Form 8400 - 4
(September 1985)
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-23 – Silverbell Rd Historic Auto Route

3. VRM Class: Representative ROW would pass through non BLM land

4. Location
Township 11S
Range 10E
Section 16

5. Location Sketch
32.46699x-111.33266

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat alluvial plane trending west toward low lying wash MG: Flat alluvial wash along left side of view transitioning to lower mountain forms BG: Range of weathered rounded mountains spanning left side of view No water visible	FG: Single vegetative layer along roadway consisting of simple low lying shrubs and trees MG: Smooth, uniform, low carpet-like vegetative cover along wash; swaths of vegetation on lower mountain forms BG: Swaths of low vegetative forms on mountain forms	FG: Long transmission line along the right side of view; blocky residential forms and associated vehicle within rural residential area; vertical transmission structures; bold curvilinear roadway in center of view, several roadway signage; distinctive historical auto route marker and pennant MG: Transmission lines BG: None visible
LINE	FG: Gentle descending alluvial plane MG: Horizontal line on riverbed BG: Mountains create flowing continuous line with several peaks No water visible	FG: Directional vegetative layer trending along the roadway MG: Level carpet-like vegetative layer; indistinct vegetative break at transition between alluvial plane and base of mountain forms BG: Indistinct	FG: Linear, parallel transmission lines; long curvilinear flat roadway; vertical signage; blocky residential structure MG: Barely detectable linear transmission line BG: Not visible
COLOR	FG: Sandy beige, tans, light browns MG: Light to dark brown BG: Brown and black mountains No water visible	FG: Greens, yellows, browns MG: Greens, browns BG: Dark shades of gray	FG: Range of white to black hues MG: Brown transmission structures BG: Not visible
TEXTURE	FG: Smooth, sandy MG: Smooth, flat alluvial wash; medium textured mountain forms BG: Medium to coarse continuous forms, trending to the southeast No water visible	FG: Medium to fine textured rounded shrubs and trees MG: Smooth, dense carpet-like vegetative layer BG: Smooth, fine	FG: Coarse to medium transmission structures, smooth roadway; blocky medium textured residential structure MG: Medium to fine transmission structures BG: Not visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG: linear sequence of monopole transmission structures similar in form as those of the existing line of H-frame structures but taller; bolder linear conductors
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG: prominent vertical structures; horizontal lines visually similar to existing linear sequence of transmission lines
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG: metallic conductors; galvanized steel gray tower structures
TEXTURE	FG, MG, BG: no change	FG, MG, BG: no change	FG: new 230kV transmission structures increase coarse texture than existing line against flat horizontal plane

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form				X				X		X		
Line				X				X			X	
Color				X				X			X	
Texture				X				X			X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)

3. Additional mitigating measures recommended?
X Yes ☐ No (Explain on reverse side)

Evaluator's Names: Tom Priestley, MariaElena Conserva, and Angela Wolfe
Date: September 6, 2012
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on non BLM land.

Silverbell Rd simulation

Distance. The KOP is less than 0.1 mile south of segment U3k from Silverbell Road. Segment U3k crosses private land. Segment U3k crosses the view from the KOP generally northwest to southeast.

Angle of Observation. The KOP is at a horizontal observational angle to segment U3k.

Length of Time the Project Is In View. Segment U3k would be viewed for limited periods as it diverges from Silverbell Road.

Relative Size or Scale. The relative size of the replacement structures would be taller than the existing transmission structures. Because of the relative size of the structures when compared with other existing structures, and the close proximity to the upgrade structures there would be moderate contrasts.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Restoration of vegetation can take several years to complete. Although vegetation conditions in areas of disturbance are expected to change over several years as restoration takes place, because of the distance from the KOP, and the small scale of vegetation disturbance required for the proposed project, there would be no visible contrast over time.

Spatial Relationships. The landscape in the fore ground is two lane paved road lined with desert vegetation and utility structures curving away from the KOP. There are mountains in the background. The proposed replacement structures and conductors are in the fore ground. The proposed replacement structures are larger, with greater conductor spans that would be visible against the sky and would create new moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast in the fore ground. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment and installation of new structures along segment U3k would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

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Form 8400 - 4
(September 1985)
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: September 6, 2012

District: Southern Arizona

Resource Area: Tucson

Activity (program): Lands- Renewable Energy

SECTION A. PROJECT INFORMATION

1. Project Name: Southline Transmission Project

2. Key Observation Point: KOP U3-24 –Red Rock Residential

3. VRM Class: Representative ROW would pass through non BLM land

4. Location

Township 10S

Range 10E

Section 8

5. Location Sketch
32.565428533x-111.337781768

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Flat alluvial valley transected by cut development pattern as part of the Red Rock planned residential community MG: Subtle transition from valley floor to low plateau of mounded dirt spanning the entire view BG: Distant jagged, angular mountains No water visible	FG: Mostly barren land stripped of vegetation with smooth low lying groundcover scattered, strip of low shrub vegetation at base of mounded forms MG: Strip of vegetation peaking behind plateau of mounded forms BG: Indistinct	FG: Flat linear paved roadways and associated curbs, vertical roadway signage, short blocky transformers MG: Transmission lines; dirt roadway cut through mound of dirt in center of view BG: None visible
LINE	FG: Horizontal, continuous MG: Continuous horizontal line of mounded dirt BG. Undulating, continuous mountain formations with several pyramidal peaks on left side of view; barely visible distant undulating mountain formations on right side of view No water visible	FG: Patches, horizontal strip of shrubs paralleling mounded forms MG: Level, irregular, soft horizontal vegetative line BG: None	FG: Flat, horizontal paved roadways; simple, blocky transformers MG: Subtle parallel horizontal and vertical transmission lines spanning the entire view BG: None visible
COLOR	FG: Tan, brown, reds MG: Tan, brown, reds BG: Gray mountains No water visible	FG: Greens, brown, tan, MG: Greens BG: Indistinct	FG: Range of white to black hues MG: Browns, blacks BG: None visible
TEXTURE	FG: Smooth, continuous valley floor broken by cut development formation trending to the west-northwest MG: Gradational, smooth BG: Coarse, continuous, mountain peaks No water visible	FG: Smooth patches, medium dense, directional shrub vegetation MG: Smooth, soft, fine BG: Indistinct	FG: Smooth roadway, blocky transformers MG: Fine transmission lines BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	MG: series of new 230kV monopole structures replaces existing H-frame structures creating weak contrast to existing landscape; skylined against backdrop of distant mountain forms
LINE	FG, MG, BG: no change	FG, MG, BG: no change	MG: adding taller vertical elements than existing structures; undulating horizontal lines visually similar to the existing line though of different span width; emphasize s strong parallel lines of existing corridor
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	MG: barely visible metallic conductors; new galvanized steel gray tower structures
TEXTURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form				X				X			X	
Line				X				X			X	
Color				X				X			X	
Texture				X				X			X	

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No X N/A (Explain on reverse side)

3. Additional mitigating measures recommended?
X Yes ☐ No (Explain on reverse side)

Evaluator's Names Date
Mark Greenig, MariaElena Conserva, and Angela Wolfe

September 6, 2012
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.
Proposed upgrades are located on private land.
KOPs show new residential area.

Distance. The KOP is 1.8 miles north of segment U3k from Red Rock Residential area. Segment U3k crosses private land. Segment U3k crosses the view from the KOP generally east to west.

Angle of Observation. The KOP is at an horizontal observational angle to segment U3k.

Length of Time the Project Is In View. Segment U3k would be viewed for extended periods from the residential area.

Relative Size or Scale. The relative size of the replacement structures would be taller than the existing transmission structures. Because of the relative size of the structures when compared with other existing structures, and the close proximity to the upgrade structures there would be moderate contrasts.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Restoration of vegetation can take several years to complete. Although vegetation conditions in areas of disturbance are expected to change over several years as restoration takes place, because of the distance from the KOP, and the small scale of vegetation disturbance required for the proposed project, there would be no visible contrast over time.

Spatial Relationships. The landscape in the fore ground is paved road and open graded landscape with sparse patches of desert vegetation and utility structures. There are mountains in the distant background. The proposed replacement structures and conductors are in the fore ground. The proposed replacement structures are larger, with greater conductor spans that would be visible against the sky and would create new contrasts with the existing sequence of linear structures. This contrast would be weaker because of the distance to the upgrade structures.

Atmospheric Conditions. Changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment and installation of new structures along segment U3k would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

U.S. GOVERNMENT PRINTING OFFICE: 1985-461-988/33094

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date:
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township_____	5. Location Sketch See map
2. Key Observation Point AN-03	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Meandering channel and flat park area in the foreground. Large jagged mountain range in the background.	Low lying shrubs and grasses interspersed with taller trees. Very patchy and irregular.	Flat paved trail with a square blocky metal fence along the edge. Vertical steel monopole and lattice transmission structures within the channel and opposite the channel. Additional steel transmission structures visible to the north and south.
LINE	River channel curving line going to north to south. Irregular mountain range. Broad flat area of the park.	Shrubs and trees form irregular and patchy lines.	Paved trail in the immediate foreground with metal blocky fence are strong horizontal, straight lines. The transmission structures and several transmission lines are visible going north to south, and east to west creating right angles that that are visible against the against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Mountains are darker reddish browns.	Grasses along trail and throughout are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt trail is light faded grey and white; fence is a flat reddish color. Transmission structures are grey steel. The transmission lines are dart to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils rocky gravels are medium to coarse grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The paved and concrete trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing single pole steel transmission line parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLO R	**There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.**	**No change**	**Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.**
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/10/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the South line Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Trail (east side of river), just east of South Callee Santa Cruz (Recreational Trail, Historic Corridor, near Alternative Auto Route). Views along agency alternative TH3 Option A in both directions. Views to the south of the planned upgrade of existing transmission line, which crosses the river at this point. Other transmission line located along the river trail along the opposite shore of the river channel. At this distance and form this viewing angle, new transmission structures and lines associated with the agency alternative TH3 would be clearly visible against the sky. They would be visible from the trail, and for the length of the alternative along the paved trail. Because there are currently steel monopole and lattice transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is within 0.01 mile of segment TH3b which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3b

Length of Time the Project Is In View. Segment TH3b would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the replacement structures would be similar but somewhat taller than the existing transmission structures. The replacement structures would be similar in form to the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The vegetation would vary in color and texture across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the Santa Cruz River Channel interspersed with trees and small signs. There are mountains in the background. The proposed replacement structures and conductors would be visible against the sky and against the darker backdrop of the mountains, and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment E would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/10/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **AN-04**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat open park area with recreational lake. Jagged mountain range in the distant background.	Low lying shrubs and grasses interspersed with taller trees. Very patchy and irregular. Dense trees in some areas of the parks landscaping.	Flat paved road and parking areas. Vertical steel lattice transmission structures and wooden H-frame structures in the foreground. Square picnic shade structures
LINE	Broad flat area of the park and recreation lake. Irregular mountain range in the distant background.	Shrubs and trees form irregular and patchy lines.	Paved road is a strong horizontal line. The transmission structures are strong vertical lines and several transmission lines intersecting with structures create right angles that that are visible against the midday sky. Park picnic shade structures and tables are boxy.
COLOR	Flat, light grey and tans in the immediate foreground. Mountains are darker reddish browns.	Grasses are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt is light faded grey. Transmission structures are grey steel and brown wooden H-frames. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils rocky gravels are medium grained. Because of the distance, the rocky outcrops of the distant mountains are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The paved road and picnic structures appear very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Replacement transmission structures would follow an existing steel lattice transmission line that follows the Santa Cruz river channel.
LINE	No change	No change	Installing the upgrade would result in an additional strong vertical line in the foreground.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X_LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere
Date: 5/10/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project upgrade repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Trailhead at Christopher Columbus Park, near Historic Turquisin Camp (Recreational Trail, near Historic Corridor, near Alternate Auto Tour Route) and recreational lake. This KOP has views of proposed upgrade in both directions. Other transmission lines are located along the river trail along the opposite shore of the river channel. At this distance and from this viewing angle, replacement transmission structures and lines associated with the proposed upgrade would be clearly visible against the sky. The proposed upgrade would also be visible from the trail as it goes through the park in both directions. Because there are currently wooden H-frame structures that would be replaced and steel lattice transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is 0.1 mile west of segment U3i from Christopher Columbus Park. Segment U3i crosses private land. Segment U3g crosses the view from the KOP generally north to south.

Angle of Observation. The KOP is at a horizontal observational angle to segment U3i.

Length of Time the Project Is In View. Segment U3i would be viewed for extended periods from the course.

Relative Size or Scale. The relative size of the replacement structures would be taller than the existing transmission structures and other existing structures in the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing vegetation screening and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast.

Spatial Relationships. The landscape in the foreground is a flat lake with a park setting beyond that has small hills and clumps of the trees scattered throughout. There are mountains in the distant background. The proposed replacement structures and conductors would be visible against the sky and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP. These changes would be minimal because of the proximity to the upgrade structures.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment and installation of new structures along segment U3i would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: Thursday, May 9, 2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S1**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling terrain below Tumamoc Hill and Sentinel Peak to the East, and other low lying mountains to the west.	Low lying clumpy grass along the roadsides in the immediate foreground. Low to medium rounded shrubs interspersed with spiky perennial grasses, and taller angular trees are visible just past the road.	Flat paved road, simple vertical wooden H-frame transmission structure pat road. Additional wooden H-frame visible to the south.
LINE	Low flat horizon line straight ahead of the alluvial fan coming off the rounded Tumamoc Hill. Rounded but irregular peaks lie to the west.	Shrubs and trees form an irregular line visible below the transmission line. There is a straight line of vegetation that follows parallel to the road and transmission lines.	Paved road in the immediate foreground with metal guard rail on far side of road are strong horizontal, straight lines. The transmission structure and several transmission lines are visible going north to south, and east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt road is dark grey, guard rails are a flat metallic color. Transmission structures are a dark wooden brown. The transmission lines are dart to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a and TH2a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM XLONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side) Not applicable.

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP. At this distance, two to three of the new transmission structures and lines associated with the agency alternatives would be clearly visible against the sky. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is within 0.1 mile of Segment TH1a.

Angle of Observation. The KOP is at a horizontal observational angle to segment

Length of Time the Project Is In View. From this intersection, the project would be in view while traffic waits to turn in addition to as they travel up and down West Starr Pass Blvd for approximately 0.5 mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for no more than several minutes.

Relative Size or Scale. The relative size of the replacement structures would be taller than the existing transmission structures and other existing structures in the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground is wide road lined with vegetation, metal guardrails, gravel, and utility structures perpendicular to the view. There are distant mountains in the background. The proposed replacement structures and conductors are in the fore ground. The proposed replacement structures are larger, with greater conductor spans that would be visible against the sky and would create new moderate contrasts with the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1a would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: Thursday, May 9, 2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See Map
2. Key Observation Point **TH1-S2**	Range	
3. VRM Class **NA**	Section	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform.	Low lying clumpy grass along the roadsides in the immediate foreground. Low to medium rounded shrubs interspersed with spiky perennial grasses, and taller angular trees are visible just past the road.	Flat paved road and sidewalk, simple vertical traffic light poles, wooden monopole transmission structure
LINE	Tumamoc Hill rounded and irregular flowing down into a more undulating alluvial fan. Irregular peaks visible to the east west.	Shrubs and trees form an irregular line visible below the transmission line.	Paved road and sidewalk in the immediate foreground are strong horizontal, straight lines. The traffic light structure, transmission structure, and several transmission lines are visible going east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Darker tans, browns, reds further away.	Grasses along shoulder are tan, brown, and green. Shrubs and trees are a several shades of green and brown. Vegetation on Tumamoc Hill is beige and brown, darker green vegetation towards the base of the hill.	Asphalt road is dark grey, sidewalk is a flat white concrete. Transmission structures are a dark wooden brown. The transmission lines are dart to reflective from different angles in the midday sun. The traffic light poles are galvanized metallic.
TEX-TURE	The textures of the soils are smooth and fine grained. The rocky outcrops of the Tumamoc Hill are coarser, and those mountains and hills in the distance become smoother.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures and traffic light poles are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie; Pam Ceccre; Revised by Steve Leslie, 2/24/2015
Date: 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP. At this distance, two of the new transmission structures and lines associated with the agency alternatives would be clearly visible against the sky. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is approximately 0.5 mile east of segment TH1a.

Angle of Observation. The KOP is at a slightly superior observational angle to segment TH1a.

Length of Time the Project Is In View. From this intersection, the project would be in view while traffic waits to turn in addition to as they travel up and down West Starr Pass Blvd for approximately 0.5 mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for no more than several minutes.

Relative Size or Scale. The relative size of the replacement structures would be similar to the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground is wide road lined with vegetation, sidewalk, traffic light, gravel, and utility structures perpendicular to the view. Tumamoc Hill is just beyond the road. The proposed replacement structures and conductors are in to the west in the fore

ground. The proposed replacement structures are larger, with greater conductor spans that would be visible against the sky and would create new contrasts with the existing sequence of linear structures, because of the other intervening structures these contrasts would be weak.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1a would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S3**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. There is rolling terrain below Tumamoc Hill and the more rugged Sentinel Peak further east.	Low lying clumpy grass along the mixed with low to medium rounded shrubs and taller angular treed.	Flat paved road and dirt road, simple vertical wooden monopole transmission structures.
LINE	Tumamoc Hill rounded and irregular flowing down into a more undulating alluvial fan. Irregular rugged peaks of Sentinel Peak visible further past Tumamoc.	Shrubs and trees form an irregular line. There is a sharp edge where the vegetation stops at the roadside.	Paved road in the immediate foreground is a strong horizontal, straight line. The transmission structures are visible going north to south, and east to west against the backdrop of the landscape.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown. Cactus in the foreground are a very pale green.	Asphalt road is dark grey. Transmission structures are a dark wooden brown.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended __X_Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP ¼ mile further east along West Starr Pass Blvd. At this distance, the new transmission structures and lines associated with agency alternative TH1a would be visible with Tumamoc Hill as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

From West Starr Pass Blvd, the project would be in view while traffic travels east for approximately one mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for several minutes.
Distance. The KOP is approximately 0.3 mile west of segment TH1a.

Angle of Observation. The KOP is at a slightly superior observational angle to segment TH1a.

Length of Time the Project Is In View. From West Starr Pass Blvd, the project would be in view while traffic travels east for approximately one mile. Viewers along West Star Pass Blvd traveling at 45 mph would view the project for several minutes.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground is wide road lined with vegetation, gravel, and utility structures. Tumamoc Hill stands out in the middle ground. The proposed structures and conductors are to the east in the fore ground. The proposed replacement structures are larger, with greater conductor spans that would be visible against the darker backdrop of Tumamoc Hill and would create weak contrasts.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1a would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S4**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With more rolling terrain below Tumamoc Hill	Low lying clumpy grass along the mixed with low to medium rounded shrubs and taller angular treed.	Flat paved road, simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Tumamoc Hill is rounded and irregular flowing down into a more undulating alluvial fan.	Shrubs and trees form a jagged, irregular line. There is a sharp edge where the vegetation stops at the roadside. Cactus are strong vertical lines interspersed with shrubs and trees.	Paved road in the immediate foreground is a strong horizontal, straight line. The transmission structure and several transmission lines are visible going north to south and clearly stand out against the midday sky. A barbed wire fence is made up of right angles along the edge of the road.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown. Cactus is a very pale green to dark green.	Asphalt road is dark grey. Transmission structures are a dark wooden brown. Transmission lines are dark against the sky.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM _X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)

NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie; Pam Cecere; Revised by Steve Leslie, 2/24/2015
Date: 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing structures within the area. The project is located in the immediate foreground of the KOP along South Greasewood Road near the Andy Tolson Elementary School. At this distance, the new transmission structures and lines associated with agency alternative TH1a would be visible with Tumamoc Hill and the open sky as the backdrop.

Distance. The KOP is within 0.01 mile of segment TH1a.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH1a.

Length of Time the Project Is In View. From the school, the project would be in clear view from the school and school parking lots for extended periods. Viewers traveling along South Greasewood Road traveling at 45 mph would view the project for 2 miles for approximately several minutes in both directions.

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Restoration of desert vegetation can take several years to complete. Vegetation conditions in areas of disturbance are also expected to change over several years as restoration takes place. Because of the distance from the KOP, and the small scale of vegetation disturbance required for the proposed project, there would be limited, weak visible contrast over time.

Spatial Relationships. The landscape in the fore ground is wide road lined with vegetation, gravel, and utility structures. Tumamoc Hill stands out in the middle ground. The proposed structures and conductors are to the east in the fore ground. The proposed replacement structures are larger, with greater conductor spans that would be visible against the sky and the darker backdrop of Tumamoc Hill and would create moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1a would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S5**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With more rolling terrain below Tumamoc Hill	Low lying grass mixed with low to medium rounded shrubs and taller angular trees and cactus. Landscaping in front of residences in the foreground.	Flat paved road, driveways. Boxy, square single story homes. Simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Tumamoc Hill is rounded and irregular flowing down into a more undulating alluvial fan.	Shrubs and trees form a jagged, irregular line.	Paved road in the immediate foreground is a strong curving line. The homes are very geometrical. The transmission structures are vertical lines against the surrounding landscape.
COLOR	The immediate foreground is paved with residential development. Fans, hills, and mountains are darker tans, browns, reds,	Shrubs and trees associated with landscaping is bright green. Vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Homes are red bricks and white roofs. Transmission structures are a dark wooden brown and the lines appear light and reflective.
TEX-TURE	The textures of the soils are in the foreground are not visible. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The homes and landscaping are more medium grained. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie — 5/9/2013
Pam Cecere
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP in residential neighborhood on West Calle Tonala just west of South Greasewood Road. At this distance, the new transmission structures and lines associated with agency alternative TH1a would be visible with Tumamoc Hill as the backdrop. Much of the view of the project would be screened by the residential structures and landscaping.

Distance. The KOP is within 0.2 mile of segment TH1a.

Angle of Observation. The KOP is at a slightly superior observational angle to segment TH1a.

Length of Time the Project Is In View. From the residential area, portions of the upgrade would be in view for extended periods.

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground is residential development. Tumamoc Hill stands out in the middle ground. The proposed replacement structures and conductors are to the east in the fore ground but would be mostly screened by existing homes and vegetation. The proposed structures that would be visible are larger, with greater conductor spans that would be visible against the darker backdrop of Tumamoc Hill and would create weak contrasts.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1a would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S6**	Range	
3. VRM Class **NA**	Section	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With flat to rolling terrain below Tumamoc Hill in the foreground	Low lying grass mixed with taller thin branched and cactus. Grasses and shrubs in the middle ground appear low and flat interspersed with taller cactus.	Flat paved road, driveways. Simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Tumamoc Hill is rounded and irregular flowing down into a more undulating alluvial fan.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat interspersed with vertical cactus	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the surrounding landscape and the transmission lines are strong angular lines against the sky.
COLOR	Fans, hills, and mountains are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky.
TEX-TURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X_LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie; Pam Cecere; Revised by Steve Leslie, 2/24/2015
Date: 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the foreground of the KOP which is by apartments at the junction of South Greasewood Road and West Broadway Blvd. The view from the KOP is looking east towards Study Area and Tumamoc Hill. At this distance, the new transmission structures and lines associated with agency alternative TH1a would be visible with the open sky and Tumamoc Hill as the backdrop.

Distance. The KOP is within 0.2 mile of segment TH1a.

Angle of Observation. The KOP is at a slightly superior observational angle to segment TH1a.

Length of Time the Project Is In View. From the residential area, portions of the upgrade would be in view for extended periods.

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the paved road and the open landscape around Tumamoc Hill. Tumamoc Hill stands out in the middle ground and there are distant mountains. The proposed replacement structures and conductors are to the east in the fore ground but would be mostly screened by existing homes and vegetation. The proposed structures that would be visible are larger, with greater conductor spans that would be visible against the sky and the darker backdrop of the mountains and Tumamoc Hill and would create moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1a would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S7**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to rolling terrain.	Low lying grass mixed with taller thin branched shrubs and vertical cactus. Grasses and shrubs appear low and rounded interspersed with taller cactus.	Flat gravel pull off and paved road. Simple vertical wooden monopole transmission structures and horizontal transmission lines.
LINE	Flat straight line above KOP.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat interspersed with vertical cactus	Paved road in is a strong straight line. The transmission structures are vertical lines against the surrounding landscape and the transmission lines are horizontal lines against the sky.
COLOR	The immediate foreground sand and gravels are grey extending into light tan and beige.	Shrubs and grasses are browns, greens, grays, and yellows.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky.
TEX-TURE	The textures of the soils and rocks are medium grained.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved road appears very smooth. The transmission structures are very fine and uniform.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1b would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended __X_Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere
Revised by Steve Leslie, 2/24/2015
Date: 5/9/2013

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. The project is located in the foreground of the KOP which is at the junction of South Greasewood Road and West Speedway Blvd. The view from the KOP is looking east and south towards Study Area and would capture views of people driving through the intersection in addition to those visiting the small park/picnic area west of South Greasewood Road (the project is not visible from the park itself). At this distance, the new transmission structures and lines associated with agency alternative TH1b would be visible with the open sky as the backdrop. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is within 0.07 mile of segment TH1b.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH1b.

Length of Time the Project Is In View. From the road and the park, portions of the upgrade would be in view for extended periods

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the paved road and the open landscape with low desert vegetation. There are distant mountains in the background. The proposed structures and conductors are to the east in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be visible against the sky and the darker backdrop of the mountains and would create moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1b would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S8**	Range	
3. VRM Class **NA**	Section	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, domed landform. With flat to rolling terrain below Tumamoc Hill in the foreground	Low lying grass mixed with rounded shrubs and vertical cactus. Grasses and shrubs in the middle ground appear low and flat interspersed with taller cactus.	Flat paved road, and gravel road and shoulder. Simple vertical wooden monopole transmission structures and horizontal transmission lines. Boxy buildings of the residential developments to the south and east. Irregular boxy skyline of Tucson visible to the east.
LINE	Tumamoc Hill is rounded and irregular flowing down into a flat alluvial fan.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat.	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the midday sky and surrounding landscape and the transmission lines are strong angular lines against the sky. Residential development is square and boxy.
COLOR	Fan, hills, and mountains are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky. The gravel roads and shoulders are grey. House roofs are white and reflective. Tucson skyline darker grays.
TEXTURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The gravel roads and shoulders are medium grained texture. The transmission structures are very fine and uniform. Buildings are smooth, fine textured.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEXTURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X_LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended X___Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere — Date: 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. The project is located in the foreground of the KOP which is by the Casa De Colinas apartments on West Speedway Blvd. The view from the KOP is looking south towards Study Area and Tumamoc Hill and east and west further along Agency Alternative TH1b. At this distance, the new transmission structures and lines associated with agency alternative TH1b would be visible with the open sky and Tumamoc Hill as the backdrop.

Distance. The KOP is within 0.04 mile of segment TH1b.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH1b.

Length of Time the Project Is In View. From the apartment complex, portions of the upgrade would be in view for extended periods

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the paved road and the open landscape with low desert vegetation. Tumamoc Hill and distant mountains are visible in the background. The proposed structures and conductors are to the south and the east in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be visible against the sky and the darker backdrop of the mountains and would create moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1b would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-S9**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, flat topped landform to the south, with flat terrain surrounding the hill	Patchy low lying grass mixed with rounded shrubs and trees. Grasses and shrubs in the middle ground appear low and flat.	Flat paved road, and gravel road and shoulder. Simple vertical steel monopole and wooden H-frame transmission structures and horizontal transmission lines. Vertical light poles interspersed with transmission structures. Boxy buildings of the commercial development to the west and south.
LINE	Tumamoc Hill is flat topped with sloping irregular flowing down into the surrounding flat lands.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat.	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the midday sky and surrounding landscape and the transmission lines are strong angular lines against the sky. Commercial buildings to the west are single storied, square and boxy.
COLOR	Surrounding lands are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky. The gravel roads and shoulders are grey. Buildings are tan, beige, and red.
TEXTURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are fine grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The gravel roads and shoulders are medium grained texture. The transmission structures are very fine and uniform. Buildings are smooth, fine textured.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEXTURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended
__X_Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere — Date: 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. The proposed upgrade and Agency Alternative TH1c are located in the foreground of the KOP which is by the El Rio Golf Course along North El Rio Drive. The view from the KOP is looking west toward Agency Alternative TH1c, and along the proposed upgrade. At this distance, the new transmission structures and lines associated with the proposed upgrade and agency alternative TH1c would be visible with the open sky as the backdrop. Because there are currently commercial development, tall light pole, and existing transmission structures and lines that the agency alternative TH1c would intersect with, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is within 0.06 mile of segment TH1c.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH1c.

Length of Time the Project Is In View. From the El Rio Golf Course, portions of the upgrade would be in view for extended periods

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes utility structures paved road, open lots, and commercial development. The proposed structures and conductors are to the west in the fore ground. The proposed structures that would be visible are larger than existing structures in the landscape and would be visible against the sky creating moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1c would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See Map
2. Key Observation Point **TH3-R1**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Meandering channel and flat park area in the foreground. Large jagged mountain range in the background.	Low lying shrubs and grasses interspersed with taller trees. Very patchy and irregular.	Flat paved trail with a square blocky metal fence along the edge. Strong vertical steel monopole transmission structures within the channel and opposite the channel. Additional steel transmission structures visible to the north and south.
LINE	River channel curving line going to north to south. Irregular mountain range. Broad flat area of the park.	Shrubs and trees form irregular and patchy lines.	Paved trail in the immediate foreground with metal blocky fence are strong horizontal, straight lines. The transmission structures and several transmission lines are visible going north to south, and east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Mountains are darker tans, browns, and black,	Grasses along trail and throughout the park are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt trail is light faded grey; fence is a flat reddish color. Transmission structures are grey steel. The transmission lines are dart to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium to coarse grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation on the mountains in the background appears smoother the texture.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing single pole steel transmission line parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Park along "The Loop" including a paved trail, picnic area, play-ground and disc golf course. Views from the KOP are directly along agency alternative TH-3b in both directions. At this distance and form this viewing angle, new transmission structures and lines associated with the agency alternative TH-3 would be clearly visible against the sky. They would be visible from the park itself, and for the length of the alternative along the paved trail.

Distance. The KOP is within 0.01 mile of segment TH3b which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3b

Length of Time the Project Is In View. Segment TH3b would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures. The replacement structures would be similar in form to the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The vegetation would vary in color and texture across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the Santa Cruz River Channel interspersed with trees and small signs. There are mountains in the background. The proposed structures and conductors would be visible against the sky and against the darker backdrop of the mountains, and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH3b would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH3-R2**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel.	Low lying shrubs and grasses interspersed with taller trees along the river channel. Very patchy and irregular.	Flat paved concrete patio at trail access with tall brick arch structure the trail passes through. Several steel transmission structures including monopole and lattice structures are visible along the river channel as well tall vertical light posts.
LINE	Broad flat area along channel.	Shrubs and trees form irregular and patchy lines. Trees are tall and branched.	Paved trail in the immediate foreground with blocky arched brick façade. The transmission structures and several transmission lines are visible going north to south, and east to west creating strong angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans.	Grasses around the access point and along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	Concrete apron at access is white; bricks of the arch entranceway to the trail are red. Transmission structures are grey steel. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The paved trail appears very smooth. The gateway is coarse textured. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X_LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		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 project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended __X_Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere — Date: 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. The project is located in the immediate foreground of the KOP which is an access point to the Santa Cruz River Trail at West Saint Mary's Road and North Riverside Road with views of agency alternative TH-3b. At this distance and from this viewing angle, up to one new transmission structure and the lines associated with the agency alternative TH-3 would be visible against the sky. Some of the view is screened by the brick trailhead structure, trees, and other development. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Distance. The KOP is within 0.1 mile of segment TH3b which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3b

Length of Time the Project Is In View. The would be limited views from the KOP, however, Segment TH3b would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures. The structures would be similar in form to some of the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The area is developed and there would be no native vegetation recovery visible..

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the Santa Cruz River Trailhead, paved roads, commercial development, and numerous utility structures and conductors interspersed with trees and small signs. The proposed structures and conductors would be visible against the sky, and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH3b would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH3-R3**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel. No other visible topography or geography.	Park surrounded by mixed landscaping including tall trees, shrubs, palm trees.	Park entrance is made up of paved drive and parking area lined with low brick walls. Park is surrounded with tall stucco walls, iron fencing, and a paved walkway and includes several sculptures. Steel transmission structures including monopole and lattice structures are visible from within the park, the parking lot, and along the river channel as well tall vertical light posts.
LINE	Broad flat area.	Shrubs and trees form irregular and patchy lines. Trees are tall and branched.	Block walls, angular appearance of walls and fencing. Sculpture is all white. The transmission lattice structures, monopoles, and several transmission lines create strong angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans of gravel along roadways and around park.	Shrubs and trees are a several shades of green and brown.	Red park walkway, tan stucco walls, black iron fencing, and white sculptures; bricks surrounding the paved parking lot are red. Transmission structures are grey steel and corten steel. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured.	The park development is smooth to medium textured. The stucco and brick work are coarse textured. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM _X_LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Garden of Gethsemane park along the Santa Cruz River trail with narrow views of Agency Alternative TH-3b. At this distance and from this viewing angle, up to one new transmission structure and the lines associated with the agency alternative TH-3 may be visible against the sky. Some of the view is screened by the park structures, surrounding development, and taller vegetation that is part of the park landscaping. Additional structures would be visible as viewers traveled along the trail in both directions of the private park. Because there are currently both corten steel monopole transmission structures and large lattice structures that are seen from the park and the trail outside the park, the apparent contrast with the surrounding landscape is weak to none.

Distance. The KOP is within 0.1 mile of segment TH3b which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3b

Length of Time the Project Is In View. The would be limited views from the KOP, however, Segment TH3b would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures. The structures would be similar in form to some of the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The area is developed and there would be no native vegetation recovery visible.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit. Because there are limited views of the segment from this KOP, these variations are not expected to change the apparent contrasts.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the structures associated with the park, paved roads, commercial development, and numerous utility structures and conductors interspersed with taller trees and small signs. The proposed structures and conductors would be partially screened from view by all the existing development and in places visible against the sky similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along the segment would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH3-R4**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel. Low rugged peaks visible to the south west.	Low lying shrubs and grasses interspersed with taller trees along the river channel and the path of the trail. Very patchy and irregular.	Flat paved concrete patio at trail access with tall brick arch structure the trail passes through. Several steel transmission structures including monopole and lattice structures are visible along the river channel as well tall vertical light posts.
LINE	Broad flat area along the curving, meandering line of the channel. Rolling and irregular peaks f to the south and southwest.	Shrubs and trees form irregular and patchy lines along the meandering wash. Trees along trail are tall and branched along the trail.	Paved trail in the immediate foreground is a curving line with a strong edge. Several types of transmission structures (monopole, h-frame, and lattice) and several transmission lines are visible going north to south following the channel and creating strong angles that clearly stand out against the sky.
COLOR	Flat, light grey, tans, and reds. Mountains in the background are dark browns and blacks.	Grasses along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	Paved trail is a flat grey. The Transmission structures are grey steel and light brown wooden monopole. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Bikeway with views of Agency Alternative TH-33 Option C in both directions. At this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative TH-3 Option Cwould be visible against the sky. Additional structures would be visible as viewers traveled along the trail from the access point in both directions.

Distance. The KOP is within 0.1 mile of segment TH3 Option C which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3 Option C

Length of Time the Project Is In View. The would be limited views from the KOP, however, Segment TH3 Option C would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures. The replacement structures would be similar in form to some of the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The vegetation would vary in color and texture across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the Santa Cruz River Channel interspersed with trees and small signs. There are mountains in the background. The proposed structures and conductors would be visible against the sky and against the darker backdrop of the mountains, and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH3 Option C would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands within developed residential/ranching area.	Flat low, lying grasses, to high profile trees.	Flat agricultural and ranch lands with human made structures associated with agriculture. Existing transmission line is visible in the middleground.
LINE	Evident line along flat ground and vegetation.	Trees form backdrop of flat ranching lands.	Immediate foreground is flat, with irregular skyline from treetops.
COLOR	Flat browns, and earth tones	Trees and large vegetation is vibrant green	Agricultural lands are browns and tans, structures are steel grays to dark browns.
TEX-TURE	Texture of the ground is fine grained.	Tree, shrubs, and grasses appear dense and coarse textured.	Agricultural lands are very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change.	Transmission structures would follow existing transmission line which is a wood "H" frame structure. The upgraded line would be a steel monopole, creating a form similar, but less visually intrusive than the existing structure.
LINE	No change	No change	Installing a new upgrade line would result in additional vertical and horizontal structures.
COLOR	No change.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere — Date: 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. From this point and viewing angle, the new upgraded structure transmission structures and the lines associated with the agency alternative TH-1 Option would be visible against the sky. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Distance. The KOP is within 0.07 mile of segment TH1 Option.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH1Option.

Length of Time the Project Is In View. From the road portions of the upgrade would be in view for extended periods

Relative Size or Scale. The relative size of the structures would be larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the paved road and the open landscape with low desert vegetation. There are distant mountains in the background. The proposed structures and conductors are to the east in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be visible against the sky and the darker backdrop of the mountains and would create moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH1 Option would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**
2. Key Observation Point **TH1-02**
3. VRM Class **NA**
4. Location Township____ Range Section____
5. Location Sketch See map

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along river channel. Low rugged peaks visible to the south west.	Low lying shrubs and grasses interspersed with taller trees along the river channel and the path of the trail. Very patchy and irregular.	Flat paved concrete patio at trail access with tall brick arch structure the trail passes through. Several steel transmission structures including monopole and lattice structures are visible along the river channel as well tall vertical light posts.
LINE	Broad flat area along the curving, meandering line of the channel. Rolling and irregular peaks f to the south and southwest.	Shrubs and trees form irregular and patchy lines along the meandering wash. Trees along trail are tall and branched along the trail.	Paved trail in the immediate foreground is a curving line with a strong edge. Several types of transmission structures (monopole, h-frame, and lattice) and several transmission lines are visible going north to south following the channel and creating strong angles that clearly stand out against the sky.
COLOR	Flat, light grey, tans, and reds. Mountains in the background are dark browns and blacks.	Grasses along trail are tan and brown. Shrubs and trees are a several shades of green and brown.	Paved trail is a flat grey. The Transmission structures are grey steel and light brown wooden monopole. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium grained. The mountains appear smooth at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing transmission line including steel monopole and lattice structure parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative TH3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) STRONG	MODERATE	WEAK	NONE	VEGETATION (2) STRONG	MODERATE	WEAK	NONE	STRUCTURES (3) STRONG	MODERATE	WEAK	NONE
FORM				X			X					X
LINE				X				X			X	
COLOR			X					X			X	
TEXTURE				X				X				X

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere — Date: 5/9/2013
Revised by Steve Leslie, 2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Bikeway with views of Agency Alternative TH-3b in both directions. At this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative TH-3 would be visible against the sky. Additional structures would be visible as viewers traveled along the trail from the access point in both directions. Because there are currently both steel monopole transmission structures and large lattice structures as well as horizontal and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak to none.

Distance. The KOP is within 0.1 mile of segment TH3 Option C which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3 Option C

Length of Time the Project Is In View. The would be limited views from the KOP, however, Segment TH3 Option C would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures. The replacement structures would be similar in form to some of the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The vegetation would vary in color and texture across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the Santa Cruz River Channel interspersed with trees and small signs. There are mountains in the background. The proposed structures and conductors would be visible against the sky and against the darker backdrop of the mountains, and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH3 Option C would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **AN-12**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along the dirt road. Medium to high profile rugged peaks visible in the background.	Medium to high profile shrubs, cactus, and grasses interspersed with taller trees	Unpaved access road. Existing transmission line in the background distance zone.
LINE	Flat, bare road in the immediate foreground, jagged lines created by mountains and coarse vegetation.	Shrubs and trees form irregular and but dense and coarse lines along the meandering unpaved road.	Unpaved road in the immediate foreground is a curving line with a strong edge. Existing transmission structures (monopole, h-frame) are, in part, visible against the skyline.
COLOR	Dominated by greens and browns. Mountains in the background are dark browns and blacks.	Vegetation along the unpaved road/trail ranges from vibrant to dark greens. Exposed soil is bare of vegetation and light tan and brown.	Unpaved road is light tan and brown. Existing transmission structures are browns and non-reflective grays.
TEX-TURE	The texture of the bare road is smooth to fine grained and the vegetation is coarse and jagged. The mountains that form the horizon line are also jagged and rough.	The exposed soil is light tans and browns and vegetation ranges from vibrant green to dull greens and browns. The backdrop mountains are dull grays.	The unpaved road is smooth and reveals tire tracks in multiple directions. The existing transmission lines are both lateral and horizontal thin lines noticeable in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole within the background distance zone.
LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures. The line caused by the addition of the structure would be shrouded by vegetation.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. The project is located in the background distance zone of the KOP which is directly adjacent to the Anza Trail at the northern end of the project. From this distance and from this viewing angle, new transmission structures and the lines associated with the agency alternative would only partially be visible against the sky. Vegetative and topographic obstruction would not allow direct unadulterated views of the transmission line.

Distance. The KOP is located approximately 1.0 mile east of U3k.

Angle of Observation. The KOP is at a horizontal observational angle to segment

Length of Time the Project Is In View. From the road portions of the upgrade would be in view for extended periods

Relative Size or Scale. The relative size of the upgraded structures would be somewhat larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be changes to the color and texture of the vegetation in the foreground across the seasons. When vegetation is sparser, more of the upgrade line structures would be visible.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the dirt road and the open landscape with low desert vegetation. There are distant jagged mountains in the background. The proposed structures and conductors are to the west in the fore ground. The upgrade is partially screened from The proposed structures that would be visible are larger, with greater conductor spans that would be visible primarily against the darker backdrop of the mountains resulting in weak contrasts.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment E would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **MA-02**	Range	
3. VRM Class **NA**	Section	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands with low to high profile rugged mountains in the backdrop.	Low lying shrubs and grasses interspersed with homogenous, flat agricultural fields.	Flat paved, roadway and shoulders dominate the foreground, with agricultural fields in the middleground, and the presence of several transmission line structures (monopole lines).
LINE	Broad, flat panoramic views with jagged mountain backdrop.	Grasses and agricultural land forms a flat, linear groundscape.	Paved roads and existing monopole structures form both horizontal and vertical lines within the landscape.
COLOR	Flat, light grey, tans, and greens. Mountains in the background are dark browns and blacks.	Grasses and agricultural lands are vibrant to dull greens, exposed dirt is browns and grays.	Paved road is a flat grey. The Transmission structures are brown wooden monopoles. The transmission lines are dark to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium to fine grained. The mountains appear jagged.	Grasses, agriculture and naturally occurring shrubs appear low profile and even or soft.	The pavement/road appears smooth with a coarser gravel shoulder. Existing transmission line structures, traffic signs, and lateral poles appear peppered throughout the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopoles placed within the middleground distance zone.
LINE	No change	No change	Replacing the existing H frame would result in fewer lateral structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended __X_Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. This KOP is located just west of the Marana Regional Airport at the intersection of W. Avra Valley Road and Sanders Road with views oriented to the south toward the proponent's preferred alignment and the existing Western line. This KOP was selected because it is along a well-travelled access road for local residents as well as visitors to the Saguaro NP. From this vantage, the upgraded line would be visible and largely unobstructed by topography or vegetation. The line would appear as a horizontal line with sporadically placed lateral monopoles. The horizon line formed by the high profile jagged mountains and the proposed transmission line would not obstruct views of the mountain backdrop, but would be placed within the middleground contributing to the existing visual congestion. Additionally, agricultural fields and human-made development (e.g., roads, other transmission lines, and street signs) dominate the landscape in this area.

Distance. The KOP is located approximately 0.2 mile east of U3k.

Angle of Observation. The KOP is at a horizontal observational angle to segment.

Length of Time the Project Is In View. From the road portions of the upgrade would be in view for extended periods

Relative Size or Scale. The relative size of the upgraded structures would be similar to existing structures in place near the KOP, but larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be changes to the color and texture of the vegetation in the foreground across the seasons that would not affect the apparent visual contrast.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the paved roads and the open landscape with low desert vegetation. There are distant jagged mountains in the background. The proposed structures and conductors are to the west in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be more visible against the sky than the existing structures resulting in moderate contrasts.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment U3k would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **MA-03**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands along the Avra Valley Road with jagged dominant mountain peaks in the background (which form the horizon line)	Varying low to high profile vegetation line the foreground.	Flat paved roadway, and some sporadic buildings and distance development is evident in the middleground and background
LINE	Lines range between straight (along development such as roads) to jagged and curvy along natural vegetation and topography.	Shrubs and trees form irregular and patchy lines along the roadway. Trees along trail are tall and branched along the road.	Paved road in the immediate foreground is a straight line with a strong edge.
COLOR	Flat, greens, light grey, tans, and reds. Mountains in the background are dark browns and blacks.	Bare soil is light brown, vegetation is pale green to vibrant green.	Paved road is dark grey/black with gravel/dirt shoulders ranging from grey/brown to light tans. Green vegetation dominates the foreground and middleground and dark grey/black mountain profiles dominate the horizon line and background. Atmospheric haze causes the mountains to appear dull and under clear conditions the mountains appear vibrant black/grey/brown.
TEX-TURE	The textures of the soils and pavement are fine to medium grained. The mountains appear smooth at this distance with atmospheric haze present.	Tree, shrubs, and grasses appear dense and coarse textured.	The paved road appears very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole structure which forms a horizontal line through the middleground with lateral (poles) placed regularly.
LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures.
COLOR	Horizontal lines of non-reflective cable in varying shades of grey.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		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 project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended __X_Yes __No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Ceccre — Date: 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. This KOP is located just south of the Marana Regional Airport with views oriented to the south toward the proponent's preferred alignment and the existing Western line. This KOP was selected as the Marana Regional Airport is a relatively popular destination for local residents to view planes from the airport restaurant. From this vantage (located at the edge of W. Avra Valley Road) the upgraded line would be visible as a horizontal line bisecting slightly above the vegetation line and below the horizon line formed by the high profile jagged mountains to the south. The proposed transmission line would not obstruct views of aviation activities (as that is mostly oriented northward or 180 degrees away from the proposed line). Additionally, vegetation, development, and topography are all present and dominate the landscape views.

Distance. The KOP is located approximately 1.0 mile north of U3i.

Angle of Observation. The KOP is at a horizontal observational angle to segment.

Length of Time the Project Is In View. From the road portions of the upgrade would be in view for extended periods.

Relative Size or Scale. The relative size of the upgraded structures would larger than the existing transmission structures and other existing structures in the foreground of the landscape.

Season of Use. There would be changes to the color and texture of the vegetation in the foreground across the seasons that would not affect the apparent visual contrast.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the paved roads and the open landscape with low desert vegetation. There are distant jagged mountains in the background. The proposed structures and conductors are to the west in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be more visible against the sky than the existing structures resulting in moderate contrasts.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment U3i would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **SA-01**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rugged, undulating landscape, views of jagged high relief mountains in the background/horizon line	Medium to high vegetation in the immediate foreground, background and seldom seen is barren (developed or mountains)	Urban development (City of Tucson) is visible in the middleground and background in the valley floor.
LINE	Distinct horizon line splits the valley floor from the mountainous background.	Shrubs and trees form irregular and patchy lines within the immediate foreground/foreground. Medium to tall cactus and woody desert vegetation dominates the foreground.	Urban development reveals sporadic vegetation (such as street trees, and landscaping) in the distance.
COLOR	Variety of earth tones, and range of greens, browns, and blacks dominate the vegetation in the foreground. The background mountains are faded grey and hazy or dull.	Grasses along trail are tan and brown. Shrubs, trees, and cacti are several shades of green and brown.	Urban development appears patchy shades of brown, tans, and dull grey.
TEX-TURE	The textures of the soils are coarse and harsh. The mountains appear smooth with jagged edges that form the horizon line at this distance and under the late day sun light.	Tree, shrubs, and grasses appear dense and coarse textured.	Urban development within the valley floor appears flat and 2-dimensional due to the distance and angle of view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing transmission line including steel monopole.
LINE	No change	No change	Installing a new line under alternative would result in additional vertical and horizontal structures.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

Represents views of the proposed alignment to the north and northeast from use trails in Saguaro NP. At this distance, the proposed transmission line is barely detectible due to distance, atmospheric conditions (haze), and vegetative and topographic obstruction. From this superior (elevated) vantage looking downward towards the City, structures such as monopole transmission lines tend to blend into the visual congestion and become difficult to discern in middleground and background distances. Sensitive viewers (hikers) along this portion of the Saguaro Nation Park may be able to discern the transmission line structures but would be expecting views of development as the view is oriented towards the City. Therefore, weak or low visual contrast is expected from this KOP.

SIMULATED

Distance. The KOP is within 1.5 miles of segment U3i from Saguaro NP.

Angle of Observation. The KOP is at a superior observational angle to segment U3i.

Length of Time the Project Is In View. Because of the distance and existing development, the upgrade would be barely visible, although in view for extended periods.

Relative Size or Scale. The relative size of the replacement structures would be small, although taller than the existing transmission structures.

Season of Use. There would be no changes to scenery across the seasons that would affect visible contrast.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because the upgrade is located in an already developed area, there would be no visible contrast.

Spatial Relationships. The landscape in the park is open, sloping down towards to the development of Tucson with jagged mountains in the background, rectangular structures and trees are interspersed across the valley floor. The proposed replacement structures and conductors would be barely visible against the ground.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, visibility of the upgrade structures would be further reduced.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment and installation of new structures along segment U3i would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 5/9/2013
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **TH1-03**	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Elevated panoramic view, large downward sloping mountain hillside transitioning to alluvial valley floor MG: Valley floor rising to multiple pyramidal mountain formations BG: Large, undulating, jagged distant mountain ridgeline across center of view No water visible	FG: Smooth, uniform, low lying vegetative layer blanketing southern facing mountain slope, distinctive saguaros MG: Uniform low vegetation on valley floor; fine, gradational low lying vegetation on mountain forms BG: Swaths of vegetative forms on distant mountains	FG: Meandering trails; flat paved roadway; long transmission lines; blocky commercial structures at base of mountain form in center of view; domed blocky structure at peak of mountain form in right side of view MG: Distinctive linear paved roadway continuing into far MG; distinguishable blocky development in left side of view; blocky structures cushioned between mountain forms BG: None visible
LINE	FG: Smooth diagonal downward trending plane to flat horizontal valley floor MG: Flat valley floor rising sharply to multiple pyramidal mountain formations BG: Undulating, continuous mountain formations with pyramidal peaks No water visible	FG: Simple, continuous low lying vegetative layer; vertical saguaros MG: Directional, horizontal, gradational transition between valley floor and mountain forms BG: Patch-like swaths on distant mountains	FG: Vertical and horizontal transmission lines, curvilinear trails; continuous linear roadway MG: Broken horizontal line of development BG: None visible
COLOR	FG: Tans, browns MG: Tans, browns BG: Black and brown distant mountains No water visible	FG: Greens, light brown, tan MG: Dark green, light brown, tan BG: Browns, dark shades of gray	FG: Beige, whites, browns MG: Beige, whites, browns BG: None visible
TEX- TURE	FG: Smooth, continuous valley floor, clumped outcrop; Coarse, directional mountain, sloping to the south MG: Smooth valley floor; coarse, random pyramidal forms BG: Coarse, continuous, mountain peaks No water visible	FG: Smooth, continuous, directional vegetative plane; coarse saguaros MG: Stippled low lying vegetation on mountain forms BG: Fine and discontinuous	FG: Medium to fine textured transmission structures, fine, granular trails MG: Smooth roadway; medium to fine blocky buildings BG: None visible

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change
LINE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change
COLOR	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change
TEX-TURE	FG, MG, BG: no change	FG, MG, BG: no change	FG, MG, BG: no change

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended __ _Yes _X_No (Explain on reverses side)

Evaluator's Names: Steve Leslie, Pam Cecere; Colin Agner
Revised by Steve Leslie, 2/24/2015
Date: 10/27/2014

SECTION D. (Continued)

There is no visible change from this KOP.

Additional Mitigating Measures (See item 3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date:
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point TH1-S10	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Tumamoc Hill is a prominent, flat topped landform to the south, with flat terrain surrounding the hill	Patchy low lying grass mixed with rounded shrubs and trees. Grasses and shrubs in the middle ground appear low and flat.	Flat paved road, and gravel road and shoulder. Simple vertical steel transmission structures and horizontal transmission lines. Vertical light poles interspersed with transmission structures. Boxy buildings of the commercial development to the west and south.
LINE	Tumamoc Hill is flat topped with sloping irregular flowing down into the surrounding flat lands.	Shrubs in the foreground form a jagged, irregular line. Vegetation further away is flat.	Paved road in the immediate foreground is a strong straight line. The transmission structures are vertical lines against the midday sky and surrounding landscape and the transmission lines are strong angular lines against the sky. Commercial buildings to the west are single storied, square and boxy.
COLOR	Surrounding lands are tans, grays, browns, reds,	Shrubs in the foreground are greens, grays, and yellows. The vegetation on Tumamoc Hill is beige and brown, with darker green vegetation towards the base of the hill.	Asphalt road is dark grey. Transmission structures are a dark wooden brown and the lines appear dark against the midday sky. The gravel roads and shoulders are grey. Buildings are tan, beige, and red.
TEX-TURE	The textures of the soils are in the foreground are medium grained. Because of the distance, the rocky outcrops of Tumamoc Hill are fine grained.	Tree, shrubs, and grasses in the foreground appear dense and course textured. Vegetation extending into the background appears smoother the texture.	The paved road appears very smooth. The gravel roads and shoulders are medium grained texture. The transmission structures are very fine and uniform. Buildings are smooth, fine textured.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH1a would result in a bolder, more prominent vertical structure.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would result in lighter, more reflective structures.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. The proposed upgrade and Agency Alternative TH-3b are located in the foreground of the KOP where it crosses the I-10. The view from the KOP is looking south toward Agency Alternative TH-3b, and along the proposed upgrade. TH-3b would be screened by existing buildings. At this distance, the new transmission structures and lines associated with the proposed upgrade would be visible with the open sky as the backdrop.

Distance. The KOP is within 0.2 mile of segment TH3b which crosses private land in this area.

Angle of Observation. The KOP is at a horizontal observational angle to segment TH3b.

Length of Time the Project Is In View. The would be limited views from the KOP, however, Segment TH3b would potentially remain in view for extended periods as viewers travel along Santa Cruz River Trail parallel to the segment.

Relative Size or Scale. The relative size of the structures would be similar to the existing transmission structures. The structures would be similar in form to some of the existing structures. Because of the relative size of the structures when compared with other existing structures there would be weak contrasts.

Season of Use. The area is developed and there would be no native vegetation recovery visible.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit. Because there are limited views of the segment from this KOP, these variations are not expected to change the apparent contrasts.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes paved roads, commercial development, and numerous utility structures and conductors interspersed with taller trees and small signs. The proposed structures and conductors would be partially screened from view by all the existing development and in places visible against the sky similar to the existing sequence of linear structures.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along the segment would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date:
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point TH3-S1	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling terrain below Sentinel Peak to the East, and other low lying mountains to the west.	Low lying clumpy grass along the roadsides in the immediate foreground. Low to medium rounded shrubs interspersed with spiky perennial grasses, and taller angular trees are visible just past the road.	Urban development (City of Tucson) is visible in the middleground and background in the valley floor.
LINE	Low flat horizon line straight ahead of the alluvial fan coming off Sentinel Peak. Rounded but irregular peaks lie to the west.	Shrubs and trees form an irregular line visible below the transmission line. There is a straight line of vegetation that follows parallel to the road and transmission lines.	Urban development reveals sporadic vegetation (such as street trees, and landscaping) in the distance.
COLOR	Flat, light grey and tans in the immediate foreground. Fans, hills, and mountains are darker tans, browns, reds,	Grasses along shoulder are tan and brown. Shrubs and trees are a several shades of green and brown.	Urban development appears patchy shades of white, brown, tans, and dull grey.
TEX-TURE	The textures of the soils are smooth and fine grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear sparse and coarse textured. Vegetation extending into the background appears smoother the texture.	Urban development within the valley floor appears flat and 2-dimensional due to the distance and angle of view.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Prominent, taller transmission structures would follow an existing single pole transmission line parallel to road.
LINE	No change	No change	Installing a new line under alternative TH3 would result in a bolder, more prominent vertical structure.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended X___Yes __No (Explain on reverses side)

Evaluator's Names — Date
Steve Leslie, Pam Cecere — 5/9/2013
Revised by Steve Leslie, 2/24/2015

SECTION D. (Continued)

The actions do not occur on BLM managed lands. The project is located in the foreground of the KOP. At this distance, two to three of the new transmission structures and lines associated with alternative TH3 would be clearly visible. Because there are currently transmission structures and lines that the project would parallel, the apparent contrast with the surrounding landscape is weak.

Distance. The KOP is within 0.25 miles of segment TH3 from Sentinel Peak.

Angle of Observation. The KOP is at a superior observational angle to segment TH3.

Length of Time the Project Is In View. Segment TH3 would be viewed for extended periods from Sentinel Peak.

Relative Size or Scale. The relative size of the replacement structures would be taller than the existing transmission structures.

Season of Use. There would be few changes to scenery across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Restoration of desert vegetation can take several years to complete. Although vegetation conditions in areas of disturbance are expected to change over several years as restoration takes place, because of the distance from the KOP, and the small scale of vegetation disturbance required, there would be no visible contrast.

Spatial Relationships. The landscape in the fore ground slopes down to the river channel and eh development of Tucson. The river channel, existing utility structures, and the highway all cross the view. The commercial and residential development fill in the valley floor with rectangular structures and trees are interspersed throughout. There are mountains in the background The proposed structures and conductors would be visible against the ground and would be similar to the existing sequence of linear structures.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment and installation of new structures along segment TH3 would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date:
District/ Field Office:
Resource Area:
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point NPS-02	Range	
3. VRM Class **NA**	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Meandering channel and flat park area in the foreground. Mountains in the background.	Low lying shrubs and grasses interspersed with taller trees. Very patchy and irregular.	Flat paved trail with a square blocky metal fence along the edge. Strong lattice transmission structures within the channel and opposite the channel. Additional steel transmission structures visible to the north and south.
LINE	River channel curving line going to north to south. Irregular mountain range. Broad flat area along the trail.	Shrubs and trees form irregular and patchy lines.	Paved trail in the immediate foreground with metal blocky fence are strong horizontal, straight lines. The transmission structures and several transmission lines are visible going north to south, and east to west creating right angles that clearly stand out against the midday sky.
COLOR	Flat, light grey and tans in the immediate foreground. Mountains are darker tans, browns, and black,	Grasses along trail and throughout the park are tan and brown. Shrubs and trees are a several shades of green and brown.	Asphalt trail is light faded grey; fence is a flat beige color. Transmission structures are grey steel. The transmission lines are dart to reflective from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium to coarse grained. Because of the distance, the rocky outcrops of the surrounding hills and mountains in the middle ground and background are smooth.	Tree, shrubs, and grasses in the foreground appear dense and coarse textured. Vegetation in the channel is sparse and patchy.	The paved trail appears very smooth. The transmission structures are very fine and uniform. The transmission lines are very smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	Increased patchiness would occur where vegetation is removed for installation of new transmission structures.	Transmission structures would follow an existing lattice transmission line parallel to the Santa Cruz river channel.
LINE	No change	No change	Installing a new line under alternative U3 would result in additional vertical and horizontal structures.
COLOR	There would be lighter soils exposed in the foreground where areas are cleared for installation of new structures.	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures, structure base, and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM X LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names
Steve Leslie,
Revised by Steve Leslie, 2/24/2015

Date
5/9/2013

SECTION D. (Continued)

The actions do not occur on BLM managed lands. The project is located in the immediate foreground of the KOP which is the Santa Cruz River Park along "The Loop" including a paved trail. Views from the KOP are directly along agency alternative U3 both directions. At this distance and form this viewing angle, new transmission structures and lines associated with the agency alternative U3would be clearly visible against the sky. In addition, the large concrete base of the proposed towers would be clearly visible. They would be visible from the trail, and for the length of the alternative along the paved trail.

Distance. The KOP is located approximately 0.5 mile north of U3c.

Angle of Observation. The KOP is at a horizontal observational angle to segment.

Length of Time the Project Is In View. From the trail, the upgrade would be in view for extended periods.

Relative Size or Scale. The relative size of the replacement structures and the necessary bases across the channel would be larger than the existing transmission structures. Because of the relative size of the structures, and concrete bases required when compared with other existing structures there would be moderate contrasts.

Season of Use. The vegetation would vary in color and texture across the seasons.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There would be a greater contrast where structures are back lit.

Recovery Time. Because of existing disturbance, some available screening, and the small scale of vegetation disturbance required for the upgrade through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the Santa Cruz River Channel interspersed with trees and small signs. There are mountains in the background. The proposed structures and conductors would be visible against the sky. The proposed structures are larger, with greater conductor spans that would be more visible against the sky than the existing structures resulting in moderate contrasts.

Atmospheric Conditions. Because of the proximity of the segment, changes in atmospheric conditions are not expected to contribute to changes in contrast. However, during times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along segment TH3b would attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

- The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.
- Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.
- All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: May 18, 2015
District/ Field Office: NA
Resource Area: NA
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **WB-01 (Zarpara Vineyard Tasting Room)**	Range	
3. VRM Class NA	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands with low to high profile rugged mountains in the backdrop.	Low lying shrubs and grasses. Vineyard present in the foreground. Uniform rows of grape vines extending away from the observation point.	Flat roadway and shoulders dominate the foreground, with vineyards throughout the view, There are several distribution line structures (monopole lines), and ranch buildings throughout the view.
LINE	Broad, flat panoramic views with jagged mountain backdrop.	Vineyards form a uniform, linear structure.	The road, support structures, and existing monopole structures form both horizontal and vertical lines within the landscape.
COLOR	Flat, light grey, tans, and greens. Mountains in the background are dark browns and blacks.	Vineyards are vibrant green, exposed dirt is tan, brown, and gray.	Gravel road is a flat grey. The distribution structures are brown wooden monopoles. The buildings are dark to a reflective white from different angles in the midday sun.
TEX-TURE	The textures of the soils are medium to fine grained. The mountains appear jagged.	Grasses, vineyards, and naturally occurring shrubs appear low profile and even or soft.	The gravel road appears smooth. Existing distribution structures, fence poles, vine support structures, and buildings appear peppered throughout the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing distribution line including wooden monopole approximately 2 miles away.
LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures. The line caused by the addition of the structures would be the tallest vertical lines on the Willcox Bench, but would be viewed partially against the mountainous backdrop.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names Date
Steve Leslie 5/18/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The route variation is located approximately 2 miles from the KOP which is just outside the Winery Tasting Room of the Zarpara Winery. From this distance and from this viewing angle, new transmission structures and the lines associated with the route variation would only partially be visible against the sky. The low vegetation and open landscape would allow direct views of the transmission line. Because there are currently distribution line structures and the apparent contrast with the surrounding landscape is weak to none.

Distance. Two miles from the observation point.

Angle of Observation. The KOP is at a horizontal to inferior observational angle to the route variation

Length of Time the Project Is In View. From the KOP, the route variation would be in view for extended periods

Relative Size or Scale. The relative size of the structures would appear somewhat larger than the existing distribution structures and other existing structures of the landscape.

Season of Use. There would be changes to the color and texture of the vegetation in the foreground across the season, because of the height of the vegetation, there would be affect to the visibility of the route variation structure.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There may be greater visible contrasts associated with different lighting conditions.

Recovery Time. Because of the distance to the route variation, existing vegetation, and the small scale of vegetation disturbance required for the structures through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes the dirt road and the open landscape with the rows of grape vines extending away from the observation point. There are distant jagged mountains in the background. The proposed structures and conductors are to the east in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be visible primarily against the darker backdrop of the mountains resulting in weak contrasts.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along the route variations may attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.

Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: May 18, 2015
District/ Field Office: NA
Resource Area: NA
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **WB-02 (Pillsbury Vineyard Tasting Room)**	Range	
3. VRM Class NA	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands with low to high profile rugged mountains in the backdrop.	Low lying shrubs and grasses mixed with taller fruit trees and pine trees. Small grape vines are planted in the foreground. Uniform shrubs extend away from the observation point.	There is one existing distribution line structure (monopole lines), and fences throughout the view.
LINE	Broad, flat panoramic views with jagged mountain backdrop.	Bushy shrubs and grasses.	The fence structures and existing monopole structure and conductors form both horizontal and vertical lines within the landscape.
COLOR	Flat, light tan soils. Mountains in the background are dark browns and blacks.	Vegetation is a vibrant green, exposed dirt is tan, brown, and gray.	The distribution structures are brown wooden monopoles.
TEX-TURE	The textures of the soils are medium to fine grained. The mountains appear jagged.	Grasses, trees, and naturally occurring shrubs appear medium grained.	Existing distribution structure, fence poles, nd winery storage containers are smooth and appear throughout the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing distribution line including wooden monopole approximately 2 miles away.
LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures. The line caused by the addition of the structures would be the tallest vertical lines on the Willcox Bench, but would be viewed partially against the mountainous backdrop.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		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 project design meet visual resource management objectives? __ Yes ___No
(Explain on reverse side)
NA

3. Additional mitigating measures recommended
_X__Yes __No (Explain on reverses side)

Evaluator's Names Date
Steve Leslie 5/18/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The route variation is located approximately one mile from the KOP which is just outside the Winery Tasting Room of the Pillsbury Winery. From this distance and from this viewing angle, new transmission structures and the lines associated with the route variation would be visible against the sky. The low vegetation and open landscape would allow direct views of the transmission line. Because there are currently distribution line structures much closer to the observation point, the apparent contrast with the surrounding landscape is weak to none.

Distance. One mile from the observation point.

Angle of Observation. The KOP is at a horizontal to slightly inferior observational angle to the route variation

Length of Time the Project Is In View. From the KOP, the route variation would be in view for extended periods

Relative Size or Scale. The relative size of the structures would appear similar to the existing distribution structures that are closer to the observation point.

Season of Use. There would be changes to the color and texture of the vegetation in the foreground across the seasons. When vegetation is sparser, more of the upgrade line structures would be visible.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There may be greater visible contrasts associated with different lighting conditions.

Recovery Time. Because of the distance to the route variation, existing vegetation, and the small scale of vegetation disturbance required for the structures through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes a number of fruit trees, shade trees and shrubs. There are distant jagged mountains in the background. The proposed structures and conductors are to the east in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be visible primarily against the sky.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along the route variations may attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

•The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.

•Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

•All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: May 18, 2015
District/ Field Office: NA
Resource Area: NA
Activity (program): Transmission

SECTION A. PROJECT INFORMATION

1. Project Name **Southline Transmission Project**	4. Location Township____	5. Location Sketch See map
2. Key Observation Point **WB-03 (Narita Property)**	Range	
3. VRM Class NA	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat lands with low to high profile rugged mountains in the backdrop.	Low lying shrubs and grasses mixed with taller pine trees. Variable hrubs extend away from the observation point.	There are existing distribution line structures, wire fences and gates throughout the view.
LINE	Broad, flat panoramic views with jagged mountain backdrop.	Bushy trees, shrubs, and grasses.	The fence structures and existing monopole structure and conductors form both horizontal and vertical lines within the landscape.
COLOR	Flat, light tan soils. Mountains in the background are dark browns.	Vegetation is a dull green, exposed dirt is tan, brown, and gray.	The distribution structures are brown wooden monopoles.
TEX-TURE	The textures of the soils are medium to fine grained. The mountains appear jagged.	Grasses, trees, and naturally occurring shrubs appear medium grained.	Existing distribution structures and fence structures are smooth and appear throughout the landscape.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	No change	No change	Transmission structures would follow an existing distribution line including wooden monopole less than ¼ mile away.
LINE	No change	No change	Installing a new line would result in additional vertical and horizontal structures. The line caused by the addition of the structures would be the tallest vertical lines visible and would be viewed against the sky.
COLOR	No change	No change	Steel tower structures, metallic wires would repeat the colors of existing structures and lines on the landscape.
TEX-TURE	No change	No change	The new structures and wire would be smooth and uniform in texture.

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

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

2. Does project design meet visual resource management objectives? __ Yes ___No (Explain on reverse side)
NA

3. Additional mitigating measures recommended _X__Yes __No (Explain on reverses side)

Evaluator's Names Date
Steve Leslie 5/18/2015

SECTION D. (Continued)

Comments from item 2.

The actions do not occur on BLM managed lands. However, the Southline Transmission project repeats the basic elements of form, line, color, and texture of the existing conditions within the area. The route variation is located less than ¼ mile from the KOP which is in the backyard of the Narita private property parcel. From this distance and from this viewing angle, new transmission structures and the lines associated with the route variation would be the tallest visible structures, and would be clearly visible against the sky. The low vegetation and open landscape would allow direct views of the transmission line.

Distance. Less than ¼ mile from the observation point.

Angle of Observation. The KOP is at a horizontal observational angle to the route variation

Length of Time the Project Is In View. From the KOP, the route variation would be in view continuously by the property resident.

Relative Size or Scale. The relative size of the structures would be much larger when compared with the existing distribution structures.

Season of Use. There would be changes to the color and texture of the vegetation in the foreground across the seasons. When vegetation is sparser, more of the upgrade line structures would be visible.

Light Conditions. Because of the open landscape, natural light conditions will vary across the day as well as across different times of the year. There may be greater visible contrasts associated with different lighting conditions.

Recovery Time. Because of the existing vegetation, and the small scale of vegetation disturbance required for the structures through this area, there would be no visible contrast during recovery.

Spatial Relationships. The landscape in the fore ground includes a number of shade trees and shrubs. There are distant jagged mountains in the background. The proposed structures and conductors are to the east and extending north in the fore ground. The proposed structures that would be visible are larger, with greater conductor spans that would be visible primarily against the sky.

Atmospheric Conditions. During times of cloudiness, haze, and increased dust in the area, there may be reduced visibility of the upgrade structures as they are further from the KOP.

Motion. There is limited motion within the landscape. In the short term, motion associated with construction equipment along the route variations may attract more attention to the project. During operation, the structures would be static.

Additional Mitigating Measures (See item 3)

The following measures are recommended to reduce the visual impact of the proposed transmission line.

The project should incorporate non-specular conductors into their design to decrease reflectivity and visibility of the project features.

Non-transmission line structures such as operations and maintenance buildings, microwave equipment buildings, regeneration structures, emergency generators, and other associated structures would be treated or painted with non-reflective, flat-toned surface treatment. The color of the structures would be painted BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.

All lattice towers shall be "dulled" non-specular metal and monopoles properly color treated BLM Environmental Color Chart "Shadow Gray", unless otherwise directed by authorizing officer based on a field evaluation of color choices that will demonstrate better measureable performance over Shadow Gray.