Appendix E – Visual Assessment

FINAL DRAFT: Visual Assessment

City of Douglas International Port of Entry Connector Road Study

East view showing the border wall to the south in the foreground and the City of Douglas in the distant background

South View showing James Ranch Rd alignment near Hwy 80

South View showing unpaved road along James Ranch Rd alignment

Northeast View showing wide, flat landscape

Prepared for the Arizona Department of Transportation

DATE August 11, 2023

TRACS #: ADOT Project No. F0534 01L

Federal Project No. 999-A(561)T

INDEX

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ACRONYMS

ADOT	Arizona Department of Transportation
BLM	Bureau of Land Management
EB	Eastbound
FHWA	Federal Highway Administration
Hwy 80	Highway 80
IPOE	International Port of Entry
JRR	James Ranch Road
KOP	Key Observation Point
MP	milepost
NB	northbound
SB	southbound
Rd	road
TI	traffic interchange
VRM	Visual Resource Management
WB	westbound

REFERENCES

October 2008. *Guidelines for Highways on Bureau of Land Management and Forest Service Lands.*

October 2011. *Supplement to Guidelines for Highways on Bureau of Land management and U.S. Forest Service Lands.*

VRM Manual 8400 - Visual Resource Managment. https://www.blm.gov/sites/blm.gov/files/uploads/mediacenterblmpolicymanual8400.pdf.

VRM Manual 8410 - Visual Resource Inventory. https://www.blm.gov/sites/blm.gov/files/uploads/media_Library_BLM_Policy_H8410.pdf

VRM Manual 8431 - Visual Resource Contrast Rating. https://www.blm.gov/sites/blm.gov/files/uploads/media_Library_BLM_Policy_H8431.pdf

Chronic, Halka. 1983. *Roadside Geology of Arizona*. Mountain Press Publishing Company, Missoula, Montana.

September 2015. *Guidelines for the Visual Impact Assessment of Highway Projects*

INDEX

LIST OF FIGURES

LIST OF FIGURES

1. INTRODUCTION

The General Services Administration, in cooperation with the City of Douglas and community stakeholders, are proposing a new International Port of Entry (IPOE) at the United States Border within Cochise County, Arizona (see Figure 1). This project conducted for the Arizona Department of Transportation (ADOT) shall study the possible alternatives for a connector road between the border and Highway 80 to carry commercial traffic from the IPOE and the regional highway and freeway systems.

The visual resource assessment report has been prepared to:

- Characterize the existing landscape and visual setting within the project study area and its alternatives,
- Characterize the potential views of the proposed improvements, identify visual sensitivity, and determine the expected visibility of the improvements at key observation points (KOPs),
- Identify the visual contrast (change) introduced by the proposed improvements at each KOP,
- Assess the long term, temporary, and cumulative visual impacts of the alternative improvements,
- Recommend visual mitigation measures, as appropriate.

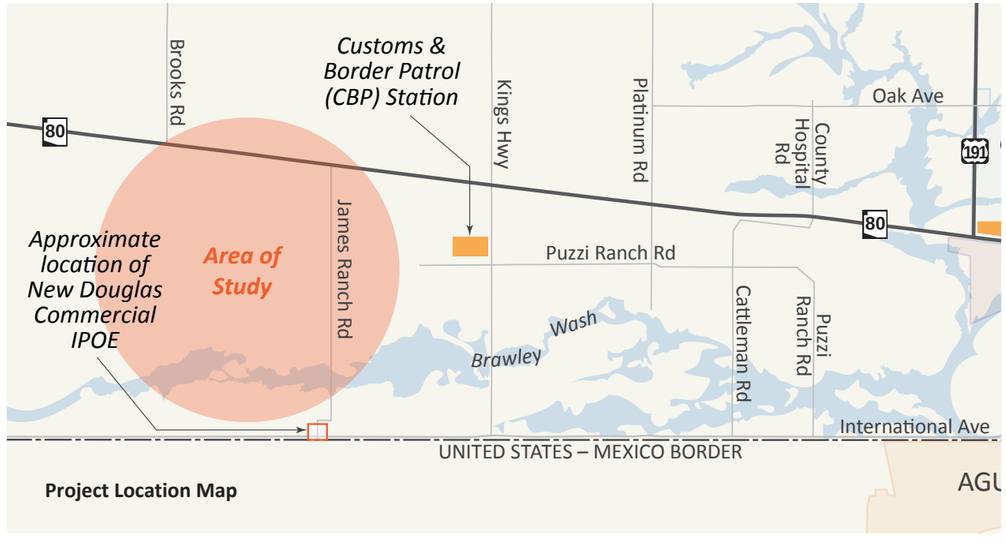


Figure 1. Project Location Map - Area of Study.

2. STUDY AREA

2.1 Existing Roadway

The study area is south of Highway 80, beginning at James Ranch Rd and extending west to North Brooks Rd. The portion of Highway 80 that lies within the project area is a four-lane divided highway, with two-eastbound (EB) and two-westbound (WB) lanes. James Ranch Rd is an unpaved road south of Highway 80 and is oriented north / south. North Brooks Rd is a paved roadway north of Highway 80 and is oriented north / south. The study area consists of the adjacent properties along James Ranch Rd, southbound (SB) starting at Highway 80 and extends south until reaching the US/Mexico Border. The study area extends west to the North Brooks Rd alignment and adjacent properties to that alignment (see Figure 2). Full sized map and parcel list is provided in Appendix A.

2.2 Regional Setting

Highway 80 is the primary route for vehicular traffic between Benson and Douglas, Arizona. It also connects to Interstate 10, Arizona State Route 82, and U.S. Highway 191. The roadway corridor passes through dramatic mountainous scenery northwest of the project study area and the communities of Benson, St. David, Tombstone, and Bisbee. Highway 80 makes its way across scrubby flatlands to the valley where Douglas is situated.

2.3 Local Setting and Geography

The visual characteristics of the project are shaped by the local area's physiographic features. The intersection of Highway 80 and James Ranch Rd. lies in a wide, flat rangeland. The elevation of the project area is approximately 4,000 feet.

Geologically, the intersection of Highway 80 and James Ranch Rd. is located within the Chihuahuan Desert. The Basin and Range topography of the Chihuahuan Desert consists of broad desert valleys bordered by mountain ranges. This geologic province is a vast basin surrounded by prominent mountain ranges in the background.

The project study area is surrounded by mountain ranges that rise sharply above the desert floor. The mountains create a dramatic backdrop that frames the wide valley. To the east, the Perilla Mountains are visible in the background behind Douglas. The Huachuca Mountains are visible in the background to the south and west. In addition to the Huachuca Mountains, the Canelo Hills are visible to the west and the Perilla Mountians to the north.

2.4 Vegetation

The lands in the project study area are within the northern and western most parts of the Chihuahuan Desert at the southeastern corner of Arizona.

The vegetation characteristics are described as Desertscrub. In the Desertscrub, the vegetation is evenly disbursed in the foreground and middle ground. The plant coverage is periodically broken up by sporadic roadway intersections along Highway 80. The vegetation maintains a consistent medium sized height of approximately six to ten feet in the fore and middle ground. This area is dominated by hummocks of *Prosopis* spp. (Mequite) as the dominant upper canopy plant. *Flourensia* spp.(Tar Bush) and *Baccharis sarothroides* (Desert Broom) are intermixed as understory species. *Bouteloua gracilis* (Blue Grama) is the dominant understory groundcover. Spotty occurrences of *Yucca* spp. (Yucca) and *Cylindroputina acanthrocarpa* (Staghorn cholla) accent the landscape.

Brawley Draw, the one ephemeral stream transverses the project study area horizontally from west to east. A higher density and greater diversity of plants was detected at the ephemeral stream during the field investigations. Species identified included *Antigonon leptopus* (Mexican Creeper) along with taller, more erect/tree-like occurrences of *Prosopis* spp.,(Mesquite). Remnants of species of perennial and annual vegetation were also present at the time of the field inventory.

2. STUDY AREA, CONT.

2.5 Land Use

The land ownership surrounding the proposed site is predominantly private lands (Appendix A). Many parcels are undeveloped and appear to have been used for cattle grazing (Figure 2). Bureau of Land Management (BLM) held lands are adjacent to the southwest corner of the project study area. The City of Douglas lies approximately 4.5 miles east of the project study area. The City of Douglas is home to the current port of entry, a municipal airport, residential homes, and the retail and commercial center on the US side of the border. Neighboring on the Mexico side of the border is the town of Agua Prieta with many similar commercial, retail, and residential uses.

Located within a mile east of the project study area is a US Border Patrol station. Scattered residential properties with homes and outbuildings are intermixed with the undeveloped parcels within the project study area. Cochise College is located approximately 2 miles west of the project study area, north of Highway 80, and also maintains an airport.

2.6 Cultural Resources

There are no known historic properties located within the area of potential impact for the project study area.

Figure 2. Location Map, with Parcels. See Full Map and Parcel List in Appendix A.

Figure 3. Project Study Area- Alignment Alternatives.

3. PROPOSED ROADWAY IMPROVEMENTS

3.1 POE Connector Road General Configuration

The lane configuration for the proposed alternatives will consist of a four-lane divided roadway with paved shoulders on each side along one of the alternatives described below and shown in Figure 3.

3.2 Alternative 1

Alternative 1 is described as the option to build a roadway that connects the new port of entry to Highway 80 following the James Ranch Rd alignment.

3.3 Alternative 2

Alternative 2 connects the new IPOE to Highway 80 starting at the IPOE, approximately 0.40 miles west of the James Ranch Rd alignment. It then continues north for approximately 1 mile before turning east for approximately 0.40 miles to reconnect the James Ranch Rd alignment. At James Rand Rd it turns north for another 0.40 miles until terminating at Highway 80.

3.4 Alternative 3

Alternative 3 is described as the option that connects the new port of entry to Highway 80 via a westbound roadway for approximately 1 mile. It then turns northbound along the North Brooks Rd alignment for approximately 1.8 miles until terminating at Highway 80.

3.5 Bridge and Earthwork Information

There are no existing structures or engineered drainage treatments within the project study area to assess. In final design a culvert crossing or bridge crossing will occur at Brawley Draw. The scale and layout of the crossing, material selection, and finishes must be considered in final design to be site context sensitive and assign mitigation measures as needed.

4. VISUAL ASSESSMENT METHODOLOGY

4.1 Introduction

The visual assessment methodology utilized for this study is based on a blend of the Bureau of Land Management's (BLM) Visual Resource Management (VRM) classification system (BLM Manual 8410) and the FHWA Guidelines for Visual Impact Assessment of Highway Projects (The VIA scoping questionnaire is attached as Appendix B). A number of visual resource management methodologies have been developed by different federal agencies using the visual resource assessment process. The BLM methodology focuses on the visual contrast of the proposed change on natural settings. The BLM manages a parcel of land adjacent to, but immediately south and west of the project study area that is similar in scenic quality to the undeveloped lands studied in this report (See Parcel Map in Appendix A). The FHWA Guidelines serves as a framework for assessing roadways and their secondary and cumulative impacts. Therefore, utilizing portions of both methodologies was selected to be used herein while relying on processes built on the BLM's VRM system and are further described in Section 4.4.1.

The VRM is used to assess scenic values and determine the visual impacts of development on the scenery. It is used by the BLM as a management tool to maintain scenic value.

The VRM process involves the following stages:

- Visual Resource Inventory
- VRM Classes and Objective Analysis
- Field Observation and Documentation
- Contrast Ratings Evaluation

4.2 Inventory

The inventory stage is used to determine visual resource values and consists of:

- A scenic quality evaluation that measures the visual quality of scenic resources (i.e., highly distinctive, moderately distinctive, or indistinctive);
- A sensitivity level analysis that measures viewer/user concern for scenic quality (i.e., low, medium, or high, depending on various indicators such as type of user, amount of use, adjacent land use, and public interest);
- The delineation of distance zones that divide the landscape relative to observer visibility from travel routes or key observation points (KOP).

The distance zones are:

- Foreground: 0- to 1/2-mile
- Middle ground: 1/2-mile to 5-miles
- Background: beyond 5-miles (8- to 15-miles for practical purposes due to earth's curvature and area topography)

4.3 VRM Classes and Objectives

Using the modified VRM methodology, lands are assigned to one of four visual resource identifications. The VRM class and objectives are in Table 1 as modified for use of roadway application. The classes are assigned to specific landscape units and describe acceptable levels of visual intrusion within each class.

Objectives for compliance using the modified VRM classes for this project fall within Class III and IV due to the overall project goal to facilitate the access to the IPOE south of the project study area to I-80. A new road in undeveloped lands constitutes a change that will be moderate to dominate. These modified VRM classes are also consistent with the private and city ownership of the parcels within the project study area. See Table 1 for more information on these modified class descriptions.

4.3.1 VRM Classification For Private Lands

The modified methodology takes into account the lands within the project study area are predominately privately owned. The classifications have been adjusted to separate preservation and conservations objectives typically associated with natural and recreation uses not in lands under with private ownership.

TABLE 1: MODIFIED VRM CLASSES

CLASS	DESCRIPTION
I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes the level of with limited development and requires high levels of mitigation. Suitable for natural and passive recreation sites.
II	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Development activities may be seen but should not attract the attention of the casual observer. Suitable for natural and passive recreation sites.
III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Development activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape, or use mitigation measures to buffer development.
IV	The objective of this class is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These development activities may dominate the view and be the major focus of viewer attention. However, attempts should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

4. VISUAL ASSESSMENT METHODOLOGY, CONT.

4.4 Contrast Ratings

The preparation of contrast ratings is the analysis stage of the VRM process. For this project, it is an expert-based process as opposed to one using computer simulations. Contrast ratings are used to determine whether the potential visual impacts from a proposed surface-disturbing activity meets the development objectives established for the area. To help make the analysis process less subjective, BLM's Visual Contrast Rating System (BLM Manual 8431) provides guidance to measure the visual contrast created between a proposed activity and the existing landscape.

The basic steps in the contrast rating process for this project are:

- Selection of KOPs
- Delineation of the viewshed from each KOP
- Field observation and documentation
- Contrast rating

4.4.1 Modifications to Contrast Rating Method

This report uses a blended methodology between the BLM VRM and the FHWA VIA processes for analyzing potential visual impacts of the alternatives. Reasoning for this approach is to utilize the scenic assessment methodology derived from the BLM VRM and established contrast ratings worksheets for field work. These tools are well suited for the undeveloped and scenic qualities of the existing project study area. Overlaying that methodology with terms and concepts in the FHWA VIA processes that are conducive for studying the impacts of roadways on their surroundings produced resulting analyses that account for the scenic context of the existing features while factoring in the proposed uses and their secondary and cumulative impacts.

4.4.2 KOP Selection Process

KOPs were chosen to provide analysis of the project study area from the three roadway alternatives and off-site looking onto the improvements. The selected locations are identified at key decision points for each alternative. Areas of significant changes in the visual character in the project study area such Brawley Draw were included as KOPs. The intersections of existing roadways with the proposed alternative improvements and directional changes in the proposed alternatives were identified as key decision points, where the internal viewers would observe the visual qualities of the study area most significantly. These same locations would require the most noticeable changes to the existing conditions. Vertical improvements such as lighting and signage would be visible more prominently and from farther away from the project study area.

Accessibility to the KOP and the ability to view the proposed improvements from that location also played a role in the selection. Where roads did not exist, access by foot secured the field data needed to analyze the KOPs. A total of 10 KOPs were identified and located; each KOP is shown in Figure 4.

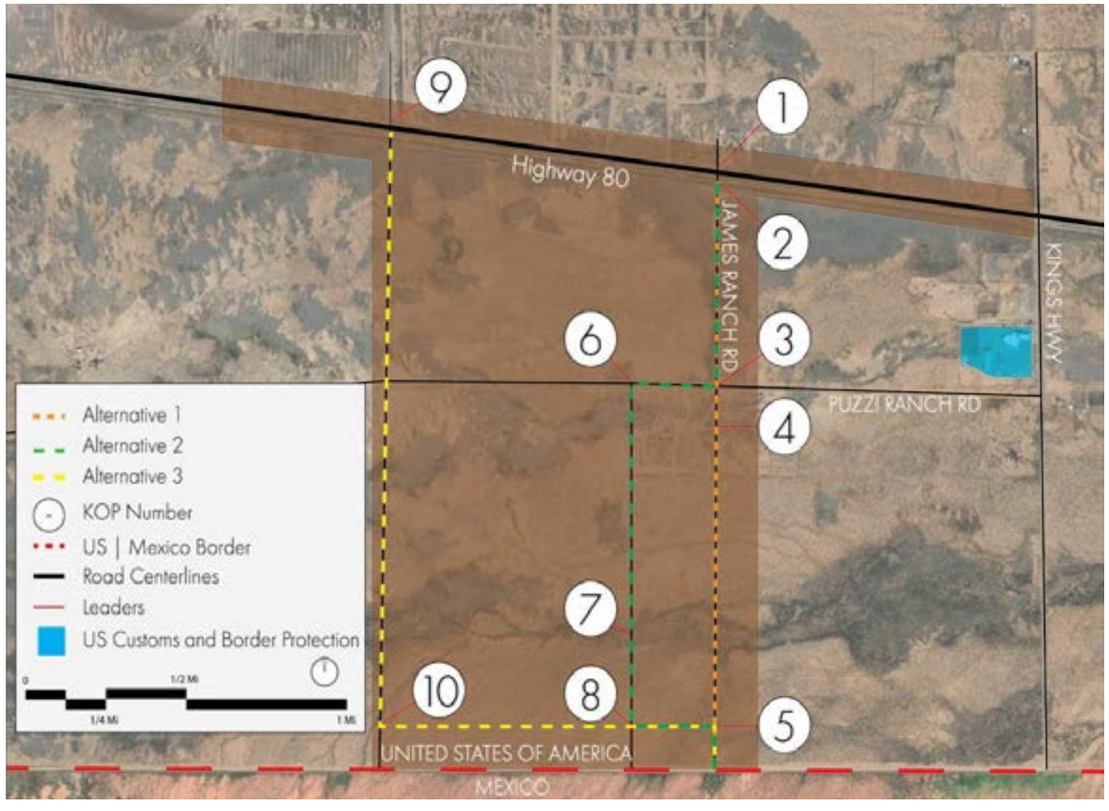


Figure 4. KOP Location Map.

4.4.3 Field Observation

A two member field team analyzed each KOP to record the character of the landscape visible from and to each KOP and the proposed activity description anticipated to be visible to and from the same KOP. Their analyses used basic design elements of form, line, color, and texture to describe the existing and proposed improvements in three contexts:

- Land/Water
- Vegetation
- Structural features such as bridges, walls, and buildings

The team members evaluated, discussed, and agreed to the existing and proposed character impacts, and their observations were recorded in the Visual Contrast Rating Worksheets (see Appendix C). Photographs were taken to illustrate and support the written commentary.

4. VISUAL ASSESSMENT METHODOLOGY, CONT.

4.4.4 Contrast Rating Criteria

The Visual Contrast Rating Worksheets also have sections for the team to provide a projected rating for the degree of contrast that would be created by the proposed improvements. To determine if the proposed improvements will meet VRM objectives, and to identify mitigating measures, if required, the Rating Criteria table was used. The rating criteria are shown in Table 2.

Table 2: Contrast Rating Criteria	
CRITERIA	DESCRIPTION
STRONG	The contrast demands attention, would not be overlooked by the average observer, and is dominant in the landscape
MODERATE	The contrast begins to attract attention and begins to dominate the characteristic landscape.
WEAK	The contrast can be seen but does not attract attention.
NONE	The contrast is not visible or not perceived.

4.5 Consistent Visual Characteristics

This project study area has several existing elements of similarity throughout each KOP. They are characterized and understood to be uniformly applied to all KOPs in the project study area (unless stated otherwise) due to the similarities of existing and proposed features.

Existing Consistent Features

- Vegetative matrix of desertscrub, creates a uniform blanket of vegetation across the foreground.
- The color and texture of the foreground landscape reinforces the uniformity of the foreground views with its sameness.
- Mountainous terrain in the background creates a strong background silhouette against the skyline. The mountains contrast with built structures while diminishing the built structures impacts by the large scale of their natural rugged features
- Inability to see the middle ground in all directions due to foreground vegetation height. Views are obscured due to the topography and vegetation present the flatlands.
- Rural setting with primarily undeveloped lands and scattered residential has little structural interest in the viewsheds. There are minimal viewers from static points outside of the project study area.

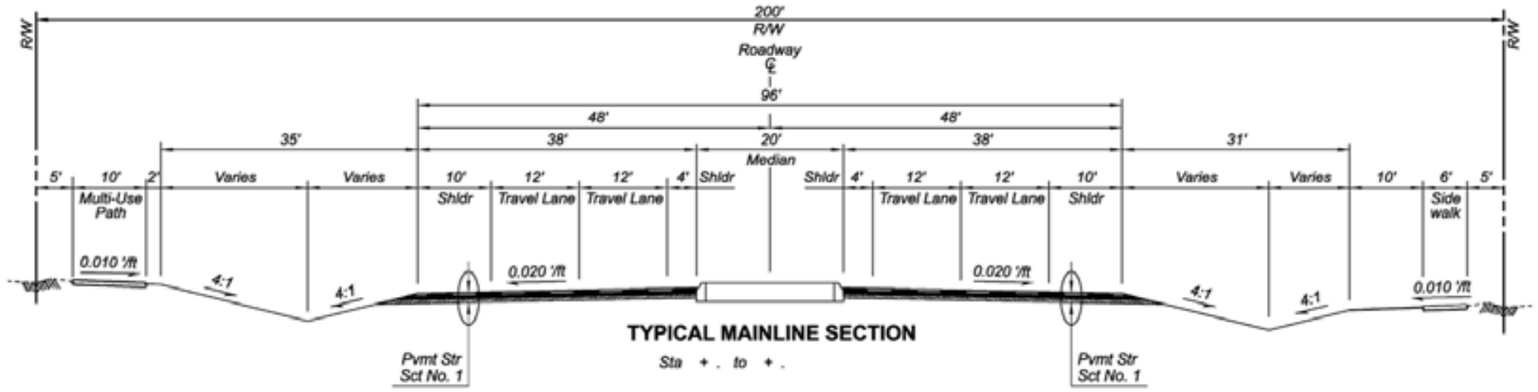


Figure 5. Typical Cross-Section (proposed).

Proposed Consistent Features

- 4-lane divided highway connector road between Highway 80 and the proposed IPOE, consistent cross section of the roadway.
- Proposed 80-Ac IPOE location at the NW corner of the James Ranch Road alignment and the International Border maintenance and patrol road.
- All alignments start at the IPOE and end at Highway 80 within a 2-mile distance from each other.
- Vertical pole lighting and traffic signage as necessary improvements with the 4-lane divided highway will create the most vertical change for all KOPs.
- Viewshed focus will be concentrated at changes of direction or intersections.

The result of these consistencies for all KOPs mean that while there are three alignments analyzed, there are tendencies of each to incur similar impacts within the project study area on the surrounding viewers and on the viewers within it. The result of these similarities will also be addressed in contrast rating worksheets as Appendix C of this report.

4.6 Proposed Alternatives and Key Observation Points

The proposed roadway improvements will remain consistent among all Alternatives, as shown in Figure 5.

Listed below are the alternatives and the KOPs that are applicable in other alternatives:

- Alternative 1: KOP 7 noted in Alternative 2 will apply to this alternative with the same impacts.
- Alternative 2: KOPs 1-3 & 5 will apply to this alternative with the same impacts.
- Alternative 3: KOP 5 noted in Alternative 1 will apply to this alternative with the same impacts.

KOP 1 - North of Highway 80 and James Ranch Rd Intersection

Figure 6. NB view of an existing residential building, north of Hwy 80 along the JRR alignment.

Figure 7. SB view facing the intersection of JRR and Hwy 80.

Figure 8. SW view from north side Hwy 80 on JRR alignment.

This KOP is located on the north side of the intersection of James Ranch Rd (JRR) and Highway 80 (Hwy 80). The surrounding property consists of an existing occupied residence and outbuildings (Figure 6). The dominant viewshed of this location in the fore and middle ground is the Highway 80 roadway structure and overhead utilities to the south and extending east and west (Figures 7- 8). Low complexity plant material consisting of medium sized shrubs and grasses that form a continuous landscape character are seen in the fore and middle ground (Figure 8). Background (BG) views to the east, south, and west are of mountain ranges (Figure 9). The Cities of Douglas and Agua Prieta hug the lower valley to the southeast in the distant background.

Proposed roadway improvements include roadway development and installation of overhead utilities. Highway 80 travelers will experience increased activity to the south at this traffic intersection and will have momentary visibility of the proposed improvements. The visual contrast of the roadway development to this area will be permanently high for few users.

Figure 9. Panoramic view showing east, south, and west views along the JRR alignment, south of Hwy 80.

KOP 2 - South of James Ranch Rd and Highway 80 Intersection

This KOP is located on the south side of the intersection of James Ranch Rd and Highway 80. The dominant viewshed of this location is a vast, flat Desertscrub in the foreground (FG) with mountains in the background to the east and west (Figure 10). The vegetative matrix is generally uniform, consisting of medium sized shrubs and grasses. This vegetation forms the primary foreground of the low complexity landscape character. The uniformly sloping broad valley eliminates the viewshed of the middle ground (MG). The density and height of the foreground vegetation and the downward slope to the south and east obscure middle ground views. Glimpses of the City of Douglas are visible in the background to the east. The color palette in this area is composed of tan, beige, brown, and flecks of green (Figure 11). Figure 12 demonstrates the visual quality of the surrounding residential properties in the project study area.

Visibility of this newly constructed four lane roadway would be the most prominent from this KOP in the foreground. The developed appearance of the foreground and middle ground areas would be changed slightly to moderately by the hard-edged line of the newly constructed roadway. Textural and contrasting color of the new lanes and striping would be dominant elements in the foreground. The overall character of this KOP as a newly developed interchange will be impacted moderately and persistently by the proposed improvements.

Figure 10. EB view showing the flat valley vegetation in the foreground.

Figure 11. WB view showing flat FG along Hwy 80 and JRR intersection.

Figure 12. NB view looking a the existing residence north Hwy 80, along JRR alignment.

KOP 3 - James Ranch Rd and Puzzi Ranch Rd Intersection

Figure 13. WB view of the unpaved JRR roadway and bordering plant coverage.

Figure 14. Southwest view displaying the consistent vegetation.

This KOP is located at the intersection of James Ranch Rd and Puzzi Ranch Rd. The dominant viewshed of this location is the plant material and existing unpaved roads in the foreground (Figure 13). The vegetation consists of medium sized shrubs, grasses, and perennials (Figure 14). The flat terrain of the valley eliminates the viewshed of the middle ground. There are mountains visible in the background in all directions. The color palette in this area is composed of tan, beige, brown, and flecks of green. Figures 15-16 demonstrate the visual quality of this KOP as described in their captions.

Visibility of this newly constructed four lane roadway would be limited to the foreground. The few scattered residential properties and the vehicles traveling on either the existing Puzzi Ranch Rd or the new connector road will be affected. Installation of new vertical elements, such as overhead light structures and overhead utilities, will become visible from these offsite viewers. The removal of vegetation for the 4 lanes of traffic will cause a gap in the otherwise consistent vegetative matrix. The overall character of this KOP will not be greatly impacted by viewers in the middle and background.

Figure 15. EB view looking on the Puzzi Ranch Rd in the fore and middle ground.

Figure 16. Southeast view capturing the native vegetation.

KOP 4 - South of James Ranch Rd and Puzzi Ranch Rd Intersection

Figure 17. Southeast view showing piles of debris in the FG and MG.

Figure 18. SB view south of JRR and PRR intersection.

Figure 19. EB view showing consistent plant coverage in the FG and MG.

This KOP is located approximately 0.20 miles south of the intersection of James Ranch Rd and Puzzi Ranch Rd. This location contains a cluster of abandoned trailers. The dominant viewshed within this location consists of large piles of debris and consistent plant coverage (Figures 17 and 20). As with other KOPs, the flat valley eliminates the middle ground viewshed. There is a water tower that is part of the border patrol station that is visible in the distance. Rugged mountains can be seen in the background to the east, south, and west. The color palette consists of tans, light green, medium green, and browns. Figures 18- 19 demonstrate the visual quality of this KOP as described in their captions.

Visibility of this newly constructed four lane roadway would be limited to the few scattered resident properties. Installation of new vertical elements, such as overhead light structures and overhead utilities, will become visible from offsite views. The removal of vegetation will cause a gap in the otherwise consistent plant coverage. Due to the vast vegetative matrix outside of the project site that will be undisturbed, the overall character of this KOP will not be perceived as significantly different from the middle ground and background.

Figure 20. EB view looking on the JRR alignment in the fore and middle ground.

KOP 5 - United States and Mexico Border

Figure 21. WB view along International Avenue at the US | Mexico Border.

Figure 22. Northwest view along International Avenue displaying the wide, flat landscape with scenic mountains in the background.

This KOP is located along the United States and Mexico border, perpendicular to James Ranch Rd. The border wall is the dominant element to the south (Figure 22). The dominant viewshed of this location consists of a wide, open, exposed soil swath that abuts a layer of grasses (Figure 24). The land transitions into the indicative Desertscrub described in each KOP. The flat valley eliminates the viewshed of the middle ground once again. The background to the east and west consists of mountain ranges. The color palette in this area is composed of tan, beige, brown, and flecks of green. Figures 21-24 demonstrate the visual quality of this KOP as described in their captions.

The visibility of this newly constructed roadway would be limited to W. International Avenue and the new POE facilities once completed. New roadway features such as pavement, overhead utilities, and light structures will have an impact on the color and texture of the surrounding area. The improvements will not be drastically different from the types of installments associated with the proposed POE facilities.

Figure 23. WB view along International Avenue showing wide, flat landscape with border wall in the middle ground and mountains in the background.

Figure 24. EB view along International Avenue showing the border wall to the south in the FG.

KOP 6 - West of James Ranch Rd and Puzzi Ranch Rd Intersection

This KOP is located approximately 0.40 miles west of the intersection of James Ranch Rd and Puzzi Ranch Rd. The dominant viewshed of this location is a wide unpaved roadway surrounded by the flat, vast landscape composed of Desertscrub (Figure 25). The plant material is medium-sized shrubs, grass, and perennial species widely and evenly disbursed throughout the foreground (Figure 26). Mountain ridge lines are visible in the background to the east, south, and west (Figures 27-28). The existing color palette of this landscape is primarily shades of brown, tan, red, and green.

The visibility of the proposed roadway improvements is limited to the few nearby residential buildings. The new 4-lane connector road will have a permanent visual impact to the few scattered residences. However, the overall character of this KOP will have moderate to minimal impact on the landscape and surrounding undeveloped areas. The foreground vegetation will obscure the proposed roadway, with only the vertical elements visible for any distance.

Figure 25. WB view showing existing unpaved roadway on Puzzi Ranch Rd alignment.

Figure 26. NB view showing consistent plant coverage on a flat valley.

Figure 27. Southeast view showing existing residence.

Figure 28. EB view on Puzzi Ranch Rd, the City of Douglas is visible in the BG.

KOP 7 - Brawley Draw Crossing

Figure 29. West view capturing thick plant coverage.

Figure 30. SB view of foreground plant materials obscuring the mid and back ground vistas.

Figure 31. EB view displaying a cow path among the vegetation.

This KOP is located approximately 0.70 miles south of KOP 6 at Brawley Draw. The dense plant material in this area has a higher diversity and larger vegetation than the other KOPs due to the presence of ephemeral flows. Visibility is greatly reduced beyond the foreground at this location (Figures 29-33). The elevation is slightly lower than the other KOPs. Glimpses of mountain peaks are periodically visible in the background through the plant coverage. No structures are visible in any direction, except the US/Mexico border to the south. Figure 33 demonstrates the visual quality of this KOP as described in the caption.

Due to the consistent, thick, vegetative coverage views will be obscured from middle and background views. The proposed roadway improvements would moderately impact the character of this area. The raised roadway crossing will introduce structural roadway elements in otherwise natural vistas east and west.

The impacts are similar for all three alternatives when crossing Brawley Wash. The similar improvements would require similar mitigation measures to lessen impacts of the structures used to cross the wash.

Figure 32. Panoramic view showing southwest view along the ephemeral stream.

Figure 33. Panoramic southeast view of the ephemeral steam.

KOP 8 - United States and Mexico Border

This KOP is located adjacent to the border of the United States and Mexico. The dominant viewshed at this location is the vast, flat desert rangeland in the fore and middle ground. The mountain ranges are visible in the background to the east, south, and west. The dominating horizontal lines created by the metal border wall, associated maintenance / patrol road and pole lighting are visible to the south along International Avenue (Figure 34). The City of Douglas is visible in the distant background to the east (Figure 35). There are minimal other structures in the fore and middle ground. Visual quality of this KOP is displayed in Figures 36-37 and their respective captions.

The impacted viewers of the proposed roadway improvements at this location are limited to the few scattered residential properties to the north of the KOP. Undisturbed vegetation will obscure the horizontal roadway improvements. Anticipated impacts will be the additional lighting and the line created by the break in vegetation where the new roadway occurs. The overall character of this KOP will have minimal changes in the landscape as seen from the surrounding areas.

Figure 34. SB view showing the flat foreground with the prominent border wall.

Figure 35. EB view capturing the City of Douglas in the distant background.

Figure 36. SB view showing some of the sporadic accent vegetation.

Figure 37. SB view displaying the plant coverage and coarse, rocky soil pathway.

KOP 9 - North Side of North Brooks Rd and Highway 80 Intersection

Figure 38. EB view from the north side of Hwy 80 and North Brooks Rd intersection.

Figure 39. Panoramic view showing north, east, and south views north of Hwy 80.

This KOP is located on the north side of Highway 80 on North Brooks Rd. The primary viewshed at this location is the existing roadway in the fore and middle ground. The views consist of the highway, North Brooks Rd, and the overhead utilities, with the mountain ranges in the background (Figure 38-39). The KOP on this roadway is situated higher in elevation than the other alignments and the surrounding landscape to the south. The City of Douglas is visible in the background to the east. Figures 40-41 further display the visual quality of this KOP as described in their captions.

Visibility of this newly constructed four lane roadway would be limited to the traffic from North Brooks Rd and Highway 80 travelers. The overall characteristics of this KOP will be similar to the existing road and highway. There will be minimal impact on the viewers from surrounding project study area. The area that will experience the greatest visual impact will be at the intersection of Highway 80 and North Brooks Rd.

Figure 40. SB view showing the Highway 80 structures in the foreground.

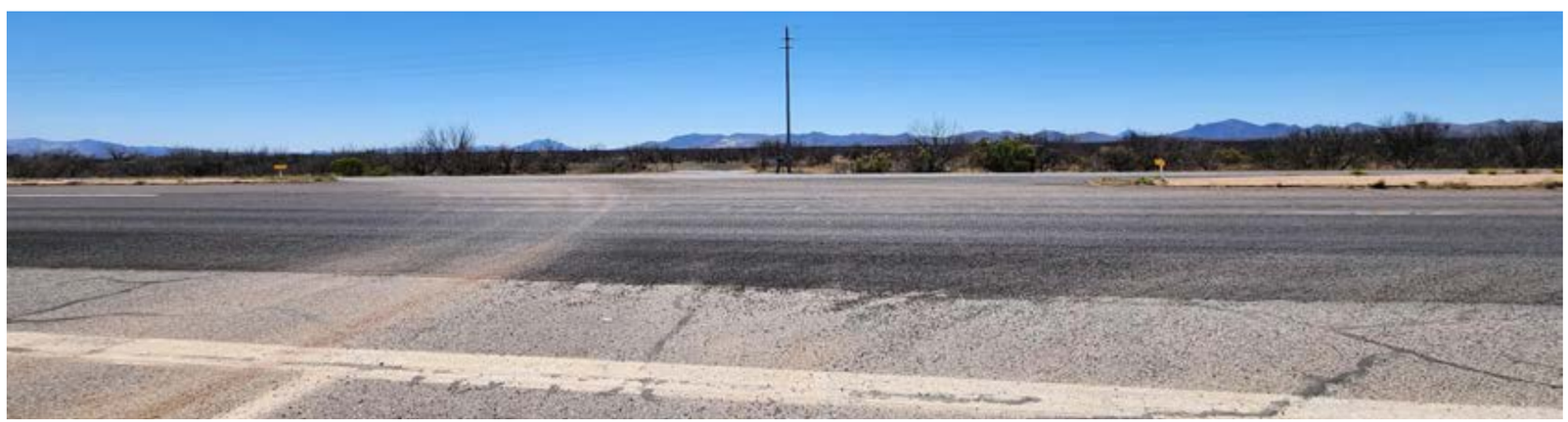


Figure 41. Southwest view showing the intersection of Hwy 80 and North Brooks Rd.

KOP 10 - United States and Mexico Border on North Brooks Rd Alignment

Figure 42. EB view showing the City of Douglas in the distant background.

Figure 43. NB views showing open land on North Brooks Rd alignment.

Figure 44. SB view showing a barbed wire fence adjacent to unpaved roadway.

This KOP is located approximately 1.8 miles south of the North Brooks Rd alignment, near the United States and Mexico border. The primary viewshed at this location is the vast, flat desert rangeland in the foreground (Figures 42-43). The mountains are visible in the background to the east and west. There is an undeveloped roadway adjacent to the barbed wire fence on the west side (Figure 44). There are minimal structures in the fore and middle ground. The dominating horizontal lines created by the metal border wall, associated maintenance / patrol road and pole lighting are visible to the south (Figures 44-45). The City of Douglas can be viewed in the distant background to the east. Figure 46 demonstrates the visual characteristics of this KOP as described in the caption.

The impacted viewers of the proposed roadway improvements at this location are limited to the few scattered residential properties to the north of the KOP. The undisturbed vegetation will obscure the horizontal roadway improvements. Anticipated impacts will be the additional lighting and the line created by the break in vegetation where the new roadway occurs. The overall character of this KOP will have minimal changes in the landscape as seen from the surrounding areas.

Figure 45. Panoramic view capturing the north, east, and south views along North Brooks Rd alignment.

Figure 46. Panoramic view capturing west, north, and east west views along North Brooks Rd alignment.

5. COMPLIANCE WITH VRM OBJECTIVES

The projected level of contrast for the proposed improvements at each KOP was compared with the acceptable levels of contrast for the visual resource class of the view. The four levels of contrast (none, weak, moderate, and strong) roughly correspond to Classes I, II, III, and IV, respectively. Acceptable degrees of contrast for each visual resource class based on BLM definitions are summarized in Table 3.

From the Visual Contrast Rating Worksheets in Appendix C, a listing of all the KOPs, their contrast rating by alternative, the VRM class for the views from the KOP, and whether the alternative complies with VRM objectives as was compiled in Table 4.

The majority of the project study area would be classified as Class IV because the roadway will have a major impact temporarily during construction and a minimal to moderate impact permanently after construction. Brawley Draw crossing will have more permanent structural impacts and as such is classified as Class III.

5.1 Summary of Project Study Area Impacts

The proposed roadway development would have an effect on the character of the immediate foreground and middle ground areas. The roadway will have an impact on the colors and textures of adjacent land. Generally, all areas of developed roadway would create an overall change to the visual environment due to the introduction of roadway construction and vertical elements to this area. In areas near the scattered residential buildings, and particularly connecting to Highway 80, the large expanse of pavement in the foreground will be visible. This developed pavement section would affect the character by creating contrasting line, color, and texture elements against the natural landscape and vegetation.

Spectacular views of the Huachuca Mountains, Perilla Mountains, and Canelo Hills are visible in the distance for viewers in the project study area. The mountains are prominent along the stretches of Highway 80 leading up to and away from the proposed site. The background views of the mountains will not be greatly impacted by the roadway development.

Table 3: Degrees of Contrast By VRM Objective

OBJECTIVE	DEGREE OF CONTRAST
CLASS I	Acceptable contrasts are primarily natural ecological changes.
CLASS II	Contrasts may be seen but should not attract the attention of the casual observer.
CLASS III	Contrasts may attract attention but should not dominate the view of the casual observer.
CLASS IV	Contrast may dominate the view and be the major focus of the viewers attention.

Table 4: KOP Compliance Summary

KOP	CONTRAST RATING/ VISIBLE ALTERATIONS	VRM OBJECTIVES	COMPLIANCE WITH VRM OBJECTIVES
1	Minor to Moderate/New Intersection	III	YES
2	Minor to Moderate/New Roadway	IV	YES
3	Minor to Moderate/New Roadway	IV	YES
4	Minor to Moderate/New Roadway	IV	YES
5	Minor to Moderate/New Roadway	IV	YES
6	Minor to Moderate/New Roadway	IV	YES
7	Minor to Moderate/New Roadway & Bridge Structure	III	YES
8	Minor to Moderate/New Roadway	IV	YES
9	Minor to Moderate/New Intersection	III	YES
10	Minor to Moderate/New Roadway	IV	YES

The greater vegetation coverage near the ephemeral stream located within the project site will be affected all three Alternatives.

5.2 Summary of Structures Impacts

Proposed structure development would attract the attention of Highway 80 travelers and the sparsely distributed residents in the area. Added structures such as roadways, drainage crossings, and overhead utilities would create artificial edges in the adjacent natural landscape and create contrasting forms, lines, colors, and textures.

The bridge / drainage structure required to cross Brawley Draw would not be visually prominent from middle and background viewers. It would not be seen from surrounding areas due to the vegetative coverage.

5.3 Secondary Impacts

Secondary impacts are effects that are induced by the initial action. The introduction of the new roadway creates the possibility of neighboring properties increasing in value. Possible construction and development of industrial uses can be expected with the addition of this new roadway. Increased noise and light impacts from traffic should be expected with roadway improvements. Existing residential buildings in this area may relocate or experience increasing urbanization in an otherwise rural setting.

5.4 Cumulative Impacts

Cumulative impacts occur when a proposed project incrementally adds adverse visual impacts to a particular landscape or viewshed sufficient enough to cause a significant overall impact. The project goal to connect the proposed IPOE to I-80 will increase potential for the adjacent lands to be developed. All alternatives will cause cumulative impacts, they will increase access for undeveloped parcels to be developed. Alternative 1 is anticipated to cause the least number of cumulative impacts due to its linear nature and shortest distance to connect the IPOE to I-80. While improvements for all alternatives would increase the potential for increased density of development in a relatively narrow view corridor; they would be compatible with the existing character of the existing I-80 bordering the north of the study area.

5. COMPLIANCE WITH VRM OBJECTIVES, CONT.

5.5 Temporary Impacts

Roadway development may result in temporary visual impacts to various combinations of views. The magnitude and duration of construction activity associated with building the roadway improvements will cause visual impacts. This environment is predominantly rural and in the Chihuahuan Desert landscape that does not provide dense screening vegetation. Therefore, viewer awareness of the construction activity is anticipated to be moderate to high in all areas of the project study area.

The type of construction visual impacts that would be anticipated include large heavy equipment, including cranes that introduce a tall vertical element, mounds of temporary material stockpiles, dust, traffic control barriers and an increased perception of color and motion from crew vehicles and equipment.

6. MITIGATION MEASURES

Mitigation measures are used to reduce or eliminate the visibility of project impacts or positioning alter the project's effect on the scenic or aesthetic resources. During pre-design activities the visibility of the project is assessed as part of a larger assessment of the studied alternatives. The selection and composition of specific mitigation strategies is used to achieve agreed upon mitigation goals.

Design considerations addressed in this assessment includes a review of aesthetically compatible mitigation measures that incorporate environmentally friendly design principles and components, as may be employed from the following section.

Preferred Mitigation Measures

Mitigation measures have also been included to provide methods, recommendations, and guidelines for integrating the proposed roadway alignment improvements into the existing landscape, thereby mitigating visual impacts and blending the improvements into the natural environment. Design methods of mitigation listed below are typical for ADOT projects. The following mitigation measures may be applicable for incorporation in the proposed roadway alignment improvements during Final Design to reduce visual impacts of the improvements along the roadway as well as views from the surrounding area.

1. The design and construction of all improvements should consider recommendations as documented in the current version of ADOT Guidelines for Highways on Bureau of Land Management and Forest Service Lands. (ADOT, 2008) and Supplement to Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands (Oct. 17, 2011; links updated May 15, 2014, Pages 53 and 54 updated Dec. 1, 2014). Coordinate with ADOT Roadside Development during Final Design when selecting the appropriate details used for aesthetics, surface stabilization materials, and landscaping.

2. Measures to mitigate/minimize cut and fill slope impacts using proven highway slope construction techniques such as rock sculpting, warping, slope rounding, varied slope ratios, false cuts and staining rock faces and retaining walls should be considered. These design techniques are included in the referenced design manual.

3. All new structures including bridges, retaining walls, drainage culverts (headwalls and outlets) should be stained and/or painted to blend with the color of the adjacent undisturbed natural landscape. Aesthetics should be a major consideration during structure design and include architectural enhancements and detailing to all new bridge structures to ensure they provide open, light, and graceful forms within the environment by using slender, matching pier and girder configurations. Aesthetic treatments and architecture design for the new bridges and walls shall achieve the balance among the individual bridge structure characteristic, the sense of place, as well as the consistency and integrity of the roadway corridor.

4. Open bridge barrier rails should be considered to optimize the available viewshed of panoramic vistas and reduce scale and form dominance created by concrete barriers. Solid concrete roadway barriers and bridge barriers that obstruct views should be minimized in lane widening where possible. Weathering steel safety rail and wood post safety barrier systems should be considered when barrier systems are required.

5. Assess proposed structure aesthetics in Final Design to determine what rustication enhancements, including paint, that could be needed to integrate project improvements with potential urbanization surrounding portions of the project study area and proposed aesthetic treatments for new structures.

6. Retaining walls, if visible to the roadway traveler or from adjacent properties, should be considered on a site-by-site basis for enhanced architectural features including paint, stain, and patterns that produce simulated rock

or natural rustication patterns produced by form liners, stacked stone or other means.

7. Disturbance areas should be re-vegetated with native species and salvaged plant materials, where feasible, to ameliorate the contrasting effects of form, line, color, and texture as a result of the highway improvements. Native plant inventory and salvage and replanting shall follow ADOT Native Plant Salvage & Replanting Guidelines: https://apps.azdot.gov/files/roadway-engineering/roadside-dev/native-plant-salvage-and-replanting-evaluation-guidelines.pdf. Plant such as shrubs and annuals that are aggressive in regenerating themselves as well as have higher Relative Abundance in existing natural vegetation species composition should not be salvaged

8. Surface soils native to the project area should be considered for salvage and reuse to mitigate texture, color, and line impacts and provide slope stabilization.

9. All permanent erosion and sediment control BMPs (Riprap/Rock Mulch) that are visible from the Roadway perspectives should be stained, painted, or selected from natural native material coloration to blend with the natural material color(s) of the adjacent undisturbed native landscape materials. Native seed mixtures used in soil stabilization should be context sensitive to elevation and surrounding plant communities.

10. Landscaping aesthetics should be assessed in Final Design in areas of growing urbanization such as I-80 and future IPOE.

11. New roadway lighting should include cut off features for the fixtures to reduce off-site migration, glare, and “sky-glow” light pollution. Consider using amber or red output light fixtures that are less disruptive to wildlife. Light poles and fixture paint colors and finishes should blend into the surrounding landscape.

APPENDIX A- PARCEL MAP AND LIST

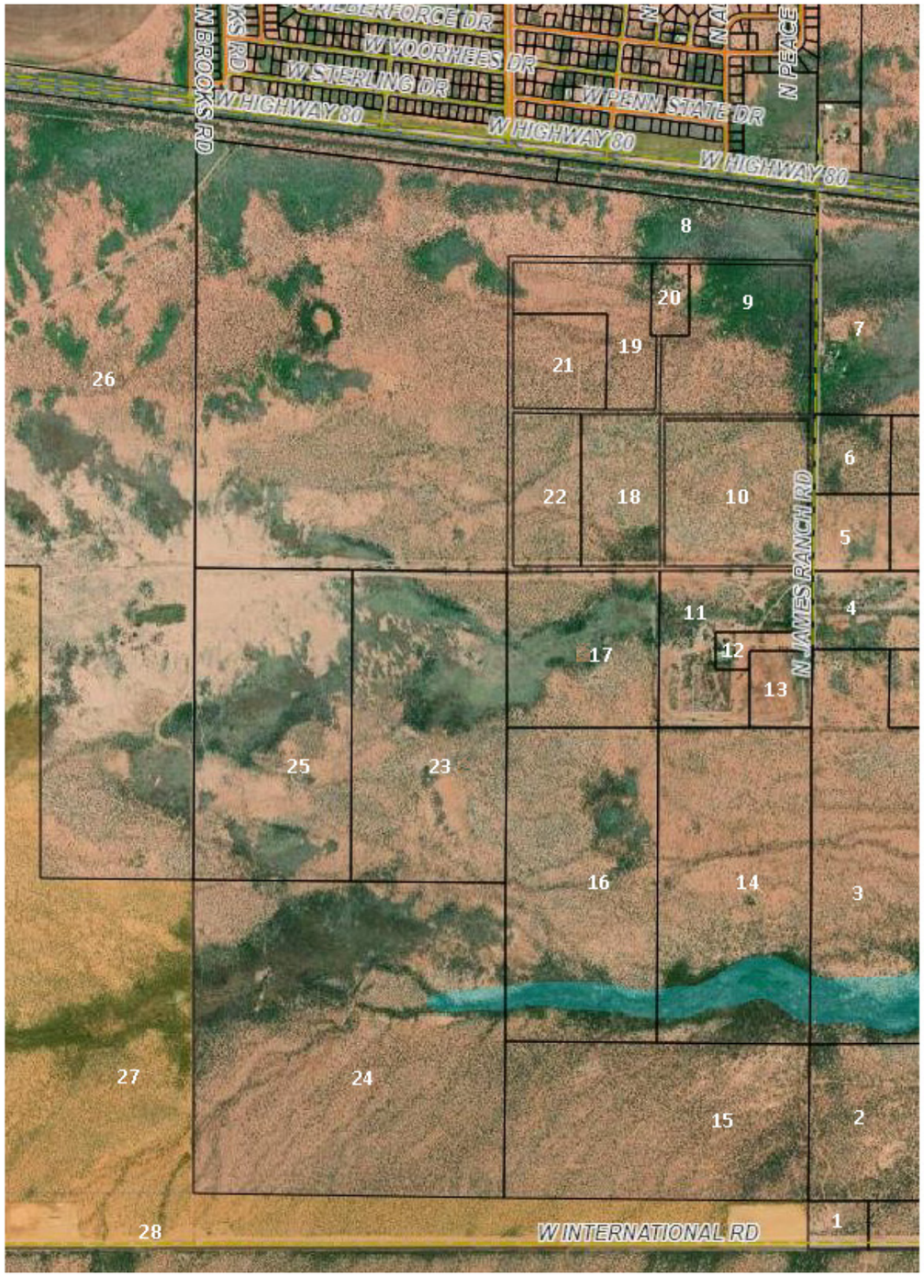


Figure 47. Parcel Location Map.

Parcel Information

1. Number: 40834008B
Owner: City of Douglas

2. Number: 40834005B
Owner: Michael Dennis Antonovich
Mary Christine Antonovich

3. Number: 40834005C
Owner: Tactical Holdings LLC

4. Number: 40834009
Owner: James Gary W & Judy L Shelley- TrustJesus Robert Mejias

5. Number: 40801012
Owner: James Gary W

6. Number: 40810014
Owner: Janet L Harris

7. Number: 40810008
Owner: TBJ Investment LLC

8. Number: 40768013A
Owner: Tactical Holdings LLC

9. Number: 40768007
Owner: Tactical Holdings LLC

10. Number: 40768006
Owner: Tactical Holdings LLC

11. Number: 40769002A
Owner: J W & Roberta D Bauer

12. Number: 40769002B
Owner: John Wesley & Roberta Diane Bauer

13. Number: 40769001
Owner: JW & Roberta Bauer

14. Number: 407690085
Owner: Linda Swander

15. Number: 40769004A
Owner: City of Douglas

16. Number: 40769004B
Owner: Raymond J III Hufnagel

17. Number: 40769003
Owner: Scott K & Olga J Aldrich

18. Number: 40768009
Owner: Arthur Martinez Federico

19. Number: 40768008A
Owner: Mariko Ewert

20. Number: 40768013B
Owner: Tactical Holdings LLC

21. Number: 40768008B
Owner: Lisa M Burns
Lori Elliot-Powers

22. Number: 40768010
Owner: Tactical Holdings LLC

23. Number: 40769007
Owner: Steven H Meyers

24. Number: 40769006
Owner: City of Douglas

25. Number: 40769008
Owner: City of Douglas

26. Number: 40761006A
Owner: Larry W & Anne M Brasher

27. Number: FID: 620068
Owner: Arizona State Trust Land

28. Number: FID: 621088
Owner: BLM

Federal Highway Administration

Visual Impact Assessment Scoping Questionnaire

2/28/23
3/29/23

Project Name: DOUGLAS I POE
Site Visit Date: Day, ~~00/00/0000~~
Location: JRR, PRR & I-80 @ BORDER
Time: 0:00 a.m. / p.m.
Special Conditions/Notes: MOSTLY UNDEVELOPED ROADS / DIRT OR GRAVEL
Conducted By: AES

15 POINTS

Environmental Compatibility

1. *Will the project result in a noticeable change in the physical characteristics of the existing environment?* (Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities.)

- ☐ High level of permanent change (3)
- ☒ Moderate level of permanent change (2)
- ☐ Low level of permanent or temporary change (1)
- ☐ No Noticeable Change (0)

2. *Will the project complement or contrast with the visual character desired by the community?* (Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the change will be viewed by the public as positive or negative? Research planning documents, or talk with local planners and community representatives to understand the type of visual environment local residents envision for their community.)

- ☐ Low Compatibility (3)
- ☒ Moderate Compatibility (2)
- ☐ High compatibility (1)

3. *What level of local concern is there for the types of project features (e.g., bridge structures, large excavations, sound barriers, or median planting removal) and construction impacts that are proposed?* (Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern, and requiring a more focused visual analysis.)

- ☐ High concern (3)
- ☐ Moderate concern (2)
- ☒ Low concern (1)
- ☐ Negligible Project Features (0)

THIS PAGE 5

Federal Highway Administration

4. *Is it anticipated that to mitigate visual impacts, it may be necessary to develop extensive or novel mitigation strategies to avoid, minimize, or compensate for adverse impacts or will using conventional mitigation strategies, such as landscape or architectural treatment adequately mitigate adverse visual impacts?*

- ☐ Extensive Non-Conventional Mitigation Likely (3)
- ☐ Some non-conventional Mitigation Likely (2)
- ☒ Only Conventional Mitigation Likely (1)
- ☐ No Mitigation Likely (0)

5. Will this project, when seen collectively with other projects, result in an aggregate adverse change (cumulative impacts) in overall visual quality or character? (Identify any projects [both state and local] in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.)

- ☐ Cumulative Impacts likely: 0-5 years (3) — or
- ☒ Cumulative Impacts likely: 6-10 years (2) — USE
- ☐ Cumulative Impacts unlikely (1)

Viewer Sensitivity

1. *What is the potential that the project proposal may be controversial within the community, or opposed by any organized group?* (This can be researched initially by talking with the state DOT and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.)

- ☐ High Potential (3)
- ☐ Moderate Potential (2)
- ☒ Low Potential (1)
- ☐ No Potential (0)

2. *How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?* (Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment, and by soliciting information from other DOT staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.)

- ☐ High Sensitivity (3)
- ☐ Moderate Sensitivity (2)
- ☒ Low Sensitivity (1)

6

APPENDIX B- FHWA QUESTIONNAIRE

3. *To what degree does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies or standards?*

☐ Low Compatibility (3)
☐ Moderate Compatibility (2)
☒ High compatibility (1)

4. *Are permits going to be required by outside regulatory agencies (i.e., Federal, State, or local)?* (Permit requirements can have an unintended consequence on the visual environment. Anticipated permits, as well as specific permit requirements - which are defined by the permitter, may be determined by talking with the project environmental planner and project engineer. Note: coordinate with the state DOT representative responsible for obtaining the permit prior to communicating directly with any permitting agency. Permits that may benefit from additional analysis include permits that may result in visible built features, such as infiltration basins or devices under a storm water permit or a retaining wall for wetland avoidance or permits for work in sensitive areas such as coastal development permits or on Federal lands, such as impacts to Wild and Scenic Rivers.)

☐ Yes (3)
☒ Maybe (2)
☐ No (1)

5. *Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts?* (Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.)

☐ Yes (3)
☐ Maybe (2)
☒ No (1)

Determining the Level of Visual Impact Assessment

Total the scores of the answers to all ten questions on the Visual Impact Assessment Scoping Questionnaire. Use the total score from the questionnaire as an indicator of the appropriate level of VIA to perform for the project. Confirm that the level suggested by the checklist is consistent with the project teams' professional judgments. If there remains doubt about whether a VIA needs to be completed, it may be prudent to conduct an Abbreviated VIA. If there remains doubt about the level of the VIA, begin with the simpler VIA process. If visual impacts emerge as a more substantial concern than anticipated, the level of VIA documentation can always be increased.

The level of the VIA can initially be based on the following ranges of total scores:

☐ ***Score 25-30***
An *Expanded VIA* is probably necessary. It is recommended that it should be proceeded by a formal visual scoping study prior to beginning the VIA to alert the project team to potential highly adverse impacts and to develop new project alternatives to avoid those impacts. These technical studies will likely receive state-wide, even national, public review. Extensive use of visual simulations and a comprehensive public involvement program would be typical.

☐ ***Score 20-24***
A *Standard VIA* is recommended. This technical study will likely receive extensive local, perhaps state-wide, public review. It would typically include several visual simulations. It would also include a thorough examination of public planning and policy documents supplemented with a direct public engagement processes to determine visual preferences.

☒ ***Score 15-19***
An *Abbreviated VIA* would briefly describe project features, impacts and mitigation requirements. Visual simulations would be optional. An Abbreviated VIA would receive little direct public interest beyond a summary of its findings in the project's environmental documents. Visual preferences would be based on observation and review of planning and policy documents by local jurisdictions.

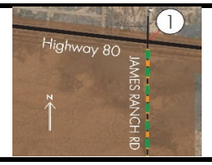
☐ ***Score 10-14***
A *VIA Memorandum* addressing minor visual issues that indicates the nature of the limited impacts and any necessary mitigation strategies that should be implemented would likely be sufficient along with an explanation of why no formal analysis is required.

☐ ***Score 6-9***
No noticeable physical changes to the environment are proposed and no further analysis is required. Print out a copy of this completed questionnaire for your project file to document that there is no effect. A *VIA Memorandum* may be used to document that there is no effect and to explain the approach used for the determination.

APPENDIX C-VISUAL CONTRAST RATING WORKSHEETS

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 3/29/2023

SECTION A: PROJECT INFORMATION

Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	NORTH OF JRR + HWY 80 INTERSECTION
KOP #:	1		
VRM Class:			
VIEW(S):	S, SE, SW		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat fore/middle ground with rigid mountain in background. Slightly higher elevation than City of Douglas.	Typical rangeland species, low complexity. Relatively consistent heights with few larger species. Non-native species at building north of Hwy 80.	Resident bldg on NE corner in FG with paved apron from hwy. Overhead utilities visible in all directions in FG and MG. Douglas visible in BG to the east.
LINE	Low complexity of fore/middle ground, flat until reaching background. Bold silhouette ridgelines of background mountains.	Mostly consistent horizontal evenness in fore and middle ground, with exception of line break at roadway edges. Mountain ridgeline visible in background.	Hwy and overhead utilites create strong lines in FG and MG.
COLOR	Brown and earth tones in background, transitioning to medium/pale greens, tans, and medium browns.	Pale green, medium brown and tan plant material in fore and middle ground, transitioning to darker hues in background.	Gray Hwy asphalt. Red/Brown dirt roadaway with some gray gravel mixed in. Silver utility poles.
TEXTURE	Layered mountain ridges with deep shadows are rugged and contrast with relatively even rocky desert soil foreground.	Clumpy dispersal of similar scattered species, medium texture and density in fore/middle ground.	Straight concrete roadway provides contrast to surrounding low complexity landscape in FG/MG and rugged mountians in BG.

SECTION C: PROPOSED ACTIVITY DESCRIPTION

	LAND / WATER	VEGETATION	STRUCTURES
FORM	Roadway widening will minimally affect land forms.	Corridor expansion will remove Western vegetation.	Widened road entrypoint, overhead light fixtures and utilities with create permanent high visual contrast for few users.
LINE	There will be minimal changes in horizontal linear land shapes. Vertical elements will be added.	Vegetation distrubance will crreate a larger, lower horizontal line of the roadway.	Widened land width will be evident in the foreground. Overhead light and utility structures will be visible in fore and middle ground.
COLOR	There will be minimal change in landform colors, addition of large gray concrete roadway	Vegetation distrurbance will increase gray color of concrete roadway and reduce green vegetative masses.	New concrete roadway will increase gray massing.
TEXTURE	New roadway widening will create a large, smooth texture.	Widening of roadway will create greater contrast between hard, smooth concrete and soft, medium texuture vegetation.	Bulkier, smooth textures from concrete in fore/mid ground. Finer, smooth textures from light and overhead utilities.

SECTION D: CONTRAST RATING LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM			X				X			X		
	LINE		X					X			X		
	COLOR			X					X		X		
	TEXTURE		X						X			X	

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b. Consideration to adjust overhead light/utility structures to match surrounding hues.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 2/28/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	SOUTH OF JRR + HWY 80 INTERSECTION
KOP #:	2		
VRM Class:			
VIEW(S):	S		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat fore/middle ground with rigid mountain in background.	Typical rangeland species, low complexity. Relatively consistent heights with few larger species.	Entry drive from Hwy 80, two mailboxes on SW corner, overhead utility on SE corner, of intersection. Drainage strip on road entrance. Resident bldg NE of intersection.
LINE	Low complexity of fore/middle ground, flat until reaching background. Bold silhouette ridgelines of background mountains.	Mostly consistent horizontal evenness in fore and middle ground, with exception of line break at roadway edges. Mountain ridgeline visible in background.	Hwy and JRR roadways create strong perpendicular lines in foreground, overhead utilities in fore/middle ground.
COLOR	Brown and earth tones in background, transitioning to medium/pale greens, tans, and medium browns.	Pale green, medium brown and tan plant material in fore and middle ground, transitioning to darker hues in background.	Gray Hwy asphalt. Red/Brown dirt roadaway with some gray gravel mixed in. Brown utility poles.
TEXTURE	Layered mountain ridges with deep shadows are rugged and contrast with relatively even rocky desert soil foreground.	Clumpy dispersal of similar scattered species, medium texture and density in fore/middle ground.	Straight concrete roadway provides contrast to surrounding low complexity landscape in FG/MG and rugged mountians in BG.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Roadway widening will minimally affect land forms.	Corridor expansion will remove Western vegetation.	Widened road entrypoint, overhead light fixtures and utilities.
LINE	There will be minimal changes in horizontal linear land shapes. Vertical elements will be added.	Vegetation distrubance will crreate a larger, lower horizontal line of the roadway.	Widened land width will be evident in the foreground. Overhead light and utility structures will be visible in fore and middle ground.
COLOR	There will be minimal change in landform colors, addition of large gray concrete roadway	Vegetation distrurbance will increase gray color of concrete roadway and reduce green vegetative masses.	New concrete roadway will increase gray massing.
TEXTURE	New roadway widening will create a large, smooth texture.	Widening of roadway will create greater contrast between hard, smooth concrete and soft, medium texuture vegetation.	Bulkier, smooth textures from concrete in fore/mid ground. Finer, smooth textures from light and overhead utilities.

SECTION D: CONTRAST RATING LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM			X			X				X		
	LINE		X				X				X		
	COLOR			X				X			X		
	TEXTURE		X					X				X	

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

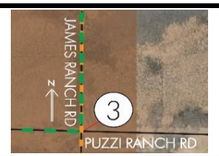
3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b. Consideration to adjust overhead light/utility structures to match surrounding hues.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 2/28/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	JRR + PUZZI INTERSECTION
KOP #:	3		
VRM Class:			
VIEW(S):	E, SE		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Relatively flat, even grounds from fore to middle ground, broken by large mountains in background.	Sscrubby rangeland, sparse density in foreground and transitioning to a higher density in middle ground.	Resident Bldg's in NE and SW foreground. Border Control Bldg and Water Tower in eastern midground. City of Douglas barely visible in background.
LINE	Fore/ mid ground consistently flat, broken by irregular mountain ridgelines in East and West views	Foreground is more sparse with relatively consistent heigh and maturity of plant species in middleground. Break in line at Puzzi Road.	Inconsistly spaced and arranged building structres.
COLOR	Red to brown soils in fore/mid ground. Tans and brown in mid/background	Pale to medium greens, tan, beige, and medium brown plant material.	Border Control Building and Water tower consisting of whites and tans.
TEXTURE	Coarse, rocky desert soil on existing roadway. Uneven and rugged mountain foothills in background.	Minimal plants in foreground. Contrast of soft grasses and stiff shrub branches in middle ground.	Smooth along horizons, minimal disturbance of buildings consisting of smooth or gently textured matierials.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Roadway widening will minimally change current land forms	Roadway expansion will remove vegetation on outer road edges.	New lane widening will be close to bldgs on SW and NE quadrants.
LINE	there will be minimla horizontal linear land shape changes. Vertical elements will be added.	Vegetation disturbance will cause a gap in the otherwise consistent plant coverage.	Vertical lines from light and utility structures will be visible.
COLOR	There will be minimlal change to land form color. Addition of Large gray concrete mass.	Vegetation disturbance will reduce green, tans, and browns that will be replaced by gray tones.	New roadwork will increase gray massing. Overhead light and utility structures will increase white and brown colors.
TEXTURE	New roadway structure will add a large, smooth texture to contrast the coarse soil textures.	Roadway widening will create sharp vegetative edges at disturbance areas.	New roadwork will increase smooth textures in landscape. Smooth/medium textures added from pole structures.

SECTION D: CONTRAST RATING LONG TERM													
1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM			X			X			X			
	LINE		X				X				X		
	COLOR			X				X				X	
	TEXTURE			X				X				X	

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

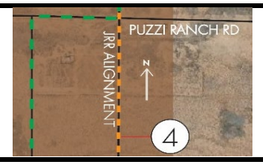
3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding

b.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 2/28/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	SOUTH OF JRR + PUZZI INTERSECTION
KOP #:	4		
VRM Class:			
VIEW(S):	S		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Vast, flat, expansive fore and middle ground. Mountains visible in background, on East, South, and West views.	Shrub, perennial, and grass species present in fore and middleground.	Large amounts of debris in foreground - abandoned RV on East and West. Utility pole in center drive Bldg and water tower on East side.
LINE	Low, flat foreground. Slighlty higher middle ground from plant layer. Background of mountain ridgeline silhouttes.	Less plant density to higher plant density as it transitions from fore to middle ground. Mountain ridgeline contours seen in background.	Vertical utility lines, slightly curving roadway and bold, amorphous piles of debris seen in foreground. Horizontal wall structure seen in background.
COLOR	Brown, medium borwns, tans, pale green vegetation. Red/brown soils. Darker hues in the mountains.	Pale greens, medium browns, and tans.	Black, gray, white and rust colors of debris in foreground. White water tower in background on East side.
TEXTURE	Coarse, rocky deseret soil and stiff, prickly shrub branching in fore and middle ground. Rippling mountains in background.	Spiny bare branches. Sparcer density of plant material. Smooth flat earth and coarser plant textures.	Coarse, scattered, dense piles of debris and smooth, curving road structure in foreground. Solid line wall structure in background.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Minimal change due to existing flat earth form.	Minimal change due to sparse plant development at this location.	new horizontal road structure and vertical overhead utility and light structrues will moderately change appearance.
LINE	Minimal change, reducing existing slightly curved roadway.	Minimal change due to relatively flat and fewer plant clumpings.	Added vertical elements will be more visible in fore/middle ground.
COLOR	Creates a strip of gray concrete, reduces exposed red/brown soils.	Minimal change, addition of grays from concrete structures.	Reduced red/brown colors of the soil will be replaced by solid gray concrete structures.
TEXTURE	Creates a smoother roadway structure, reduces coarse soil texture.	Creating a smooth, wide, concrete structure.	New roadway elements will produce smooth and bulky textures.

SECTION D: CONTRAST RATING LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM			X				X			X		
	LINE			X				X			X		
	COLOR		X					X			X		
	TEXTURE			X			X				X		

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

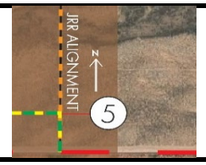
3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b. Implement barrier structures to reduce and soften changes for nearby residents.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 2/28/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	ALT 1 - US/MEXICO BORDER
KOP #:	5		
VRM Class:			
VIEW(S):	NE, E		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Vast, open, flat space in fore and middle ground. Mountains seen in background.	Large, open, sparse foreground, transitioning to dense middleground with consistant vegetative materials of shrub, grass and vegetative species.	Large metal wall made of tall slats, gravel/paved roadway, and thin light poles evenly spaced in foreground running East and West. City of Douglas faintly seen in background.
LINE	Ground/soil line and layer of vegetative material persisting from fore to middle ground. Mountian ridgeline seen in background.	Uniform layer of plant material in fore and middle ground and persisting into the distance. Mountain ridgeline silhoutte seen in background.	Tall, dense, uniform line from border wall. Bold, sturdy, straight roadway line hugging border wall.
COLOR	Light red/tan soils in foreground, darker hues in background mountains.	Tan, pale green, and medium browns.	Red/rust colored wall, light gray roadway structure, white light poles in fore/mid ground. Multicolored dappling in BG from city structures.
TEXTURE	Coarse, rocky desert soils in fore and middle ground. Rigid mountain textures in background.	Fine textures of grasses, spiny textures of bare branched shrubs in fore and middle ground.	Coarse roadway texture, vertical picket wall with uniform slats and uniformly place light poles.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Minimal form changes will occur from roadway development.	Minimal changes will occur from roadway development - minimal vegetation in foreground.	New roadway features, pavement, utility, and light poles will produce an expanse of smooth linear surfaces
LINE	There will be minimal horizontal linear land shape changes. Vertical elements will be added.	Disturbances will alter existing vegetative line and produce contrasting lines at roadway edges.	Vertical lines from light/utility structures will be visible from W. I. Ave in fore/middleground, less visible further away.
COLOR	Roadway development will reduce brown/tan soil colors and produce a gray concrete strip.	Disturbances will reduce vegetation colors and replace with gray concrete.	Enlarged areas of gray pavement elements. Minimal changes will occur for residental views.
TEXTURE	Distrubances will remove rocky soil and prodcue smooth, wide concrete.	Spiny shrub textures and fine grass textures will be reduced and replaced by smoothy roadway structures.	New roadway elements will produce smooth paved and vertical textures.

SECTION D: CONTRAST RATING LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM			X				X			X		
	LINE			X			X					X	
	COLOR		X					X			X		
	TEXTURE		X					X			X		

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 3/29/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map:	 ALT 2 - WEST OF JRR + PUZZI INTERSECTION
KOP #:	6		
VRM Class:			
VIEW(S):	N, E, S, W		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Relatively flat, even grounds from fore to middle ground, broken by large mountains in background.	Scrubby rangeland broken by undeveloped roadway.	Bldg directly south in FG, property containing vehicle debris. Unpaved road oriented east to west in FG. Glimpses of City of Douglas to the east in the BG.
LINE	Fore/ mid ground consistently flat, broken by irregular mountain ridgelines in East and West views	Mostly consistent horizontal evenness in fore and middle ground, with exception of line break at roadway edges.	Fence around residential building and unpaved roadway creates strong lines in the landscape.
COLOR	Red to brown soils in fore/mid ground. Tans and brown in mid/background	Pale to medium greens, tan, beige, and medium brown plant material.	Residential building and debris create white and multi colors in the landscape.
TEXTURE	Coarse, rocky desert soil on existing roadway. Uneven and rugged mountain foothills in background.	Clumpy dispersal of similar scattered species, medium texture and density in fore/middle ground.	Coarse, scattered, dense piles of debris in fore/middle ground.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Minimal form changes will occur from roadway development.	Minimal changes will occur from roadway development - minimal vegetation in foreground.	New roadway features, pavement, utility, and light poles will produce an expanse of smooth linear surfaces
LINE	There will be minimal horizontal linear land shape changes. Vertical elements will be added.	Disturbances will alter existing vegetative line and produce contrasting lines at roadway edges.	Vertical lines from light and utility structures will be visible.
COLOR	Roadway development will reduce red/tan soil colors and produce a gray concrete strip.	Disturbances will reduce vegetation colors and replace with gray concrete.	New roadwork will increase gray massing. Overhead light and utility structures will increase white and brown colors.
TEXTURE	Distrubances will remove rocky soil and prodcue smooth, wide concrete.	Spiny shrub textures and fine grass textures will be reduced and replaced by smoothy roadway structures.	New roadway elements will produce smooth paved and vertical textures.

SECTION D: CONTRAST RATING LONG TERM													
1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM			X				X			X		
	LINE			X				X			X		
	COLOR		X				X				X		
	TEXTURE			X			X				X		

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No	

3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

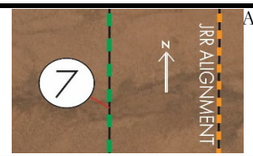
a. Revegetate disturbed areas with seeding

b. Implement barrier structures to reduce and soften changes for nearby residents.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 3/29/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map:	ALT 2 - BRAWLEY WASH CROSSING
KOP #:	7		
VRM Class:			
VIEW(S):	N, E, S, W		



SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat fore and middle ground. Mountains visible in background to the south and southwest.	Shrub, perennial, and grass species present in fore and middleground. Higher plant diversity than other KOPs.	No structures visible aside from the border wall to the south going east and west.
LINE	Low, flat fore/middle ground. Mountain ridgeline in background.	Scattered plant density along ephemeral stream. Views to the south create relatively even line.	Border wall creates distinct line in MG to the south.
COLOR	Brown, medium borwns, tans, pale green vegetation. Red/brown soils. Darker hues in the mountains.	Pale greens, medium browns, and tans.	Border wall is a red/rust color.
TEXTURE	Coarse, rocky deseret soil and stiff, prickly shrub branching in fore and middle ground. Rippling mountains in background.	Spiny bare branches from shrubs and fine textures from grasses. Varied plant density. Smooth flat earth and coarser plant textures.	Border wall creates thick, bold, smooth contrasting texture to surrounding landscape.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Minimal change due to existing flat earth form.	Roadway expansion will remove vegetation on outer road edges.	New horizontal road structure and vertical overhead utility and light structrues will moderately change the appearance.
LINE	There will be minimal changes in horizontal linear land shapes. Vertical elements will be added.	Minimal change due to relatively flat and fewer plant clumpings.	Added vertical elements will be more visible in fore/middle ground.
COLOR	There will be minimlal change to land form color. Addition of Large gray concrete mass.	Minimal change, addition of grays from concrete structures.	Reduced red/brown colors of the soil will be replaced by solid gray concrete structures.
TEXTURE	New roadway structure will add a large, smooth texture to contrast the coarse soil textures.	Creating a smooth, wide, concrete structure.	New roadway elements will produce smooth and bulky textures.

SECTION D: CONTRAST RATING LONG TERM													
1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM			X				X			X		
	LINE			X				X			X		
	COLOR		X					X				X	
	TEXTURE			X				X				X	

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes	No		

3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 3/29/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map:	 2 & 3 - US/MEXICO BORDER
KOP #:	8		
VRM Class:			
VIEW(S):	N, NE, NW		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Vast, open, flat space in fore and middle ground. Mountains seen in background to east and west.	Large, open, sparse foreground, transitioning to dense middleground with consistant vegetative materials of shrub, grass and vegetative species.	Large metal wall made of tall slats, gravel/paved roadway, and thin light poles evenly spaced in foreground running East and West. City of Douglas faintly seen to east in BG.
LINE	Ground/soil line and layer of vegetative material persisting from fore to middle ground. Mountian ridgeline seen in background.	Uniform layer of plant material in fore and middle ground and persisting into the distance. Mountain ridgeline silhoutte seen in background to east and west.	Tall, dense, uniform line from border wall going east and west.
COLOR	Light red/tan soils in foreground transitioning to darker hues in the background.	Tan, pale green, and medium browns.	Red/rust colored wall, white light poles in fore/mid ground. Multicolored dappling in BG from city structures.
TEXTURE	Coarse, rocky desert soils in fore and middle ground. Rigid mountain textures to east and west in background.	Fine textures of grasses, spiny textures of bare branched shrubs in fore and middle ground.	Coarse roadway texture, vertical picket wall with uniform slats and uniformly place light poles. Some rooflines visible from scattered bldgs in MG.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Minimal form changes will occur from roadway development.	Minimal changes will occur from roadway development - minimal vegetation in foreground.	New roadway features, pavement, utility, and light poles will produce an expanse of smooth linear surfaces.
LINE	There will be minimal horizontal linear land shape changes. Vertical elements will be added.	Disturbances will alter existing vegetative line and produce contrasting lines at roadway edges.	Vertical lines from light/utility structures will be visible from W. I. Ave in fore/middleground, less visible further away.
COLOR	Roadway development will reduce brown/tan soil colors and produce a gray concrete strip.	Disturbances will reduce vegetation colors and replace with gray concrete.	Enlarged areas of gray pavement elements. Minimal changes will occur for residental views.
TEXTURE	Distrubances will remove rocky soil and prodcue smooth, wide concrete.	Spiny shrub textures and fine grass textures will be reduced and replaced by smoothy roadway structures.	New roadway elements will produce smooth paved and vertical textures.

SECTION D: CONTRAST RATING LONG TERM													
1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM			X				X			X		
	LINE			X			X					X	
	COLOR		X					X			X		
	TEXTURE		X					X			X		

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

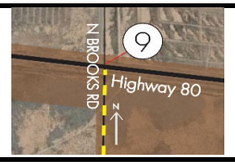
3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 3/29/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	ALT 3 - N BROOKS RD + HWY 80
KOP #:	9		
VRM Class:			
VIEW(S):	SE, S, SW		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat fore/middle ground with rigid mountain in background. Slightly higher elevation than other KOPs.	Typical rangeland species, low complexity. Relatively consistent heights with few larger species.	Overhead utilities and Hwy visible in all directions in FG and MG. Douglas visible in BG to the east. Paved roadway going north on Brooks.
LINE	Low complexity of fore/middle ground, flat until reaching background. Bold silhouette ridgelines of background mountains.	Mostly consistent horizontal evenness in fore and middle ground, with exception of line break at roadway edges. Mountain ridgeline visible in BG.	Hwy, Brooks Rd, and overhead utilites create strong lines in FG and MG. Border wall creates line behind vegetation in near BG.
COLOR	Brown and earth tones in background, transitioning to medium/pale greens, tans, and medium browns.	Pale green, medium brown and tan plant material in fore and middle ground, transitioning to darker hues in background.	Gray Hwy asphalt and silver utility poles visible in FG and MG. City of Douglas visible to the east in BG.
TEXTURE	Layered mountain ridges with deep shadows are rugged and contrast with relatively even rocky desert soil foreground.	Clumpy dispersal of similar scattered species, low to medium texture and density in fore/middle ground.	Straight concrete roadway provides contrast to surrounding low complexity landscape in FG/MG and rugged mountians in BG.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Roadway widening will minimally affect land forms.	Corridor expansion will remove Western vegetation.	Widened road entrypoint, overhead light fixtures and utilities.
LINE	There will be minimal changes in horizontal linear land shapes. Vertical elements will be added.	Vegetation distrubance will crreate a larger, lower horizontal line of the roadway.	Widened land width will be evident in the foreground. Overhead light and utility structures will be visible in fore and middle ground.
COLOR	There will be minimal change in landform colors, addition of large gray concrete roadway	Vegetation distrurbance will increase gray color of concrete roadway and reduce green vegetative masses.	New concrete roadway will increase gray massing.
TEXTURE	New roadway widening will create a large, smooth texture.	Widening of roadway will create greater contrast between hard, smooth concrete and soft, medium texuture vegetation.	Bulkier, smooth textures from concrete in fore/mid ground. Finer, smooth textures from light and overhead utilities.

SECTION D: CONTRAST RATING LONG TERM													
1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM			X			X				X		
	LINE		X				X				X		
	COLOR			X				X			X		
	TEXTURE		X					X				X	

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b. Consideration to adjust overhead light/utility structures to match surrounding hues.

c.

APPENDIX C VISUAL CONTRAST RATING WORKSHEETS OBSERVERS: Amy Schuchert and Sarah Davidson DATE: 3/29/2023

SECTION A: PROJECT INFORMATION			
Project Name:	C.O.D IPOE CONNECTOR RD	Location Map: 	ALT 3 - US / MEXICO BORDER, N BROOKS RD ALIGNMENT
KOP #:	10		
VRM Class:			
VIEW(S):	N, NE, NW		

SECTION B: CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND / WATER	2. VEGETATION	3. STRUCTURES
FORM	Vast, open, flat space in fore and middle ground. Mountains seen in background to east and west.	Large, open, sparse FG transitioning to dense middleground with consistant vegetative materials of shrub, grass and vegetative species.	Unpaved road and barbed wire fence going north and south, east of site in FG. Large metal wall made of tall slats in MG. City of Douglas faintly seen in background.
LINE	Ground/soil line and layer of vegetative material persisting from fore to middle ground. Mountian ridgeline seen in background.	Uneven distribution of plant material in FG/MG that becomes more uniform in the distance. Mountain ridgeline silhoutte seen in background.	Unpaved road and barbed wire fence going north and south in FG. Tall, dense, uniform line from border wall in MG to south.
COLOR	Light red/tan soils in foreground transitioning to darker hues in the background.	Tan, pale green, and medium browns.	Red/rust colored fence and border wall in FG and MG, white light poles in MG. Multicolored dappling in BG from city structures.
TEXTURE	Coarse, rocky desert soils in fore and middle ground. Rigid mountain textures in background to east and west.	Fine textures of grasses, spiny textures of bare branched shrubs in fore and middle ground.	Coarse unpaved roadway texture, vertical picket wall with uniform slats and uniformly place light poles.

SECTION C: PROPOSED ACTIVITY DESCRIPTION			
	LAND / WATER	VEGETATION	STRUCTURES
FORM	Minimal form changes will occur from roadway development.	Minimal changes will occur from roadway development - minimal vegetation in foreground.	New roadway features, pavement, utility, and light poles will produce an expanse of smooth linear surfaces
LINE	There will be minimal horizontal linear land shape changes. Vertical elements will be added.	Disturbances will alter existing vegetative line and produce contrasting lines at roadway edges.	Vertical lines from light/utility structures will be visible from W. I. Ave in fore/middleground, less visible further away.
COLOR	Roadway development will reduce red/tan soil colors and produce a gray concrete strip.	Disturbances will reduce vegetation colors and replace with gray concrete.	Enlarged areas of gray pavement elements.
TEXTURE	Disturbances will remove rocky soil and prodcue smooth, wide concrete.	Spiny shrub textures and fine grass textures will be reduced and replaced by smoothy roadway structures.	New roadway elements will produce smooth paved and vertical textures.

SECTION D: CONTRAST RATING LONG TERM

1. DEGREE OF CONTRAST		FEATURES											
		1. LAND / WATER				2. VEGETATION				3. STRUCTURES			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM			X				X			X		
	LINE			X			X					X	
	COLOR		X					X			X		
	TEXTURE		X					X			X		

2. DOES THE DESIGN MEET VRM OBJECTIVES?	Yes		No		

3. ADDITIONAL MITIGATING MEASURES RECOMMENDED.

a. Revegetate disturbed areas with seeding.

b.

c.