent Access and Parking Impacts

This section evaluates potential project impacts to property access during construction and on a permanent basis.

6.2.2.a Existing Conditions

Access is limited in the project vicinity. The existing Sunset Road provides a dirt road access to the CalPortland operations west of the I-10 eastbound frontage road. The road ends before reaching the Santa Cruz River. Two driveways on the west end of the project off Silverbell Road provide access to a parcel that will be acquired by the project. No other access is available to the project limits. A segment of the Loop Trail is within the ADOT ROW along the eastbound frontage road. The eastbound I-10 frontage road on the east end of the project is a one-way two-lane road with a stop sign-controlled intersection at Sunset Road. The existing Sunset Road at Silverbell Road is about 1,250 feet north of the planned new Sunset Road. The intersection is an unsignalized "T" intersection.

6.2.2.b Potential Impacts

The project will not result in any permanent loss of access. The CalPortland access along the existing Sunset Road will be retained. All access and use of the I-10 eastbound frontage road and Loop Trail will be retained. Because the property with current driveway access off Silverbell

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Road will be acquired, access will not need to be retained at this location. Minor temporary access impact may occur with the Loop Trail. As the connection is built with the eastbound frontage road, access may be restricted for short periods for user safety. During construction, access to the CalPortland operations will be maintained at all times. Temporary delays on Silverbell Road at the new connection may occur during construction.

6.2.2.c *Mitigation Measures*

- A traffic control plan shall be implemented by the contractor (see Construction, Section 6.1.8).
- During construction, the contractor shall designate pedestrian and bicyclist routes around the work zone.

6.2.2.d *Permits*

No permits are required.

6.2.3 **Neighborhood Disruption**

This section addresses potential impacts to neighborhoods in the project vicinity.

6.2.3.a *Existing Conditions*

No defined neighborhood is in the project vicinity. The only residential areas are dispersed large-lot single-family homes west of Silverbell Road. No social services, such as police, fire, or hospitals, are in the project vicinity. The nearest law enforcement is 6 miles south (Tucson Police Department, Miracle Mile station), the nearest fire station is 1 mile southwest (Northwest Fire District, Camino del Cerro), and the closest hospital is 3 miles northeast (Northwest Medical Center, Orange Grove Road/Cholla Boulevard). The nearest school is 0.5 mile east of I-10 (Green Fields Country Day School, Camino de la Tierra) (Figure 4).

Sunset Road: Silverbell Road to I-10 (Segment I)
 Final Environmental Assessment and Mitigation Report



Figure 4. Project Limits



6.2.3.b Potential Impacts

No impacts to neighborhoods or social services are expected. Construction will not impact any emergency vehicle access to facilities or any bus service to schools.

6.2.3.c Mitigation Measures

No mitigation measures are required.

6.2.3.d Permits

No permits are required.

6.2.4 Parks and Recreation Areas

This section identifies public park and recreation facilities in the vicinity of the project.

6.2.4.a Existing Conditions

A segment of the Loop Trail is along the I-10 eastbound frontage road. This trail is associated with the Santa Cruz River Park. No facilities other than a paved path occur in this segment adjacent to the project. The nearest parks are the Dan Felix Memorial Park (0.5 mile east of I-10 at River Road) and Christopher Columbus Park along the Santa Cruz River (about 1 mile south of Sunset Road). No parks or recreation facilities are within the project limits.

6.2.4.b Potential Impacts

No impacts to parks or recreation facilities will occur other than temporary use restrictions on the Loop Trail during construction.

6.2.4.c Mitigation Measures

- During construction, the contractor shall designate pedestrian and bicyclist routes around the work zone.

6.2.4.d Permits

No permits are required.

6.2.5 Consistency with Other Plans

This section evaluates the project's consistency with applicable Pima County and other jurisdictions' transportation and land use planning.

6.2.5.a Consistency with the Regional Transportation Plan

As noted earlier, this project is listed in the PAG Regional Transportation Plan under Transportation Improvement Plan 35.05. Additionally, the proposed project is being developed with consideration for the Silverbell Road planned improvements (Ina Road to Grant Road). The new Sunset Road connection will not impact or preclude the future widening of Silverbell Road.



6.2.5.b Consistency with the Pima County Roadway Design Manual and Environmentally Sensitive Roadway Guidelines

All engineering design activities, environmental analyses and documentation, and mitigation measures have been prepared in accordance with Pima County guidelines and standards as identified in the Pima County Roadway Design Manual (PCDOT 2013). Because Sunset Road has been identified as an Environmentally Sensitive Roadway, engineering and environmental tasks have complied with Pima County Environmentally Sensitive Roadway Guidelines.

6.2.5.c Consistency with the Pima County Comprehensive Plan and Subsequent Updates

The Pima County Comprehensive Plan Update, Regional Plan Policies, adopted 2001, updated June 2012 (Pima County 2012) is currently undergoing an update titled Pima Prospers 2015 (Pima County 2014b). The draft document can be viewed at www.pimaprospers.com. Policies from the Circulation and Environmental Elements 2012 update and draft Special Area Policies in the Pima Prospers 2015 document are applicable to the project. In general, the project fully complies with goals and visions of the plans.

Circulation Element

The project is consistent with all plan policies, including alternate modes (bike/pedestrian facilities), is to be built in an environmentally sensitive manner, conforms to Pima County Roads and Street Standards, and is consistent with street capacity needs adopted in the Major Streets and Routes Plan of Pima County. The project is consistent with the Regional Bikeway Plan and provides linkage to the Loop Trail system and pedestrian sidewalks

Environmental Element

The project considers impacts related to the Sonoran Desert Conservation Plan and Conservation Lands System (Pima County Office of Sustainability and Conservation 2011). Project impacts on the important riparian areas are minimized by design and construction mitigation measures. The project complies with the CWA and the Pima County floodplain and erosion hazard management ordinance. The project design maintains connection to the regional trail system (Loop Trail) and is designed to accommodate the future Anza and Santa Cruz River trails.

Special Area Policies

The Tucson Mountains North area is adjacent to the western project limit. The proposed Sunset Road extension is consistent with the zoning and open space policies. The Trail Access Special Area policy includes the future Anza Trail. This trail is planned along the west bank of the Santa Cruz River. The proposed project design will accommodate the trail under the west bridge abutment.

6.2.5.d Permits

No permits are required.



7.0 AGENCY COORDINATION

This section describes the agency coordination that has occurred and the continuing actions needed.

7.1 FEDERAL AGENCY COORDINATION

- **Corps**—Pima County met with the Corps on January 23, 2014, to determine the approach for the Preliminary Jurisdictional Delineation and subsequent CWA permit. The Preliminary Jurisdictional Delineation was submitted on March 10, 2014, and approved on April 25, 2014. Continued coordination will occur throughout the submittal of a Pre-Construction Notification.
- **USFWS**—The USFWS attended the Environmental Coordination Meeting on December 12, 2013. In addition, Pima County sent a Technical Advisory Letter to the USFWS on July 24, 2014, to address potential impacts to endangered species. The USFWS replied on September 11, 2014.
- **Western Area Power Administration**—Pima County has communicated with Western Area Power Administration staff on multiple occasions through design development and provided preliminary plans for its review. Coordination will continue as project plans are developed to determine final transmission line adjustment.
- **FEMA**—The project team has consulted with FEMA to assist in determining floodplain impacts and the need for any floodplain map revisions. Continued coordination will occur through the development of the Conditional Letter of Map Revision and the Letter of Map Revision.

7.2 STATE AGENCY COORDINATION

- **ADOT**—Pima County has coordinated with ADOT on multiple occasions and met with the Tucson District on April 17, 2014. The needs for the Sunset Road connection to the I-10 eastbound frontage were coordinated. Continued coordination with the design of the frontage road connection will occur.
- **AGFD**—The AGFD was invited to the Environmental Coordination Meeting; however, it did not attend. Pima County has used the AGFD on-line tool to access records for protected species and secure a response.
- **SHPO**—The initial coordination occurred with SHPO on October 29, 2013, with submittal of the cultural Phase I testing and data recovery plan. Coordination has taken place to report results of Phase I and to develop the plan for Phase II data recovery. At each step of the testing and data recovery phases, coordination will continue.

7.3 COUNTY AGENCY COORDINATION

- **PCRFCD**—Throughout the project, PCDOT and the PCRFCD have worked together to develop the project design and coordinate drainage/floodplain issues and solutions. Coordination will continue through design and ROW transfer.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



- ***Pima County Office of Sustainability and Conservation***—The Cultural Resources and Historic Preservation Division has provided the project support for cultural resources documentation, consultation, and data recovery. The design team will continue to work closely with the Cultural Resources and Historic Preservation Division to avoid sites and mitigate impacts as needed.
- ***Pima County Natural Resources Parks and Recreation Department***—The project team has coordinated the Sunset Road features with the department to ensure the current recreational trail (Loop Trail) and planned future recreational and multi-use paths (Anza Trail and Santa Cruz River) will be accommodated.

7.4 LOCAL GOVERNMENTS COORDINATION

- ***PAG RTA***—Project funding needs and scheduling have been coordinated on multiple occasions and will continue throughout project implementation.
- ***City of Tucson***—The city participated in the Environmental Coordination Meeting on December 12, 2013. Project plans will continue to be shared with the city.

7.5 CONTINUING COORDINATION

As project development continues, additional coordination will occur with the agencies noted in this chapter and with additional agencies: ADEQ (CWA Section 401 and 402 permitting), Arizona Department of Agriculture (Native Plant Salvage), and PDEQ (dust control permit). Coordination will continue with the Corps with the preparation of a Pre-Construction Notification for Nationwide Permit 14.



8.0 PUBLIC PARTICIPATION

This section includes a summary of the public participation held as a component of the project development.

8.1 PUBLIC PARTICIPATION PLAN

The public participation planning took advantage of multiple previous public presentations and meetings held in conjunction with ADOT planning for I-10 (Ina Road to Ruthrauff Road) improvements and the RTA Silverbell Road (Ina Road to Grant Road) improvements. Both projects included presentations on the concept of a Sunset Road extension between Silverbell Road and River Road. In addition, this project included two public open house meetings during the preliminary design stage.

8.2 PUBLIC MEETINGS

PCDOT held the first Public Open House on June 9, 2014, at the Pima County Natural Resources Parks and Recreation Department facility on 3500 W. River Road. The meeting was announced through a local media press release, the project website, public notices in the *Arizona Daily Star* and *Arizona Territorial* newspapers, and mailings to approximately 600 addresses in the project vicinity. The meeting was attended by about 75 citizens. See the Appendix for the Open House public notice and agenda.

The second open house was held on October 30, 2014, at the Pima County Natural Resources Parks and Recreation Department facility on 3500 W. River Road. The open house was announced through the same methods as the first open house. See the Appendix for the Open House notice and agenda.

Due to the close relationship between the proposed project and the planned I-10 improvements between Ina Road and Ruthrauff Road, the Sunset Road extension has been presented and discussed at multiple I-10 meetings related to the Final Environmental Assessment for that project (ADOT 2012), as follows:

- I-10 Ina Road to Ruthrauff Road Scoping Meeting—November 18, 2009
- I-10 Ina Road to Ruthrauff Road Public Property Owner Briefing 1—October 4, 2010 (two meetings held on this date, one in Marana and one in Tucson)
- I-10 Ina Road to Ruthrauff Road Public Property Owner Briefing 2—November 8, 2010
- I-10 Ina Road to Ruthrauff Road Public Information Meeting—March 10, 2011
- I-10 Ina Road to Ruthrauff Road Public Hearing—June 21, 2012

The Sunset Road extension was also presented in conjunction with the planning for Silverbell Road (Kittleston 2011), as follows:

- Silverbell Road, Ina Road to Grant Road Initial Public Open House—August 12 and 19, 2009

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



- Silverbell Road, Ina Road to Grant Road Interim Public Open House—June 7 and 9, 2010
- Silverbell Road, Ina Road to Grant Road Final Public Open House—October 19 and 21, 2010

8.3 CITIZEN ADVISORY COMMITTEE

The Pima County Board of Supervisors issued a waiver of Ordinance 10.56.110, Establishment of a Community Advisory Committee, on January 3, 2013, at the recommendation of PCDOT (see Board of Supervisors Memorandum in the Appendix). The waiver was justified due to the extensive previous public involvement for the I-10 and Silverbell Road projects. The public strongly supported the Sunset Road extension and the proposed timing to have the improvements in place prior to the ADOT reconstruction of I-10. The waiver also notes that the majority of the project area is owned by the PCRFC and that alignment options are limited due to floodplain and CalPortland operations.

8.4 COMMUNITY COMMENTS

The public input was generally supportive at the June 9, 2014, open house. Comments were mostly about collateral issues or construction impacts, as follows:

- Suggested keeping Silverbell Road open during construction
- Suggested keeping the Loop Trail open during construction
- Suggested advancing the reconstruction of Silverbell Road to Ina Road
- Suggested that Sunset Road could be four lanes instead of two lanes
- Noted the traffic relief the new Sunset Road would provide when ADOT reconstructs Ruthrauff TI
- Suggested that a bridge across the Santa Cruz River at Orange Grove would have merit

The public input received during and after the October 30, 2014, open house was also generally supportive of the project. Similar to the June 9, 2014, open house, comments were about collateral issues or construction impacts, as follows:

- Suggested advancing the reconstruction of Silverbell Road and adding turn bays and bike lanes
- Noted that increased traffic congestion on southbound Silverbell Road during future reconstruction of the Ina Road bridge (when this project is complete) would make access to areas west of Silverbell Road more difficult for residents traveling northbound on Silverbell Road

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



9.0 CONCLUSION AND RECOMMENDATIONS

This section summarizes potential project impacts to resources and proposed mitigation.

Table 1. Summary of Potential Impacts and Proposed Mitigation

Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
Removal of native plants (Section 6.1.1)	Protected native plants are to be preserved in place or mitigated in accordance with the Arizona Native Plant Law, the Environmentally Sensitive Roadway Design Guidelines, the Pima County Regional Flood Control District Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines, and Section 404 of the Clean Water Act, as applicable.	Arizona Department of Agriculture	Pima County Department of Transportation and contractor
Management of invasive plant species	Implement invasive species management measures as guided by Pima County specification 201-3.04, Noxious and Invasive Vegetation.	Pima County Department of Transportation	Pima County Department of Transportation and contractor
Impact to burrowing owls (Section 6.1.1)	Identify potential presence of Western burrowing owls prior to construction; no construction activities shall take place within 100 feet of any active burrow until the owls are relocated; relocate owls by a biologist holding a U.S. Fish and Wildlife Service permit.	U.S. Fish and Wildlife Service	Pima County Department of Transportation and contractor

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
Impacts to waters of the United States (Section 6.1.2)	<p>Pima County will submit a Pre-Construction Notification to work under a Clean Water Act Section 404 Nationwide Permit with Section 401 Water Quality Certification, and the contractor shall comply with the permit conditions. Pima County will pay an in-lieu fee to the U.S. Army Corps of Engineers for permanent impacts.</p> <p>The construction contractor will be required to conduct work from both banks or via a temporary access bridge across the Santa Cruz River.</p> <p>The required Section 402 mitigation measures will be determined during preparation of the Arizona Pollutant Discharge and Elimination System Permit application and Storm Water Pollution Prevention Plan.</p> <p>The Pima County Department of Transportation and the contractor will prepare and file separate Notices of Intent with Arizona Department of Environmental Quality.</p> <p>Pima County will prepare a Storm Water Pollution Prevention Plan and the contractor will implement the Storm Water Pollution Prevention Plan.</p>	U.S. Army Corps of Engineers, Arizona Department of Environmental Quality, Pima County Department of Environmental Quality	Pima County Department of Transportation and contractor
Regulated riparian habitat impacts (Section 6.1.2)	Visual enhancements will include restorative landscape plantings throughout the project, public art incorporated into bridge features, and appropriate color and texture selection of materials.	Pima County Regional Flood Control District	Pima County Department of Transportation and contractor
Impacts to floodplains (Section 6.1.3)	Prepare a Conditional Letter of Map Revision and Letter of Map Revision to re-establish the floodplains and floodway limits on the Santa Cruz River.	Federal Emergency Management Agency	Pima County Department of Transportation and contractor
Construction dust control (Sections 6.1.4 and 6.1.8))	Comply with all dust control measures identified in the Pima County Department of Transportation standard specifications for construction, the Storm Water Pollution Prevention Plan, and the Pima County Department of Environmental Quality Fugitive Dust Activity Permit.	Pima County Department of Environmental Quality	Pima County Department of Transportation and contractor
Utility service interruptions (Section 6.1.6)	Coordination and planning with the utility companies to determine any service interruptions, and notify customers 14 days in advance.	Multiple utilities	Utility or contractor

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



Potential Impacts	Mitigation	Agency Involvement	Responsible Party(s)
Maintenance of access (Sections 6.1.8, 6.2.2, and 6.2.4)	Implementation of a traffic control plan and maintenance of access to CalPortland Company, I-10 frontage road, Silverbell Road, and Loop Trail. Preparation of an Arizona Department of Transportation Encroachment Permit.	Pima County Department of Transportation, Arizona Department of Transportation	Pima County Department of Transportation and contractor
Construction noise (Section 6.1.8)	Construction equipment noise minimized by use of properly muffled equipment, maintenance of equipment, and placement of equipment away from residential receivers. Compliance with Pima County noise ordinance (Pima County Code Chapter 9.30.070).	Pima County Department of Transportation	Pima County Department of Transportation and contractor
Cultural resource site impacts (Section 6.1.9)	Preparation of a Phase II data recovery plan and consultation with the Arizona State Historic Preservation Office, the Arizona State Museum, and the Native American tribes. Conduct Phase II data recovery activities and prepare an end of field report prior to roadway construction activities. If previously unidentified cultural resources are encountered during construction, construction work at that location shall be halted immediately and the resources shall be secured and protected. The Arizona State Museum and the Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division shall be contacted immediately.	Pima County Office of Sustainability and Conservation Cultural Resources and Historic Preservation Division, Arizona State Historic Preservation Office, Arizona State Museum	Pima County Department of Transportation and contractor
Visual impacts due to road and bridge construction (Section 6.1.10)	Incorporate landscaping, reseeding, structural treatments and public art where practical.	Pima County Department of Transportation	Pima County Department of Transportation and contractor
Acquisition of private property (Section 6.2.1)	A property acquisition program would be implemented in accordance with federal and state law. Private property owners would be compensated at fair market value.	Pima County Department of Transportation	Pima County Department of Transportation
Potential presence of asbestos-containing material and lead-based paint (Section 6.1.7)	Prepare a Phase I Site Assessment to determine the potential for asbestos-containing material or lead-based paint and whether sampling and lab analysis are needed to determine their presence in building materials.	Pima County Department of Transportation	Pima County Department of Transportation and contractor

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



This page intentionally left blank

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



10.0 REFERENCES

- ADOT. 2012. Final Environmental Assessment—Interstate 10, Ina Road Traffic Interchange to Ruthrauff Road Traffic Interchange.
- AECOM. 2014. Initial Traffic Engineering Report. July.
- AGFD. 2014. On-Line Environmental Review Tool, Search ID 20140103022148. Accessed January 3, 2014.
- EcoPlan Associates, Inc. 2014a. Preliminary Jurisdictional Delineation and Wetland Delineation—Sunset Road: Silverbell Road to I-10 Eastbound Frontage Road—Segment I, May 5.
- _____. 2014b. Environmental Screening Questionnaire, Impact Summary Matrix, and Results Memorandum. March.
- _____. 2014c. Biological Evaluation—Silverbell Road to I-10 Eastbound Frontage Road. Prepared for PCDOT, Tucson, Arizona. October.
- EEC Consultants, Inc. 2014. Preliminary Initial Site Assessment—Sunset Road: Silverbell Road to I-10 Frontage Road Segment I. October.
- Federal Register. 2014a. Vol. 79, No.192. October 3.
- _____. 2014b. Vol. 79, No.184. September 23.
- FEMA. 2011. Flood Insurance Rate Map No.04019C1666L, revised June 16, 2011.
- Kittleson. 2011. Design Concept Report—Silverbell Road, Ina Road to Grant Road.
- PAG. 2006. 2040 Regional Transportation Authority Plan. Tucson, Arizona.
- _____. 2014. 2015–2019 Transportation Improvement Program. Tucson, Arizona.
- Parsons Brinckerhoff. 2014. Initial Drainage and Hydrology Report—Sunset Road: Silverbell Road to Eastbound I-10 Frontage Road. October.
- PCDOT. 2008. Noise Analysis and Mitigation Guidelines for Major Projects. April.
- _____. 2013. Pima County Roadway Design Manual. 4th Edition. Tucson, Arizona.
- Pima County. 2012. Comprehensive Plan Update, Regional Plan Policies. Update 2012.
- _____. 2014a. Final Traffic Engineering Report. August.

Sunset Road: Silverbell Road to I-10 (Segment I)
Final Environmental Assessment and Mitigation Report



- _____. 2014b. Pima Prospers 2015.
- Pima County Office of Sustainability and Conservation. 2011. Maveen Marie Behan Conservation Lands System.
- Structural Grace, Inc. 2014a. Draft Design Concept Report—Sunset Road: Silverbell Road to I-10 Eastbound Frontage Road, Segment I. October.
- _____. 2014b. Technical Memorandum—Sunset Road and Silverbell Road Intersection Conceptual Design Comparisons, Interim Versus Ultimate Configurations. March.
- SWCA. 2010. Silverbell Road (North) Wildlife Linkage Initial Assessment: Ina Road to El Camino del Cerro, Pima County, Arizona.
- _____. 2013. A Class III Cultural Resources Survey for the El Corazon Project—West Bank of the Santa Cruz River: El Camino del Cerro to Sunset Road, Pima County, Arizona. 2013.
- USFWS. 2014. IPaC Endangered Species Act Species List for Pima County. Accessed June 17, 2014.
- Wheat Design Group. 2014a. Environmentally Sensitive Roadway Vegetation Inventory and Relevé Analysis Report.
- _____. 2014b. Visual Assessment Report—Segment I Sunset Road: Silverbell Road to Eastbound I-10 Frontage Road. September.
- WSA. 2012. A Cultural Resources Survey of the Tres Rios del Norte, El Corazon Project, Pima County, Arizona. Tucson, Arizona.

APPENDIX



MEMORANDUM

Department of Transportation



DATE: January 3, 2013

TO: C.H. Huckelberry, County Administrator

FROM: Priscilla S. Cornelio, P.E., Director

SUBJECT: **Request for Waiver from Pima County Ordinance 10.56.110**

As the Department of Transportation is preparing to move forward with the Sunset Road project from Silverbell Road to River Road, we are asking for your concurrence to request the Board of Supervisors (BOS) to exempt this project from Ordinance 10.56.110, Establishment of Community Advisory Committee.

Although this project has not yet officially been started, the basic location, configuration and approximate timing for implementation has been shared at the various public meetings and community outreach efforts associated with the I-10 project from Ina Road to Ruthrauff, as well as the Silverbell project from Grant Road to Ina Road. In the majority of these meetings, the inquiries and comments regarding the future Sunset Road project were favorable and the majority of the residents and citizens expressed a desire to see the project move forward as quickly as possible.

In addition, the constraints surrounding this project, most notably the location of the I-10 interchange, floodway limits, water surface elevation, gravel pit operations between Silverbell and I-10, plus overall project costs; severely restrict the number of alternatives and configuration possibilities that can be explored. As a result, the opportunity to adjust the design based on public comments and input is greatly limited.

Based on these two factors, we are recommending that the BOS exempt the project from the requirements of forming a Community Advisory Committee (CAC). We still plan to incorporate community outreach and input via open house forums, newsletters, project website, etc., as appropriate, and neighborhood meetings as requested. In addition, we will also develop an Environmental Assessment and Mitigation Report (EAMR) that will be presented to the BOS for final approval. We believe that this approach will still provide ample opportunity to share project information with the public as well as solicit any comments and feedback.

We appreciate your consideration of this request and if you need any further information, please let me know.

PSC:RE:sap

Concur:

John M. Bernal, Deputy County Administrator – Public Works

1/3/13
Date

Approved / Not Approved

C.H. Huckelberry, County Administrator

1/3/13
Date



United States Department of the Interior



Fish and Wildlife Service
Arizona Ecological Services Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 Fax: (602) 242-2513

RECEIVED BY
PIMA COUNTY

AESO/SE
02EAAZ00-2014-TA-0564

SEP 15 2014

September 11, 2014

DEPARTMENT OF
ENVIRONMENTAL QUALITY

Ms. Gloria Brown
Pima County Department of Transportation
Environmental Quality
33 North Stone Avenue, Suite 700
Tucson, Arizona 85701-1429

Dear Ms. Brown:

Thank you for your July 24, 2014 request for technical assistance related to the proposed extension and bridge construction along Sunset Road, from Silverbell Road to the eastbound frontage road of Interstate 10, in Pima County, Arizona. We have reviewed the information you provided and have the following comments regarding your request.

As indicated in your attached Biological Evaluation (BE), the project proposal contains habitat for and falls within the range of the southwestern willow flycatcher (*Empidonax traillii extimus*), a species listed as endangered under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544)(ESA). The project also contains habitat for and falls within the range of the yellow-billed cuckoo (*Coccyzus americanus*), a species proposed for listing under the ESA as a threatened species. Because the project area contains riparian habitat, the project site also likely supports a number of migratory birds, including the western burrowing owl (*Athene cunicularia hypugaea*).

As discussed in your BE, the project area does not support breeding/nesting habitat for either the southwestern willow flycatcher or the yellow-billed cuckoo. However, as correctly stated in the BE, the project area does support habitat elements that likely provide migratory habitat for both of these species. Additionally, the riparian habitat within the project boundaries likely supports breeding and nesting habitat for migratory birds, including raptors. Migratory birds are protected under the Migratory Bird Treaty Act. Much of the project area outside of the riparian corridor has been previously disturbed. However, cut banks, erosion tunnels, and small mammal burrows in these disturbed areas provide potential burrow and nest sites for the western burrowing owl, also a protected migratory bird species. In order to maintain habitat values for the southwestern willow flycatcher, the yellow-billed cuckoo, the burrowing owl, and other migratory birds, and to reduce potential impacts to these species as a result of the proposed project, we recommend the implementation of the following conservation measures for this project, some of which are already included in the BE:

- adhere to the Environmentally Sensitive Roadway Design guidelines; in particular, those guidelines related to the avoidance of significant riparian vegetation and the revegetation of all impacted areas;
- protect in place, salvage and transplant, or replace significant riparian tree species within the project footprint;
- minimize impacts to water quality in the Santa Cruz River. Improved water treatment facilities have increased the water quality within the Santa Cruz River. This improved water quality has improved habitat conditions for aquatic and riparian species and may allow the future occupancy of this river corridor by listed fish, amphibian, and reptile species. Best management practices and erosion control measures, including a Stormwater Pollution Prevention Plan, should be implemented to avoid or reduce sedimentation within the river;
- complete and implement an invasive species management plan;
- conduct preconstruction surveys for burrowing owls as indicated in the BE. If burrowing owls are located within the project area, work with the Arizona Game and Fish Department and the Fish and Wildlife Service as indicated in the BE to avoid or relocate the burrowing owls;
- conduct preconstruction migratory bird surveys to identify any nesting migratory birds, including raptors, within the project area. Avoid and buffer any active nests until the young have fledged. If this is not possible, obtain the appropriate permits from the Fish and Wildlife Service to address the removal of active nests; and
- consider including bat roosts with the new bridge structure.

Implementation of the above conservation measures will likely reduce effects to listed species and migratory birds to insignificant or discountable levels. Thank you for the opportunity to provide input on this project. If you have any questions regarding our comments, or need any additional information, please contact Scott Richardson at (520) 670-6150 (x 242).

Sincerely,



Steven L. Spangle
Field Supervisor

cc (hard copy):

Field Supervisor, Fish and Wildlife Service, Phoenix, AZ (2 copies)
U.S. Army Corps of Engineers, Tucson, AZ (Attn: Kevin Grove)
Jean Calhoun, Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

cc (electronic copy):

pep@azgfd.gov, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ (Attn: John Windes)



Pima County Office of Sustainability and Conservation
Cultural Resources & Historic Preservation Division
201 N. Stone Ave, 6th floor
Tucson, AZ 85701

Phone: (520)724-6940

Fax: (520) 724-9491

October 29, 2013

James Garrison
State Historic Preservation Officer
Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Re: Sunset Road and Future Development
Phase I Testing Data Recovery – Research Design and Plan of Work
“Adverse Effect”

Dear Jim:

Pima County intends to reconstruct Sunset Road, from Interstate 10 to Silverbell Road on land owned by Pima County. Since the previous Sunset Road bridge was destroyed, as a result of floods along the Santa Cruz River a few decades ago, Sunset Road has not been used. Pima County now intends to reconstruct Sunset Road along a new alignment that will provide a critical roadway link between Interstate 10 (I-10) and Silverbell Road across the Santa Cruz River, which will be partly within unincorporated Pima County and partly within the jurisdictional boundary of the City of Tucson. The project will be designed and constructed using local funds, with design starting before the end of 2013.

Within the past two years Pima County has purchased a substantial area of land to the north and south of the Sunset Road alignment between I-10 and Silverbell Road. Much of the area to the north of Sunset has previously been mined for gravel. To the south of Sunset, apart from two small gravel pits, the area has been historically used for irrigated agricultural fields, but otherwise remains undeveloped. In future years, depending upon funding availability, the County expects to pursue phased development of its land holdings immediately south of Sunset Road.

The land owned by Pima County in this vicinity has been subject to a recent consultation between Pima County and SHPO (SHPO-2012-0024(109933)) based on a Class III cultural resources survey of 406 acres of Pima County property entitled *A Cultural Resources Survey for the Tres Rios del Norte El Corazon*

Project, Pima County, Arizona, by Ian Milliken and Michael Boley, WSA Technical Report No. 2012-49, dated November 2012.

The current consultation is with regards to Phase I data recovery testing for the proposed Sunset Road realignment and future development on almost 138 acres of Pima County property located in T13S, R13E, Sections 17 and 18, of which 19.5 acres comprise the Sunset Road Area of Potential Effects (APE) and 118.2 acres comprise the area for future development. Two archaeological sites, AZ AA:12:11(ASM) and AZ AA:12:788(ASM) – the Rillito Fan site, are both considered ARHP and NRHP eligible. Under contract to Pima County, SWCA Environmental Consultants has prepared the Phase I plan, entitled *Research Design and Plan of Work for Phase I Data Recovery Testing at AZ AA:12:11(ASM) and AZ AA:12:788(ASM) for the Sunset Road Project, I-10 to Silverbell Road, Pima County, Arizona*, by David Barr, Suzanne Griset, Jerome Hesse, and Paul Rawson, dated October 2013. A copy of this research design and plan of work is included with this consultation letter.

The Phase I data recovery testing is designed to determine the nature, extent and integrity of subsurface archaeological and geomorphological deposits. The intensity of effort within the Sunset Road APE is greater than within the area slated for future development. The reason for this is that Pima County will soon require Phase II data recovery within the Sunset Road APE, to the extent warranted based on the results of Phase I. Phase II data recovery within the Sunset Road APE will be the subject of a future and separate consultation with SHPO and will be conducted under a revised treatment plan and a different consultant contract than the Phase I work. The less intense Phase I data recovery within the area of future development is to provide a basis for prudent future planning, design, and development. Future development will likely be phased over a period of time. In this future development area, the County intends to use the information from Phase I data recovery to guide the placement of future facilities and infrastructure with the intent of cultural resource preservation to the extent that such preservation is viable and feasible. Any Phase II data recovery efforts within the area of future development will be the subject of future and separate consultations with SHPO and will be conducted under revised treatment plans, and different consultant contracts than the Phase I work and the Phase II Sunset Road APE work.

No federal nexus is currently identified for either the Sunset Road project or the potential future developments in the remainder of the Phase I project area. Should such a nexus be identified in the future, consultation will be conducted by the appropriate federal agency.

I request your concurrence with the following:

1. Adverse effect to sites AZ AA:12:11(ASM) and AZ AA:12:788(ASM),
2. The adequacy of the Phase I testing data recovery research design and plan of work (enclosed) to establish the nature, extent, and integrity of subsurface archaeological and geomorphological deposits within the project area,
3. That the Phase I testing data recovery research design and plan of work (enclosed) is adequate for monitoring geotechnical work within the Sunset Road APE, and
4. Pima County's commitment to Phase II data recovery, to be conducted in phased data recovery efforts over a number of years, first in the Sunset Road APE then later in areas within the proposed future development, in consultation with SHPO and interested parties, to mitigate the adverse effects to sites AZ AA:12:11(ASM) and AZ AA:12:788(ASM).

Concurrently, with this request for your concurrence, I am providing a copy of the Phase I research design and plan of work to the Nations, Tribes, and Arizona State Museum, as copied below, for their review.

If there are any questions regarding the Phase I testing data recovery research design and plan of work, please contact me at 520-724-6405 or Roger.Anyon@pima.gov

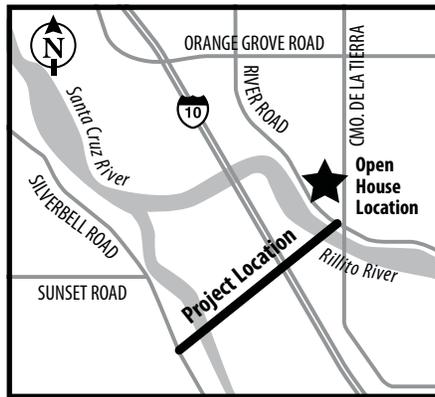
Sincerely,

A handwritten signature in black ink, appearing to be 'RA', with a long horizontal stroke extending to the right.

Roger Anyon
Program Manager

cc. (w/ enclosure)

Peter Steere, Tohono O'odham Nation
Caroline Antone, Ak-Chin Indian Community
Barnaby Lewis, Gila River Indian Community
Shane Antone, Salt River Pima-Maricopa Indian Community
Vernelda Grant, San Carlos Apache Tribe
Ramon Riley, White Mountain Apache Tribe
Christopher Coder, Yavapai-Apache Nation
Leigh Kuwanwisiwma, Hopi Tribe
Amanda Sampson Lomayesva, Pascua Yaqui Tribe
Nancy Pearson and Todd Pitezal, Arizona State Museum



Pima County Department of Transportation
Public Open House Meeting
**Sunset Road Project:
Silverbell Road to River Road**

Monday, June 9, 2014

6:00 P.M. to 7:30 P.M. • Presentation at 6:15 P.M.

Pima County Natural Resources, Parks and Recreation Dept.
3500 W. River Road, 1st Floor Conference Room



A new reach of Sunset Road is planned between Silverbell Road and River Road. It will consist of a three-lane roadway, one lane of travel in each direction with a two-way left-turn lane, as well as facilities for pedestrians and bicyclists. It will include appropriate auxiliary turn lanes at the intersections with Silverbell Road, the I-10 frontage roads and River Road. The project will be constructed in two phases.

The first phase is being referenced as Segment I – Sunset Road from Silverbell Road to the I-10 eastbound frontage road. This segment includes the construction of a new bridge across the Santa Cruz River along with an at-grade intersection with the existing I-10 eastbound frontage road.

The second phase, Segment II, will be developed to the Design Concept level only. This segment will connect the future reconstructed I-10 Interchange, cross over the existing Union Pacific Railroad tracks and then connect to River Road as an at-grade “T” intersection.

Representatives from Pima County will be available to answer questions and address concerns about the project. The meeting will be an open house format with a short presentation at 6:15 p.m. Maps and project information will be on display, and comment forms will be available. Individuals with disabilities who require accommodations for effective participation and communication in the meeting may call Julie C. Simon at (520) 724-6410 by June 2, 2014, to make appropriate arrangements. All meeting sites are accessible.



SUNSET ROAD PROJECT SILVERBELL ROAD TO RIVER ROAD Open House Monday, June 9, 2014



AGENDA

6:00 p.m. – 6:15 p.m. VIEW DISPLAYS

6:15 p.m. – 6:30 p.m. OVERVIEW AND ORIENTATION

Welcome and Introductions

- Jason Bahe, Project Manager, Pima County DOT

Opening Comments

- Joseph Cuffari, Representative
Supervisor Ally Miller's Office, District 1

Overview

- Jim Glock, Structural Grace, Inc.

6:30 p.m. – 7:30 p.m. OPEN HOUSE FORMAT

Pima County and the Regional Transportation Authority (RTA) are planning to reconstruct Sunset Road between Silverbell Road and River Road and the overall project has been divided into two segments.

Segment I: Sunset Road from Silverbell Road to the I-10 eastbound frontage road. This segment includes the construction of a new bridge across the Santa Cruz River along with an at-grade intersection at Silverbell Road and also at the existing I-10 eastbound frontage road.

Segment II: This future segment has been conceptually planned at this time. It will begin along the new Sunset Road alignment, approximately 1,200 feet west of the eastbound frontage road. Sunset Road will be elevated to match the future reconstructed I-10/Sunset Rd Traffic Interchange, and continue over I-10 and the existing Union Pacific Railroad tracks and then connect to River Road as an at-grade "T" intersection.

Current Schedule:

- Construction for Segment I is targeted for late Summer 2015 and the overall construction duration will be approximately 1 year.
- The construction for Segment II currently lies beyond the 5 year funding plan.

Contact Information:

Julie C. Simon, Program Coordinator
Pima County Department of Transportation
(520) 724-6566
E-mail: Julie.Simon@pima.gov

Jason Bahe, Project Manager
Pima County Department of Transportation
(520) 724-6522
E-mail: Jason.Bahe@pima.gov



Pima County Department of Transportation
PUBLIC OPEN HOUSE MEETING
Sunset Road: Silverbell Road to I-10

6-7:30 p.m. Thursday, October 30, 2014 – Presentation at 6:15
Pima County Natural Resources, Parks and Recreation Department
3500 W. River Road, 1st Floor Conference Room

The Pima County Department of Transportation and the Regional Transportation Authority (RTA) invite you to attend an open house for the Sunset Road improvement project. The purpose of this public meeting is to present the Environmental Assessment and Mitigation Report (EAMR) and the Design Concept Report (DCR) for Segment 1, from Silverbell to I-10, for review and comment.

Representatives from Pima County and the project team will be available to answer questions and address comments regarding the project. The public meeting will consist of a presentation at 6:15 p.m., followed by an open house format. Maps and project information will be on display. The EAMR will be available for review and public comments.

To be included in the EAMR, comments must be submitted at the meeting or no later than Wednesday, November 5, 2014, by mail to Julie C. Simon, Pima County Department of Transportation, 201 N. Stone Ave., 4th Floor, Tucson, AZ 85701; by fax to 520-724-6439; or by email to **Julie.Simon@pima.gov**.

For more information about the public meeting, visit **www.roadprojects.pima.gov**. Individuals with disabilities who require accommodations for effective participation and communication in the meeting may call Julie C. Simon with PCDOT community relations at **520-724-6566** by Friday, October 24, 2014, to make appropriate arrangements. All meeting sites are accessible.



SUNSET ROAD PROJECT SILVERBELL ROAD TO I-10 (SEGMENT I)



Open House Thursday, October 30, 2014

AGENDA

6:00 p.m. – 6:15 p.m. VIEW DISPLAYS

6:15 p.m. – 6:30 p.m. OVERVIEW AND ORIENTATION

Welcome and Introductions

- **Jason Bahe, Project Manager, Pima County DOT**

Opening Comments

- **Naomi Oku-Alonzo, Representative
Supervisor Ally Miller's Office, District 1**

Environmental Assessment & Mitigation Report Overview

- **Jim Glock, Structural Grace, Inc.**

6:30 p.m. – 7:30 p.m. OPEN HOUSE FORMAT

Pima County and the Regional Transportation Authority (RTA) are planning to reconstruct Sunset Road between Silverbell Road and I-10 (Segment I). This evening's public meeting will present the findings of the Environmental Assessment & Mitigation Report. Please note, a second project (Segment II) will extend Sunset Road over Interstate 10 and connect to River Road at a future date.

Segment I: Sunset Road from Silverbell Road to the I-10 eastbound frontage road. This segment includes the construction of a new bridge across the Santa Cruz River along with an at-grade intersection at Silverbell Road and also at the existing I-10 eastbound frontage road.

Current Schedule:

- Construction for Segment I is targeted for late Summer 2015 and the overall construction duration will be approximately 1 year.
- The construction for Segment II currently lies beyond the 5 year funding plan.

Contact Information:

Julie C. Simon, Program Coordinator
Pima County Department of Transportation
(520) 724-6566
E-mail: Julie.Simon@pima.gov

Jason Bahe, Project Manager
Pima County Department of Transportation
(520) 724-6522
E-mail: Jason.Bahe@pima.gov