[planning] [design] [landscape architecture] [entitlement] [mapping/presentations]

FORMA
151 Kalmus Drive, Suite H5
Costa Mesa, CA 92626
714.673.6200
info@formacompanies.com
www.formacompanies.com

March 4, 2025

Julie Gilbert
Project Manager
ELMT Consulting, Inc.

Re: OMYA Solar Facility Visual Impact Analysis, Lucerne Valley

Attached is the Visual Impact Analysis for the proposed OMYA Solar Facility in Lucerne Valley, California. This analysis was prepared to determine the visual impact of the proposed solar facility to the surrounding area.

1. **Existing On-Site Land Uses**

The project site is located on the existing OMYA Mine Facility in Lucerne Valley, California. The proposed solar facility is located directly south of the existing mining and packaging operations on vacant land that gently slopes from the south to the north.

2. **Existing Off-Site Land Uses**

The majority of the land surrounding the OMYA Mine Facility is vacant. Another mining operation, Specialty Minerals, is located approximately 2 miles to the southeast, and Cushenbury Cement plant is located approximately 5.3 miles to the southeast. Approximately 4 ½ miles northwest of the site is the community of Lucerne Valley.

3. **Visual Impact Analysis Methodology**

The Project will be developed on private property within an unincorporated area of San Bernardino County. BLM administers much of the land surrounding the project area. BLM uses a Visual Resources Management (VRM) system to identify, set, and maintain scenic values for land areas under its management. The VRM system has two key aspects: inventorying visual resources and managing those resources.

BLM's VRM classification system has four Classes which have specific Objectives.

- **VRM Class I Objective**: To preserve the existing character of the landscape. Allowed Level of Change: This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

- **VRM Class II Objective:** To retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- **VRM Class III Objective**: To partially retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
- **VRM Class IV Objective**: To provide for management activities which require major modification of the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape can be high. Management activities may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

These four VRM classes represent the relative values of the existing visual resources. VRM Classes I and II represent the highest visual value, Class III represents moderate value, and Class IV represents relatively low visual value. The four VRM classes are the foundation upon which BLM considers visual values.

This impact analysis uses terminology and follows guidance as recommended by Bureau of Land Management (BLM) Manual 8431 – Visual Resource Contrast Rating. In following that methodology as guidance, key observation points (KOPs) were selected for further evaluation.

Photographs were taken with a full frame mirrorless DSLR Sony A74 camera during fair weather conditions on January 23, 2025. Locations of the Key Observation Points were established on ARCGIS and Geo-Located in the field.

4. Landscape Visibility

Perception of details (e.g., form, line, color, and texture) diminishes with increasing distance. The distance zone is dependent on the location of the observer relative to the Project. These distance zones are:

- Foreground and middle ground: 0 to 5 miles from point of interest
- Background: remaining area up to 15 miles away from the point of interest
- Seldom seen: over 15 miles from the point of interest

In addition, the inventory evaluated if views were open, partially screened (filtered), or screened (e.g., presence of hillside terrain, vegetation, and/or buildings). Attached are the BLM Visual Contrast Rating

(VCR) Worksheets for each of the three KOPs. Descriptions and terminology of the Form, Line, Color, and Texture are consistent with that described in BLM Manual 8431 – Visual Resource Contrast Rating.

5. Key Observation Points (KOPs)

Three KOPs were selected to assess the level of visual change resulting from the Project on the existing environment. The location of the three KOPs are depicted on the attached Key Map. The KOPs were selected to capture representative vantages including residential areas northeast of the Project site, an existing residence south of the site, and the intersection of Crystal Creek Road and Crescent Road, at the southwest corner of the proposed facility.

KOP 1 is located approximately 1,800 feet northwest of the proposed solar facility and is located in VRM Class IV, which provides for management activities which require major modification of the existing character of the landscape. The existing photo is facing southwest shows scattered desert vegetation in the foreground, the San Bernadino Mountains in the background, and the existing OMYA mining operations to the east. The proposed simulation depicts the solar panels south of the existing mining operations primarily blocked by the existing terrain and vegetation due to the ground-mounted low profile solar panels.

KOP 2 is located approximately 500 feet southeast of the proposed solar facility and does not have a VRM Class, and therefore is designated Unclassified. The existing photo is facing northwest and shows thick desert vegetation in the foreground, and the existing OMYA mining operations and hills in the background. The proposed simulation depicts the solar panels south of the existing mining operations primarily blocked by the existing vegetation with small views to the west due to the ground-mounted low profile solar panels.

KOP 3 is located approximately 350 feet south of the proposed solar facility and does not have a VRM Class, therefore is designated Unclassified. The existing photo is facing north and shows an existing gravel road and sparse vegetation in the foreground with the existing OMYA mining facilities and Lucerne Valley in the background. The proposed simulation depicts the solar panels south of the existing mining operations. The solar facility is partially hidden by the existing vegetation between KOP 3 and the panels due to the ground-mounted low profile solar panels and due to the existing topography. The OMYA mining operations to the north rise above the proposed solar farm. Off-site views of Lucerne Valley and hills to the north are not impacted as the solar facility is located below the off-site landscape and landforms.

6. Thresholds of Significance

For this analysis, the significance criteria outlined in Appendix G of the CEQA Guidelines are applied to determine the project's impact to existing visual resources. The CEQA-defined aesthetic issues of concern are:

- Would the proposed project cause substantial, adverse effects on a scenic vista?

- Would the proposed project cause substantial damage to scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway?

- Would the proposed project cause a substantial degradation of existing visual character or quality of a site and its surroundings?

- Would the proposed project result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

7. **Scenic Vistas -** Would the proposed project cause substantial, adverse effects on a scenic vista?

No designated scenic vistas are located within visible distance of the project site. The proposed solar farm site is a part of an existing mineral mining and production operation that contains associated rail and trucking facilities onsite. Given the low profile, ground-mounted facilities combined with the various existing, visual encroachments on-site, the project would not result in a substantial adverse effect on a scenic vista and a less than significant impact would result.

8. **Scenic Highways** - Would the proposed project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

State Route (SR) 18 is a San Bernardino County designated scenic route and is eligible for California State Scenic Highway Designation. SR 18 is located approximately 3.7 miles northeast of the project area, however, due to existing landforms and topography, the low profile of the ground-mounted solar panels, and the existing OMYA mining facilities and operations, the project site is not visible along SR 18.

Based on these considerations combined with the various existing visual encroachments on-site, the proposed project would not result in a substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway. For these reasons, a less than significant impact would result.

9. **Visual Character** - Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is rural in character and is adjacent to an existing mineral mining and production operation that contains associated rail and trucking facilities onsite. Views of the project site from existing residences in Lucerne Valley and along SR 18 are primarily blocked by existing topography, vegetation and the existing mining and mineral production operations. Given the low profile, ground-mounted facilities, the project would result in a less than significant change on the visual character of the existing landscape.

10. **Light and Glare** - Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

The project is not expected to create a substantial new source of nighttime lighting or daytime glare. All lighting associated with the proposed Project will be subject to County approval and compliance with

San Bernardino County requirements. Therefore, the Project will have a less than significant impact associated with nighttime lighting.

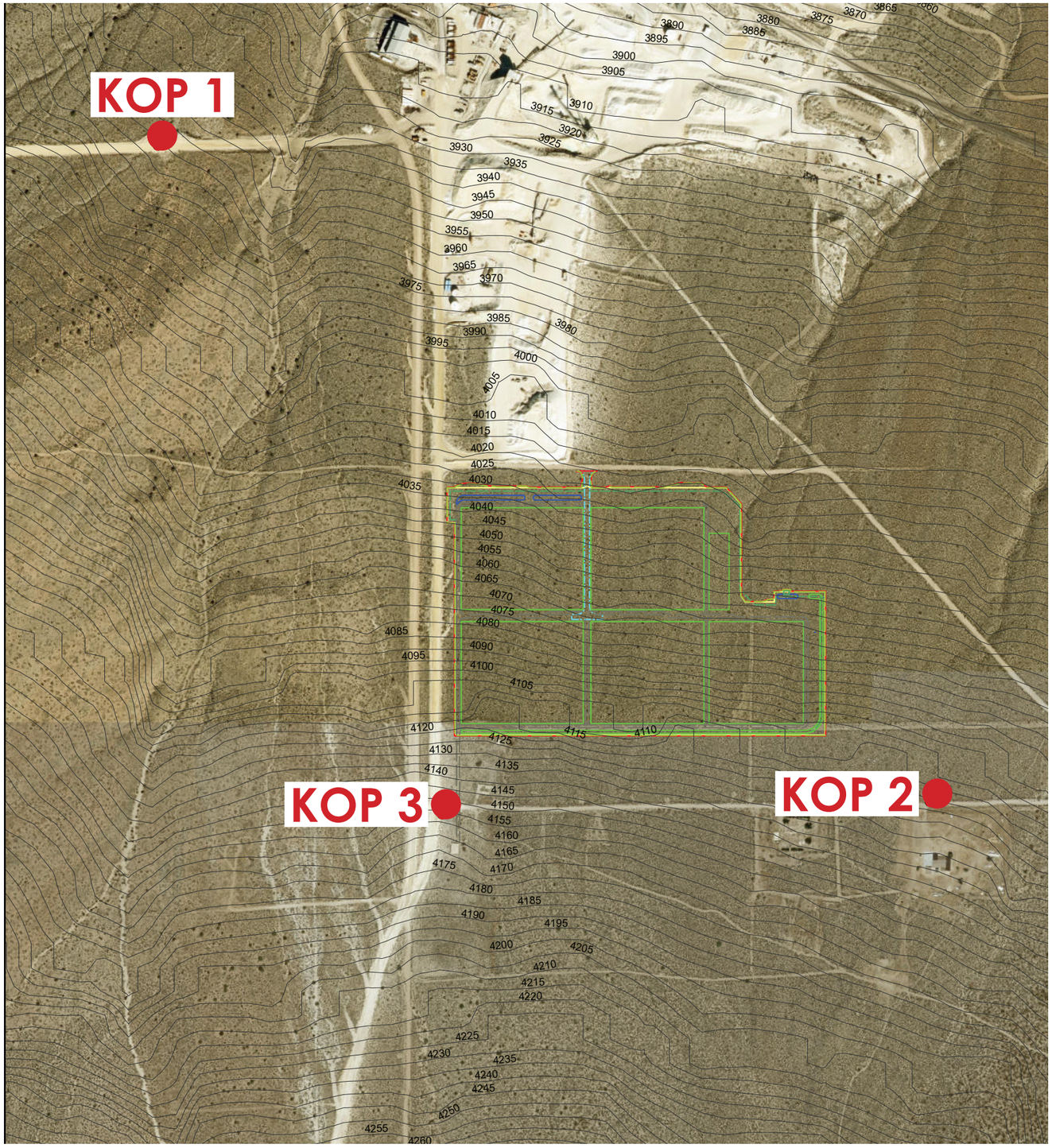
Unlike solar thermal facilities, which rely on large fields of mirrors to reflect light, the potential reflection from solar photovoltaic panels is inherently low since they are designed to capture and not to reflect sunlight. Moreover, light reflected from the photovoltaic panels would travel above the line of site of most, if not all, viewers. Photovoltaic tracking systems position the array so that the sun's rays are always perpendicular to the face of the panel. What light is reflected from the panels is reflected back towards the sun. During midday conditions, when the sun is high in the sky, the rays of the sun are reflected directly upwards. For example, when the sun is low on the horizon (near dawn or dusk), the sun's angle in the sky is low; however, reflected rays would still be directed away from ground-level receptors because the maximum downward angle of the arrays would not be below 30 degrees. Similarly, and also due to their low reflectivity, the panels are not expected to cause visual impairment for motorists on area roadways.

11. Summary/Conclusions

In summary, the view simulations and the BLM VCR Worksheets demonstrate that that due to:

- The low-profile nature of the ground-mounted panels, they are mostly obscured by surrounding topography, vegetation, and the existing mining operations;
- Topography, existing vegetation, and the existing OMYA mining facilities and operations, the project site is not visible from State Route 18, a County designated scenic highway;
- The fact that KOP 1 is nearest to existing residential structures and neighborhoods and is designated Class IV VRM Objective, which provides for management activities which require major modification of the existing character of the landscape; and
- The area is sparsely populated, therefore,

the proposed OMYA Solar Facility, Lucerne Valley does not create any major visual impacts to the surrounding area.



OMYA Solar Facility View Simulations, Lucerne Valley

Key Map

FORMA

Existing

Proposed

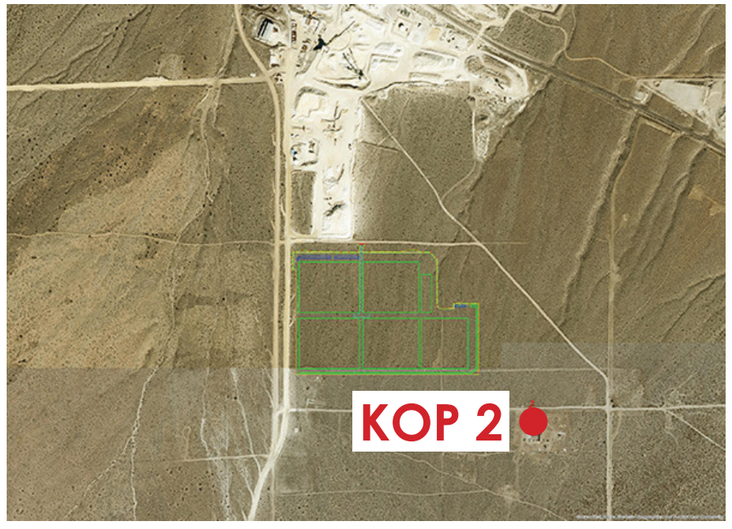
OMYA Solar Facility View Simulations, Lucerne Valley

View 1

FORMA

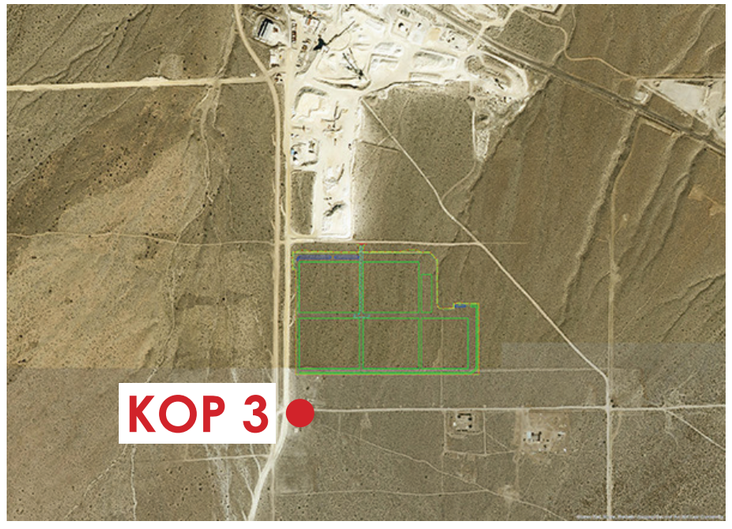
Existing

Proposed



Existing

Proposed



Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date March 4, 2025

District – Barstow

Resource Area

Activity (program)

SECTION A. PROJECT INFORMATION

1. Project Name
OMYA Solar Facility, Lucerne Valley

2. Key Observation Point – KOP 1

3. VRM Class – VRM Class IV

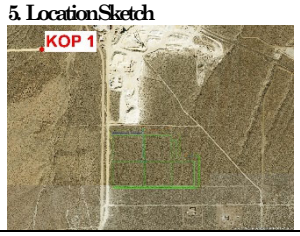
4. Location

Township 03N

Range 01W

Section 2

5. Location Sketch



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to Rugged	Sparse and Irregular	Curvilinear
LINE	Diffuse Edge	Weak and Irregular	Weak and Broken
COLOR	Light/Dark Browns and White/Gray	Light and Dark Greens	White and Gray
TEXTURE	Gradational	Patchy	Medium

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to Rugged	Sparse and Irregular	Linear and Angular
LINE	Diffuse Edge	Weak and Irregular	Weak and Broken
COLOR	Light/Dark Browns and White/Gray	Light and Dark Greens	Blue and Gray
TEXTURE	Gradational	Patchy	Medium and Ordered

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST

	FEATURES											
	LANDWATER 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? X Yes ☐ No (Explain on reverse side)

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

Evaluator's Names — Date

Gene Hsieh – February 21, 2025
Scott Armsworth – February 21, 2025

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date March 4, 2025

District – Barstow

Resource Area

Activity (program)

SECTION A. PROJECT INFORMATION

1. Project Name
OMYA Solar Facility, Lucerne Valley

2. Key Observation Point – KOP 2

3. VRM Class – Unclassified

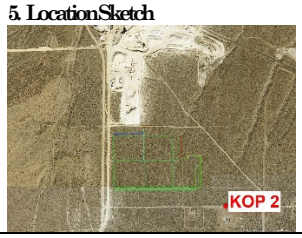
4. Location

Township 03N

Range 01W

Section 1

5. Location Sketch



SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to Rolling	Flat to Rolling	Cylindrical and Angular
LINE	Diffuse Edge	Diffuse Edge	Weak and Broken
COLOR	Light/Dark Browns and White/Gray	Light/Dark Greens and Brown	White and Gray
TEXTURE	Gradational	Medium and Gradational	Medium

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to Rolling	Flat to Rolling	Linear and Angular
LINE	Diffuse Edge	Diffuse Edge	Weak and Broken
COLOR	Light/Dark Browns and White/Gray	Light/Dark Greens and Brown	Blue and Gray
TEXTURE	Gradational	Medium and Gradational	Medium and Ordered

SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

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	FEATURES											
	LANDWATER 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? X Yes ☐ No (Explain on reverse side)

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

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VISUAL CONTRAST RATING WORKSHEET

Date March 4, 2025

District – Barstow

Resource Area

Activity (program)

SECTION A. PROJECT INFORMATION

1. Project Name
OMYA Solar Facility, Lucerne Valley

2. Key Observation Point – KOP 3

3. VRM Class – Unclassified

4. Location

Township 03N

Range 01W

Section 1

5. Location Sketch

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LANDWATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to Rugged	Sparse and Irregular	Cylindrical and Angular
LINE	Diffuse Edge	Weak and Irregular	Weak and Broken
COLOR	Light Brown and White/Gray	Light/Dark Greens and Browns	White and Gray
TEXTURE	Gradational	Patchy	Medium

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SECTION D. CONTRAST RATING ☐ SHORT TERM X LONG TERM

1. DEGREE OF CONSTRAST

		FEATURES											
		LANDWATER 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? X Yes ☐ No (Explain on reverse side)

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