



VALENCIA ROAD, Alvernon Way to Wilmot Road

Pima County Project Number: 4VAKDP

VISUAL and AESTHETIC RESOURCE REPORT

MAY, 2011



PURPOSE & METHODS

The purpose of this Visual and Aesthetic Resource Report is to document existing visual resources and visual quality within the proposed Valencia Road widening project limits, objectively assess visual impacts that this proposed roadway project may have and to suggest visual impact mitigation strategies for the constructed project.

Methodology

The following procedures will be employed to make an assessment of existing conditions, visual impacts of new construction and possible mitigation measures:

- *Define the project area, setting, and viewshed.* The project limits and viewshed were determined based on a review of 15% plans from the roadway design team, a review of aerial images of the southeastern portion of the Tucson basin, and field visits.
- *Identify the landscape visual resources as well as existing and future land uses.* This was accomplished by a review of aerial images, Pima County mapping and site visits.
- *Identify viewers and key observation points (KOPs).* Viewers and KOPs were determined based on site visits to the project area and the surrounding area. KOPs were chosen based on potential viewers and the visibility of the project area, taking into consideration differences in elevation of viewpoints.
- *Analyze and evaluate existing visual conditions from each KOP.* Existing visual conditions at each KOP were evaluated in more detail on-site based on criteria established in the Pima County Roadway Design Manual. This included an assessment and ranking of the setting, viewer sensitivity, roadway visibility, and scenic quality. Refer to Appendix A for definitions of the terms and criteria for evaluating each KOP.
- *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 15% engineering plans and coordination meetings with the civil designers.
- *Assess visual impact of proposed elements on existing visual conditions.* This assessment involved a review of photographs taken from each KOP with an additional site visit to describe anticipated impacts of the proposed design on the existing visual quality of the project area. With the proposed design changes in mind, roadway visibility and scenic quality were re-evaluated at each KOP and contrasted with the outcomes from the initial evaluation to determine visual impact of the proposed design.
- *Propose mitigation strategies and treatment options based on the results of the Impact Assessment.* Mitigation strategies and treatment options are creative design ideas aimed at minimizing the anticipated negative visual impacts of the proposed roadway design. They consider 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.

In creating this report, the following assumptions are being made:

- The landscape setting makes a difference. Project settings differ in their visual quality, and the compatibility of any project differs with different landscape settings. The viewer of the proposed project makes a difference. Viewer groups differ in visual exposure to a project based on their population and distance from the project area. Viewers also differ in their sensitivity, but generally agree in their recognitions of whether a particular visual impact is positive or negative.
- These visual aspects can be assessed and quantified. Visual quality, project compatibility and viewer exposure can be evaluated and compared systematically.
- This report not only assesses the effects of the proposed transportation improvements on existing visual conditions, but also takes into account zoning and land use conditions.

EXISTING CONDITIONS

This project is located in the eastern portion of Pima County, Arizona (Figure 1). Valencia Road is planned as a major east-west corridor between I-19 and Houghton Road. The project immediately west of this project, Alvernon/Valencia Intersection, has been bid and will be under construction summer of 2011. The project immediately east of this project, Valencia/Kolb Intersection, is currently in design.

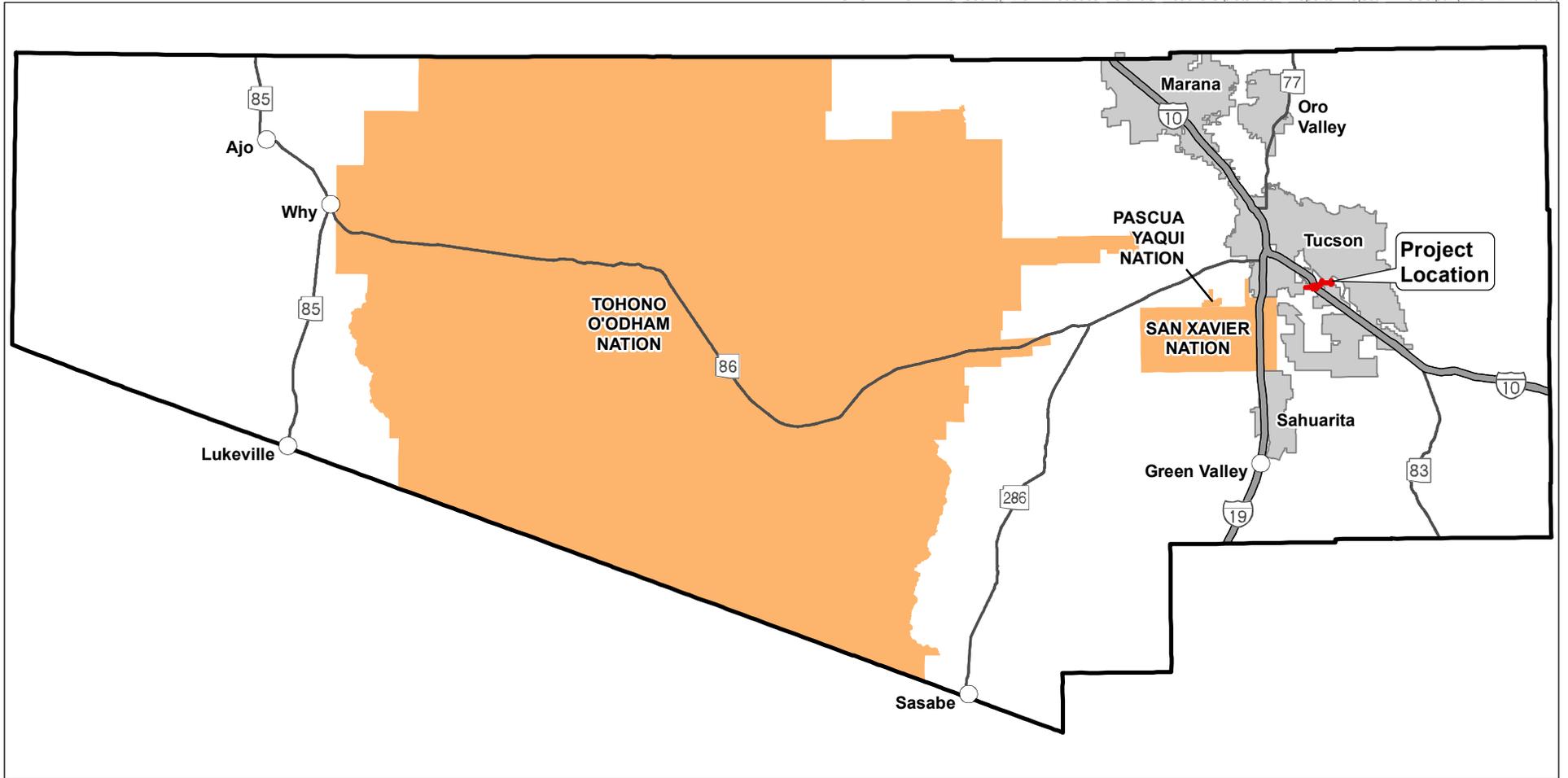
Project Setting

The project area is located along Valencia Road from about 900 feet east of Alvernon Way to 1,000 feet east of Wilmot Road. The project right-of-way is approximately 150 feet to 250 feet wide. The cadastral location of this segment of road is Township 15 South, Range 14 East, Sections 10, 11, 12, 14 and 15; Township 15 South, Range 15 East, Section 7 (Figure 2).

The project lies in the southeast portion of the Tucson Metro area in both the City of Tucson and unincorporated Pima County (Figure 3). Tucson International Airport is located approximately 2.2 miles southwest of Valencia Road and Alvernon Way. Interstate 10 and traffic interchange bisects Valencia Road approximately 1,000 feet east of Swan Road. Valencia Road crosses the Union Pacific Railroad at a bridge crossing approximately 2 miles east of Alvernon Way.

Valencia Road is currently a four-lane, divided road with traffic signals at Desert View High School (Half Signal), Benson Highway/Swan Road, Interstate 10 (I-10) [eastbound off-ramp/westbound on-ramp], I-10 [westbound off-ramp/eastbound on-ramp], and Wilmot Road. Valencia Road crosses under I-10 at a twin bridge structure and crosses the UPRR at a single span bridge structure. Additional roadway features include stripped bicycle lanes and Sun Tran transit route and stops. The posted speed limit is 50 miles per hour (mph).

Landform



Legend

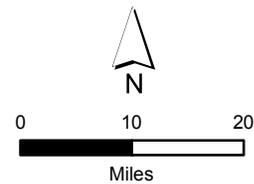
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|--|---|
|  Project Location | General Features |
|  Town |  City |
|  Interstate Highway |  Indian Reservation |
|  State Route |  Pima County |

Figure 1

County Map

Valencia Road:
Alvernon Road to Wilmont Road (4VAKDP)

Source:
Project Site: 2010
Base Map: ALRIS 2010,
Pima County 2009 - 2010
Roads: ADOT 2009



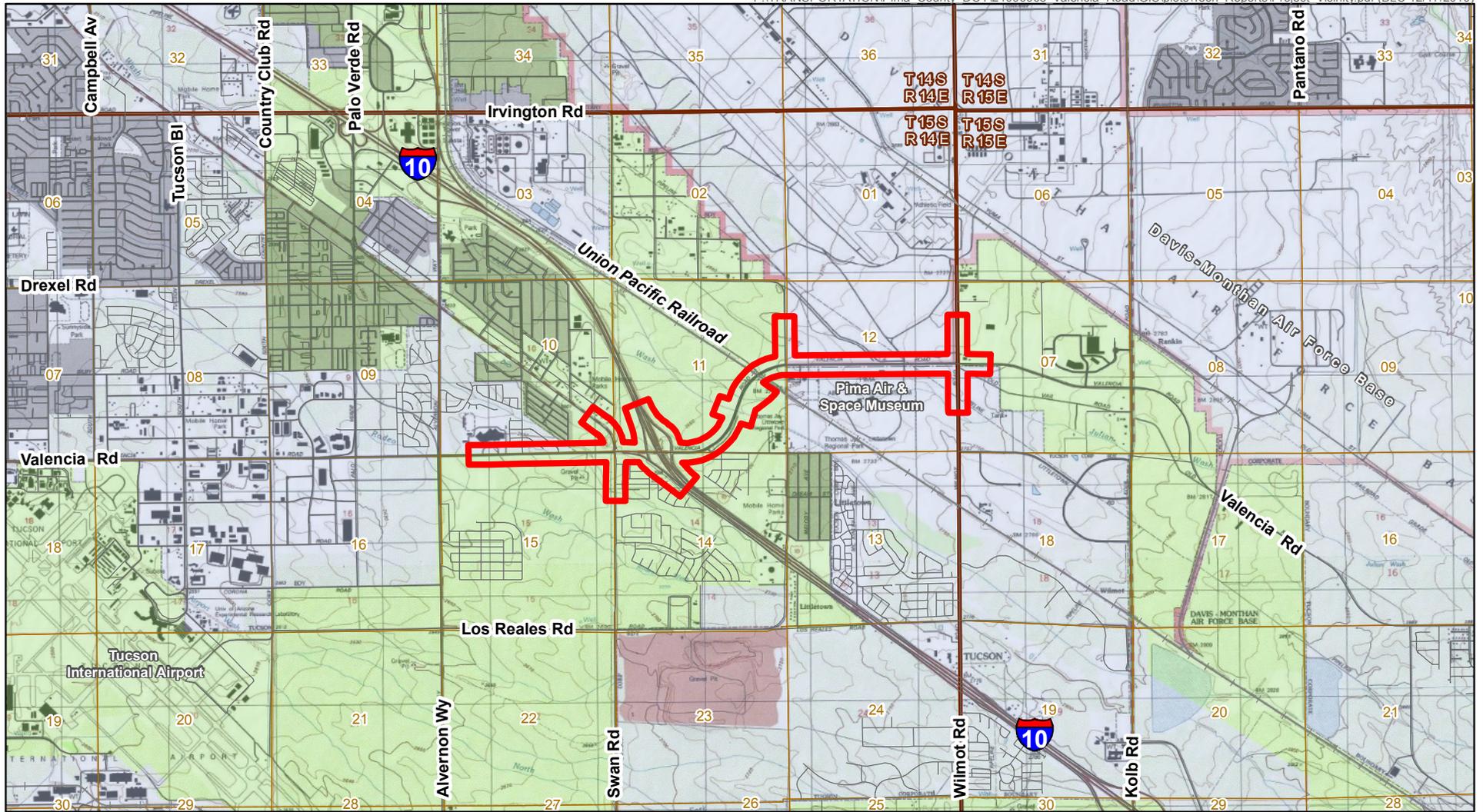
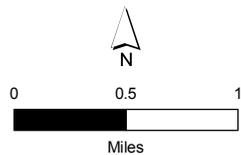


Figure 2

Legend

- Project Area
- Road
- | Railroad
- Township and Range Boundary
- Section Boundary
- Unincorporated Pima County
- Tucson



Project Vicinity

Valencia Road:
Alvernon Road to Wilmont Road (4VAKDP)

Source:
Project Area: URS 2010
Base Features: Pima County DOT 2009 - 2010,
ALRIS 1997 - 2010
Base topographic data: © 2009 National
Geographic Society, All Rights Reserved



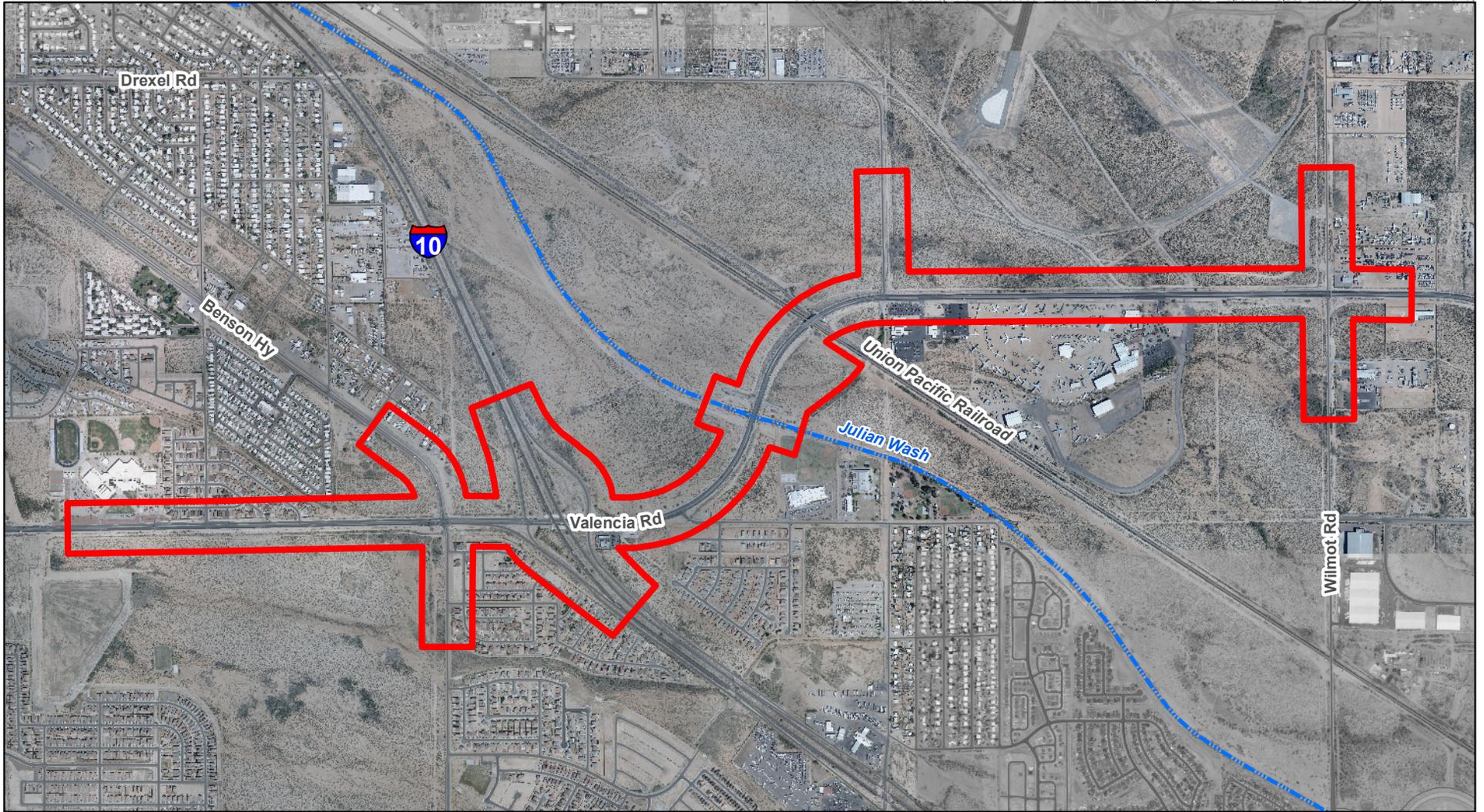


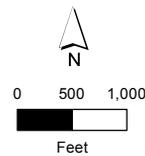
Figure 3

Project Location

Valencia Road:
Alvernon Road to Wilmont Road (4VAKDP)

Legend

-  Project Area
-  Road
-  Railroad
-  Wash



Source:
Project Area: URS 2010
Base Features: Pima County DOT 2009 - 2010
Imagery: PAG 2008, NAIP 2007

The project is located in the southeast region of the Greater Tucson Basin, on the lower bajada that extends west of the Rincon Mountains onto the Santa Cruz River valley floor and is composed of relatively flat terrain. Terrain in the project area slopes gently from southeast to northwest and ranges from approximately 2,748 feet elevation at the eastern end down to 2,645 feet at the western end. The nearest elevated terrain is located in the Rincon Mountains, approximately 10 miles east. The nearly uniform slope over the project length is interrupted by two man-made landforms: the raised embankment forming the I-10 roadbed and the raised embankment approaches to the Union Pacific Railroad bridge.

Existing Land Use

Land use zoning classifications for both City of Tucson and Pima County are contiguous to the project area (Figure 4). Generally, land use from the west edge of the project to the UPRR bridge is residential with a few pockets of retail/commercial interspersed. Land use to east of the bridge is commercial/industrial and includes the Pima Air and Space Museum and Davis Monthan Air Force Base.

Future Land Use

Two significant areas of vacant land along the corridor will likely be developed at some future time. The first parcel is the tract of State Trust land on the south side of Valencia Road between Alvernon Way and Swan Road, which is cited in the Valencia Corridor Long Range Park Plan as a potential Metro Park location for Tucson Parks and Recreation. The second area includes the vacant parcels on both sides of Valencia Road between I-10 and the UPRR bridge which will likely become single-family, residential communities.

Drainages

The major drainage in the project area is the ephemeral Julian Wash which crosses under Valencia Road in an existing four barrel box culvert at about the mid-point of the project, west of the SPRR bridge. Julian wash eventually combines with the Santa Cruz River, approximately 7.5 miles downstream of the project area. The Julian Wash corridor over its entire length from Houghton Road to the Santa Cruz River is identified by the Pima County Trails Master Plan as future linear park. Portions of the corridor have already been developed as linear park space. It is not known when park space will be developed within the project area but such improvements could be tied to development of the vacant residential parcels between I-10 and the UPRR bridge.

Vegetation

The project area lies entirely in the Arizona Upland subdivision of Sonoran desert scrub (Turner and Brown 1994). The majority of the project area is located in the creosote bush (*Larrea*

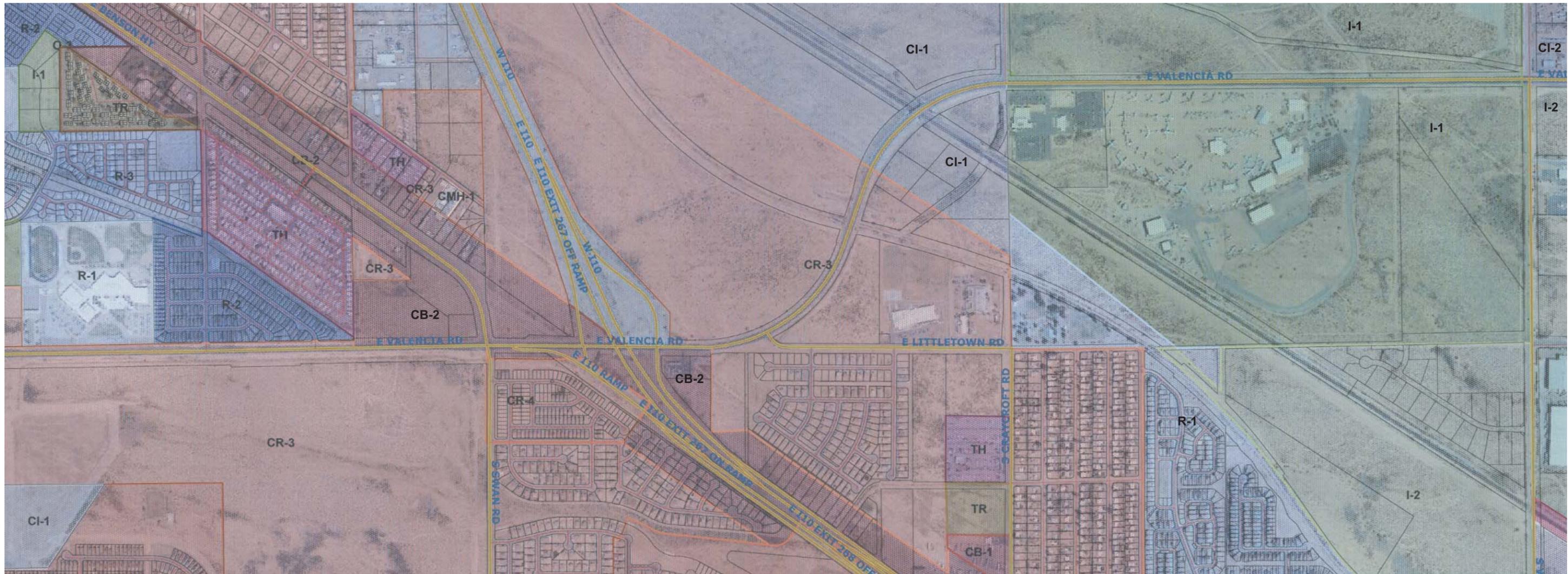


Figure 4

City of Tucson Zoning Legend

- C-2 - General & Intensive Commercial
- I-1 - Light Industrial
- I-2 - Heavy Industrial
- R-1 - Single Family Residential
- R-2 - Medium Density Residential

Pima County Zoning Legend

- CB-1 - Local Business
- CB-2 - General Business
- CI-1 - Light Industrial, Warehousing
- CI-2 - General Industrial
- CR-3 - Single Residence
- CR-4 - Mixed Dwelling Type
- TH - Trailer Homesite
- TR - Transitional

Land Use

Valencia Road:
Alvernon Road to Wilmot Road (4VAKDP)

tridentata)—triangle-leaf bursage {*Ambrosia deltoidea*} series of this community.

Associated trees, shrubs, and cacti:

- Whitethorn Acacia (*Acacia constricta*)
- Catclaw Acacia (*Acacia greggii*)
- Desertbroom (*Baccharis sarothroides*)
- Desert Hackberry (*Celtis palida*)
- Jumping Cholla (*Cylindropuntia fulgida* var *fulgida*)
- Cane Cholla (*Cylindropuntia spinosior*)
- Staghorn Cholla (*Cylindropuntia versicolor*)
- Fishhook Barrelcactus (*Ferocactus wislizeni*)
- Ccotillo (*Fouquieria splendens*)
- Burroweed (*Isocoma tenuisecta*)
- Wolfberry (*Lycium* sp.)
- Blue Palo Verde (*Parkinsonia florida*)
- Velvet Mesquite (*Prosopis velutina*)
- Arizona Yucca (*Yucca arizonica*)
- Soaptree Yucca {*Yucca elata*}

Associated grasses:

- Sideoats Grama (*Bouteloua curtipendula*)
- Lehmann lovegrass (*Eragrostis lehmanniana*)
- Bush Muhly (*Muhlenbergia porteri*)
- Tobosa Grass (*Pleuraphis mutica*)

In general, vegetation is sparse along the corridor with extensive areas that are almost totally cleared from the curblines to the right-of-way. This is particularly characteristic of the eastern portions of the project that are bordered by industrial facilities, the Pima Air and Space Museum and Davis Monthan Air Force Base.

Existing Visual Resources

Foreground - Slightly rolling topography and desert scrub vegetation dominates the foreground views to and from the project area. The Valencia Road bridge over the Union Pacific Railroad (UPRR) is the highest point in the foreground and from the top of the bridge one can take in 360 degree views of the entire Tucson Basin. The right-of-way associated with the UPRR is cleared of vegetation, and the railroad tracks run in a northwest to southeast direction. Power poles run parallel to Valencia Road on the south side of the roadway, and Valencia Road itself is the most dominant feature of the foreground.

Middle ground - Slightly rolling topography and desert scrub vegetation dominates the middle ground views to and from the project area; however, some areas of residential, industrial, and commercial development can be seen in the middle ground. Even slight changes in elevation, associated with the rolling nature of the topography, affect what can be seen in the middle ground. Power poles along roadways are noticeable in the middle ground and are the tallest

elements in many of the viewsheds.

Background The four major Tucson basin ranges; the Catalina (9,157 feet), the Rincon (8,664 feet), the Santa Rita (9,453 feet), and the Tucson Mountains (4,687 feet) comprise the background views to and from the roadway project area. In addition, industrial and residential development is slightly noticeable in the background; however, because these have a low profile, they are only noticeable from the elevated approaches and structure of the UPRR bridge.

Viewer Types

The specific groups of viewers accounted for in this report are listed below. Each viewer type will be discussed in more detail within the KOP descriptions:

- Valencia Road motorists, bicyclists, and pedestrians
- Desert View High School students, faculty and staff
- Craycroft Elementary School and Billy Lane Lauffer Middle School students, faculty and staff
- Residents on the north side of Valencia Road between the High school and Swan Road.
- Residents on the south side of Valencia Road between Swan Road and I-10.
- Residents on south side of Valencia Road between I-10 and Billy Lane Lauffer Middle School
- Staff and visitors to the Pima Air and Space Museum.
- Staff and visitors to the commercial/industrial areas (including Davis Monthan AFB)

Future viewer types that are considered are as follows:

- Future residents along the north and south side of Valencia Road between I-10 and the SPRR bridge.
- Potential staff and users of a proposed COT Park on the south side of Valencia Road between Alvernon Way and Swan Road.

PROPOSED PROJECT

The project will construct two additional travel lanes (1 eastbound lane, 1 westbound lane), raised medians, left-turn lanes, and signalized intersections that will concentrate turning movements, thereby improving traffic operation and reducing the number of potential collisions along the corridor. The project will provide an all-weather travel surface for the road through construction of drainage improvements including cross-drainage improvement and a stormwater collection and conveyance system. The project will also improve mobility through the provision of a multi-use trail and bicycle access. It is expected that the additional lanes can be added by widening the existing roadway only, and no additional horizontal or vertical alignment work will be needed.

The proposed project includes the construction of the following specific improvements:

- Widen Valencia Road from a four-lane roadway to a six-lane roadway (three lanes eastbound and three lanes westbound) from about 900 feet east of east Alvernon Way to 1,000 feet east of Wilmot Road.
- Widen Valencia Road at the I-10 underpass from a four-lane roadway to a six-lane roadway.

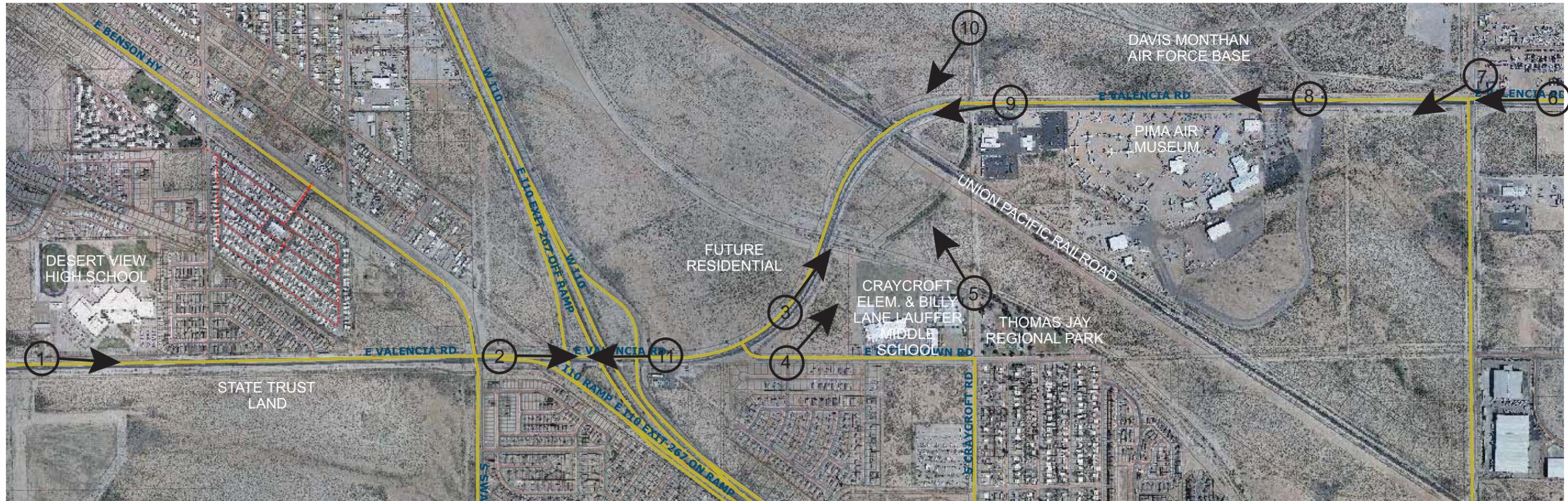
- Widen the existing bridge at the UPRR crossing from a four-lane roadway to a six-lane roadway.
- Install a traffic signal at the re-aligned intersection of Valencia Road and Littleton Road.
- Construct a new eastbound right turn lane at the eastern Jack in the Box driveway, east of I-10.
- Construct turn lanes at Valencia Road and Craycroft Road; and Valencia Road and Wilmot Road.
- Construct bicycle/multi-use lane on both sides of Valencia Road between Alvernon Way and Wilmot Road.
- Construct sidewalks along both sides of Valencia Road throughout the project area. Sidewalks, crosswalks, and access ramps will be ADA-compliant.
- Construct medians throughout the length of the project.
- Improve and expand existing storm drainage system.
- Install landscape improvements and public art within project medians and along the shoulders to the right-of-way limit.
- Design speed for this project is 50 mph and will be posted for 45 mph.

VISUAL INVENTORY

The following eleven observation summary sheets are intended to document the existing visual conditions along Valencia Road from various viewpoints on the roadway itself and from points nearby the roadway. These Key Observation Points (KOPs) are selected to represent a typical level of visual contact with the roadway for the various identified Viewer Types. Each KOP is given a Scenic Quality Rating, assessed for viewing conditions and sensitivity for viewers, and given an estimate as to the potential for visual contrast (the degree to which proposed improvements can be expected to alter the existing visual conditions from the viewpoint). This data forms the basis for the Impact Assessment summary and the resulting Mitigation Strategies.

Refer to Figure 5 for mapping of each Key Observation Point.

Refer to Tables 1, 2 and 5 from Chapter 4 of the Pima County Roadway Design Manual for the basis of the rankings assigned for Scenic Quality, Viewing Conditions and Sensitivity Level.



LEGEND

- ① — KEY OBSERVATION POINT NUMBER
- ARROW INDICATES DIRECTION OF VIEW

Figure 5

Key Observation Points

Valencia Road:
Alvernon Road to Wilmot Road (4VAKDP)

KOP 1 – Valencia Road looking east from Desert View High School

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Desert View High School students, faculty and staff
- Residents on the north side of Valencia Road between the High school and Swan Road.

Future viewer types:

- Potential staff and users of a proposed COT Park on the south side of Valencia Road between Alvernon Way and Swan Road.

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	0
Total	4
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	High	High	High	High

Visual Contrast Ranking: Weak Contrast

Because no changes will be made to horizontal or vertical alignments, contrasts will be limited to the widened footprint of the pavement. No significant slopes will be built. Road edges will be closer to ROW. Medians and sidewalks will be added. Little vegetation will be removed for construction.



KOP 2 – Valencia Road looking east from the west side of the I-10 underpass

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	-4
Total	0
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
High	Low	High	High	Low

Visual Contrast Ranking: Weak Contrast

The bridge structure itself will be unaltered but the retained slopes on each side will be steepened to make more room. Alterations to medians will have little contrast since existing condition is devoid of vegetation. A wider opening will result but the view through will still essentially be of the continuing roadway and commercial facilities on the near eastside, not allowing any significant new features to come into view.



KOP 3 – On Valencia Road looking east on the west approach to UPRR bridge

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Desert View High School students, faculty and staff
- Craycroft Elementary School and Billy Lane Lauffer Middle School students, faculty and staff
- Residents on the south side of Valencia Road between Swan Road and I-10.

Future viewer types:

- Future residents along the north and south side of Valencia Road between I-10 and the SPRR bridge.

SCENIC QUALITY RATING	
Landform	1
Vegetation	3
Water	0
Color	3
Scenery	3
Scarcity	3
Cultural	-4
Total	9
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
High	Moderate	High	Moderate	Low

Visual Contrast Ranking: Moderate Contrast

Vertical elements added to the bridge structure such as railings or walls will be very evident to approaching motorists. Most of the south side embankments will be visible and they will be significantly affected initially by removal of existing vegetation.



KOP 4 – View looking northeast from entry road opening in residential area south of Valencia Road.

Viewer Types:

- Residents on south side of Valencia Road between I-10 and Billy Lane Lauffer Middle School

Future viewer types:

- Future residents along the north and south side of Valencia Road between I-10 and the SPRR bridge.

SCENIC QUALITY RATING	
Landform	1
Vegetation	3
Water	0
Color	3
Scenery	3
Scarcity	1
Cultural	0
Total	11
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	High	Moderate	Moderate	High

Visual Contrast Ranking: Moderate Contrast

Vertical elements added to the bridge structure such as railings or walls will be visible though fairly distant from this viewpoint . Upper portions of the south side embankments will be visible and they will be significantly affected initially by removal of existing vegetation. Future view to the bridge may be entirely obstructed if the foreground is developed as residential housing.



KOP 5 – Looking northwest from rear of Craycroft Elementary School

Viewer Types:

- Craycroft Elementary School and Billy Lane Lauffer Middle School students, faculty and staff
- Residents on south side of Valencia Road between I-10 and Billy Lane Lauffer Middle School

Future viewer types:

- Future residents along the north and south side of Valencia Road between I-10 and the SPRR bridge.

SCENIC QUALITY RATING	
Landform	1
Vegetation	3
Water	0
Color	1
Scenery	3
Scarcity	1
Cultural	0
Total	9
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	High	Moderate	Moderate	Moderate

Visual Contrast Ranking: Moderate Contrast

Vertical elements added to the bridge structure such as railings or walls will be visible though fairly distant from this viewpoint. Most of the south side embankments will be visible and they will be significantly affected initially by removal of existing vegetation. Future views to the bridge may be entirely obstructed if the foreground is developed as residential housing.



KOP 6 – Valencia Road looking west from eastern limit of the project

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Staff and visitors to the Pima Air and Space Museum.
- Staff and visitors to the commercial/industrial areas (including Davis Monthan AFB)

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	-4
Total	0
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	Moderate	Moderate	High	Low

Visual Contrast Ranking: Weak Contrast

Because no changes will be made to horizontal or vertical alignments, contrasts will be limited to the widened footprint of the pavement. Road edge will be closer to ROW and sidewalks will be added. No significant slopes or structures will be created.



KOP 7 – Valencia Road/Wilmot Road intersection looking southwest towards the Pima Air and Space Museum

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Staff and visitors to the Pima Air and Space Museum.
- Staff and visitors to the commercial/industrial areas (including Davis Monthan AFB)

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	0
Total	4
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	Low	High	High	Low

Visual Contrast Ranking: Weak Contrast

Contrasts will be limited to the widened footprint of the pavement. Road edge will be closer to ROW and sidewalks will be added. Views to the Pima Air and Space Museum begin around this point for westbound travellers.



KOP 8 – Valencia Road looking west across from the entrance to Pima Air and Space Museum

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Staff and visitors to the Pima Air and Space Museum.
- Staff and visitors to the commercial/industrial areas (including Davis Monthan AFB)

SCENIC QUALITY RATING	
Landform	1
Vegetation	3
Water	0
Color	1
Scenery	0
Scarcity	3
Cultural	5
Total	13
SCENIC QUALITY	COMMON

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	Moderate	High	Moderate	Moderate

Visual Contrast Ranking: Weak Contrast

Contrasts will be limited to the widened footprint of the pavement. Road edge will be closer to ROW and sidewalks will be added. Views to Pima Air and Space museum should be little affected or even improved. Views to enormous airplanes lining Valencia Rd. do more to announce museum location than any signage could.



KOP 9 – Valencia Road looking west from the east side approach to the UPRR bridge

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Staff and visitors to the commercial/industrial areas (including Davis Monthan AFB)

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	-4
Total	0
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
Moderate	Moderate	Moderate	Moderate	Low

Visual Contrast Ranking: Moderate Contrast

Vertical elements added to the bridge structure such as railings or walls will be very evident to approaching motorists. Only the upper most portions of the south side embankments will be visible but they will be significantly affected initially by removal of existing vegetation.



KOP 10 – View from future residential and existing industrial areas on Craycroft Road, north of Valencia Road

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Staff and visitors to the commercial/industrial areas (including Davis Monthan AFB)

Future viewer types:

- Future residents along the north and south side of Valencia Road between I-10 and the SPRR bridge.

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	-4
Total	0
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
High	High	Moderate	High	High

Visual Contrast Ranking: Strong Contrast

Vertical elements added to the bridge structure such as railings or walls will be very evident from this viewpoint. North side embankments will be visible and they will be significantly affected initially by removal of existing vegetation. Future view to the bridge may be significantly obstructed if the foreground is developed as residential housing. Views from within future housing area may be narrow and/or limited to the lots closest to the bridge.



KOP 11 – Valencia Road looking west from the east side of the I-10 underpass

Viewer Types:

- Valencia Road motorists, bicyclists, and pedestrians
- Residents on south side of Valencia Road between I-10 and Billy Lane Lauffer Middle School

Future viewer types:

- Future residents along the north and south side of Valencia Road between I-10 and the SPRR bridge.

SCENIC QUALITY RATING	
Landform	1
Vegetation	1
Water	0
Color	1
Scenery	0
Scarcity	1
Cultural	-4
Total	0
SCENIC QUALITY	MINIMAL

Viewing Condition & Sensitivity:

ORIENTATION	DURATION	DISTANCE	VISIBILITY	SENSITIVITY
High	Low	High	High	Low

Visual Contrast Ranking: Weak Contrast

The bridge structure itself will be unaltered but the retained slopes on each side will be steepened to make more room. Alterations to medians will have little contrast since existing condition is devoid of vegetation. A wider opening will result but the view through will still essentially be of the continuing roadway and commercial facilities on the near west side, not allowing any significant new features to come into view.



IMPACT ASSESSMENT

This portion of Valencia Road has “Minimal” scenic quality with only one KOP rating a “Common” value and none achieving “Distinctive” rating. Most segments west of the UPRR bridge have high sensitivity ratings due to the prevalence of residential land use. East of the bridge is largely low sensitivity due to industrial land uses with the localized exception of the Pima Air and Space Museum. Overall, expected visual contrast is low since the horizontal and vertical alignments will not be changing. Greatest contrast will be in the area of the UPRR bridge due to elevated landform of the approaches and the bridge structure itself, which can be seen at varying distances from the surrounding residences, future residential areas, schools and a park.

Valencia Road, Alvernon Way to Swan Road/Benson Highway

This is an area of high sensitivity that will undergo a minimal level of visual contrast after new construction.

Valencia Road/ I-10 Intersection Area

This is an area of low sensitivity that will undergo a minimal level of visual contrast after new construction.

Valencia Road, I-10 to UPRR Bridge

This is an area of high sensitivity that will undergo a minimal level of visual contrast after new construction.

UPRR Bridge

This is an area of high sensitivity that will undergo a moderate level of visual contrast after new construction.

Valencia Road, UPRR Bridge to Wilmot Road

This is an area of generally low sensitivity (with the exception of the Pima Air and Space Museum area) that will undergo a minimal level of visual contrast after new construction.

MITIGATION STRATEGIES

Corridor-wide Strategies:

Pima County has determined that all roadway projects going forward will use the Environmentally Sensitive Roadway standards of the County's Roadway Design Manual for mitigation of disturbance to native vegetation. It is the general intent of these standards that projects re-plant native species that naturally occur on the site in densities that are similar to the preconstruction condition. Native trees equal to or greater than 3" caliper and all saguaros are to be inventoried and mapped. Releve analysis is required to determine species and quantities for other nursery stock planting and seed mix(s). Calculations are prescribed to determine tree planting quantities and saguaros are replaced on a 1:1 basis. Much of the planting and seeding designed for the project can function as stabilization to satisfy permanent storm water pollution prevention requirements.

The proposed roadway will generally have medians and narrower buffer areas between sidewalks and ROW limits with minimal slopes on either side. Revegetating the disturbed areas with native vegetation currently found in the surrounding project area will aid in blending the existing color and texture from the rolling topography into the proposed project areas, thereby reducing the overall visual impact. Planting in the new medians using a combination of native shrub species in a density pattern that is currently present in the surrounding area will visually punctuate space between travel lanes thereby reducing the expanse of additional concrete and asphalt that is most visible to viewers both to and from the roadway. Taller vegetation planted in the medians, where sight visibility triangles will permit, is the most effective means to visually reduce an expansive roadway cross section. Because the existing corridor has so little vegetation within the ROW limits, the addition of even modest amounts of new planting can be expected to improve the overall visual character of this stretch of road.

The following strategies are suggested to mitigate for visual impacts of specific project elements to the various viewer groups identified in this report:

I-10 Underpass

The new retaining wall on either side of the underpass will present the only vertical surfaces on the project with the exception of the UPRR bridge. Applying a subtle texture and painting the wall a color that is similar to the surrounding soil could reduce the overall visual impact of the retaining wall. Similar colors have been used in residential areas near the project area and these colors have proven effective at visually blending these elements into the surroundings. Many standard textures and concrete formliners or stamping mats are available to easily give texture to concrete surfaces. In addition to texture and paint color, planting vegetation up to the ends of the proposed retaining walls will also aid in reducing its visual impact. Refer also the section on Public Art below.

UPRR Bridge and Embankments

The bridge will likely require railings and/or fences with low walls for pedestrian and traffic safety and these elements together with changes to the earthen embankments will have

significant visual contrast from the existing conditions. Strategies for mitigation include using expanded metal with the greatest allowable openness as well as to paint the metal fence a color similar to the surroundings (either a color similar to the soil or a blue color similar to the sky). Varying the height of these vertical elements as well as establishing plantings of various heights at or near the tops of the embankments could be effective in avoiding the kind uniform silhouette that often announces a man-made landform or structure. Extra efforts would be worthwhile to get vegetation established and actively growing on the embankment slopes which are and will remain very steep (2:1 or steeper). Refer also the section on Public Art below.

Entrance to the Pima Air and Space Museum

The existing entry sign and sculpture at the museum entrance may actually become easier for motorists to see since the road edge will be moving closer to them. Planting in the area must be carefully designed to frame rather than obscure entrance visibility. This concern will particularly apply to median planting which must not interfere with sightlines for the westbound travelers approaching the museum.

Valencia Road/Wilmot Road Intersection

This area is where the westbound motorists first start to make visual contact with the buildings and airplanes on the Pima Air and Space Museum grounds. Plantings at intersections often are comprised of larger plant sizes in order to lend emphasis. The planting design should be careful not to obscure sightlines through the intersection's southwest quadrant to the museum from the roadway.

Public Art

Pima County will reserve one percent of the project construction budget for public art installation(s) in the roadway corridor. The artist will be selected, typically, on the basis of qualifications rather than a specific proposal so the exact nature of the artwork will not be known until design of the project is well along. The art components could be freestanding or incorporated into roadway construction.

A strategy often employed on roadway projects to maximize artistic elements within the limited art budget is to incorporate art into portions of the roadway improvements to be constructed such as buffer or retaining walls, paving and railings. Opportunities to do this on vertical structures along Valencia Road will largely be limited to the I-10 underpass and the UPRR bridge. Artistic content could be added to the new underpass retaining walls with custom formliners or stamping pads or added as various media attached to the walls. Railings, protective barriers and low walls may be elements on the UPRR bridge that could become artistic components. Concrete sidewalk paving along the entire corridor could receive artistic patterns, textures or embedded materials.

APPENDIX A – Tables 1,2,3and 5 from Chapter 4, Appendix 4-G-7
ofrthe Pima County Roadway Design Manual

Table 1
Sample Sensitivity Level Evaluation

Location (Key Observation Points)	User Type ¹	Use Volume	Public Interest ²	Special Areas	Sensitivity Level
Travel Routes/Trails					
U.S. Highway 17	Res, Rec, SS	High	N,S,L	–	High
Lower Bushcreek Road	Res, Rec, SS	High	N,S,L	Planned Scenic Byway	High
Big Canyon Road	Rec, SS	High	N,S,L	Planned National Recreation Area	High
County Road 1 (Historic Tour)	Res, Rec, SS	High	N,S,L	Bar “S” Historic Ranch	High
Use Areas					
Sonoran Monument	Rec, SS	High	N,S,L	–	High
USFS Campgrounds					High
Big Mountain	Rec, SS	Moderate	N,S,L	–	
Green Meadows	Rec, SS	Moderate	N,S,L	–	
Creekside	Rec, SS	Moderate	N,S,L	–	
Campground	Rec, SS	Moderate	N,S,L	–	
Red Mountain					
Campground					
Travel Routes/Trails					
Cedar/Trail Creek Road	Res, Rec, SS	Moderate	S,L	–	Moderate
Lower Wildflower Road	Res, Rec, SS	Moderate	L	–	Moderate
Wildhorn Road	Res, Rec, SS	Moderate	L	–	Moderate
Fox Flats Road	Comm	Moderate	S????, L	–	Moderate
Arizona Gulch Road	Res, Rec, SS	Moderate	L	–	Moderate
Divide Road N. (County 2)	Res, Rec, SS	Moderate	L	–	Moderate
Travel Routes/Use Areas					
Highline Business Park	Comm	Moderate	L	Industrial Area	Low
Business Loop 156	Truck route	High	L	Light Industrial Area	Low

¹Residential (Res), Recreation (Rec), Sight Seeing (SS), Commuters (Comm)

²National (N), State (S), Local (L)

Table 2
Sample Viewing Condition Evaluation

Viewer Variable Criteria	Viewing Condition Level		
	High	Moderate	Low
Viewer Orientation – perpendicular vs. parallel views	Viewer attracted, or directed specifically to or from the proposed roadway action	Viewer is neither strongly attracted/directed toward nor away from the location of the proposed roadway action	Viewer attracted or directed away from the location of the proposed roadway action
Duration – considers speed of travel	View is continual or fixed (e.g., residential areas, resorts)	View is intermediate or temporal (e.g., roads and highways, parks, overlooks, campgrounds, commercial areas)	View is brief (e.g., perpendicular road crossings)
Distance – views from and to the roadway	Views from or to the roadway are within the near foreground area (immediate right-of-way), and the foreground area (edge of right-of-way to 0.25 mile)	Views from or to the roadway are within the middle-ground area (0.25 to 3 miles)	Views from or to the roadway are within the background area (3 to 5 miles and beyond)
Visibility – the “edge condition” of the roadway	Views from or to the roadway are open	Views from or to the roadway are partially screened or filtered	Views from or to the roadway are screened or blocked

Table 3
Sample Visibility Level Synthesis

Location (Key Observation Point)	Viewer Variables		
	Sensitivity Level	Viewer Orientation	Distance
Wildhorn Road	M	M	L
Sonoran Monument	H	M	H

Setting

Analysis of the project setting includes the characterization of similar patterns of landform, vegetation, land use, and unique features by units. Characterizing these factors permits an evaluation of the potential effect of the proposed roadway project in conjunction with scenic quality (i.e., natural setting), or visual image types (i.e., developed settings).

Natural Setting – Natural landscapes or settings may be characterized in units based on similar patterns of the following elements:

- *Landform*: Topography becomes more interesting as it gets steeper, more massive, or more severely or universally sculpted. Outstanding landforms may be monumental (mountains) or subtle, including low rolling hills or flat valley bottoms, displaying few, if any, interesting landscape features.

Table 5
Sample Scenic Quality Evaluation Chart

Key Factors	Scenic Quality Rating Criteria and Score*		
<i>Landform</i>	High vertical relief as expressed in prominent cliffs, spires, or massive rock outcrops, or severe surface variations or highly eroded formations including major badlands or dunes, or detail features dominant and exceptionally striking and intriguing. 5	Steep canyons, mesas, buttes, cinder cones, and drumlin, or interesting erosion patterns or variety in size and shape of landforms, or detail features that are interesting though not dominant or exceptional. 3	Low rolling hills, foothills, or flat valley bottoms, or few or no interesting landscape features. 1
<i>Vegetation</i>	A variety of vegetative types as expressed in interesting forms, textures, and patterns. 5	Some variety of vegetation, but only one or two major types. 3	Little or no variety or contrast in vegetation. 1
<i>Water</i>	Clear and clean appearing, still, or cascading white water, any of which are a dominant factor in the landscape. 5	Flowing or still, but not dominant in the landscape. 3	Absent or present, but not noticeable. 0
<i>Color</i>	Rich color combinations, variety or vivid color or pleasing contrasts in the soil, rock, vegetation, and water. 5	Some intensity of variety in colors and contrast of the soil, rock, and vegetation, but not a dominant scenic element. 3	Subtle color variations, contrast, or interest, generally mute tones. 1
<i>Influence of Adjacent Scenery</i>	Adjacent scenery that greatly enhances visual quality. 5	Adjacent scenery moderately enhances overall visual quality. 3	Adjacent scenery has little or no influence on overall visual quality. 0
<i>Scarcity</i>	One of a kind, unusually memorable, or very rare within region. Consistent chance for exceptional wildlife or wildflower viewing, etc. 5	Distinctive, though somewhat similar to others within the region. 3	Interesting within the setting, but fairly common within the region. 1
<i>Cultural Modifications</i>	Modifications add favorably to visual variety (may include ranching or historic features). 5	Modifications add little or no visual variety to the area. 0	Modifications are extensive and scenic qualities are substantially reduced. -4

***Scenic Quality**

Distinctive = 19 or more

Common = 12 to 18

Minimal = 11 or less