

# Visual Assessment Report

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

PREPARED FOR



SUBMITTED TO



SUBMITTED BY

**WHEAT DESIGN GROUP**  
LANDSCAPE ARCHITECTS

500 N. Tucson Blvd., Ste. 150  
Tucson, AZ 85716

PCDOT Project No. 4RTSUN

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WDG Project No. 14902

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## 1.0 PURPOSE & METHODOLOGY

### 1.1 Purpose

The purpose of this Visual Assessment Report is to guide the design team in making design decisions regarding the appearance of the Sunset Road project. This report includes:

- Documentation of existing landscape elements that contribute to the character of the site, including vegetation, landforms, hydrological features and man-made structures.
- An assessment of potential visual impacts of the proposed roadway project on the surrounding area.
- Suggested mitigation strategies that will ensure the project is visually compatible with the surrounding community and natural environment. Typical mitigation considerations include planting density and location, plant species selection, texture and color of materials, placement of screening elements and incorporation of public art.

By understanding the potential ramifications of the project, the design team can make decisions that will improve the visual quality of the project area. This report should be used to develop strategies to refine the proposed project design prior to construction in order to mitigate possible adverse impacts to the character of the project area and its surroundings.

### 1.2 Methodology<sup>1,2</sup>

#### A. Describe the project area and setting.

The project limits and viewshed were delineated based on a review of preliminary (15%) plans from the roadway design team, aerial images of the northwestern portion of the Tucson basin, and on observations made during field visits.

#### B. Identify existing landscape features and document existing and future land uses.

This was accomplished through site visits and a review of aerial images and GIS map data from Pima County.

#### C. Identify and describe key elements of the proposed design that might impact the visual quality of the project area.

Identification of key elements of the proposed design was based on a review of preliminary (15%) plans from the roadway design team and on information gathered at coordination meetings with the civil and structural design team. Key elements include those elements proposed to be added to, modified, or removed from project area.

#### D. Identify user groups and key viewpoints.

User groups and viewpoints were determined based on site visits to the project area and the surrounding area. Selected viewpoints represent typical views that each unique user group may encounter.

#### E. Analyze and evaluate existing visual conditions at each viewpoint.

This included an assessment of the users, viewing conditions, setting and estimated project visibility.

#### F. Assess the impact of proposed project elements on existing visual conditions.

Photographs from project viewpoints showing an overlay of the project footprint are used as a tool to assess visual project impact. Components that will be modified, removed, and added to the viewshed were considered.

#### G. Propose mitigation strategies and treatment options based on the results of the Impact Assessment.

Mitigation strategies and treatment options are design ideas intended to minimize any anticipated adverse visual impacts of the proposed roadway project and enhance existing views to and from the site. Mitigation strategies address details such as texture and color of materials, the addition of screening elements at strategic locations, and the placement of focal features to guide views.

1 Jones, Grant and David Sorey. *Applying Visual Resource Assessment for Highway Planning*.

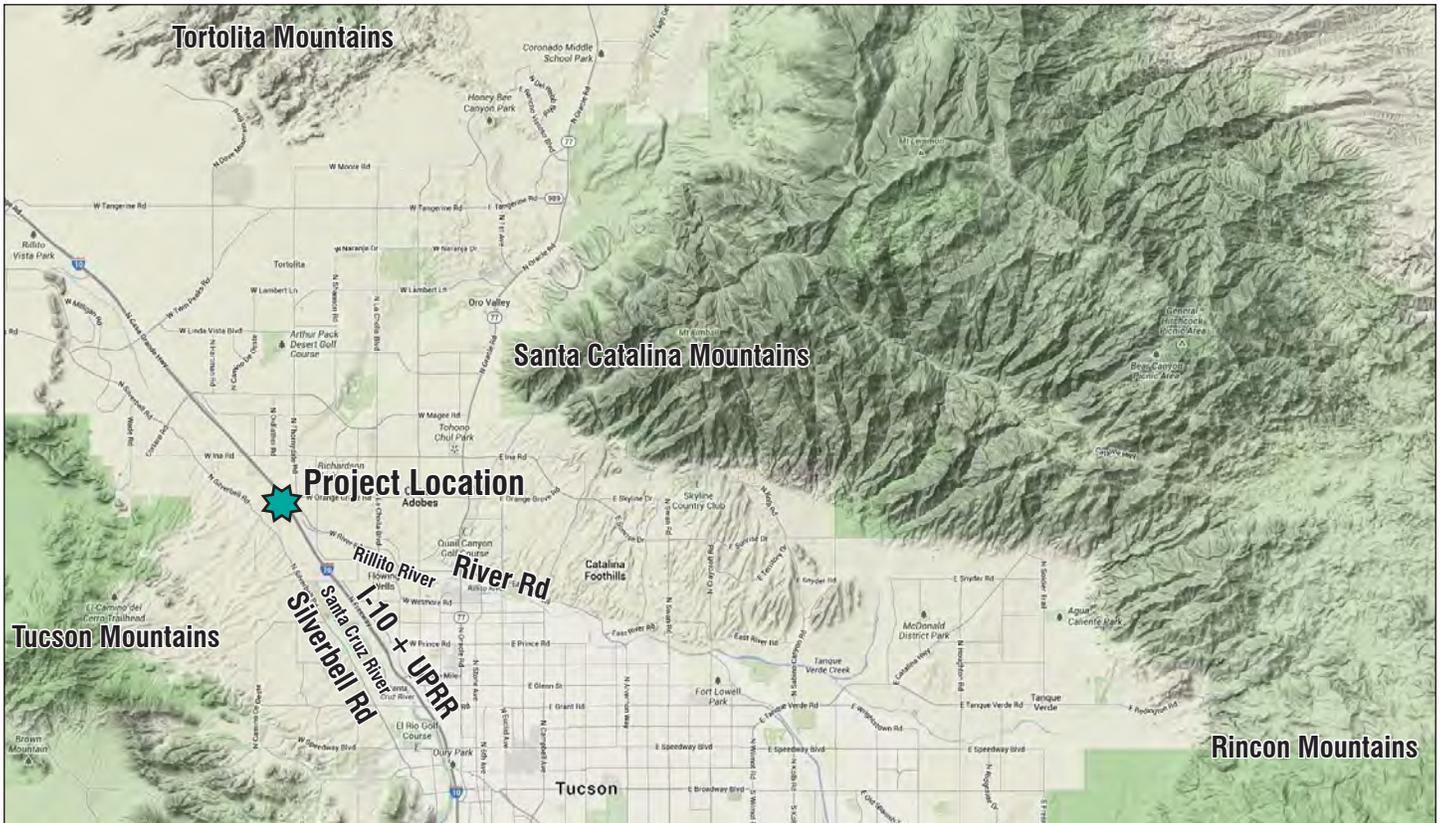
2 Pima County. *Roadway Design Manual*. 2010

## 2.0 PROJECT SETTING

### 2.1 Location & Context

The Sunset Road: Silverbell Road to Interstate-10 (I-10) Project is located in the northwest region of the Greater Tucson Basin. The Tucson Basin is surrounded by 5 main mountain ranges: Tortolita and Santa Catalina Mountains to the north, Rincon Mountains to the east, Tucson Mountains to the west, and Santa Rita Mountains to the south.

Currently, Sunset Road connects with Silverbell Road at a “T” intersection, extending west from Silverbell Road but not east from Silverbell Road. Sunset Road consists of a two-lane roadway classified as an urban collector.



### 2.2 Hydrological Features

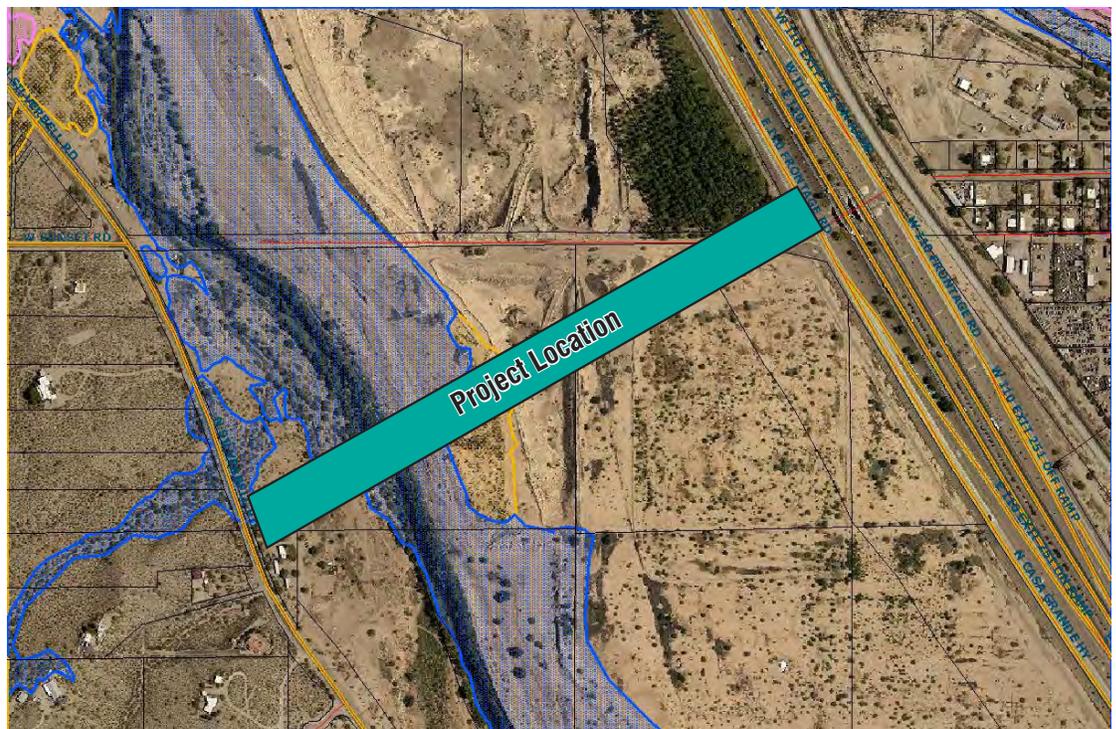
The project area lies between two perennially flowing rivers: the Santa Cruz and the Rillito. In addition, four unnamed ephemeral washes run through or adjacent to the project area. In the area where the proposed roadway will cross the Santa Cruz, the channel has a constant flow due to discharge from a water treatment facility upstream.

## 2.3 Vegetation

The project area is predominantly within the Arizona Upland subdivision of the Sonoran Desert Scrub plant community. Common indicator species for this plant community include mesquite, foothills palo verde, creosote, bursage, wolfberry, and brittlebush.<sup>3</sup> The project area also contains Xeroriparian C and Mesoriparian H riparian plant communities. Common species for these riparian areas along the Santa Cruz River include white thorn acacia, Goodding's willow, canyon hackberry, desert hackberry, saltbush, and graythorn.<sup>4</sup>

The project area and its surroundings are highly disturbed by prior agricultural activity and current mining activity, so plant density and variety is much lower than otherwise expected for these plant communities. In areas of Sonoran Desert Scrub, the design team noted that the predominant species are mesquite and creosote. Other indicator species listed above are present in very insignificant numbers or lacking altogether. In riparian areas, the design team noted the presence of Goodding's willow and saltbush, but other indicator species are lacking. In addition to these areas lacking expected variety of species, the design team observed the presence of several invasive species including giant reed, tamarisk, bermudagrass and Mexican palo verde.

-  MESORIPARIAN H
-  XERORIPARIAN C



Pima County GIS Map of Riparian Areas

## 2.4 User Groups

Users considered in this report are:

- Residents west of Silverbell Road
- Silverbell Road Motorists
- I-10 Motorists
- The Loop Recreation Users
- Future Anza Trail Recreation Users
- Future Sunset Road Users

<sup>3</sup> <http://www.fs.fed.us/database/feis/plants/shrub/parmic/all.html>

<sup>4</sup> Pima County Regional Flood Control District. 2011. Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines, Appendix B.

## 2.5 Speed Limits

Speed limits are one factor related to viewing condition. The speed at which a person is traveling affects how much of the landscape setting they notice. For example, stationary viewers have more time to view their surroundings and are likely to notice more detail. Alternatively, someone driving at 65 mph is much less likely to focus on elements of the landscape that are not immediately adjacent to the road.

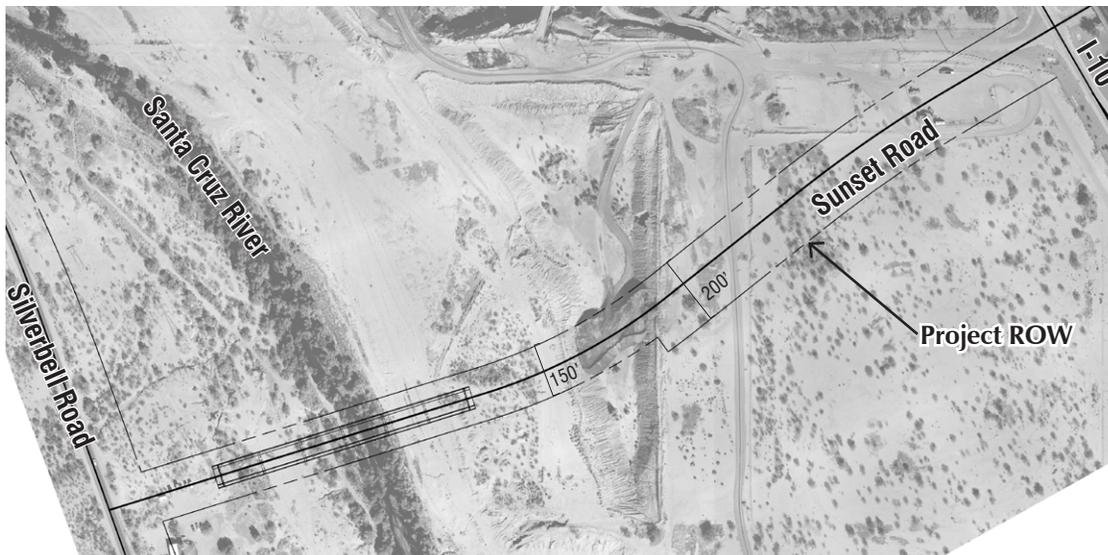
The existing posted speed limit on Sunset Road west of Silverbell Road is 35 mph. The posted speed on Silverbell Road and the I-10 frontage road is 45 mph. The posted speed on I-10 is 65 mph.

## 3.0 PROPOSED PROJECT DESCRIPTION

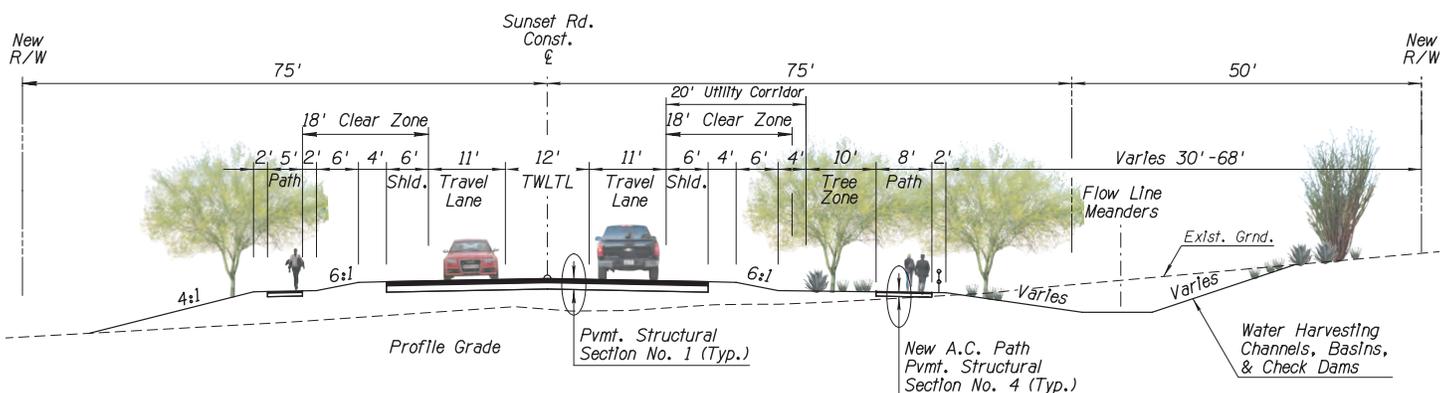
### 3.1 Roadway Alignment

Segment I includes a roadway connection between Silverbell Road and the Eastbound I-10 frontage road, including bike lanes and a bridge over the Santa Cruz River. The right-of-way for this project transitions from 150' to 200', as shown below. The Regional Transportation Authority (RTA) plan identifies Sunset Road as a three-lane roadway (one lane in each direction of travel with a two-way left-turn lane) with appropriate auxiliary lanes at the intersections with Silverbell Road and the eastbound I-10 frontage road.

Segment II, the final configuration, will continue the three-lane roadway from Silverbell Road to River Road.



Proposed Sunset Road Alignment



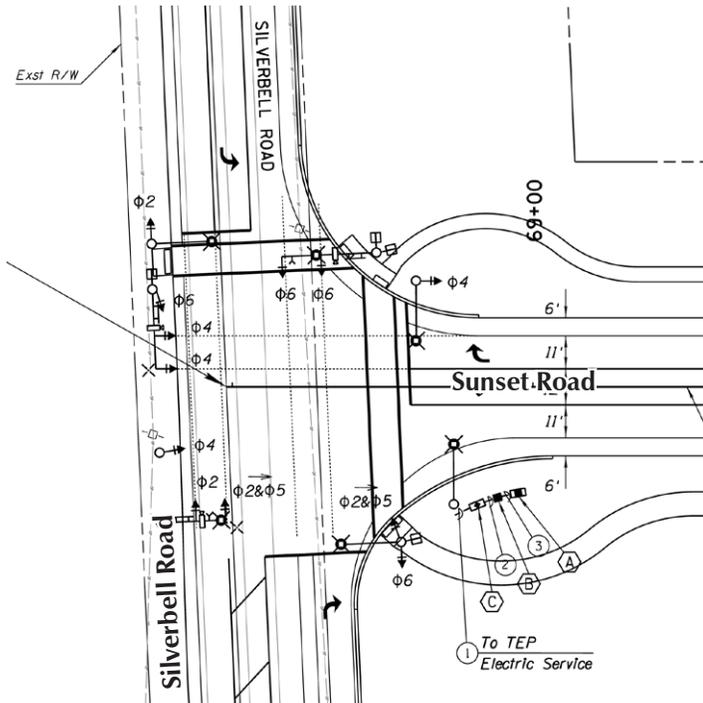
SUNSET ROAD  
TYPICAL SECTION  
Sta. 84+50.00 to Sta. 97+00.00

Proposed Sunset Road Cross Section, 200' ROW

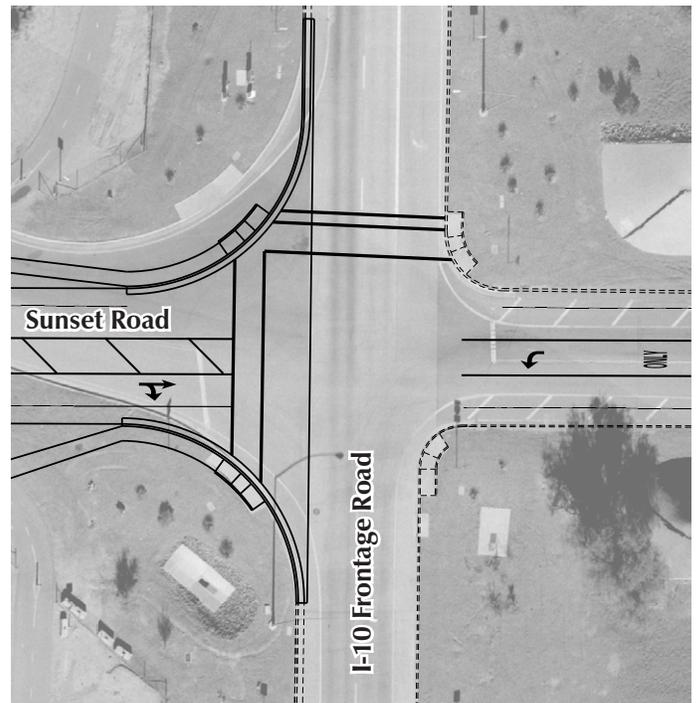
### 3.2 Intersections

#### 3.2.1 Vehicular

Traffic studies show the need for a signalized intersection at Silverbell Road and a stop intersection at the eastbound I-10 frontage road with free flow for traffic on Sunset Road; traffic traveling on Sunset Road will not need to stop. These conditions have been approved by Arizona Department of Transportation (ADOT).



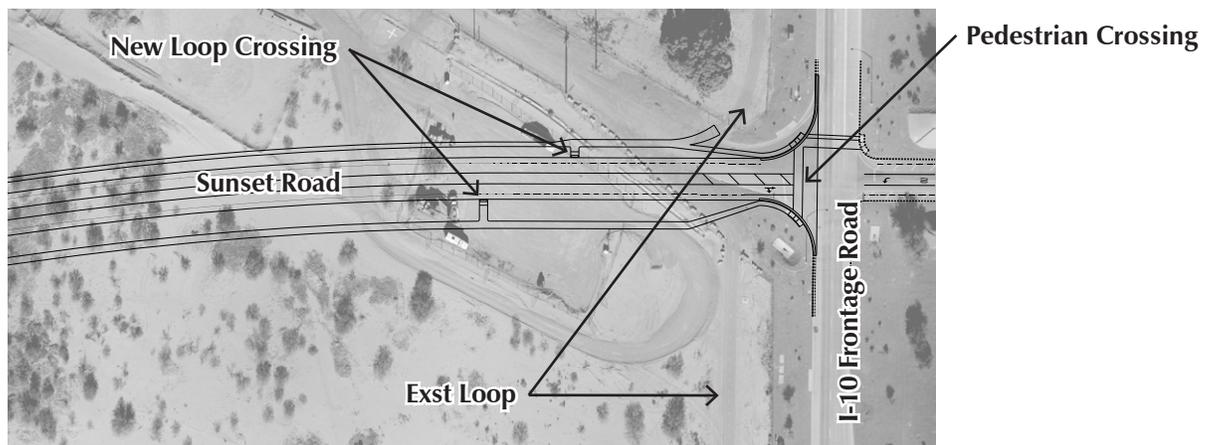
The intersection of Sunset Rd. and Silverbell Rd.



The intersection of Sunset Rd. and the I-10 Frontage Rd.

#### 3.2.2 The Loop

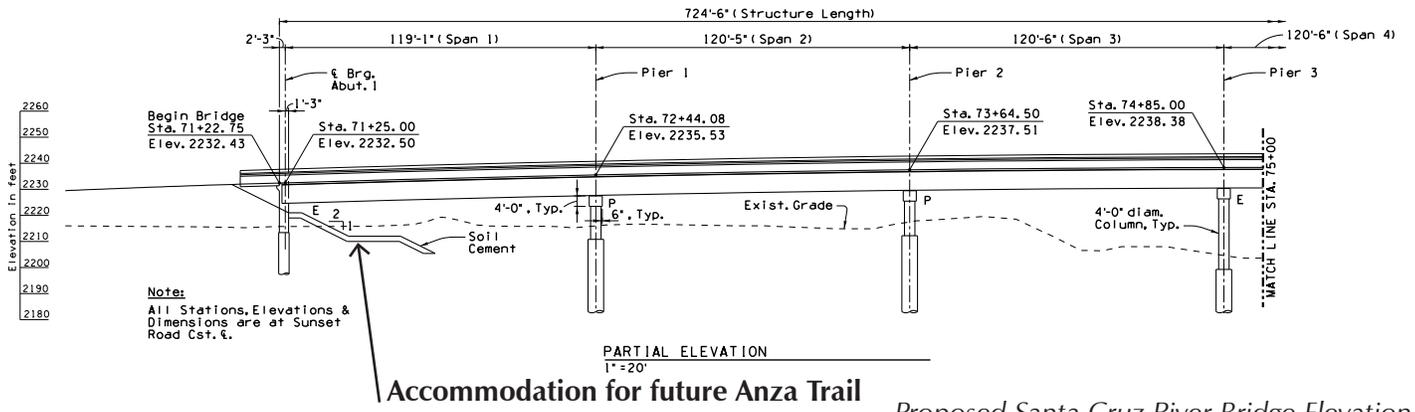
The Loop is a path system in Pima County for pedestrians, bicyclists, equestrians, and other non-motorized means of transportation, that currently includes over 100 miles of trails. The Loop currently crosses the Sunset Road alignment with a perpendicular intersection. There is no signalization. With the proposed alignment, bicyclists will merge onto Sunset Road and use the left turn lane to cross Sunset to the west of the I-10 Frontage Road intersection. Pedestrians will cross at a striped crosswalk at the I-10 Frontage Road intersection.



### 3.3 Santa Cruz River Bridge

The bridge over the Santa Cruz River will be 720 feet in length, designed to AASHTO standards (see section and perspective below). The proposed vertical alignment (on following page) indicates a 35 foot difference in elevation from the existing low flow bank of the Santa Cruz to the top of the roadway surface on the bridge. The existing grade increases to the east and west of the river. The difference in elevation from the upper banks of the river channel to the proposed roadway surface is roughly 18 feet (refer to diagram on following page).

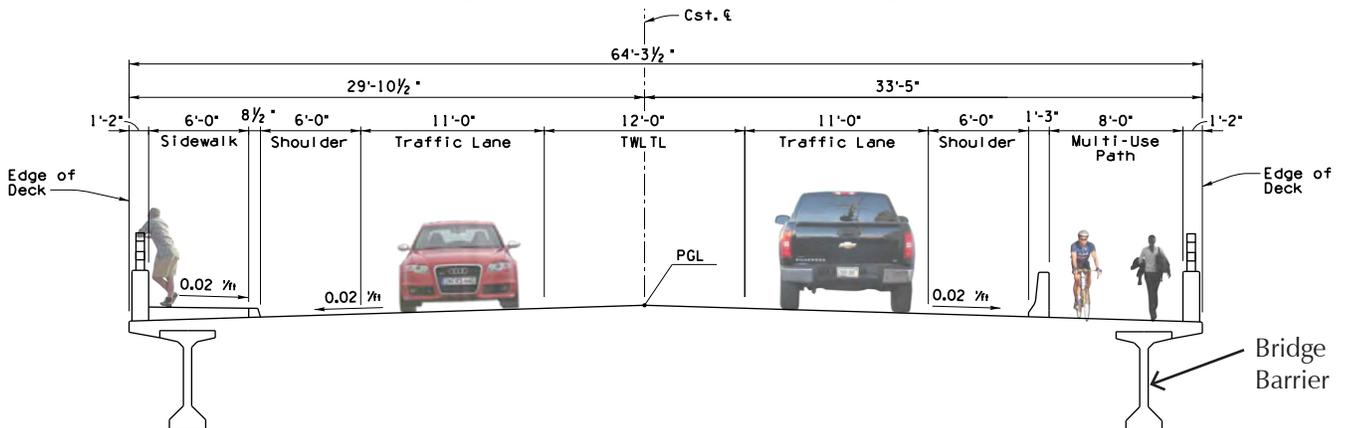
There will be adequate horizontal and vertical space for the future Anza Trail under the western end of the Santa Cruz River bridge (refer to Bridge Elevation, below).



Proposed Santa Cruz River Bridge Elevation



Conceptual Rendering of Proposed Santa Cruz River Bridge: View Southeast From Silverbell Road



Proposed Santa Cruz River Bridge Section

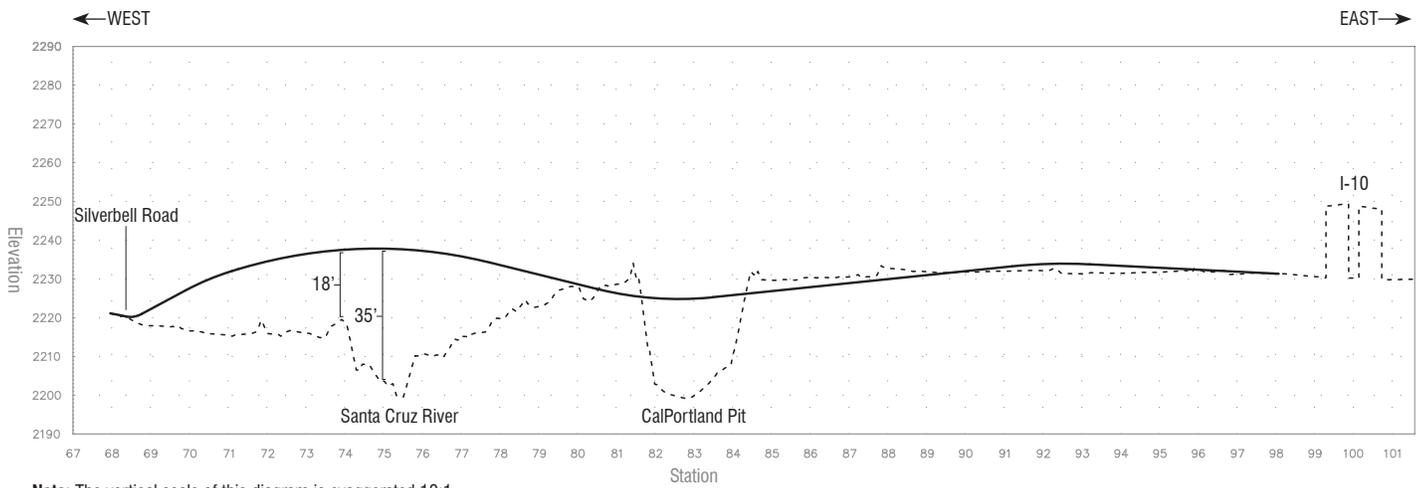
### 3.4 Site Grading

There are many areas of cut and fill along the length of the roadway. The most notable fill areas will be at the Santa Cruz River bridge abutments and in the southern CalPortland quarry pit. Otherwise, the vertical alignment diagrams show relatively little change in elevation along the eastern end of the project.

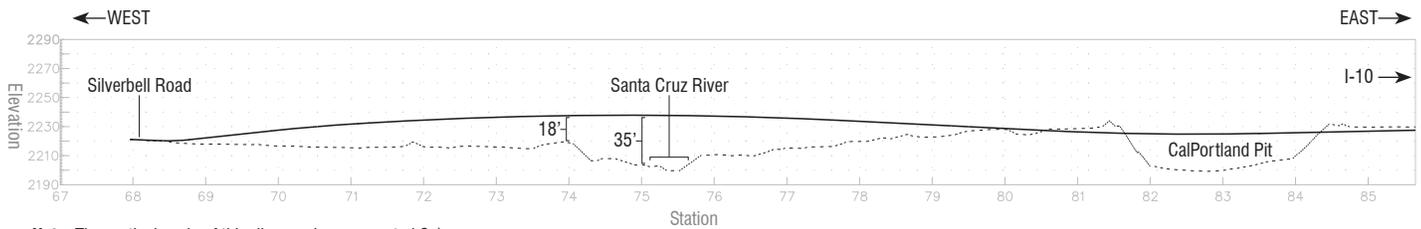
Fill slopes will be seeded with a mix of native plant species. Soil cement is planned for the west bridge abutment, and discussion is currently taking place regarding the need for soil cement at the east bridge abutment.

A series of check dams within the drainage channel are proposed along the south side of Sunset Road, east of the Santa Cruz River, to collect water sheet flowing from the south onto the project area, as well as collecting runoff from the roadway. The check dams are intended to infiltrate some of this water, reducing the amount that will empty into the Santa Cruz. Trees and other vegetation will be planted along the side slopes of the channel, making use of the water, and helping to integrate the project into the surroundings (see Proposed Sunset Road Cross Section, page 4).

The vertical alignment diagrams, below, depict the existing elevation in relationship to the proposed elevation along the Sunset Road centerline. The vertical scale of the first diagram is exaggerated by a factor of 10 in order to depict the entire length of the project. It shows that the most dramatic changes in elevation will occur along the west end of the project, over the Santa Cruz River. In order to depict the western end of the project more realistically, the second vertical alignment diagram shows only a portion of the roadway, and the vertical scale is exaggerated by a factor of 2.



*Proposed Roadway Vertical Alignment Diagram, Along Centerline of Sunset Road From Silverbell Road to I-10*



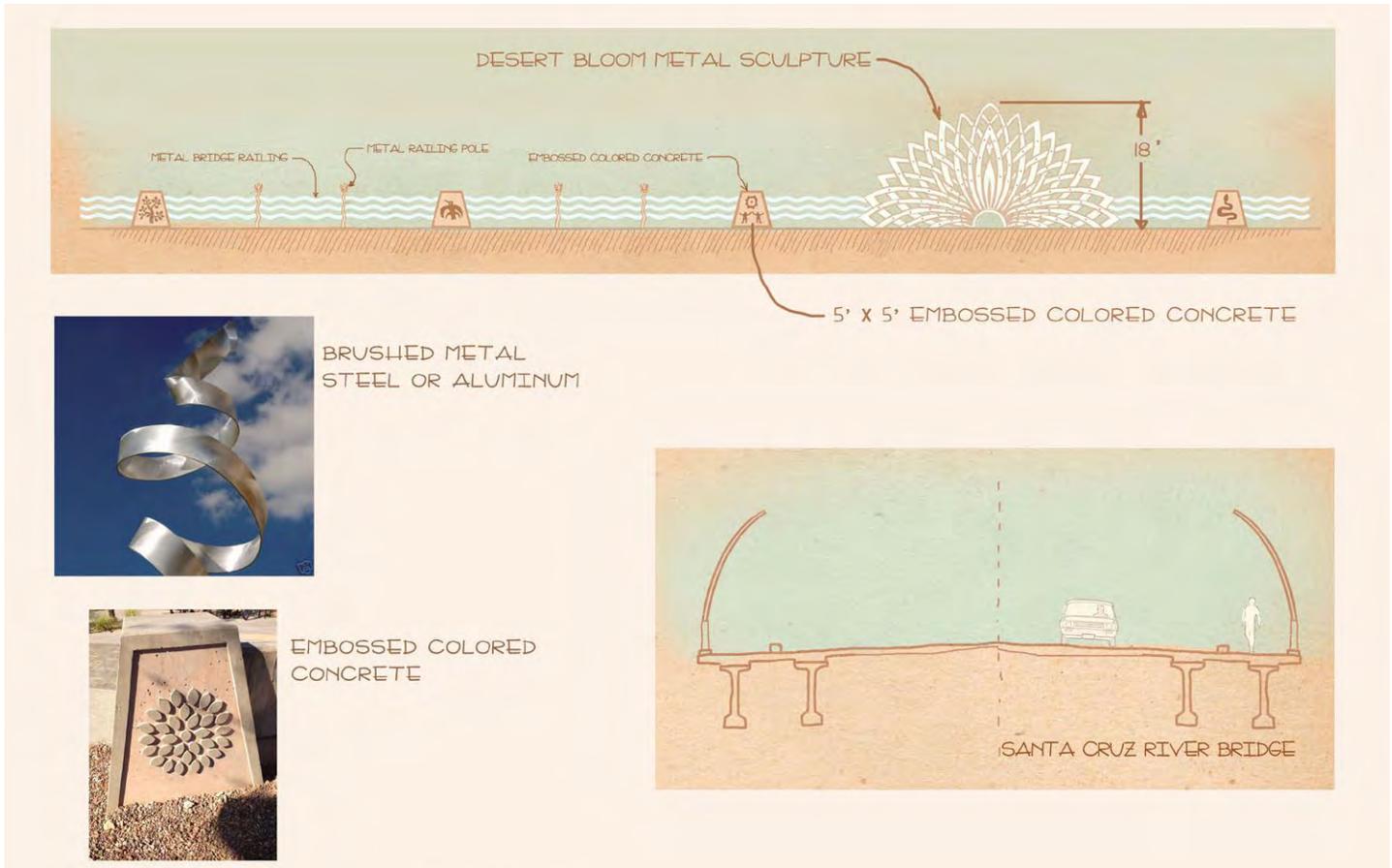
*Proposed Roadway Vertical Alignment Diagram, Along Centerline of Sunset Road From Silverbell Road to Station 86*

### 3.5 Bridge Artwork

Daniel Martin Diaz was selected as the artist to enhance the aesthetics of the proposed Santa Cruz River bridge.

The initial proposal from the artist includes two large metal sculptures to be placed on either side of the bridge, referred to as 'desert blooms' in the illustration above. The section drawing shows the sculptures curving slightly over the pedestrian areas of the bridge.

Other key features of the initial art concept include wavy metal railing and embossed concrete piers along the pedestrian walkways at the outer edges of the bridge. The 'desert bloom' sculptures and railing are proposed to be made of brushed steel or aluminum.



Preliminary Art Concepts

### 3.6 Overhead Utilities

TEP power poles between Silverbell Road and the Santa Cruz River will be raised from their current height to allow for adequate clearance between the new bridge and power lines as well as to facilitate bridge construction activities. As of the writing of this report, the new poles are anticipated to be 30' taller than the existing structures. Two existing lattice towers (left) will be replaced by mono-poles (right).

Additionally, TEP plans to remove their poles on the east side of Silverbell, and maintain overhead lines on the west side of Silverbell.



Lattice Tower

Mono-pole

### 3.7 Proposed Drainage Features

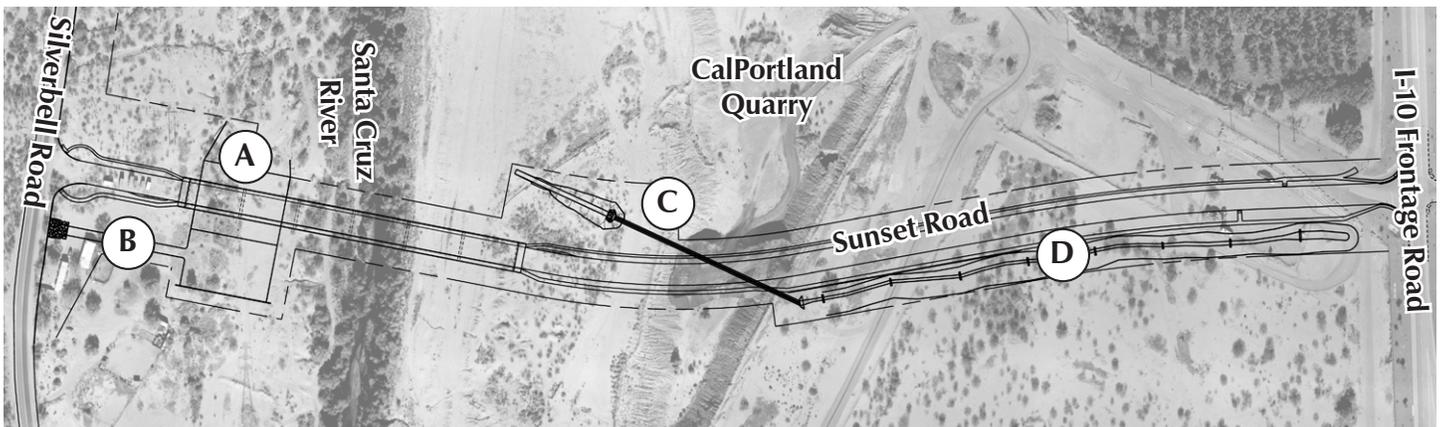
In addition to the channel along the south side of Sunset discussed in Section 3.4, several other drainage features are in development. Preliminary drainage concepts are referenced in the plan graphic, below. The drainage features will be prominent elements in the landscape, and visible from the roadway.

Area A: The existing ground surface of the west overbank of the Santa Cruz River that will be under the first two spans of the bridge will be lowered to accommodate the 100 year flow event. The intent is to adequately increase conveyance underneath the bridge to mitigate water surface elevation increases upstream of the proposed bridge which may result from the roadway embankment encroachment into the existing floodplain. Approximately 150' of overbank, both up and downstream, will be graded. The upstream edge of the excavation will slope gently to the excavated bottom. Any tree planting in this area will need to be coordinated with the design time in order to prevent reducing the amount of flow through this area.

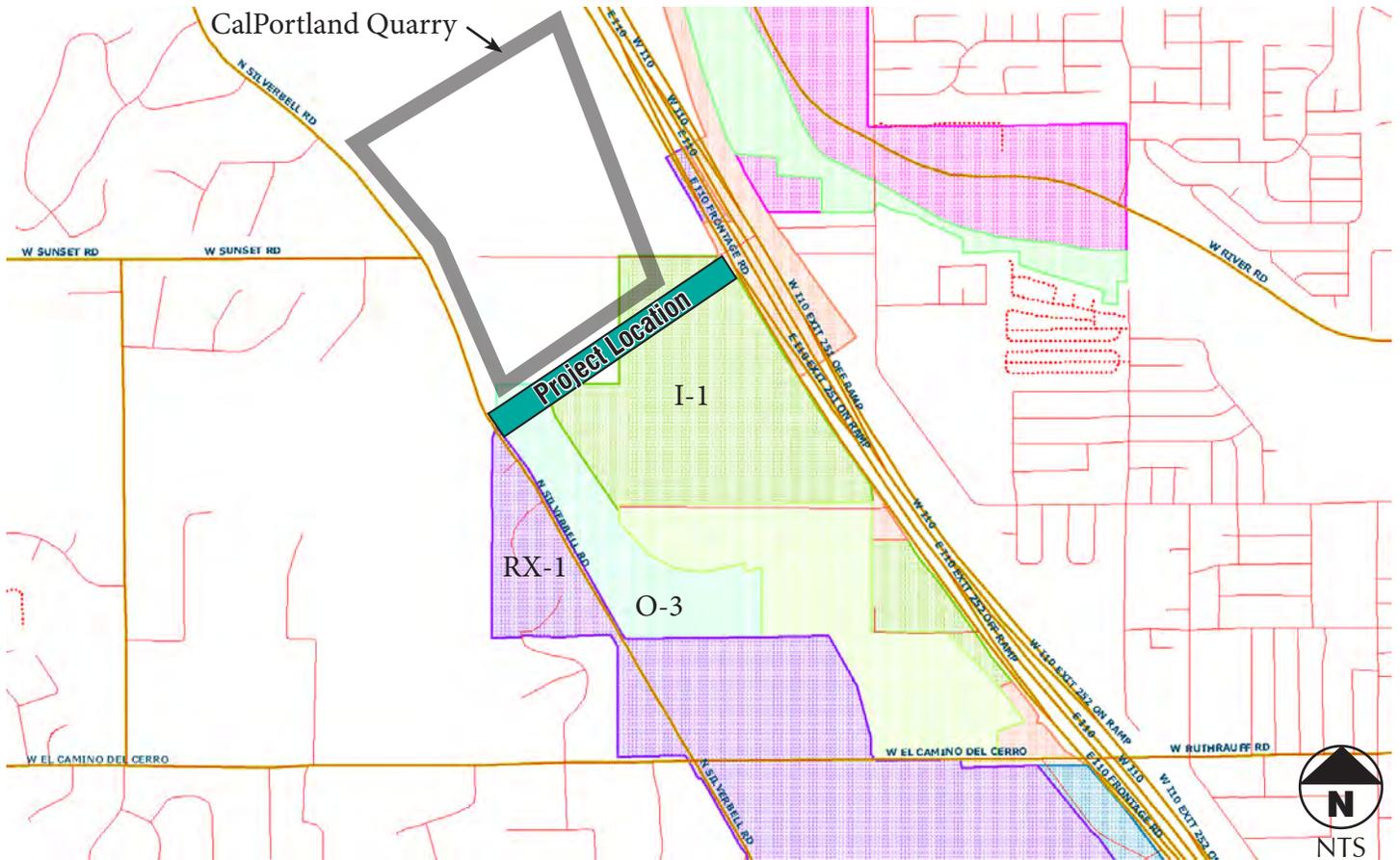
Area B: A 10-20' wide drainage channel is planned to convey stormwater runoff overtopping Silverbell Road to the Santa Cruz River.

Area C: Culverts underneath Sunset Road will convey excess stormwater to the Santa Cruz.

Area D: A series of check dams within the drainage channel are intended to slow stormwater flow, allowing for infiltration to support plant growth. Refer to the Proposed Sunset Road Cross Section in Section 3.1, and the description in Section 3.4 for additional information. The overflow is conveyed underneath Sunset Road, and outlets to the Santa Cruz River (refer to the Area C description, above).



Plan view showing approximate location of proposed drainage features.



#### 4.0 LAND USE PLANNING

##### 4.1 City of Tucson Zoning

City of Tucson zoning in the area near the project area includes a mix of residential, office, and industrial zones.

The Residence Zone (RX-1) to the west of Silverbell Road and south of the project area should be evaluated for visual impact of the project on these residents.

There is currently no development in the Office Zone (O-3) or the Industrial Zone (I-1) to the south of the project area to be assessed for visual impact. However, there is the potential for future office and industrial development in this area.

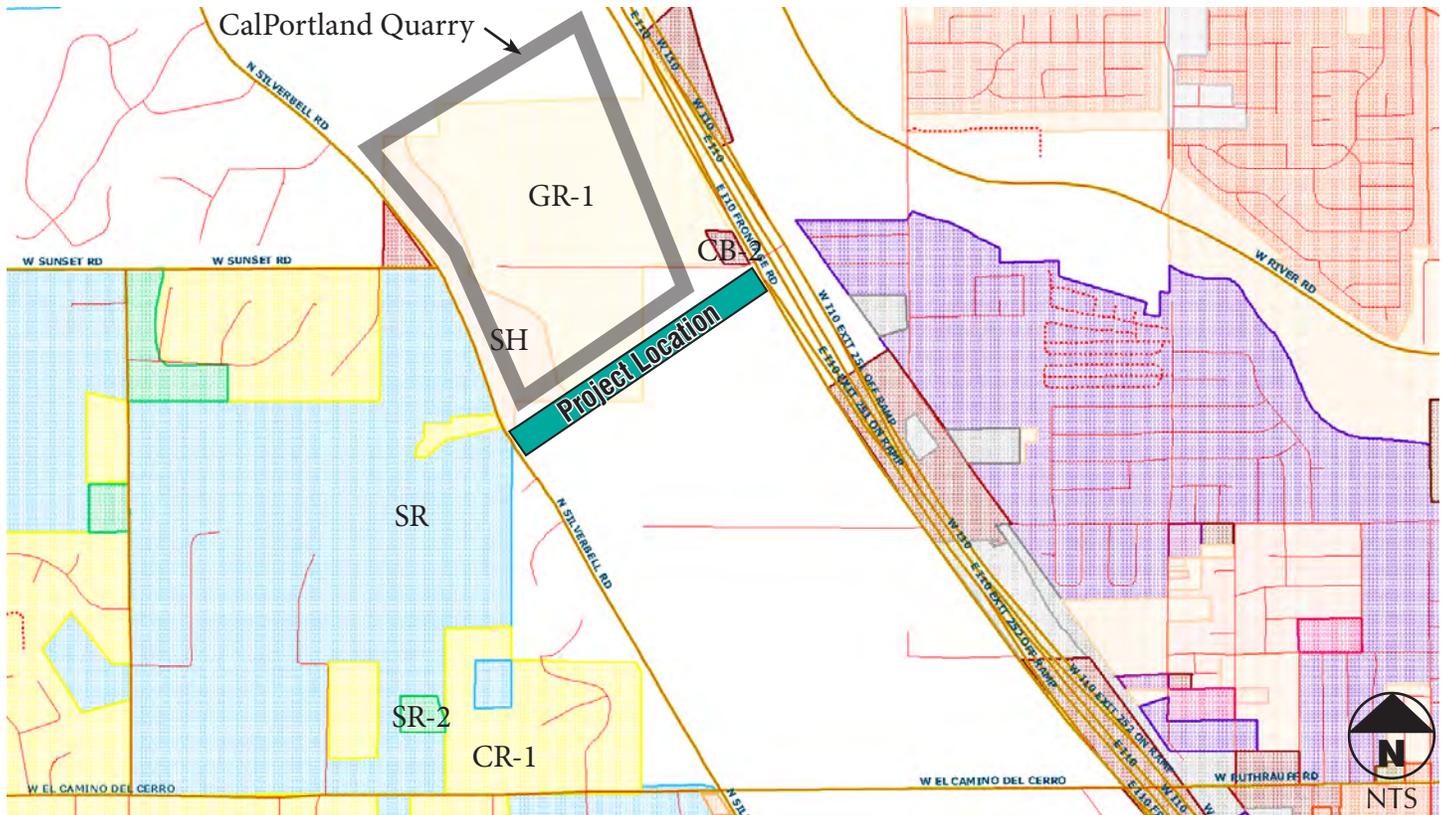
Zones to the east of I-10 will likely not be visually impacted by Segment 1 of the Sunset Road project, and will not be assessed as a part of this report.

##### 4.2 Silverbell Road Design Concept Study

A report prepared by Kittelson & Associates, Inc. describes proposed future conditions for the widening of Silverbell Road from Grant Road to Ina Road. In the vicinity of the Sunset Road project, Silverbell Road could potentially be 3' to 7' above existing roadway elevation. Such elevation changes could affect the views to and from the Sunset Road project.

#### City of Tucson Zoning Legend

 I-1	 C-2
 I-2	 SH
 O-3	 P-1
 RX-1	



### 4.3 Pima County Zoning

Pima County zoning in the area adjacent to the project area is characterized by a mix of residential zoning types.

There are Single Residence Zones (CR-1) and Suburban Ranch Zones (SR) to the west of the project area that should be evaluated for visual impact. At the time this report was written, many of these areas were being developed with new residential units. This is likely to increase in the future.

The Rural Residential Zone (GR-1) and Suburban Homestead Zone (SH) to the north of the project area is owned by Pima County and is currently the site of CalPortland mining activity. This land use has resulted in the creation of a large, deep pit as well as unvegetated berms surrounding the pit. The facility is highly visible from east of the Santa Cruz River. The facility is planned to remain in place for the next 15 years. While this area is ultimately zoned for residential use, there is currently no planned residential development in these zones.

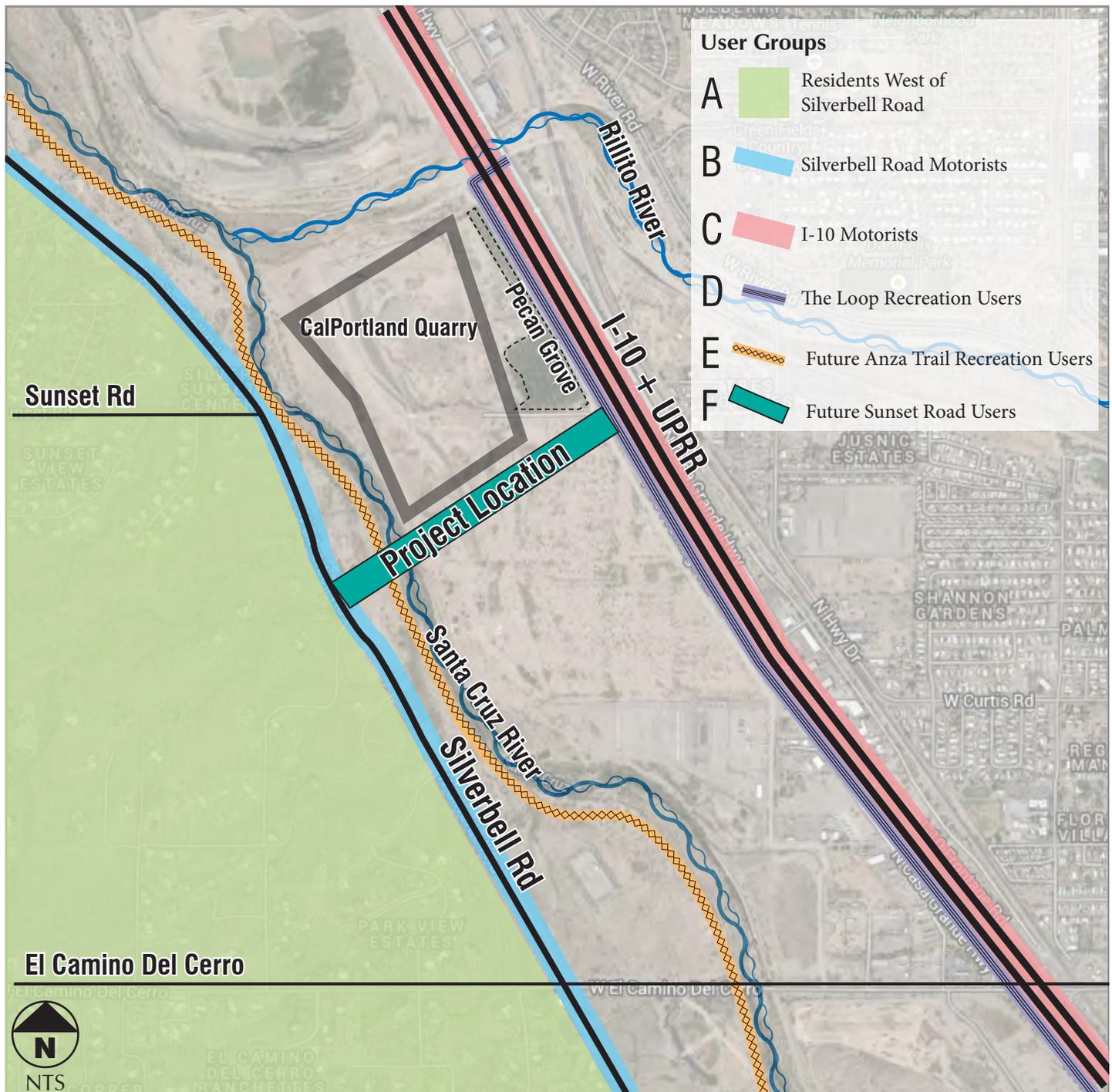
The General Business Zone (CB-2) to the north of the project area is also Pima County owned land. There are currently no businesses in that area to be evaluated for visual impact.

### 4.4 Future Land Use Concepts

The area to the south of the project has been discussed for possible use as the site of new public recreation facilities. These potential new facilities would introduce a range of new user groups to the area. Since these potential viewers are hypothetical, the project's impact on them has not been addressed by this report.

### Pima County Zoning Legend

 CR-1	 CB-1
 CR-2	 CB-2
 CR-4	 TH
 CR-5	 MU
 SR	 CMH-1
 SR-2	 CMH-2
 SH	 CI-1
 GR-1	 CI-2



## 5.0 OVERVIEW OF USER GROUPS & VIEWPOINTS

There are six user groups discussed in this report. Multiple viewpoints were selected for each user group in order to assess the project impact. Each viewpoint includes an overall description of the vegetation, natural landmarks, and cultural modifications (man-made structures such as buildings, roads, overhead utilities, etc.) present in the viewshed.

*NOTE: Project locations depicted on selected viewpoint photos are approximate and depict project end points, not height. In many photos either one or both of the project end points are not visible.*

**5.1 USER GROUP A**

Residents west of Silverbell Road

**5.1.1 Viewing Conditions**

- Travel speed of 0-35mph (neighborhood roads)
- Viewpoints at varied elevations
- Likely to expect/prefer scenic views

**5.1.2 Viewshed Description**

Elevated viewpoints in this area offer fairly unobstructed views of the Catalina, Rincon and Tortolita Mountains.

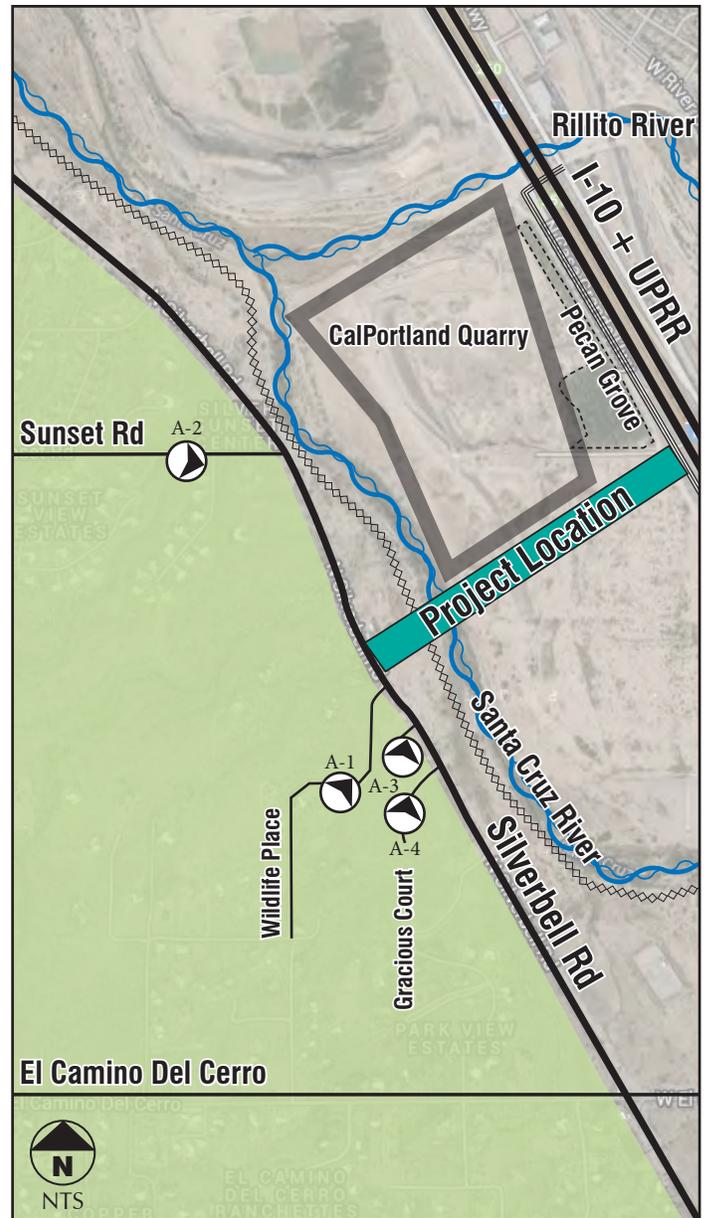
There is varied vegetation cover in the foreground, from sparse to dense, mostly made up of creosote and mesquite.

Overhead utilities are visible in the foreground and middleground of many viewpoints in this area. Other visible cultural modifications include low density residential structures, road signs, pecan grove and large unvegetated berms at the CalPortland quarry site, which are especially visible from some locations.

**5.1.3 Project Visibility**

Due to distance of the project area from this assessment area, the project area is considered to be in the middleground of this viewshed.

Visibility of the project area varies depending on elevation. At higher elevation viewpoints the pecan grove, large berms at the CalPortland quarry site, and the project are moderately to highly visible (see A-1 and A-4 for examples). At lower points along the road, vegetation along the Santa Cruz River screens views to the project area, I-10, and the berms at the quarry. From viewpoint A-3, for example, neither of the project tie-in locations are visible.



VIEWPOINT A-1: View northeast from elevated viewpoint along Wildlife Place, west of Silverbell Road



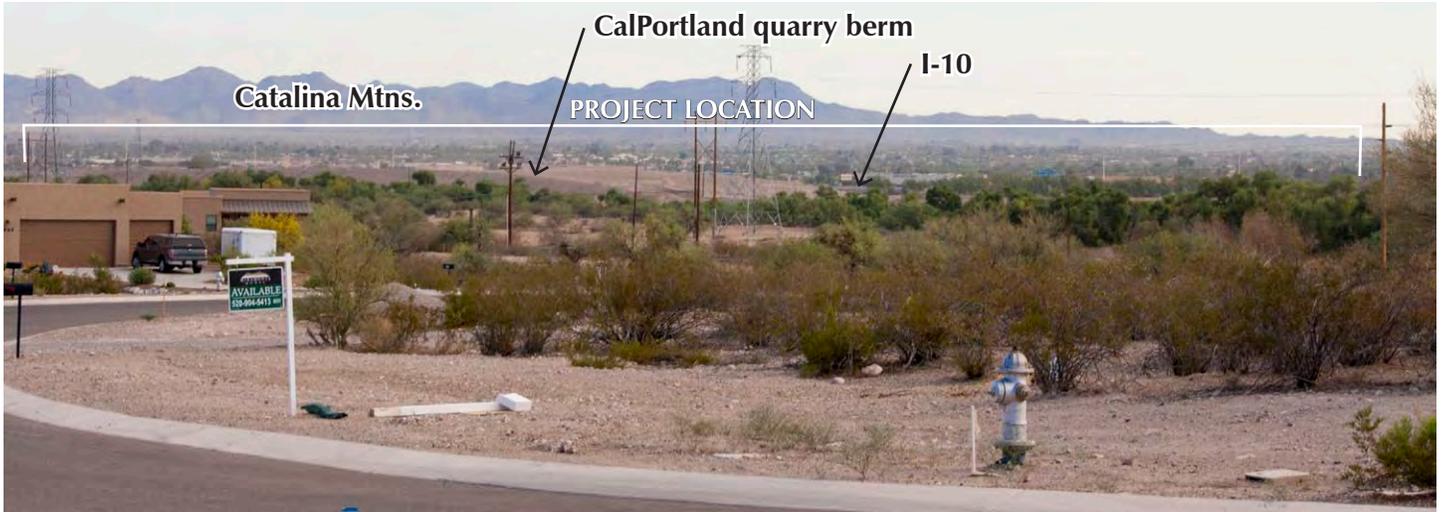
VIEWPOINT A-2: View east from elevated viewpoint along Sunset Road west of Silverbell Road



VIEWPOINT A-3: View northeast from residences on Kiley Court

The project is obscured by ridges in the foreground from certain viewpoints within this residential area. The photos taken from viewpoints A-1 and A-2 are examples where a foreground ridge blocks views to Silverbell Road and to the west end of the project area.

Project visibility also depends on viewer speed. As this is a residential area, viewers may range from being stationary to traveling in a vehicle up to 35 mph on neighborhood roads. Stationary viewers are more likely to notice changes in the viewshed.



VIEWPOINT A-4: Elevated view northeast from residences along Gracious Court

Viewpoint A-4 is at the end of the Gracious Court cul-de-sac, which is at a higher elevation than Silverbell Road. From here, residents may have a distant view of Sunset Road where it ties into I-10. From various points along this residential road, the project connection at Silverbell Road is screened by houses and foreground vegetation. The project will likely not impact mountain views from this viewpoint and other similar higher elevation viewpoints.

**5.2 USER GROUP B**  
Silverbell Road motorists

**5.2.1 Viewing Conditions**

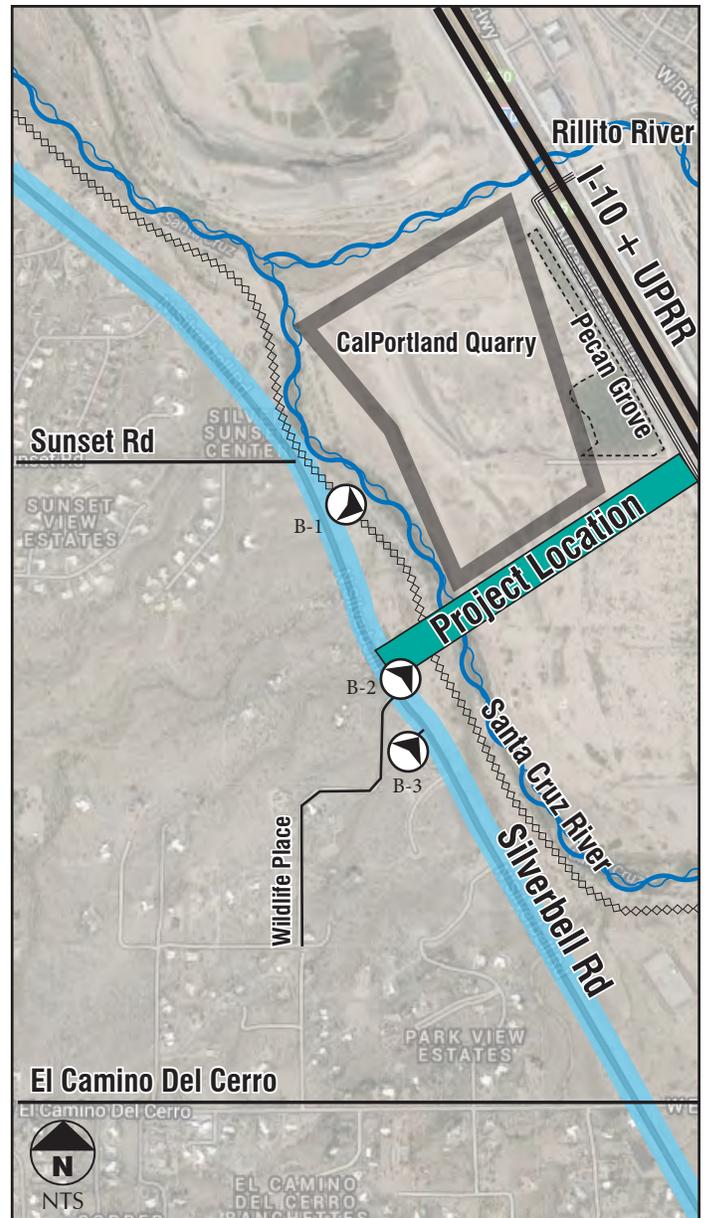
- Travel speed of 45mph
- Viewpoints at elevations similar to project area
- Likely to prefer scenic views

**5.2.2 Viewshed Description**

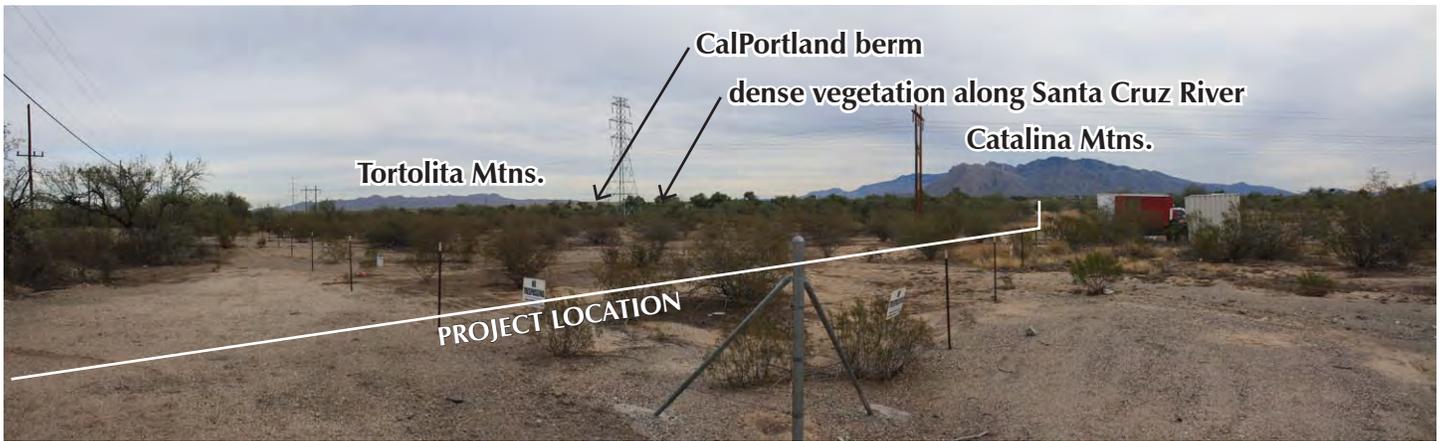
The Catalina Mountains are clearly visible from many points along Silverbell Road. The Rincon and Tortolita Mountains are often screened by vegetation along the Santa Cruz River and by the CalPortland quarry berm.

In some areas along Silverbell Road, the vegetation cover in the foreground is sparse, mostly made up of creosote and mesquite. In areas where small drainages meet Silverbell Road, the vegetation is more dense.

Overhead utilities running parallel to Silverbell Road are visible in the foreground and middleground of many viewpoints in this area. Other visible cultural modifications include low density residential structures, barbed wire fences, road signs, pecan grove, and large unvegetated berms at the CalPortland quarry. The berms and I-10 are mostly screened by vegetation along the Santa Cruz River.



VIEWPOINT B-1: View southeast from Silverbell Road



VIEWPOINT B-2: View northeast from Silverbell Road near project tie-in location



VIEWPOINT B-3: View northeast from west side of Silverbell Road, near Kiley Court

### 5.2.3 Project Visibility

Due to distance of the project area relative to Silverbell Road motorists, the project area is considered to be in the middleground of this viewshed until a motorist reaches the project connection to Silverbell Road. At this point the project will then be a prominent part of the foreground.

Visibility of the project area varies within this area as roadway elevation varies. At higher elevation viewpoints the pecan grove, large berms at the CalPortland quarry site, and the project are moderately to highly visible. At lower points along the road, vegetation along the Santa Cruz River screens views to the project area, I-10, and the berms at the quarry.

Project visibility also depends on viewer speed. As this is a roadway with a moderate speed limit, viewers are likely to focus more closely on landscape features proximal to the roadway. Changes in the project area may have low to moderate visibility for these users.

**5.3 USER GROUP C**

I-10 motorists

**5.3.1 Viewing Conditions**

- Travel speed of 65mph
- Viewpoints at varied elevations

**5.3.2 Viewshed Description**

The Tucson Mountains are clearly visible to the west from many points along I-10. The vegetation cover in the foreground is sparse due to disturbance associated with interstate construction. Beyond the disturbance of the interstate, vegetation is also sparse due to other disturbances in the area, including grazing.

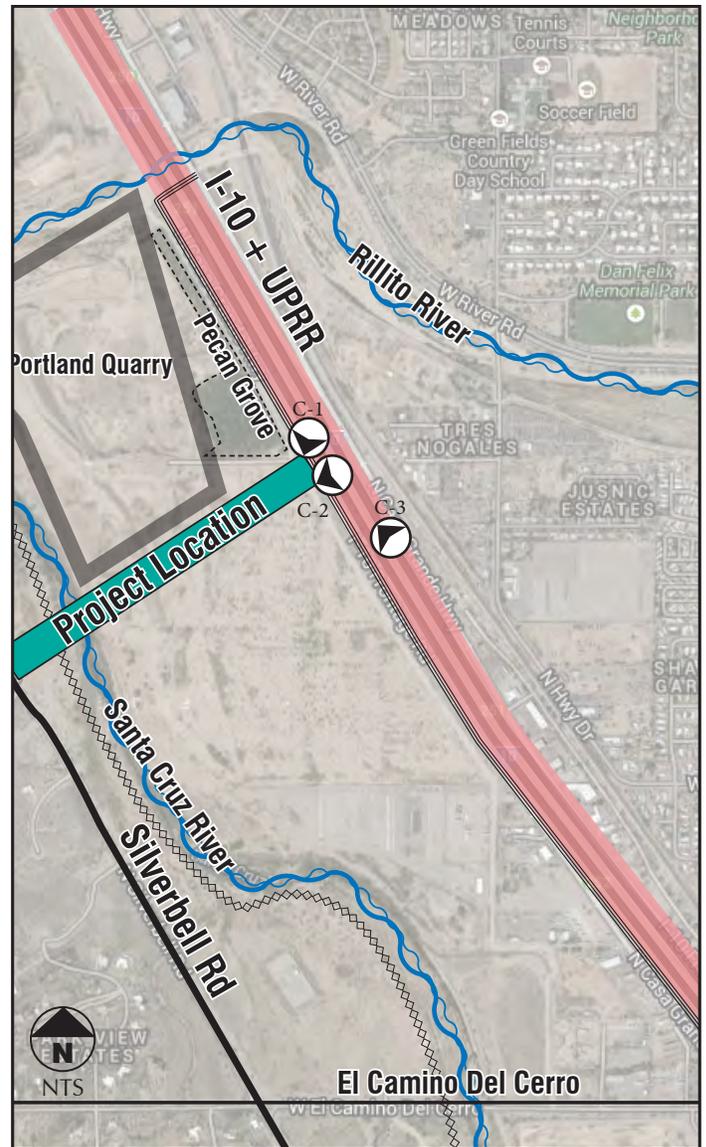
Street lights are visible in the foreground and middleground along much of the freeway. Other visible cultural modifications include interstate access control fencing, frontage roads, roadway signs, billboards, the CalPortland quarry, and low density residential structures in the background.

**5.3.3 Project Visibility**

Due to the high speed of travel of these viewers, project visibility is minimal.

From eastbound I-10, the project area is largely obscured by the pecan grove.

Vegetation within the interstate median blocks some views to the project area for westbound drivers.



VIEWPOINT C-1: View southwest from I-10



VIEWPOINT C-2: View west from I-10



VIEWPOINT C-3: Google street view image westbound I-10 from south of the project area

**5.4 USER GROUP D**

The Loop recreation users

**5.4.1 VIEWING CONDITIONS**

- Travel speed of 0-15 mph
- Likely to prefer/expect scenic views

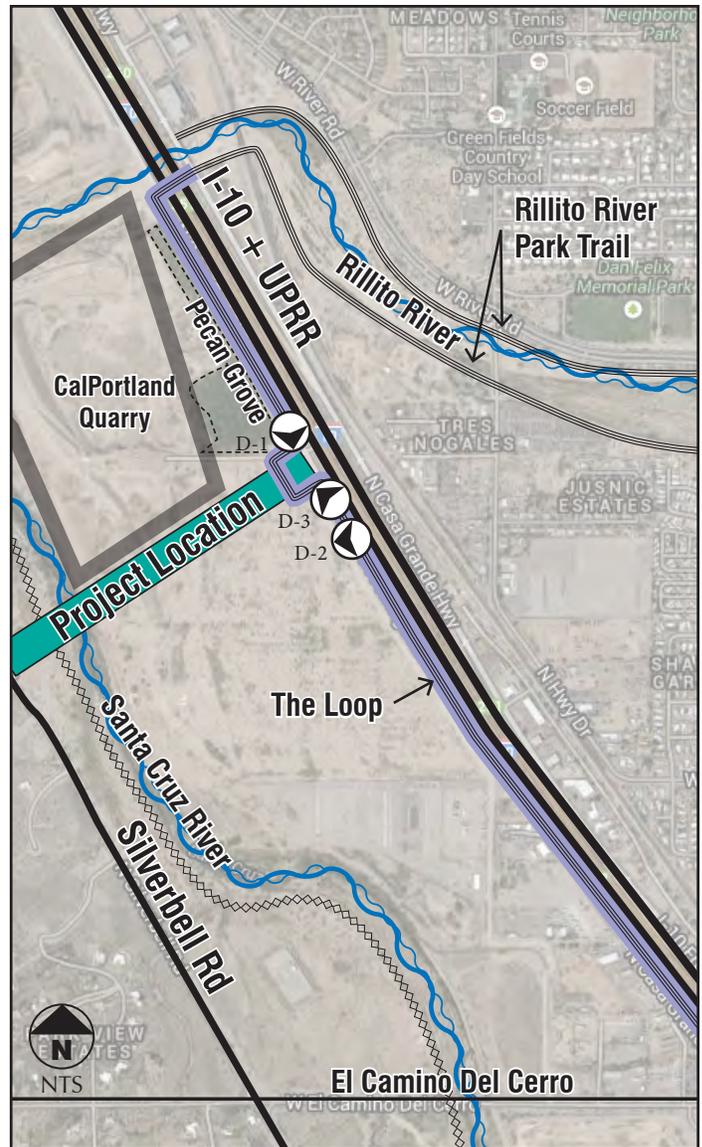
**5.4.2 VIEWSHED DESCRIPTION**

The Loop is a path system in Pima County for pedestrians, bicyclists, equestrians, and other non-motorized means of transportation, that currently includes over 100 miles of trails. The Santa Cruz River Park is a portion of The Loop that intersects the project area. It currently runs parallel to the I-10 Frontage Road and connects to the Rillito River Park to the east of I-10.

As part of this project, The Loop will be re-aligned where the path intersects the proposed Sunset Road at the I-10 Frontage Road in order to reduce potential conflict between motorists and non-motorists. Refer to Section 3.2.2 for a description of the proposed re-alignment.

Ultimately the County plans to realign this section of The Loop along the east side of the Santa Cruz River. The Loop currently follows the east bank of the Santa Cruz River south of Camino del Cerro and north of Cortaro Road. At the time of this report, there is no set time frame for realignment. The timeframe is dependent on future ADOT widening of I-10 in the area as well as Pima County funding. For the purposes of this report, the viewshed for Loop Users is described in its current condition.

Loop users will be most affected visually where the loop crosses Sunset. Users will now be able to look directly



Viewpoint D-1: View south along The Loop path. The Sunset Frontage Road tie in is visible in the distance. The proposed Sunset Road will be screened by the grove of pecan trees for Loop users heading south.

west along Sunset Road. The clearing of vegetation for the project construction will open views to the west (refer to view D-2).

From the northeast of the project area, the surrounding mountain ranges are obscured by cultural modifications in the landscape, including I-10 and the pecan grove. From other viewpoints in the area, there are fairly unobstructed views of the Tucson Mountains to the west. There are some views of the Santa Rita Mountains to the south in the far distance.

To the east, vegetation cover in the foreground is sparse due to disturbance associated with interstate



Viewpoint D-2: View west from The Loop path. Vehicles traveling along Sunset Road will be visible to Loop users.



Viewpoint D-3: View northwest along The Loop path

construction. To the west, the pecan grove offers lush vegetation cover and screens views of the quarry for southbound The Loop users. Vegetation along the Santa Cruz River screens residential development to the west.

Along much of The Loop, the I-10 embankments are highly visible in the middleground. Other visible cultural modifications include street lights, fencing, the frontage road, roadway signs, billboards, the CalPortland quarry, and low density residential structures.

### 5.4.3 Project Visibility

Viewers are traveling at low speeds, so they are able to look around and take in their surroundings for longer periods of time. Therefore, the project area is moderately to highly visible. However, project visibility varies depending on foreground vegetation density. For example, for users traveling south toward the project area, the project area is almost completely screened by vegetation until users reach the frontage road tie-in

location (see view D-1). For users traveling north toward the project area, however, the east end of the project area is more visible due to sparser vegetation (see view D-3). The west end of the project is screened by dense vegetation along the Santa Cruz River (see view D-2). From this vantage point, the roadway and bridge east of the Santa Cruz will be highly visible as users travel along the new roadway for short distances before and after crossing the new roadway (refer to Section 3.2.2 for detailed plan drawing).

**5.5 USER GROUP E**

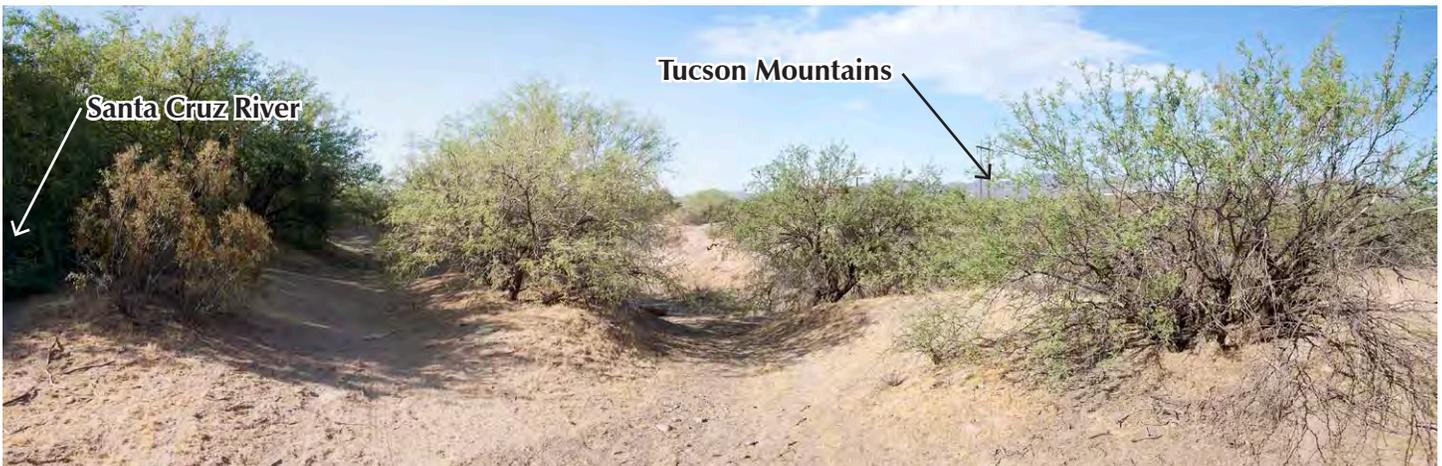
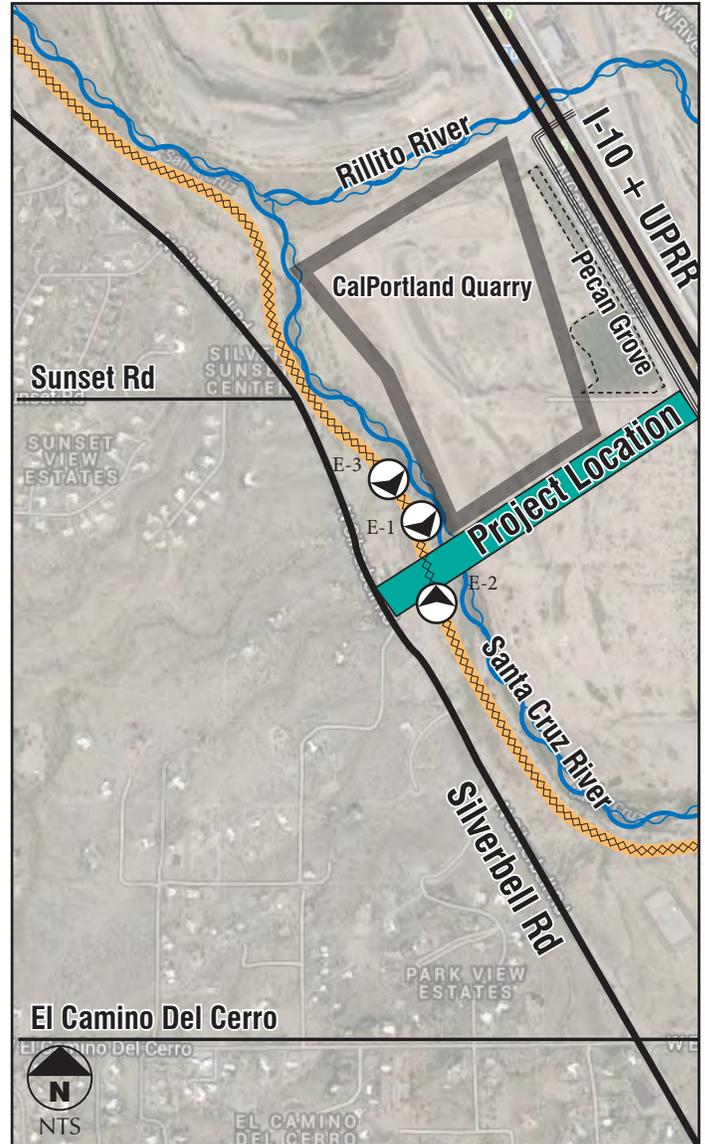
Future Anza Trail recreation users

The Juan Bautista de Anza National Historic Trail is a 1,210-mile National Park Service Historic Route which follows the original path of the Anza expedition (beginning in Tubac and ending in San Francisco). The Juan Bautista de Anza project is an ongoing and growing effort between local and state agencies and the National Park Service to establish trails, signage, and interpretive programs. Portions of the route can currently be experienced by either driving or hiking.

A portion of the Anza Historic Route follows the alignment of the Santa Cruz River through Pima County. Pima County is planning (timeframe dependent on project funding) to develop the trail for recreational use, following the standards established for The Loop. The alignment will follow the western bank of the Santa Cruz River through the Sunset Road project area, and will be routed under the west end of the future Sunset Road Bridge. The Bridge will be a significant visual element for future trail users. Viewpoints selected are along the assumed alignment of the trail.

**5.5.1 Viewing Conditions**

- Travel speed of 0-15 mph
- Viewpoints at elevations similar to project area
- Likely to expect/prefer scenic views



VIEWPOINT E-1: View southeast near proposed Santa Cruz River bridge location. In the future trail users will proceed south by going under the Sunset Road bridge. The exact location of the trail is not known at this time, but we assume users will experience lush views of the Santa Cruz River vegetation to the east, and more sparsely vegetated views to the west.



VIEWPOINT E-1: View southeast near proposed Santa Cruz River bridge location



VIEWPOINT E-2: View north from south of proposed Santa Cruz River bridge



VIEWPOINT E-3: View southeast from north of proposed Santa Cruz River bridge

### 5.5.2 Viewshed Description

The surrounding mountain ranges are partially screened by vegetation in the foreground, which is made up of creosote, mesquite, and willows. The density of vegetation is due in part to the proximity of the Santa Cruz River.

Overhead utilities running parallel to Silverbell Road are visible in the foreground and middleground of many viewpoints in this area. Other visible cultural modifications include low density residential structures. The pecan grove, I-10, and large unvegetated berms at the Cal Portland quarry are partially screened by vegetation along the Santa Cruz River.



Example of view through gap in vegetation along Santa Cruz River

### 5.5.3 Project Visibility

The project area is considered to be in the middleground of this viewshed until users approach the Santa Cruz River bridge. Near the proposed bridge location, the project area becomes part of the foreground and is highly visible. In view E-1 the bridge will likely be overhead, and much of the vegetation will have been cleared for project construction. Depending on the time frame of trail implementation, new vegetation, planted as part of the Sunset Road project, may have matured. In view E-2, the bridge won't be directly overhead but will be highly visible.

As this is a recreational trail, viewers may range from being stationary to traveling at a speed of about 15 mph. At low speeds, viewers have more time to take in surrounding visual conditions compared to motorists. This means that the potential impact of the project is greater for these types of users.

There is varied topography along the Santa Cruz River, which often blocks views of the project site. View E-3 is a good example of the varied topography. From this particular viewpoint, the bridge may be only slightly visible.

Vegetation density is also varied. At Viewpoint E-1 for example, vegetation is dense, so the project location is not visible. At Viewpoint E-2, vegetation is more sparse and the project tie-in locations are visible in the distance. While there are more open views to the project area, as pictured to the right, these would be fleeting views as someone moved along the trail.

The bridge will be highly visible for all trail users as they approach it from either north or south in order to pass underneath it. As part of this project, a soil cement embankment is being constructed with sufficient space to accommodate the future trail underneath the west end of the bridge. Refer to section 3.3 which shows the proposed location of the Anza Trail underneath the bridge.

**5.6 USER GROUP F**

Future Sunset Road users

**5.6.1 Viewing Conditions**

- Travel speed of 0-45 mph
- Viewpoints along the length of the project area

**5.6.2 Viewshed Description**

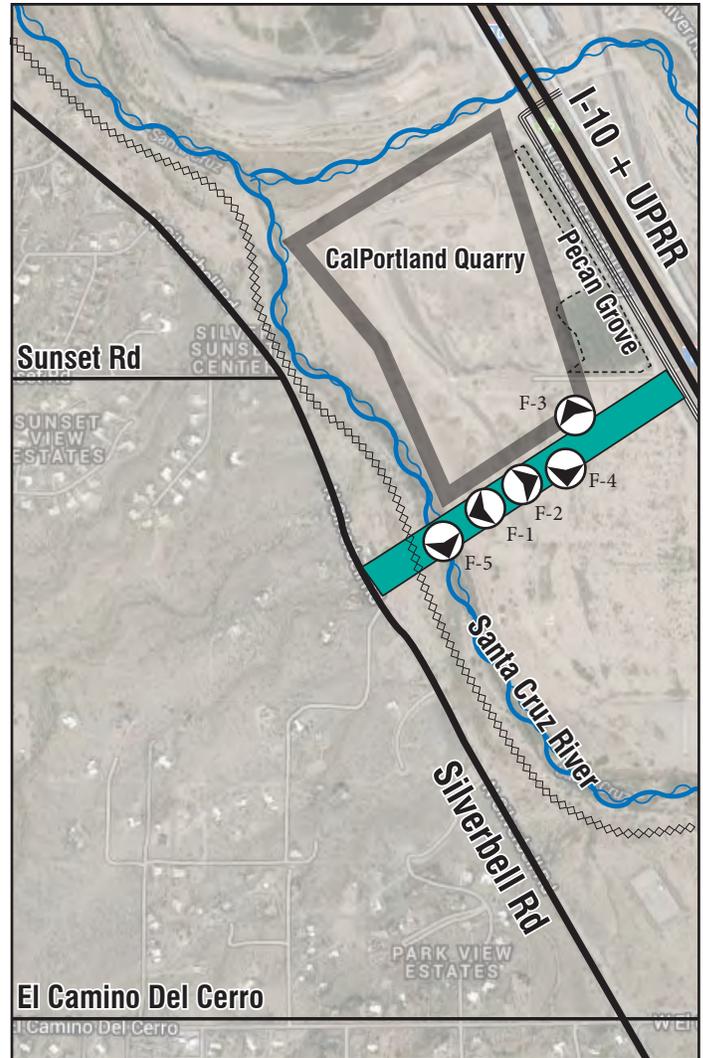
The Tucson Mountains are visible to the west and the Catalinas are visible to the northeast. Vegetation along the Santa Cruz River screens views of residential development in the foothills west of Silverbell Road (see view F-1). Cars can be seen driving along I-10 in the background of viewpoints to the east of the Santa Cruz. Except along the Santa Cruz River, vegetation is relatively sparse, made up mostly of creosote and saltbush. The fact that there are few trees results in unobstructed views of the Catalinas (see view F-2).

**5.6.3 Project Visibility**

The residences west of Silverbell Road will likely be more visible after construction due to the need to clear vegetation along the Santa Cruz (refer to Photo F-1). Users traveling to the northeast will have views of the Catalina Mountains (refer to view F-2).

As users travel along Sunset Road, the active CalPortland Quarry will be visible to the north. The quarry consists of deep, unvegetated pits and active access ways (refer to view F-3).

An inactive pit to the south of Sunset Road (predominantly outside of the project ROW) across from the Quarry is



VIEWPOINT F-1:  
View southwest along proposed Sunset Road alignment



VIEWPOINT F-2:  
View northeast along proposed Sunset Road alignment

proposed to remain in its current condition. At a depth of 40' and width of 200', this will be a significant visual element (refer to view F-4, and plan graphic, below).

The proposed bridge across the Santa Cruz will provide an elevated viewpoint, resulting in broader views across the surrounding area. Where users cross the River, views of the riparian vegetation and flowing water will be visible both up and downstream (refer to view F-5).



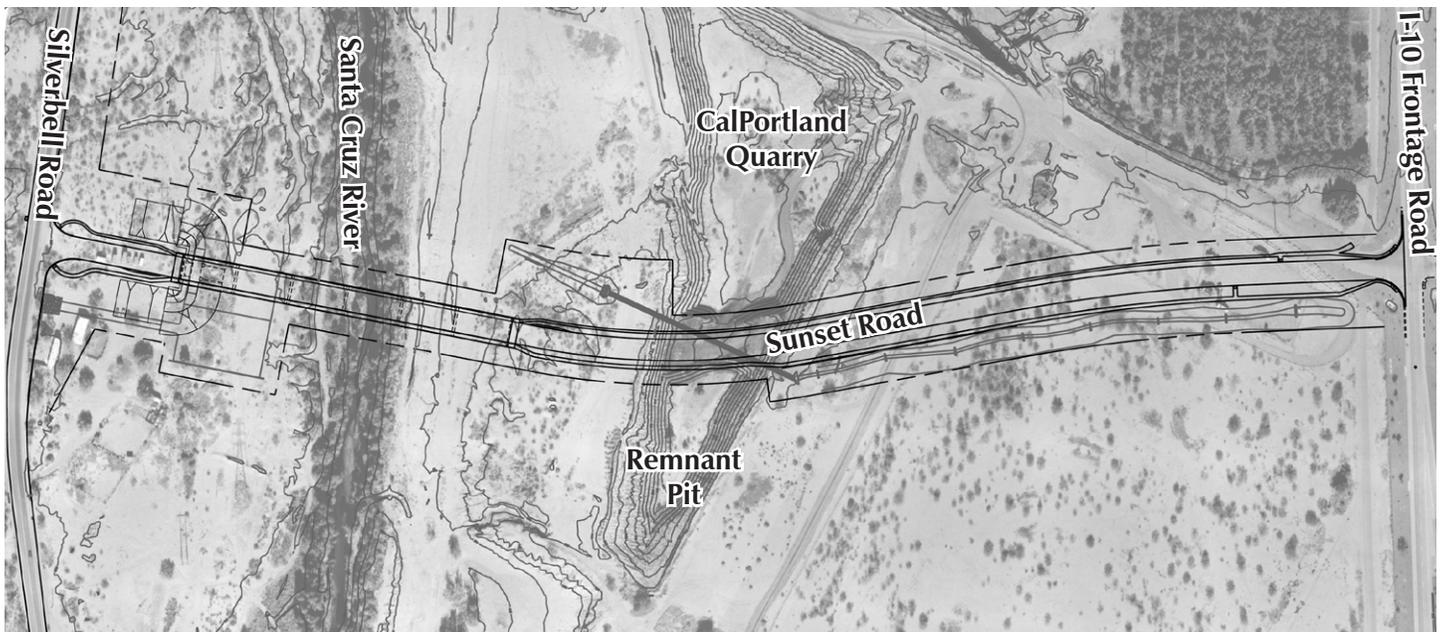
VIEWPOINT F-3: View of the CalPortland Quarry north of Sunset Road



VIEWPOINT F-5: View upstream of the Santa Cruz River



VIEWPOINT F-4: View of the remnant pit south of Sunset Road



Plan view showing proposed Sunset Road alignment and existing topography. The active CalPortland Quarry to the north and the remnant pit to the south of Sunset Road will be highly visible elements within the viewshed.

## **6.0 VIEWSHED IMPACTS & MITIGATION**

### **6.1 Components Modified In Viewsheds**

- TEP power poles will be raised approximately 30'.
- Two existing lattice poles will be replaced by mono-poles.
- Areas of grading on west overbank of the Santa Cruz River.

### **6.2 Components Removed From Viewsheds**

- Areas of dense mesoriparian vegetation along the Santa Cruz River will be cleared for bridge construction.
- Areas of sparse desert scrub vegetation will be cleared for roadway construction.
- TEP poles currently along the east side of Silverbell will be removed.

### **6.3 Components Added To Viewsheds**

- roadway surface
- pedestrian walkway surface
- Santa Cruz River bridge
- bridge railing and artwork
- drainage elements
- fill slopes at various points along roadway

### **6.4 Possible Mitigation Techniques**

- Current vegetation density is greatest near the Santa Cruz River. To reestablish disturbed vegetation and thereby offer some screening of the roadway and bridge from various viewpoints appropriate native tree and shrub species should be replanted along the roadway with increasing density near the Santa Cruz River.
- Cut/top, rather than completely remove, willows in riparian area to be cleared. This will allow for faster re-establishment and leaving roots intact will reduce erosion potential along the banks of the Santa Cruz River.
- Near the tie-in locations at Silverbell Road and the eastbound I-10 frontage road, the project becomes a foreground element and is more highly visible. Mitigation techniques are important at these areas. Plant material should blend with existing vegetation but could include a broader range of species to add visual interest to be enjoyed by user groups such as Silverbell Road motorists, Anza Trail users, and The Loop users as they approach these tie-in locations.
- The bridge abutments and barrier will be prominent features for future trail users. Items to consider to enhance the trail experience for users include vegetation on either side of the bridge approach, the inclusion of artistic treatment on the outside of the bridge barrier, and appropriate paint selection for the bridge.
- The active CalPortland Quarry to the north of Sunset Road and the remnant pit to south of Sunset are significant features that will be highly visible to both vehicular and recreational users. Vegetation will provide some screening of these areas. Enhanced landscaping may be required if the public finds the views objectionable.
- Place container-grown plant material in groupings with varied size, shape, and texture of plants to result in a more natural look rather than using large masses of single species.

- Apply native seed mix to fill slopes and all areas disturbed by construction.
- Combine seeding with rock mulch to aid in seed mix establishment and reduce erosion. Rock color should match existing soil color.
- Blend areas of differing levels of mitigation to avoid abrupt changes. Examples would include gradual change in density of plant material or feathering of inert ground cover at edges of application.
- Use less reflective materials for bridge railing and artwork so as not to create glare and draw attention to the new structures; brushed aluminum versus polished aluminum for example.
- Public art proposed for the bridge has the potential to screen views in some areas. These elements should be carefully located so as to optimize scenic mountain and river views.
- Select a gray-tone hue for the new power poles, with the goal of minimizing the contrast between the pole and the sky backdrop. Avoid very dark or bright white hues which would heighten contrast.
- Blend drainage features into landscape by meandering alignments and seeding channels where flow velocity allows. Provide for water harvesting where possible.
- Locate utility boxes to minimize negative visual impacts in the landscape. Review placement of all utility boxes, including traffic cabinets.
- Locate new utilities with the awareness that utility easements can preclude tree planting. Avoid locating water, sanitary and gas easements directly adjacent to pedestrian paths, where tree plantings are desirable.
- Select appropriate colors for all project elements, to promote visual harmony.