

# COMMUNITY CHARACTER ANALYSIS

## OCOTILLO WELLS SOLAR FARM

OCOTILLO WELLS, CALIFORNIA

3300-12-004 (MUP); 3910-12-12-001 (ER)

***MARCH 2013, REVISED DECEMBER 2013***

**Prepared for:**

County of San Diego  
Department of Planning and Development Services  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123  
Contact: Mark Slovick, Project Manager

**Applicant:**

Gildred Building Co., LLC  
550 West C Street, Suite 1820  
San Diego, California 92101  
Contact: Rich Geisler  
Phone: 619-683-5544

**Prepared by:**

RBF Consulting  
9755 Clairemont Mesa Boulevard, Suite 100  
San Diego, California 92124  
Contact: Steve Wragg  
Phone: 858-614-5059

**RBF JN 25-104422.001**



---

# TABLE OF CONTENTS

<b>Chapter 1.</b>	<b>Introduction.....</b>	<b>1-1</b>
<b>Chapter 2.</b>	<b>Project Description and Project Setting.....</b>	<b>2-1</b>
2.1	Existing Use.....	2-1
2.2	Proposed Project.....	2-1
2.2.1	Project Substations and System Interconnection Points .....	2-5
2.2.2	Inverter/Transformer/Breaker Enclosures .....	2-6
2.2.3	Access/Circulation .....	2-6
2.2.4	Grading.....	2-7
2.2.5	Lighting and Glare .....	2-7
2.2.6	Signage .....	2-8
2.2.7	Landscaping .....	2-8
2.2.8	Trails .....	2-8
2.2.9	Project Schedule / Phasing.....	2-8
2.2.10	Project Operation.....	2-9
2.3	Existing Conditions .....	2-9
2.3.1	Project Setting.....	2-9
2.3.2	Surrounding Land Uses.....	2-11
2.3.3	Project Vicinity Topography .....	2-12
<b>Chapter 3.</b>	<b>Community Character Analysis .....</b>	<b>3-1</b>
3.1	Applicable Plans and Policies.....	3-1
3.1.1	San Diego County General Plan .....	3-1
3.1.2	San Diego County Zoning Ordinance.....	3-3
3.2	Thresholds of Significance .....	3-3
3.3	Consistency with Plans and Policies .....	3-4
3.4	Consistency with County of San Diego Zoning Ordinance .....	3-19
<b>Chapter 4.</b>	<b>Recommended Mitigation Measures .....</b>	<b>4-1</b>

Chapter 5.	Conclusions.....	5-1
Chapter 6.	References .....	6-1
Chapter 7.	Preparers .....	7-1

## LIST OF TABLES

Table 1	Lands Potentially Affected by the Project .....	2-11
Table 2	Existing General Plan Land Use / Zoning / Regional Category .....	3-2
Table 3	Project Consistency With Applicable Plans, Policies, And Goals .....	3-6
Table 4	Study Area - Building Analysis (Existing Development) .....	3-24
Table 5	Anticipated Construction Equipment .....	3-37

## LIST OF FIGURES

Figure 1	Regional / Local Vicinity Map.....	2-13
Figure 2	Aerial Photograph .....	2-15
Figure 3A	Major Use Permit Plot Plan.....	2-17
Figure 3B	Major Use Permit Plot Plan – Fixed-Axis Rack System.....	2-19
Figure 3C	Major Use Permit Plot Plan – Single-Axis Rack System .....	2-21
Figure 3D	Major Use Permit Plot Plan – Dual-Axis Rack System .....	2-23
Figure 3E	Major Use Permit Plot Plan – Dual-Axis Tracker Units .....	2-25
Figure 3F	Major Use Permit Plot Plan – Elevations/Details .....	2-27
Figure 4	Preliminary Grading Plan .....	2-29
Figure 5	Photo Location Map.....	3-45
Figure 6	Onsite Photographs .....	3-47
Figure 7	Onsite/Offsite Photographs .....	3-49
Figure 8	Key Viewpoint Locations.....	3-51
Figure 9	Key View 1 (Visual Simulation) – View from State Highway 78 (Public View) .....	3-53

---

Figure 10	Key View 2 (Visual Simulation) – View from Split Mountain Road / Existing Substation.....	3-55
Figure 11	Key View 3 (Visual Simulation) – View from Anza-Borrego Desert State Park .....	3-57
Figure 12	Key View 4 (Visual Simulation) – View from Split Mountain Road .....	3-59
Figure 13	Key View 5 (Visual Simulation) – View from Anza-Borrego Desert State Park/Existing Railroad Line .....	3-61
Figure 14	Surrounding Land Use.....	3-63

THIS PAGE LEFT BLANK INTENTIONALLY.

---

# CHAPTER 1. INTRODUCTION

This Community Character Analysis is meant to provide supplemental information regarding the proposed development's potential for significant impacts on the existing land use and character of the Ocotillo Wells community. The proposed Ocotillo Wells Solar Farm Project proposes the installation and operation of a photovoltaic (PV) or concentrated photovoltaic (CPV) solar electrical generation facility near the community of Ocotillo Wells in northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The Project represents an opportunity to provide the residents of Ocotillo Wells and the greater surrounding area with a source of clean energy from renewable sources.

The land area that comprises the Project site is located southeast of the community of Ocotillo Wells, California, within northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The Project would affect a portion of two parcels located just east of Split Mountain Road, approximately 3.1 miles south of State Highway 78. The County Assessor Parcel Numbers (APNs) that comprise the Project area are 253-390-57 and 253-390-58, totaling 440 acres (approximately 280 acres and 160 acres, respectively); however, Project development would be limited to approximately 338.1 acres. The development footprint for the Project includes approximately 336.4 acres of the 440 acres, plus approximately 1.74 acres of disturbance for offsite improvements for access purposes (access road/easement from Split Mountain Road). The remaining approximately 103.6 acres on the two affected parcels would remain in their natural state. Gildred Building Co., LLC currently owns APN 253-390-57 and APN 253-390-58.

The property is zoned S92 (General Rural Use), with a County of San Diego General Plan Land Use Designation of RL-80 (Rural Lands). The proposed Project is considered a Civic Use Type: Major Impact Services and Utilities, as defined in the County Zoning Ordinance. The proposed use is permitted in the S92 zone by Section 6950 of the Zoning Ordinance with approval of a MUP by the County of San Diego. The Project must be deemed consistent with the findings required to approve a MUP, as set forth in Section 7538 of the Zoning Ordinance.

THIS PAGE LEFT BLANK INTENTIONALLY.

---

# CHAPTER 2. PROJECT DESCRIPTION AND PROJECT SETTING

## 2.1 EXISTING USE

The two parcels affected by the Project are undeveloped. Formerly, two mobile homes, along with a number of supporting outbuildings of limited square footage and formerly utilized largely for storage, were present onsite. The onsite structures were all in a severely deteriorated, abandoned state and were recently demolished and/or removed. One groundwater well is present onsite; however, the well is not presently in use. The existing well house was not demolished with the other structures and is the only remaining structure onsite. Refer to Figure 5, Photo Location Map, and Figures 6 through 7 which show existing onsite and offsite conditions.

## 2.2 PROPOSED PROJECT

The Project proponent is preparing an application for development and operation of a photovoltaic (PV) or concentrated photovoltaic (CPV) solar farm to be located on privately-held lands near Ocotillo Wells. The Project would require approval from the County of San Diego for a Major Use Permit (MUP) to allow for the construction, operation, and maintenance of such facilities for the long-term generation of clean renewable energy from solar power.

The County Assessor Parcel Numbers (APNs) that comprise the Project area for the main facilities are 253-390-57 and 253-390-58, totaling 440 acres (approximately 280 acres and 160 acres, respectively); however, the proposed Project development footprint would be limited to approximately 336.4 of the 440 acres, plus approximately 1.74 acres of offsite disturbance for site access improvements. The remaining approximately 103.6 acres of unaffected lands would remain in their natural state. Gildred Building Co., LLC currently owns APN 253-390-57 and APN 253-390-58.

To allow for flexibility in the ultimate type of technology utilized for construction of the solar farm, four variations of PV and CPV alternative technology systems are being considered by the Project applicant. The proposed development footprint would remain the

same with any of the technology scenarios selected. In addition to the solar panels, development would include construction of two 10,000-gallon water storage tanks and an operations/maintenance building with an onsite septic system (approximately 1,040 s.f., height of 15-16 feet). A third 10,000 gallon storage tank may be installed onsite for the purpose of temporary storage of brine generated by panel washing if a reverse osmosis (RO) system is utilized. Additionally, a substation (overall development footprint of approximately 62,500 square feet, maximum height of 35 feet) that would be dedicated to the Imperial Irrigation District (IID) and a private switchgear yard (development footprint of approximately 96,750 s.f.) with a control house are proposed; however, only a limited portion of these areas would support physical structures. Refer to Figures 3A to 3F, for illustration of the Major Use Permit Plot Plan(s) and Elevations/Details. The Dual-Axis Tracker System and the Dual-Axis Tracker Units, as described in detail below, would also require installation of six 125kW emergency generators located on a 12-foot by 20-foot concrete pad within the interior of the development area to enable the solar panels to be rotated to the stow position, in the event that power from the local utility is lost or when high winds occur.

The energy generated by the Project with any of the four alternative technology systems would be transmitted via a central overhead 34kV collection line to the substation proposed in the northeast corner of the site, adjacent to an existing 92 kilovolt (kV) “R-Line” that runs through the northeastern corner of the affected parcel. The solar farm is proposed to be connected to the R-Line with an interconnection agreement with the IID. The R-Line runs aboveground and ultimately connects to the existing San Felipe Substation, located approximately 2.1 miles to the northwest of the point of interconnection (POI).

Each of the four layouts would also require construction of a number of equipment pads to support small enclosures to house the associated inverters/transformers/switching gear. The total number of required equipment pads within the development footprint, as well as the combination of components that each would support would vary based upon the technology system selected.

The ultimate arrangement/number of solar panels, equipment pads and structures, and internal access roads are shown on the MUP Plot Plans prepared specific to each of the proposed solar technology systems; refer to Figures 3A through 3F, Major Use Permit Plot Plan(s), and Figure 4, Preliminary Grading Plan; however, each of these layouts are subject to modification at final engineering design. Each of the four solar technology systems being considered is described in brief below.

### *Fixed-Axis Rack System*

The Fixed-Axis Rack System would have an anticipated production capacity of up to 42 MW. The Project design would consist of a series of PV solar panels on a fixed-axis rack system, installed on rack pilings of 4-6 inch diameter metal I-beams or 4-inch diameter round pipe.

The solar panels would be oriented along an east-west axis with the panels generally facing to the south to maximize solar absorption during the hours of daylight. The panels would be rack-mounted in a two-panel system (one panel mounted above a second panel). Panels (rack system) would measure approximately nine feet wide and approximately 51 feet in length, with a maximum of 10 feet in height, as measured from ground surface to the top of the panel.

Spacing between each row along the north/south axis would measure approximately 19 feet center to center. Up to 42 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3B, Major Use Permit Plot Plan – Fixed-Axis Rack System.

A series of north-south (spaced approximately every 640 feet) and east-west (spaced approximately every 465 feet) running all-weather fire access roads, of minimum 24-foot width (covered with a binding agent), would be provided to meet design requirements of the San Diego County Fire Authority. These roads would also serve for purposes of maintenance.

### *Single-Axis Rack System*

The Single-Axis Rack System would have an anticipated production capacity of up to 50 MW. The Project design would consist of a series of single-axis tracking PV solar panels supported on driven pier footings.

The solar panels would be aligned in north/south rows and would face to the east in the morning and to the west in the evening hours, tracking the sun along the vertical axis to maximize solar absorption during the hours of daylight. The panels would be rack-mounted, measuring approximately seven feet in width and 90 feet in length (panel array), with a maximum height of 9.5 feet, as measured from the ground surface to the top of the panel.

Spacing between each row along the north/south axis would be approximately 17 feet center to center. Up to 43 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the

required inverters/transformers; refer to Figure 3C, Major Use Permit Plot Plan – Single-Axis Rack System.

A series of north-south (spaced approximately every 700 feet) and east-west (spaced approximately every 390 feet) running all-weather fire access roads, a minimum 24-foot width (covered with a binding agent), would be provided, per design requirements of the San Diego County Fire Authority. Additionally, a series of 10-foot wide unsurfaced roads would be provided within the solar field for purposes of maintenance.

### *Dual-Axis Rack System*

The Dual-Axis Rack System would have an anticipated production capacity of up to 45 MW. The Project design would consist of a series of CPV solar panels installed on a dual-axis rack system. The solar arrays would be constructed on pile-driven pier footings.

The solar panels would be aligned in rows running along a north-south axis and would rotate to face the east in the morning and the west in the evening hours, tracking the sun along the vertical and horizontal axes to maximize solar absorption during the hours of daylight. As a dual-axis system, the panels could also be rotated along the north-south axis to change the angle of the panel, depending on the time of year, in order to maximize the absorption of sunlight.

Each row would contain a system of up to four arrays. Each array of panels would support a grouping of eight “paddles,” with each paddle supporting eight modules of solar collectors. Each array would measure approximately 18.5 feet in width and 80 feet in length (panel array). The total height of the arrays would be approximately 23 feet in height, as measured from ground surface to the top of the panel.

Spacing between each row along the east-west axis would be approximately 53 feet center to center. An estimated 46 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the breakers/transformers; refer to Figure 3D, Major Use Permit Plot Plan – Dual-Axis Rack System. Additionally, construction would include installation of six 125kW emergency generators (each located on a 12-foot by 20-foot building pad) to provide a reserve source of power in the case of power failure. The generators would provide energy to rotate the tracker units to the stow position in the event of an emergency or high winds.

A series of east-west running all-weather fire access roads, of minimum 24-foot width (covered with a binding agent), would be provided approximately every 330 feet between the horizontal rows of panels, per design requirements of the San Diego County Fire Authority. North-south running fire access roads would be spaced approximately every 610

feet. Additionally, a series of unsurfaced roads would be provided within the solar field for purposes of maintenance.

### *Dual-Axis Tracker Units*

The Dual-Axis Tracker Units would have an anticipated production capacity of up to 54 MW. The Project design would consist of series of CPV solar trackers installed on driven 24” to 30” pier footings/concrete foundation system.

The CPV trackers would be aligned in north/south rows and would face to the east in the morning and to the west in the evening hours, tracking the sun along both the horizontal and vertical axes to maximize solar absorption during the hours of daylight. Each tracker would measure approximately 25 feet wide and 48 feet in length, with a maximum height of 30 feet, as measured from ground surface to the top of the unit.

The series of CPV trackers would be spaced approximately 82 feet on-center east/west, and 69 feet on-center north/south. An estimated 40 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3E, Major Use Permit Plot Plan – Dual-Axis Tracker Units. Additionally, construction would include installation of six 125kW emergency generators (each located on a 12-foot by 20-foot building pad) to provide a reserve source of power in the case of power failure. The generators would provide energy to rotate the tracker units to the stow position in the event of an emergency or high winds.

A series of north-south running all-weather fire access roads, of minimum 24-foot width (covered with a binding agent), would be provided approximately every 310 feet between the vertical rows of panels, per design requirements of the San Diego County Fire Authority. East-west running fire access roads would be spaced approximately every 590 feet. Additionally, a series of north-south running unsurfaced roads would be provided within the solar field for purposes of maintenance.

## **2.2.1 PROJECT SUBSTATIONS AND SYSTEM INTERCONNECTION POINTS**

The Project design for each of the four solar technologies considered includes construction of one onsite substation; refer to Figure 3F, Major Use Permit Plot Plan – Elevations/Details. The energy generated by the Project would be transmitted to the private substation proposed in the northeast corner of the site, adjacent to an existing 92 kilovolt (kV) “R-Line.” The solar farm is proposed to be connected to the R-Line with an interconnection agreement with the Imperial Irrigation District (IID). The R-Line runs

aboveground and ultimately connects to the existing San Felipe Substation, located approximately 1.2 miles to the northwest of the proposed point of interconnect.

The proposed substation would include transformers, breakers, switches, meters, and related equipment, as appropriate. Although the exact dimensions are unknown at this time, the overall substation footprint is anticipated to be approximately 250 feet by 250 feet, with various supporting equipment installed within this footprint. Overall height of the substation would be an estimated 35 feet at the apex.

### **2.2.2 INVERTER/TRANSFORMER/BREAKER ENCLOSURES**

A number of equipment pads would be constructed within the MUP development area to support the inverter/distributor transformers/breakers. The total number of equipment pads required would vary slightly with each of the four solar technologies considered. These structures would be approximately eight feet in height at the apex, with a metal shade structure installed above with a 3-foot clearance above the inverter/transformers. Each inverter/transformer would be constructed on a level concrete building pad approximately 40 by 15 feet. The structures would be constructed of non-flammable materials (i.e., steel). Each structure would be provided with screened ventilation on the roof to allow for the circulation of air for cooling purposes.

### **2.2.3 ACCESS/CIRCULATION**

Long-term access to the site would be provided from Split Mountain Road via a 24-foot wide all-weather paved road over a 40-foot access/utility easement that extends eastward to the southwestern boundary of the 280-acre parcel. A driveway taper will be required where the proposed Project access meets Split Mountain Road. Split Mountain Road runs generally north-south approximately 0.3 mile to the west of the boundary of the western-most parcel affected by the Project. The road is a two-lane surfaced roadway and provides access from State Highway 78 to the south where it terminates near an existing gypsum mine. No improvements are proposed to Split Mountain Road.

Interior access would be provided onsite via a series of north-south and/or east-west trending all-weather fire access roads of minimum 24-foot width (covered with a binding agent). Additionally, a series of unsurfaced roads would be provided within the solar field to support routine maintenance. The layout of the interior roads would vary slightly depending on the type of solar technology selected. The fire access roads would be designed and maintained to support the imposed loads of fire service apparatus (not less than 50,000 lbs) and would have an approved surface so as to provide all-weather driving capabilities.

The fire access roads would be constructed to facilitate a maximum fire hose pull of approximately 160 feet. The purpose of the interior fire access roads is to allow for access of fire service apparatus throughout the Project site and in order to reach the inverter/transformer units.

#### 2.2.4 GRADING

The perimeter of the MUP area would be fenced with a 6-foot high chain link fence with one foot of two-strand barbed wire for security purposes and to prevent public access to the site. A gate is proposed at the southwestern corner of the MUP area to provide secured access to the Project site. The gate would meet the requirements of San Diego County Fire Code Section 96.1.503.6 for automatic operation with battery back-up. The gate would open immediately upon emergency vehicle strobe light activation from either direction of approach and would include a Knox block key-operation switch.

The MUP development area would be cleared and grubbed to allow for installation of the panels and associated facilities; refer to Figure 4, Preliminary Grading Plan. Although the majority of land surface within the development area is generally flat, required grading would total approximately 370,000 cubic yards (c.y.) of balanced cut and fill. This total would include approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities. No onsite or offsite cut or fill slopes or retaining walls are required or proposed.

#### 2.2.5 LIGHTING AND GLARE

Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting (100 watts or less) would also be installed at the main entry gate, switchgear yard and substation entrances, control room, and operation buildings to facilitate safety and access.

All Project lighting would be operated manually or activated via motion sensors. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and/or public lands. All lighting would conform to County of San Diego Light Pollution Code for exterior lighting requirements to ensure that the Project contributes to the long-term protection of dark skies. Additionally, the potential for glare effects from the Project would be further minimized, as all solar panels would be coated with a non-reflective coating.

### 2.2.6 SIGNAGE

All signage would conform to County of San Diego signage requirements for the applicable zone. Minimal Project signage is proposed to allow for the identification of the Project owner and for safety and security purposes. Signage is proposed to be installed on the fence in the vicinity of the main entry gate. Signage would identify the Project operator and owner and would provide emergency contact information. Illuminated signage at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker would also be installed.

In addition, small-scale signage would be posted at the main entry gate, as well as intermittently along the perimeter fencing on all exterior MUP boundaries, to indicate “No Trespassing” and “Private Property” for security purposes, as allowed by County regulations.

### 2.2.7 LANDSCAPING

No landscaping for screening purposes is required or proposed. Views of the Project site from offsite public vantage points would be reduced by distance to the site, established vegetation along the valley floor, and limited intervening topographical features.

### 2.2.8 TRAILS

No existing or planned public recreational trails are identified onsite or in the immediate Project vicinity per the County’s adopted County of San Diego Regional Trails Plan; however, the Project site is bordered to the south by the Anza-Borrego Desert State Park, which does contain a number of public recreational trails.

### 2.2.9 PROJECT SCHEDULE / PHASING

Construction of the Project would not be phased. Construction of the Project is anticipated to take approximately 11 months. Local labor would be utilized to the extent possible. Overall grading is estimated at a 14-week duration; trenching is estimated at a 4-week duration; and, building construction and PV/CPV construction is estimated at a 30-week duration, totaling approximately 11 months.

Depending on local permit requirements, some activities may occur during evening, night, and/or weekend hours, due to the scheduling of system outages and/or construction needs. Construction would commence following County of San Diego approval of permits and other entitlements, final engineering, and procurement activities.

## 2.2.10 PROJECT OPERATION

The proposed facilities would be unmanned and monitored remotely. Once the solar panels are installed, the panels would operate during daylight hours, seven days per week, and 365 days per year. Security would be maintained through installation of a 6-foot high chain-link fence topped with 12 inches of two-strand barbed wire along the perimeter of the MUP areas.

It is anticipated that maintenance of the facilities would require occasional visual inspections and minor repairs. Overall, minimal maintenance requirements are anticipated, as the panels would operate on their own with little human involvement required. On intermittent occasions, the presence of several workers may be required if major repairs or replacement of equipment is required; however, due to the nature of the facilities, such actions are anticipated to be infrequent. Occasional equipment replacement or refurbishing may also be conducted.

To allow for ongoing maintenance, the solar panels would be washed an estimated four times per year. Water with a binding agent would also be applied once every year for dust suppression purposes on the onsite roadways. A new onsite well is proposed in the southern portion of the development area to supply water for maintenance purposes. Testing to date has indicated that onsite groundwater supplies are adequate to support a portion of the anticipated water demands for Project. Alternatively, a portion of the water may be trucked in from a local water source to wash the solar panels via a commercial vendor or for dust suppression. Therefore, connection to a public water system is not proposed or required with the Project.

## 2.3 EXISTING CONDITIONS

### 2.3.1 PROJECT SETTING

As stated previously, the two parcels affected by the Project are undeveloped, and the former onsite structures, with exception of the well house, have been demolished. The groundwater well is not presently in use. Refer to Figure 5, Photo Location Map, and Figures 6 through 7 which show existing onsite and offsite conditions.

The Project area, and the Borrego Valley in general, is underlain by Quaternary alluvium. Soils on the vast majority of the Project site are mapped as Rositas fine sand, with areas in the southwestern and northeastern portion of the site mapped as sloping gullied land, and Rositas fine sand hummocky.

Onsite vegetation largely consists of Sonoran mixed woody scrub, Colorado desert wash scrub, stabilized and partially stabilized dunes, and desert sink scrub. A large wash (generally dry for the majority of the year) traverses the site from northeast to southwest.

Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout. The ground surface slopes mildly to the northeast. Onsite elevations within the proposed development area range from approximately 51 feet above mean sea level (amsl) to approximately 93 feet amsl. No steep slopes, hillsides, or areas prone to landslide or subsidence occur onsite within the proposed MUP area.

The average January low temperature for the Ocotillo Wells area is 38° Fahrenheit; the average July high temperature is 108° Fahrenheit. Average annual rainfall for the area is approximately 6.3 inches.

The San Felipe Substation is located adjacent to Split Mountain Road, approximately 1.2 miles to the northwest of the proposed point of interconnection (near the northeast corner of the Project site).

Table 1, below, identifies the existing onsite land uses and characteristics of each affected parcel, as well as the proposed uses. A brief summary of surrounding land uses is also provided.

**TABLE 1  
LANDS POTENTIALLY AFFECTED BY THE PROJECT**

APNs Affected	Approx. Acreage (in acres)	General Location	Current Onsite Land Use / Characteristics	Surrounding Land Uses	Future Facilities Considered
253-390-57	280*	East of Split Mountain Road	Undeveloped / Sonoran mixed woody scrub, Colorado desert wash scrub, stabilized and partially stabilized dunes, and desert sink scrub. A large wash (generally dry for the majority of the year) traverses the site from northeast to southwest.	North: Undeveloped; East: APN 253-390-58; South: Anza Borrego Desert State Park; West: Vacant Land, Limited SF Rural Residential and Agricultural Uses	Solar Panels / Associated Transmission Facilities
253-390-58	160*	East of Split Mountain Road	Undeveloped (with exception of the onsite well and well house); Sonoran mixed woody scrub, Colorado desert wash scrub, stabilized and partially stabilized dunes, and desert sink scrub. A large wash (generally dry for the majority of the year) traverses the site from northeast to southwest.	North: APN 253-390-57; East: Imperial County, Vacant; South: Imperial County / Anza Borrego Desert State Park; West: APN 253-390-57	Solar Panels / Associated Transmission Facilities

\* The Project would be limited to approximately 336.4 acres on the two affected parcels which total 440 acres.

**2.3.2 SURROUNDING LAND USES**

The Project area is located within the Anza-Borrego Desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert.

The Project site is located approximately 4.4 miles to the southeast of the community of Ocotillo Wells, a rural desert community offering limited residential or commercial uses. A number of trailer parks and small commercial uses are present in areas along State Highway 78 and Split Mountain Road. Points of interest within the community include the Anza Borrego Desert State Park and Anza Borrego Desert State Wilderness Area, generally located to the north, west, and south of Ocotillo Wells. In addition, the Ocotillo State Vehicular Recreation Area is located just north across State Highway 78 and provides off-

road vehicular recreational opportunities. Refer to Figure 1, Regional/Local Vicinity Map which shows the surrounding land uses within the Project area; Figure 5, Photo Location Map; and, Figure 7, which shows offsite conditions.

The Ocotillo Airport is located approximately 4.5 miles to the northwest of the Project site, across State Highway 78; however, the site is not located within the Airport Influence Area boundary, and therefore, no height or other such restrictions relative to the Airport would apply. Approximately 3.5 miles to the south of the Project site, off of Split Mountain Road, lies the U.S. Gypsum Company Mine Quarry and associated railway used to transport the materials from the quarry site.

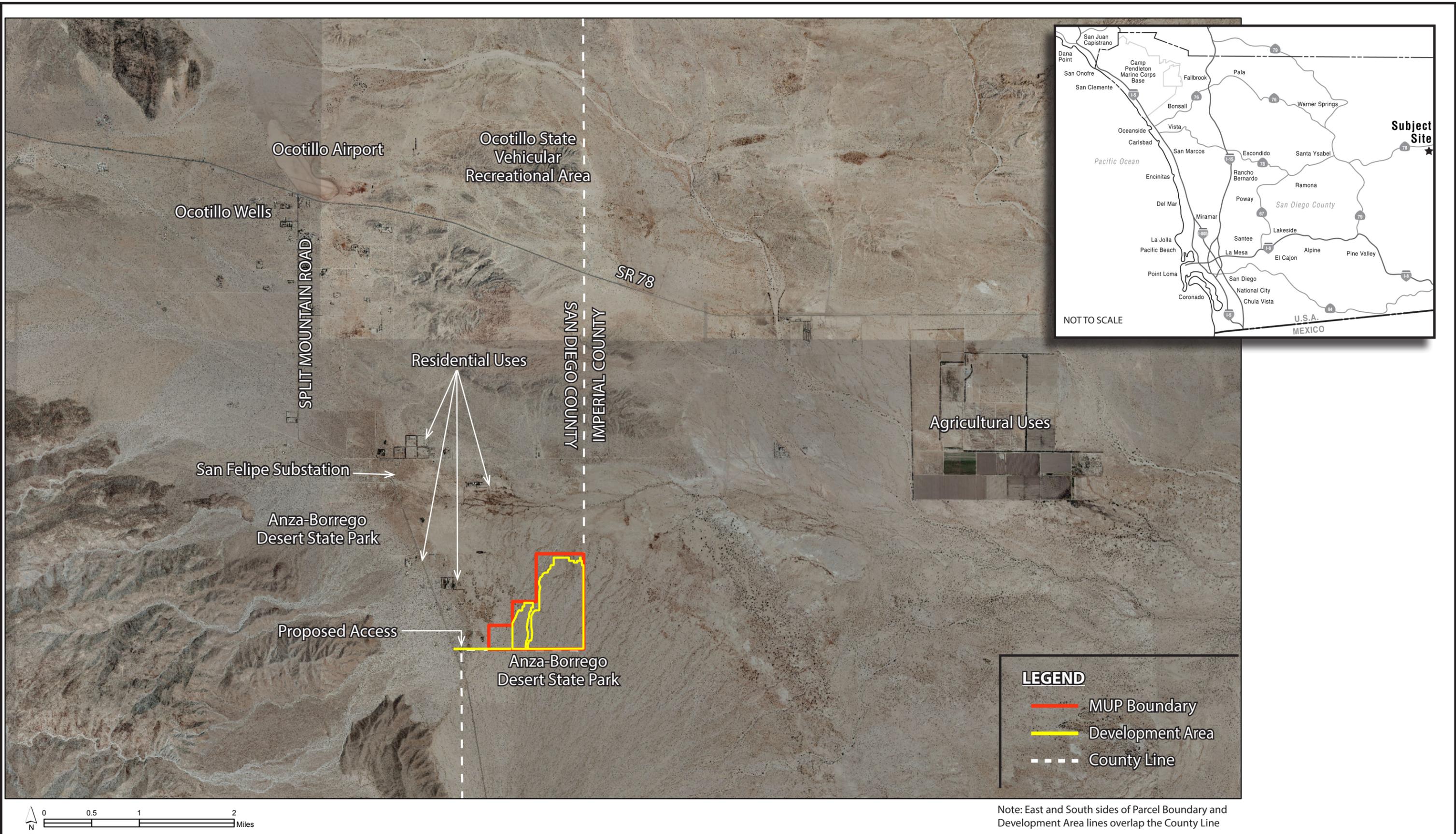
The Project site is located approximately 48 miles to the southeast of Palomar Observatory. The Laguna Mountain Observatory lies approximately 24 miles to the southwest.

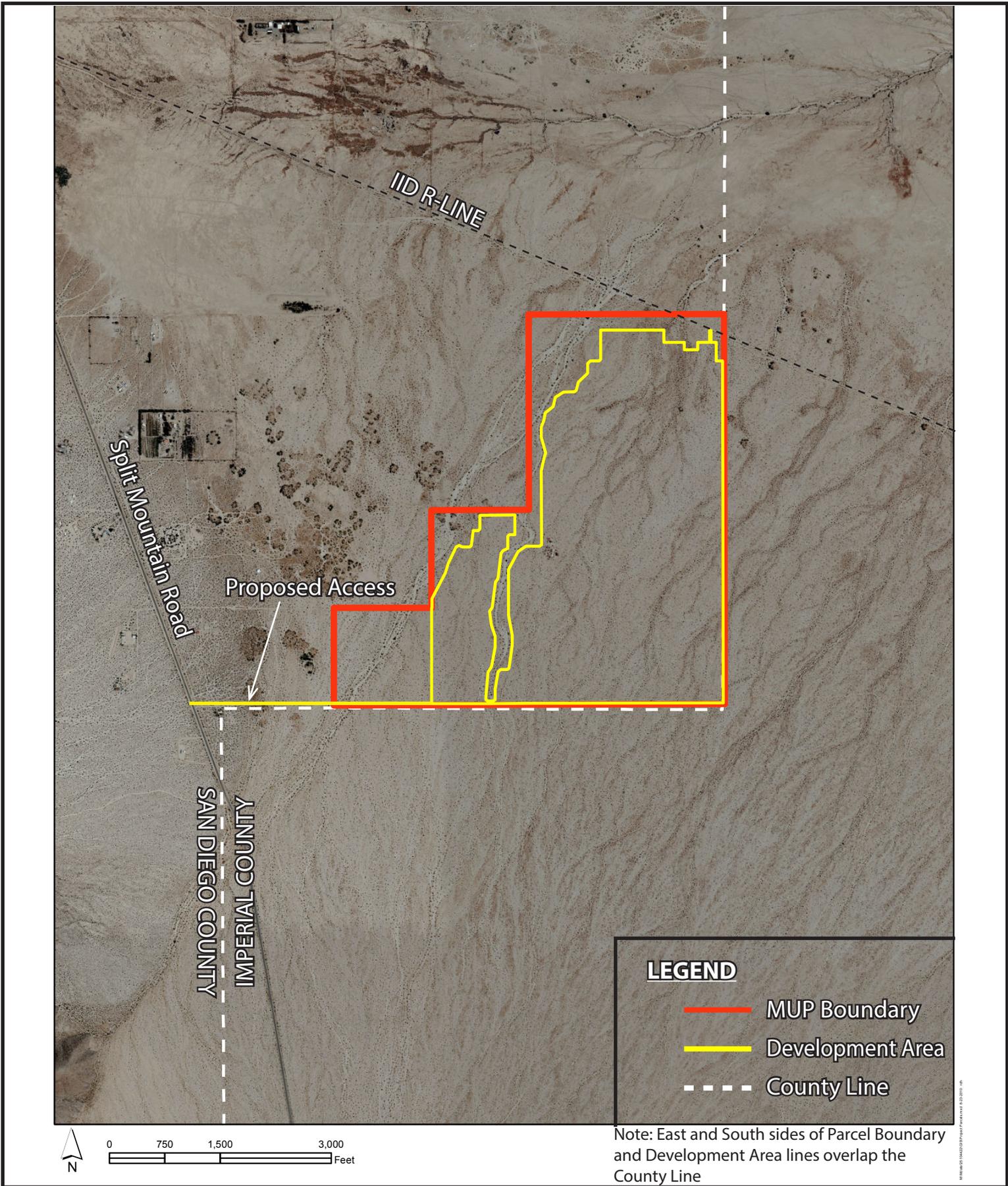
Lands within the Project vicinity are largely undeveloped. Several private land ownerships further to the west and northwest support limited rural residential uses (single-family residences or mobile homes). The Project site is bordered directly to the south by the Anza Borrego Desert State Park, which also extends further to the north (across State Highway 78), west (across Split Mountain Road), and to the south. Directly adjacent to the north and east are private land ownerships that are presently undeveloped. The Imperial County border parallels the eastern and southern boundaries of the Project site; refer also to Table 1, above.

### 2.3.3 PROJECT VICINITY TOPOGRAPHY

Offsite lands in the vicinity of the Project site are generally flat, similar to the Project site, due to their location along the valley floor; however, some varying topographical elements consisting of rolling hills and/or sand dunes are present. These topographical features offer a degree of variability within the existing visual landscape.

In general, roads and residences on higher elevations of outlying slopes facing the proposed Project site may have potential views of the subject parcels, while residences and roadways at lower elevations along the valley floor largely generally do not, due to mature vegetation and minimal elevation differences between the site and surrounding lands (flat viewing plane). At a greater distance from the Project site lie a series of mountains of varied elevation and geographic form that generally encircle the valley floor and offer more expansive views.





**NOTES**

- GROSS AREA: 440.53 AC ACRES
- DEVELOPMENT AREA: 338.10 ACRES
- GENERAL PLAN: RURAL LAND (RL80)
- REGIONAL CATEGORY: RURAL LANDS
- TOPOGRAPHIC SOURCE: VERTICAL MAPPING, FLOWN 4/20/2011
- ASSOCIATED REQUESTS: NONE
- THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUANT TO SECTION 6952 OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
- THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMITS BEFORE COMMENCING SUCH ACTIVITY.
- ALL BUILDINGS TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR.
- NO LANDSCAPING PROPOSED.
- LIGHTING FOR MAINTENANCE AND SECURITY PROPOSED ONLY. SHIELDED LIGHTING LOCATED AT GATES AND SUBSTATION BUILDING AND SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 6.
- PHASING - PROJECT WILL BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
- ALL DISTURBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
- SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
- ONLY SMALL DIRECTIONAL, LIMITS OF OPEN SPACE AND SAFETY SIGNAGE ARE PROPOSED.
- NO DEVELOPMENT WILL OCCUR IN THE AREAS IDENTIFIED ON THE PLOT PLAN AS "OPEN SPACE".
- SEE PLOT PLANS FOR LEGEND.
- THE ENTIRE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD AND IS WITHIN FEMA MAP NO. 0607300675F. THE LIMITS OF THE 100-YEAR FLOOD ALONG THE WATERCOURSE WHICH FLOWS THROUGH THE PROPERTY.
- SITE ACCESS GATE(S) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
- SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER/TRANSFORMER PADS, OWN BUILDINGS, CONTROL ROOM, EMERGENCY GENERATOR, SUBSTATION, SWITCHGEAR YARD, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA (EXCLUSIVE OF THE OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF DPUL WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL. TRANSFORMER/INVERTER/GENERATOR LOCATIONS CAN BE RELOCATED/RECONFIGURED WITHOUT REQUIREMENT OF MINOR DEVIATION. THE TRANSFORMER/INVERTER/GENERATOR MUST COMPLY WITH THE NOISE ORDINANCE AND MUST BE ELEVATED 1" ABOVE FLOOD ELEVATION. THE 24" FIRE ACCESS ROAD WIDTHS MAYBE REDUCED ADMINISTRATIVELY WITH THE APPROVAL OF THE COUNTY AND FIRE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.
- PROVIDE OVERRIDE SWITCH CONTROL NEAR MAIN ENTRY TO ALLOW FIRE DEPARTMENT TO MOVE TRACKERS INTO STOW POSITION.

**EXISTING EASEMENTS PER TITLE REPORT**

DESCRIPTION	DISPOSITION
Ⓢ ACCESS EASEMENT - BOY SCOUTS OF AMERICA	TO REMAIN
Ⓢ ACCESS EASEMENT - GILDED BUILDING CO. FMZ	TO OUTCLAIM
Ⓢ 20' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230124	TO REMAIN
Ⓢ 40' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230125	TO REMAIN

○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY CHICAGO TITLE COMPANY, ORDER NO. 930021658-US0, DATED NOVEMBER 13, 2013.

**EXISTING EASEMENTS**

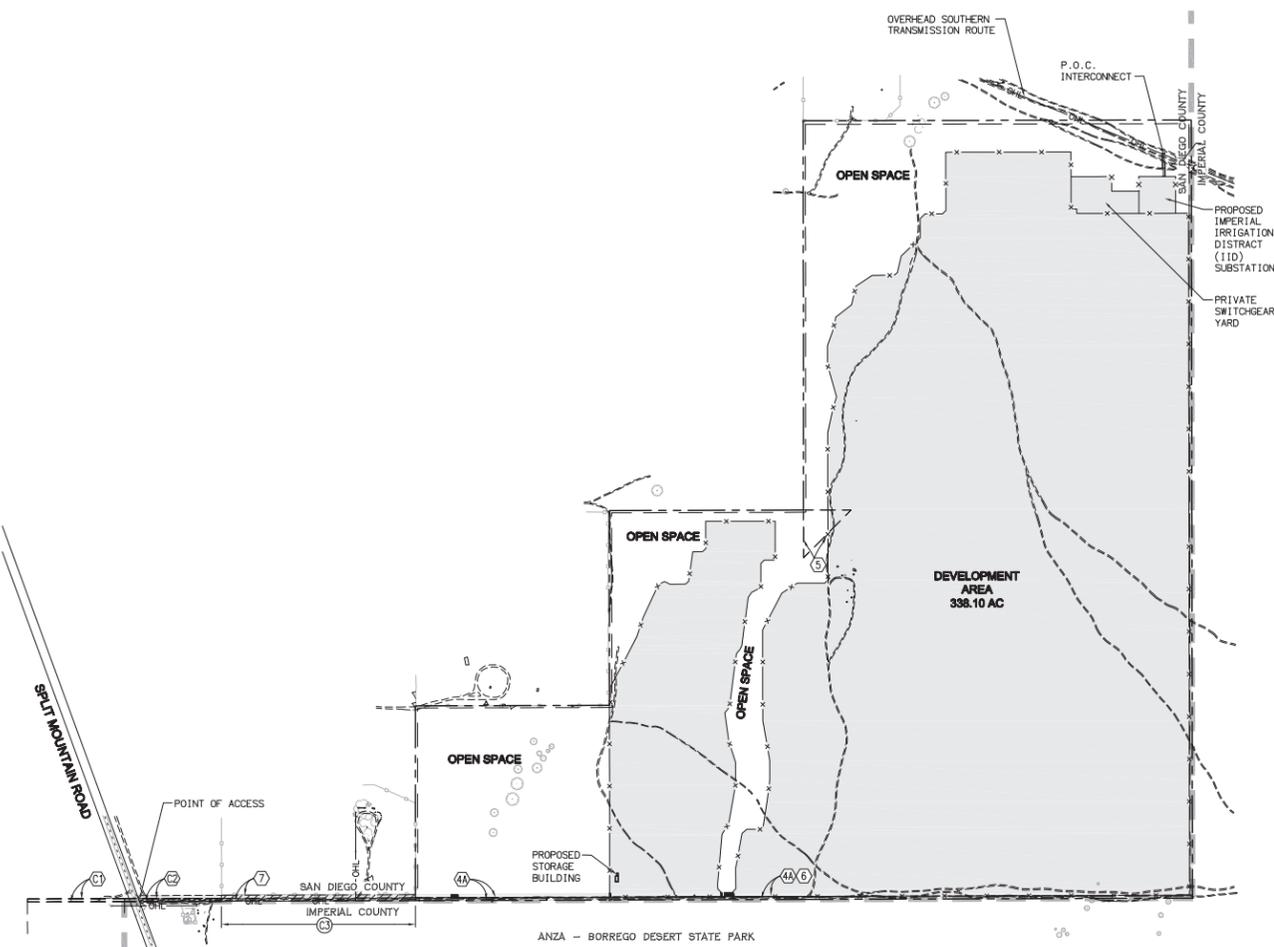
DESCRIPTION
Ⓢ 20' PUBLIC HIGHWAY EASEMENT
Ⓢ 20' PUBLIC HIGHWAY EASEMENT

**RECORDED EASEMENT**

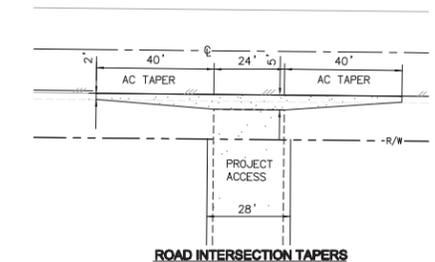
DESCRIPTION
Ⓢ 40' PRIVATE ACCESS/UTILITY EASEMENT - 2010-0512253

**EXISTING ZONING (NO CHANGE)**

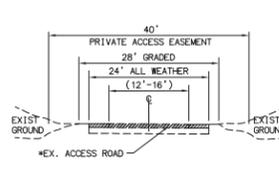
ZONE	APN	253-39057858
USE REGULATIONS	SS2	
NEIGHBORHOOD REGULATIONS	W	
DENSITY	---	
LOT SIZE	BAC	
BUILDING TYPE	C	
MAXIMUM FLOOR AREA	---	
FLOOR AREA RATIO	---	
HEIGHT	G	
LOT COVERAGE	---	
SETBACK	D	
OPEN SPACE	---	
SPECIAL AREA REGULATIONS	---	



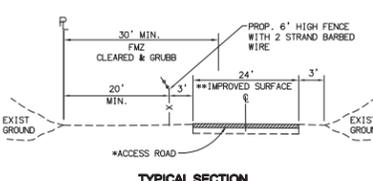
**PROJECT SITE & SURROUNDINGS**  
SCALE: 1"=400'



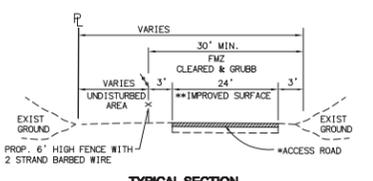
**ROAD INTERSECTION TAPERS**  
N.T.S.



**PRIMARY ACCESS ROAD / EASEMENT**  
NOT TO SCALE

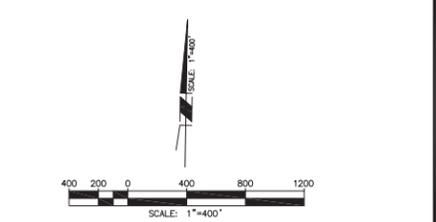
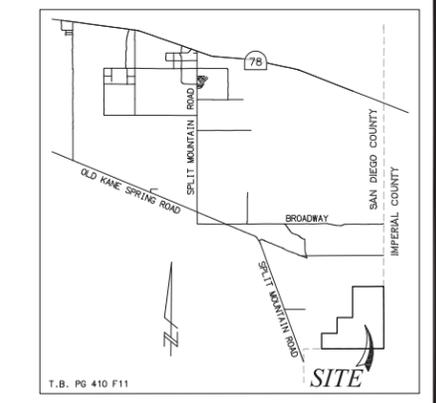


**TYPICAL SECTION PERIMETER FIRE ACCESS ROAD (ALONG EAST & SOUTH PROPERTY BOUNDARY)**  
NOT TO SCALE



**TYPICAL SECTION PERIMETER FIRE ACCESS ROAD (ADJACENT TO UNDISTURBED AREA)**  
NOT TO SCALE

\* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.  
\*\* TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



**ASSESSOR PARCEL NUMBER**

253-390-57      253-390-58

**LEGAL DESCRIPTION**

THE SOUTHWEST QUARTER OF SECTION 36, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

**BASIS OF BEARINGS**

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 8, BASED LOCALLY UPON THE FOLLOWING CORN STATIONS PH P487, PH P488 & PH US00 AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER

**BENCHMARK**

ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER NGS DATA SHEETS DX0333, DX0335, & DX0338 BASED LOCALLY UPON THE FOLLOWING NGS BENCH MARKS. (NGS ELEVATIONS DERIVED FROM USING VERTCON TO CONVERT FROM NVD29)  
 BM H 579 = 28.30      DATUM    NAVD88  
 BM K 579 = 28.30      DATUM    NAVD88  
 BM M 579 = 28.30      DATUM    NAVD88

**APPLICANT**

GILDED BUILDING COMPANY  
 550 WEST C STREET, SUITE 1820  
 SAN DIEGO, CA 92101  
 (619) 683-5544  
 CONTACT: RICH GEISLER

**SHEET INDEX**

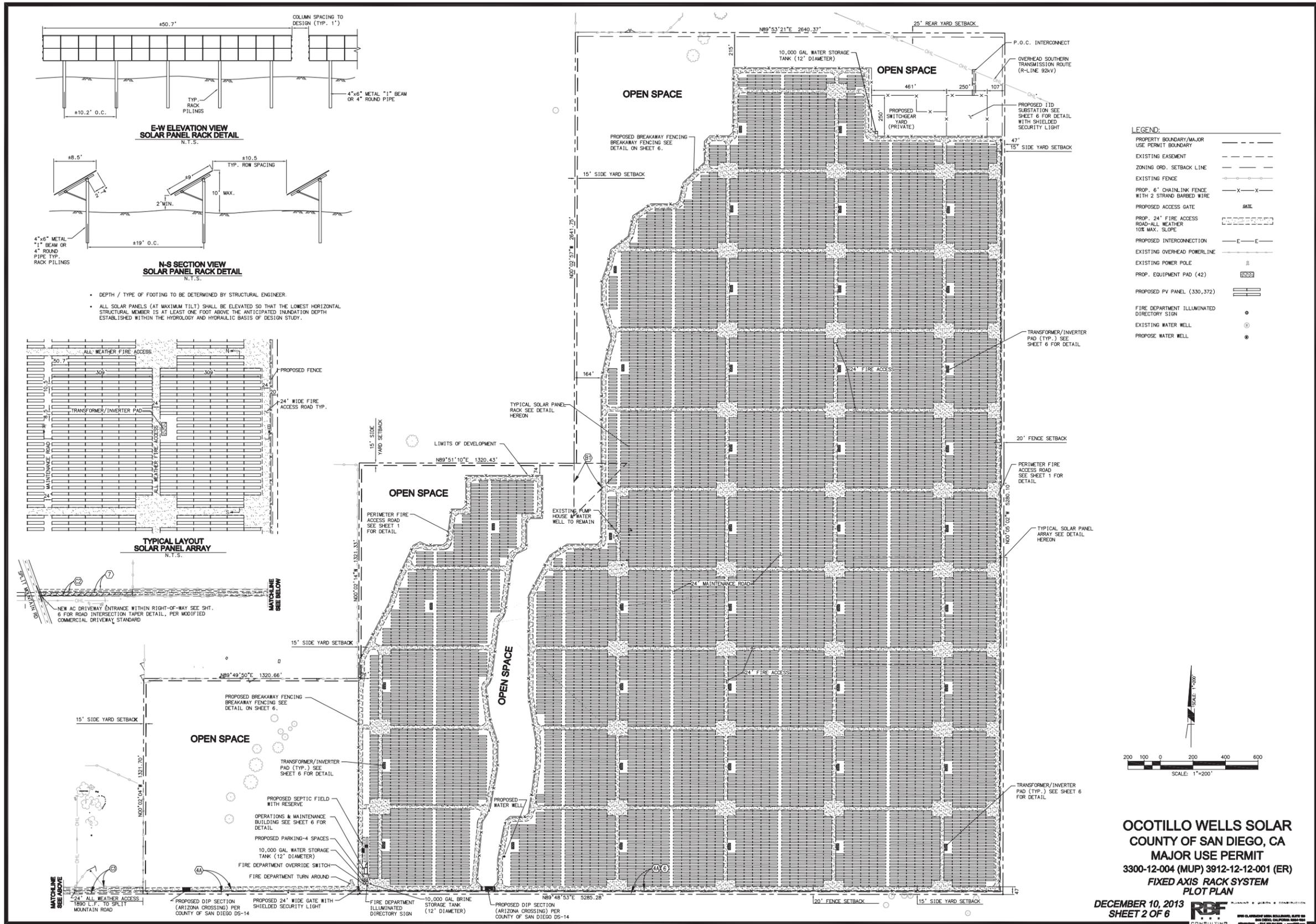
- SHEET 1 - TITLE SHEET
- SHEET 2 - PLOT PLAN FIXED AXIS RACK SYSTEM
- SHEET 3 - PLOT PLAN SINGLE AXIS RACK SYSTEM
- SHEET 4 - PLOT PLAN DUAL AXIS RACK SYSTEM
- SHEET 5 - PLOT PLAN DUAL AXIS TRACKER UNITS
- SHEET 6 - ELEVATIONS/DETAILS

**OCOTILLO WELLS SOLAR**  
 COUNTY OF SAN DIEGO, CA  
**MAJOR USE PERMIT**  
 3300-12-004 (MUP) 3912-12-12-001 (ER)

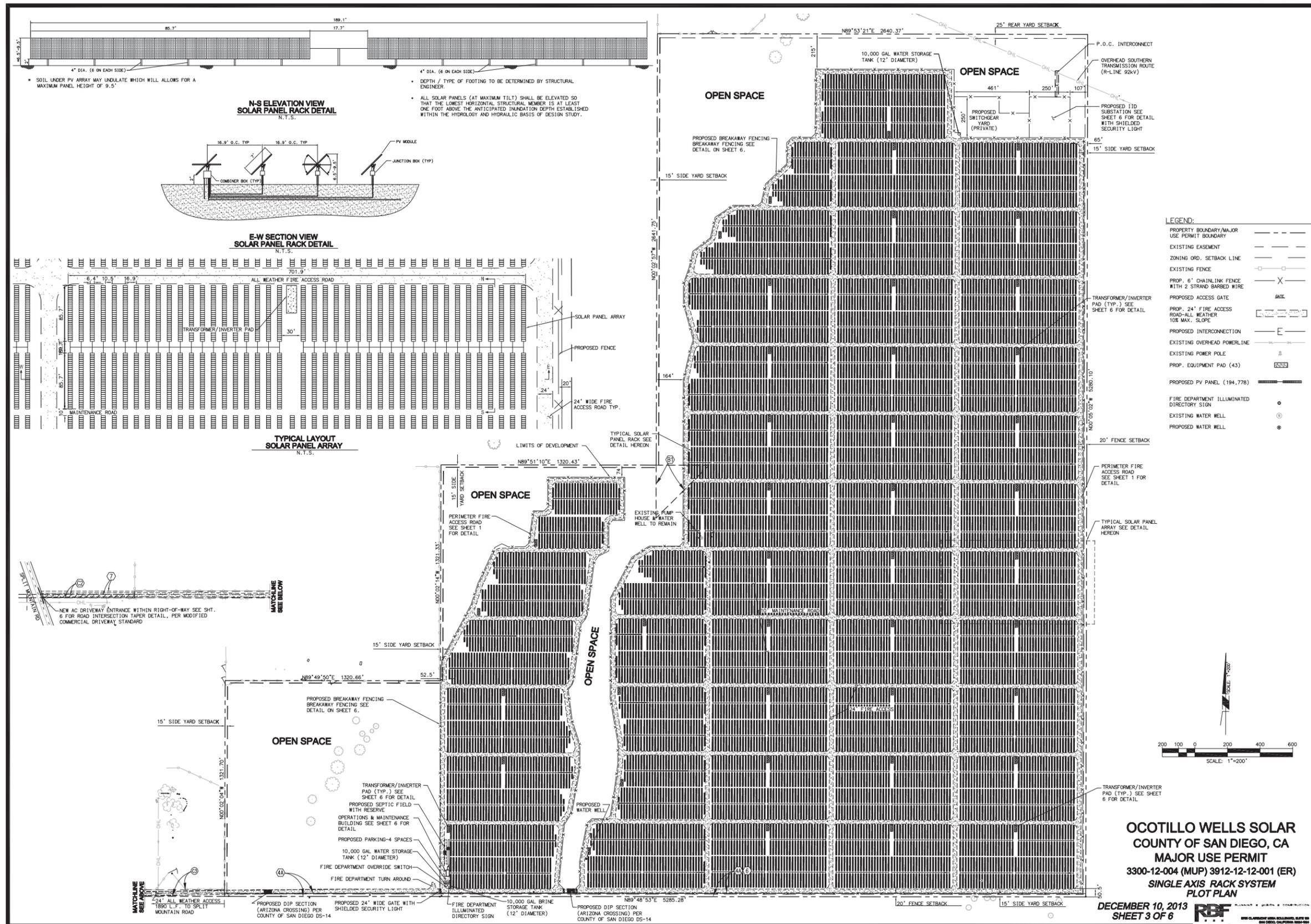
**TITLE SHEET**  
 DECEMBER 10, 2013  
 SHEET 1 OF 6

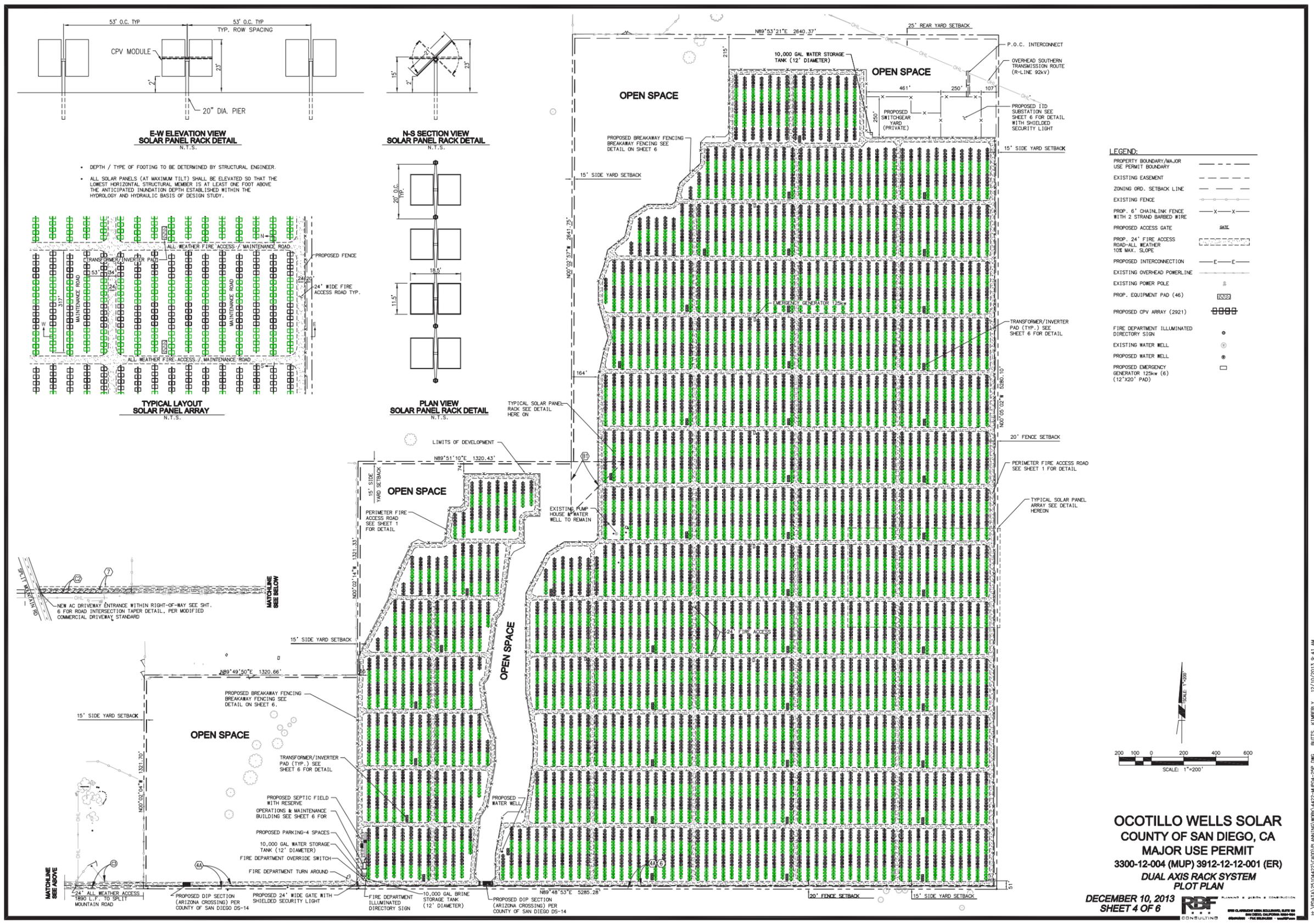


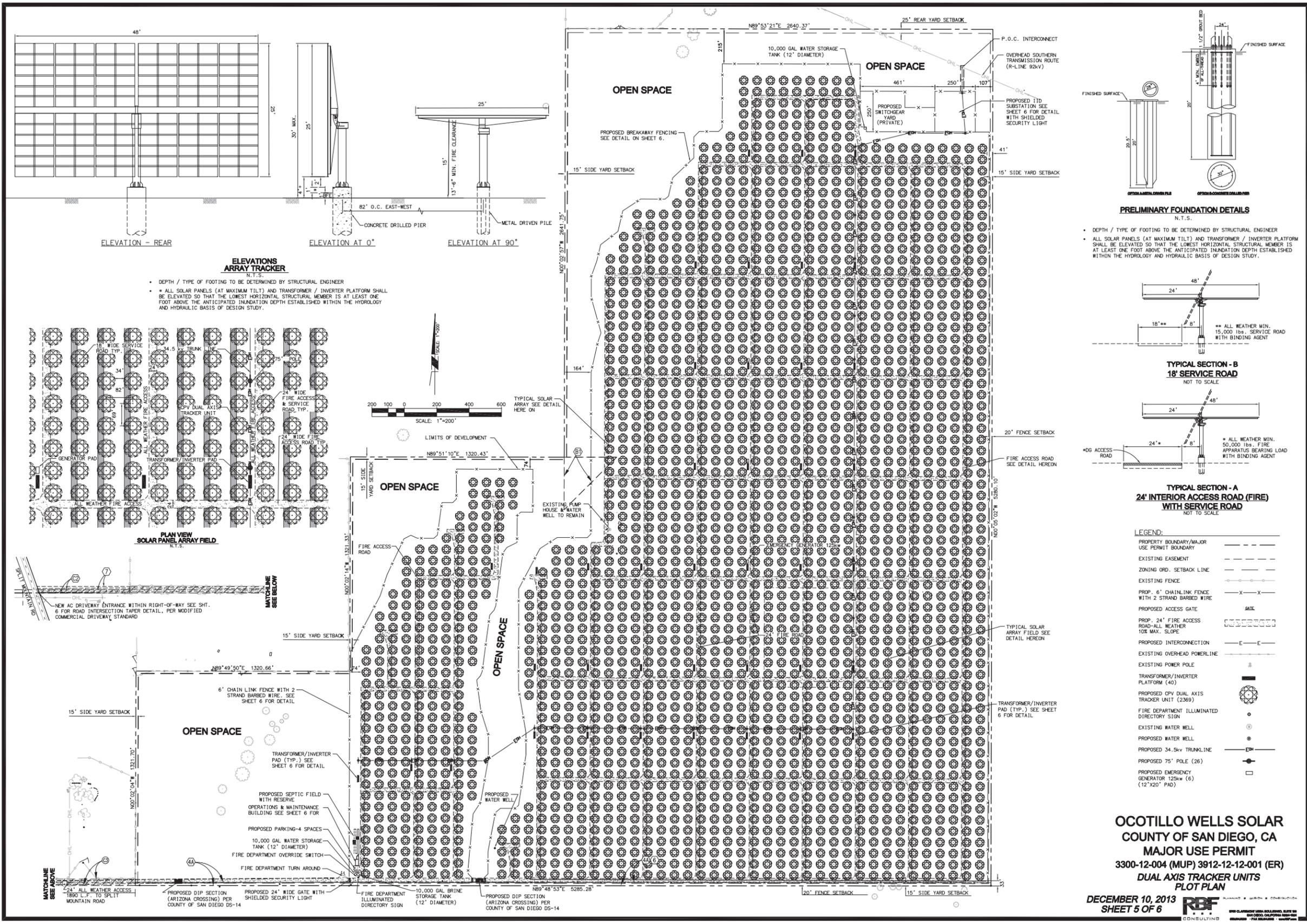
I:\PROJECTS\25104422\OCOTILLO\ANNING\WORK\442-MUP01-25P.DWG    BUTTS, KIMBERLY    12/9/2013 4:26 PM



**OCOTILLO WELLS SOLAR**  
 COUNTY OF SAN DIEGO, CA  
**MAJOR USE PERMIT**  
 3300-12-004 (MUP) 3912-12-12-001 (ER)  
**FIXED AXIS RACK SYSTEM**  
**PLOT PLAN**  
 DECEMBER 10, 2013  
 SHEET 2 OF 6





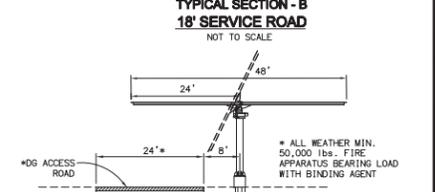
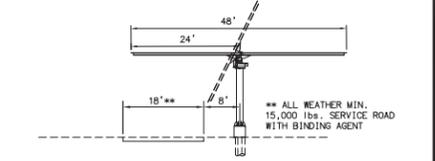


**ELEVATIONS ARRAY TRACKER**  
N.T.S.

- DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER
- ALL SOLAR PANELS (AT MAXIMUM TILT) AND TRANSFORMER / INVERTER PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.

**PRELIMINARY FOUNDATION DETAILS**  
N.T.S.

- DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER
- ALL SOLAR PANELS (AT MAXIMUM TILT) AND TRANSFORMER / INVERTER PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



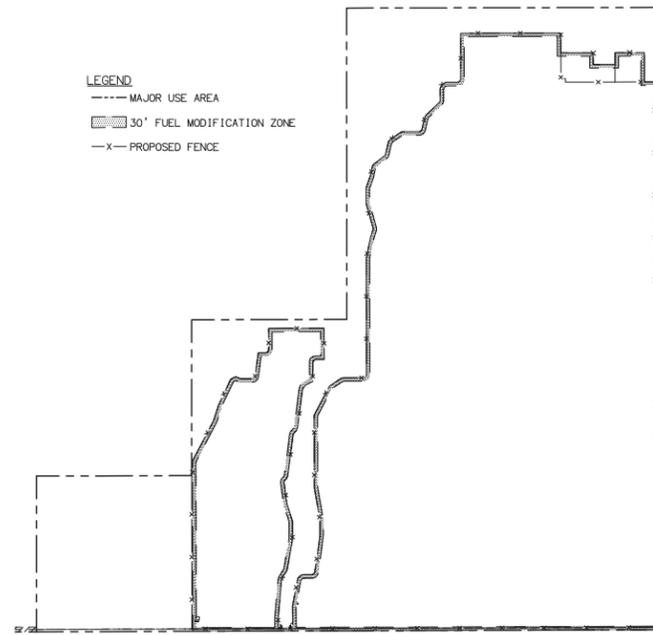
**LEGEND:**

- PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
- EXISTING EASEMENT
- ZONING ORD. SETBACK LINE
- EXISTING FENCE
- PROP. 6' CHAIN LINK FENCE WITH 2 STRAND BARBED WIRE
- PROPOSED ACCESS GATE
- PROP. 24' FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
- PROPOSED INTERCONNECTION
- EXISTING OVERHEAD POWERLINE
- EXISTING POWER POLE
- TRANSFORMER/INVERTER PLATFORM (40)
- PROPOSED OPV DUAL AXIS TRACKER UNIT (2369)
- FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN
- EXISTING WATER WELL
- PROPOSED WATER WELL
- PROPOSED 34.5kV TRUNKLINE
- PROPOSED 75' POLE (26)
- PROPOSED EMERGENCY GENERATOR 125kw (6) (12'x20' PAD)

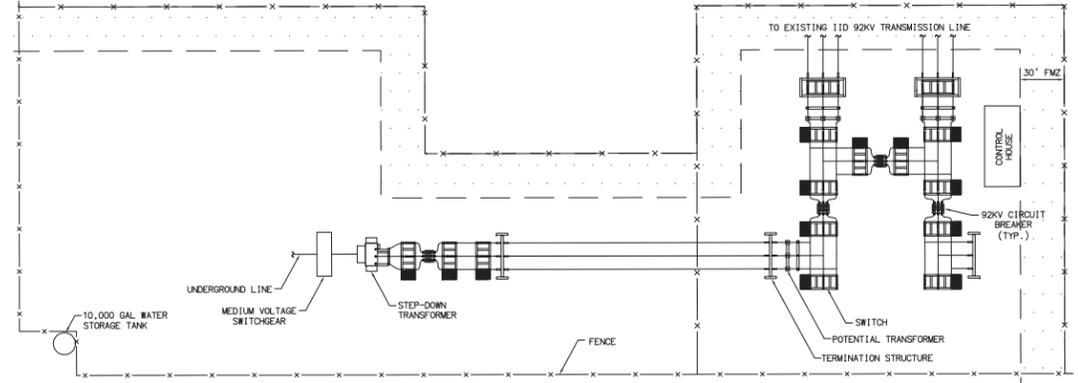
**OCOTILLO WELLS SOLAR**  
COUNTY OF SAN DIEGO, CA  
MAJOR USE PERMIT  
3300-12-004 (MUP) 3912-12-12-001 (ER)  
DUAL AXIS TRACKER UNITS  
PLOT PLAN

DECEMBER 10, 2013  
SHEET 5 OF 6  
RBF CONSULTING



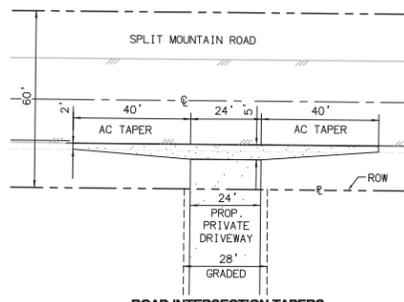


**FUEL MODIFICATION ZONE**  
SCALE: 1"=500'

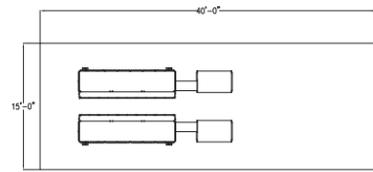


**PRIVATE SWITCHGEAR YARD**  
N.T.S.

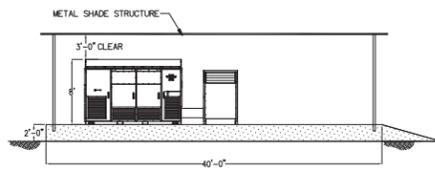
**IMPERIAL IRRIGATION DISTRICT (IID) SUBSTATION**  
N.T.S.



**ROAD INTERSECTION TAPERS**  
N.T.S.

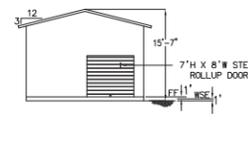


**LAYOUT PLAN EQUIPMENT PAD**  
N.T.S.

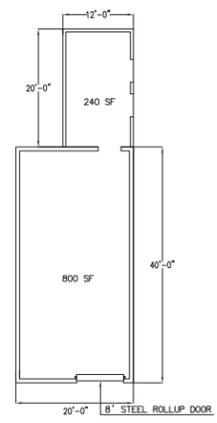


**ELEVATION EQUIPMENT PAD**  
N.T.S.

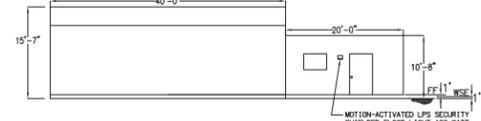
• ALL SOLAR PANELS (AT MAXIMUM TILT) AND EQUIPMENT PADS / SUB-STATION SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER/FINISH FLOOR IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



**SOUTH ELEVATION**  
N.T.S.

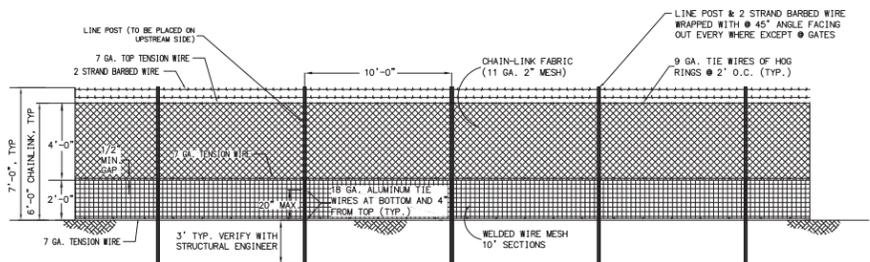


**FLOOR PLAN**  
N.T.S.  
TOTAL=1,040 SF

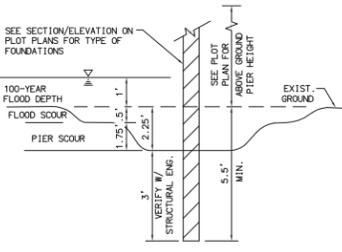


**ELEVATION-OPERATIONS & MAINTENANCE BUILDING**  
N.T.S.

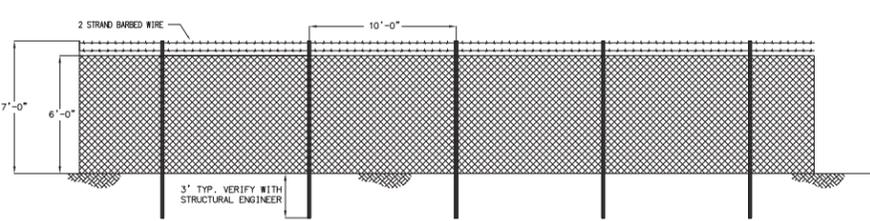
• FINISH FLOOR SHALL BE ELEVATED AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



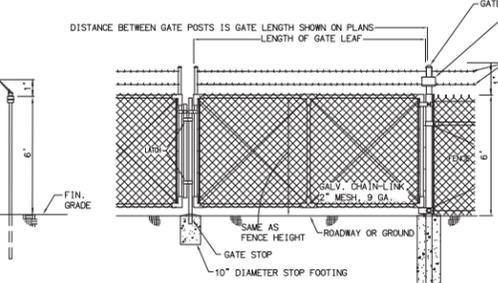
**ELEVATION BREAKAWAY FENCING DETAIL**  
N.T.S.



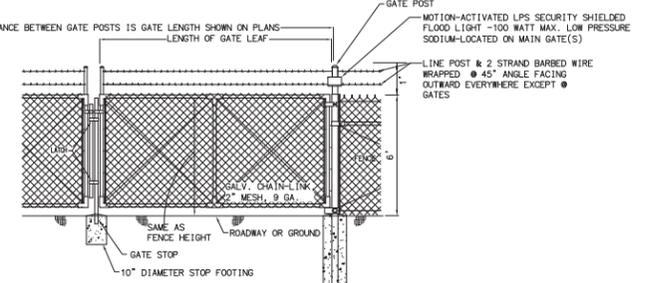
**TYPICAL SECTION PIER FOUNDATION DETAIL**  
N.T.S.



**ELEVATION CHAINLINK FENCING**  
N.T.S.



**SECTION TYPICAL FENCE**  
6' CHAIN-LINKED FENCE WITH 2 STRAND BARBED WIRE



**ELEVATION HALF / DOUBLE DRIVE GATE**  
N.T.S.

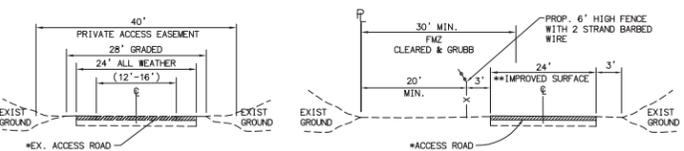
**OCOTILLO WELLS SOLAR**  
COUNTY OF SAN DIEGO, CA  
MAJOR USE PERMIT  
3300-12-004 (MUP) 3912-12-12-001 (ER)

**ELEVATIONS/DETAILS**  
DECEMBER 10, 2013  
SHEET 6 OF 6



14: Y:\DATA\25104422\OCOTILLO\ANNING\WORK\1442-MUP06-25P.DWG BUTTS, KIMBERLY 12/10/2013 8:56 AM



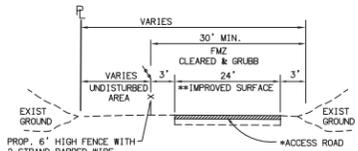


**PRIMARY ACCESS ROAD / EASEMENT**  
NOT TO SCALE

\* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.

**TYPICAL SECTION PERIMETER FIRE ACCESS ROAD (ALONG EAST & SOUTH PROPERTY BOUNDARY)**  
NOT TO SCALE

\* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.  
\*\* TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



**TYPICAL SECTION PERIMETER FIRE ACCESS ROAD (ADJACENT TO UNDISTURBED AREA)**  
NOT TO SCALE

\* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.  
\*\* TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.

**FIXED AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE**

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	42	25,200	SF
4" DIA. PIER	45,547	0.1	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
<b>TOTAL</b>		<b>92,040</b>	<b>SF</b>

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC  
TOTAL IMPERVIOUS AREA AFTER PROJECT: 2.11 AC

**SINGLE AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE**

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	28	16,800	SF
4" DIA. PIER	45,547	0.1	SF
6" DIA. PIER	3600	0.2	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
<b>TOTAL</b>		<b>83,640</b>	<b>SF</b>

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC  
TOTAL IMPERVIOUS AREA AFTER PROJECT: 1.92 AC

**DUAL AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE**

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	46	27,600	SF
20" DIA. PIER	12,286	26.763	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
<b>TOTAL</b>		<b>121,223</b>	<b>SF</b>

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC  
TOTAL IMPERVIOUS AREA AFTER PROJECT: 2.78 AC

**DUAL AXIS TRACKER UNITS IMPERVIOUS SURFACES TABLE**

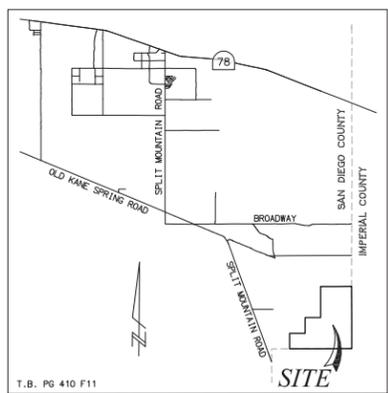
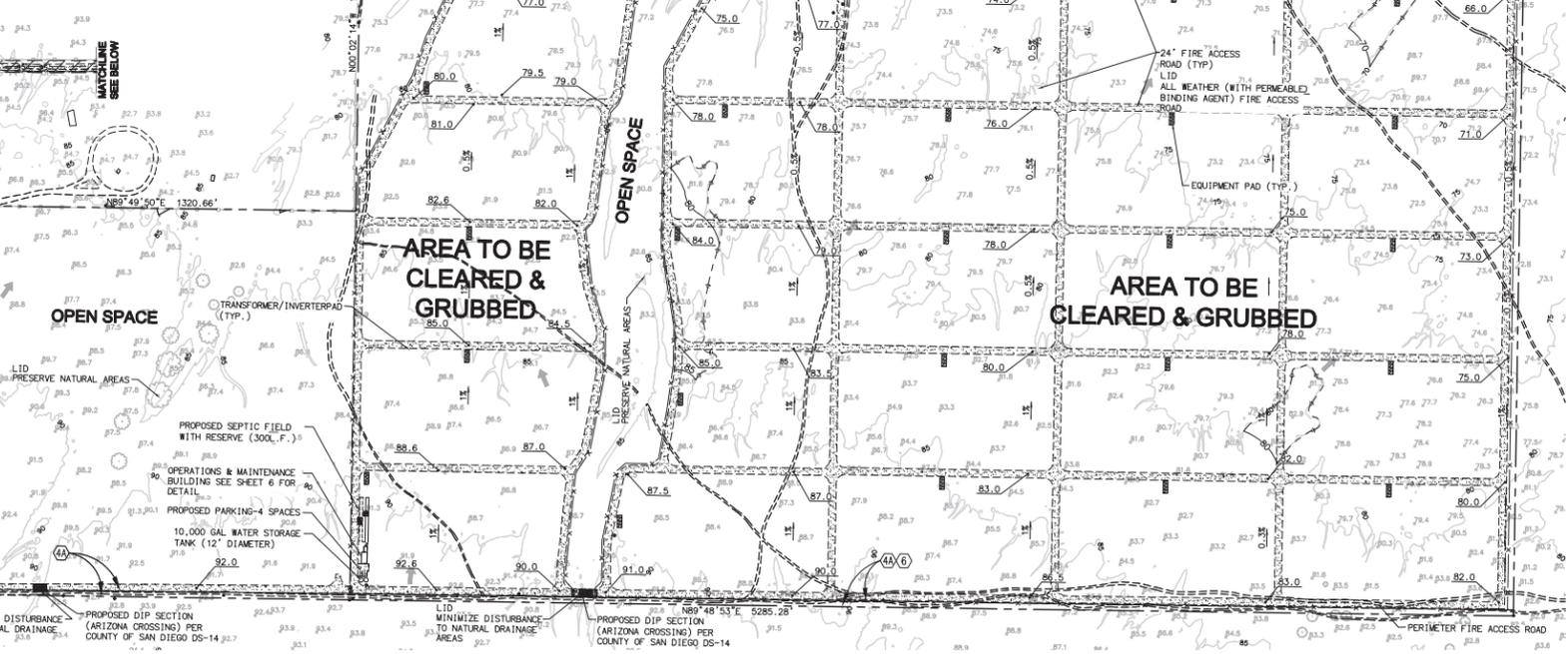
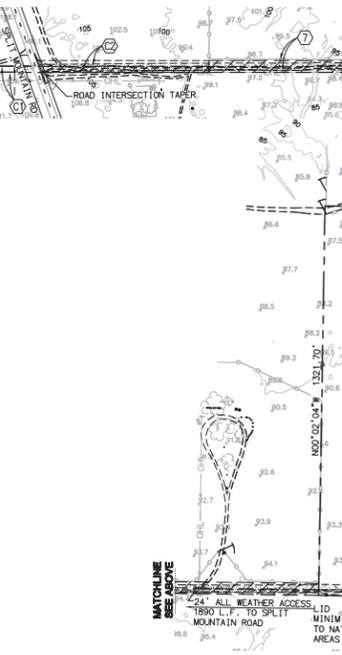
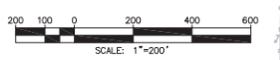
ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD (15'x40')	40	24,000	SF
24" DIA. PIER	2369	7439	SF
WATER TANK, 10,000 GAL., 12" DIA.	2	800	SF
<b>TOTAL</b>		<b>76,679</b>	<b>SF</b>

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC  
TOTAL IMPERVIOUS AREA AFTER PROJECT: 1.76 AC

- LEGEND:**
- PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
  - EXISTING EASEMENT
  - EXISTING CONTOUR (75)
  - EXISTING SPOT GRADE 74.7
  - PROPOSED GRADING 75
  - PROPOSED SPOT GRADE 59.0
  - PROPOSED LIMITS OF GRADING
  - EXISTING FENCE
  - PROP. 6' CHAIN LINK FENCE WITH 2 STRAND BARBED WIRE
  - DIRECTION OF DRAINAGE FLOW 2%
  - EXISTING ACCESS
  - PROP. 24" FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
  - PROPOSED EQUIPMENT PAD
  - EXISTING OVERHEAD POWERLINE
  - EXISTING POWER POLE
  - EXISTING WATER WELL
  - PROPOSED WATER WELL

**NOTES**

- GROSS AREA: 440.53 ACRES
- DEVELOPMENT AREA: 338.10 ACRES
- TOPOGRAPHIC SOURCE: VERTICAL MAPPINGS, 4/20/2011
- THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMITS BEFORE COMMENCING SUCH ACTIVITY.
- PROPOSED SLOPE RATIOS: N/A
- ALL DISTURBED AREAS WILL BE SURFACED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
- AVERAGE SLOPE: 4.1% - NO RPO STEEP SLOPES ON SITE.
- GRADING PLAN APPLIES TO ALL FOUR SOLAR TECHNOLOGY SYSTEM ALTERNATIVES INCLUDED IN THE MAJOR USE PERMIT APPLICATION. GRADING, ROADS AND EQUIPMENT PADS LOCATIONS ARE SHOWN AS TYPICAL.



**EXISTING EASEMENTS PER TITLE REPORT**

DESCRIPTION	DISPOSITION
ACCESS EASEMENT - BOY SCOUTS OF AMERICA	TO REMAIN
ACCESS EASEMENT - GILDED BUILDING CO.	TO OUTCLAIM
20' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230124	TO REMAIN
40' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230125	TO REMAIN

BASED ON DATA FROM PRELIMINARY TITLE REPORT BY CHICAGO TITLE COMPANY, ORDER NO. 930021658-USD, DATED NOVEMBER 13, 2013.

**EXISTING EASEMENTS**

DESCRIPTION
20' PUBLIC HIGHWAY EASEMENT
20' PUBLIC HIGHWAY EASEMENT

**RECORDED EASEMENT**

DESCRIPTION
40' PRIVATE ACCESS/UTILITY EASEMENT - 2010-0512253

- SUMMARY OF LID/SITE DESIGN BMPs**
- PRESERVE NATURAL AREAS
  - MINIMIZE DISTURBANCE TO NATURAL DRAINAGE AREAS
  - MINIMIZE & DISCONNECT IMPERVIOUS SURFACES
  - MINIMIZE SOIL COMPACTION
  - UNMANNED FACILITY, PERSONNEL WILL ONLY BE ON SITE IN THE EVENT OF REQUIRED MAINTENANCE ACTIVITIES
- SUMMARY OF SOURCE CONTROL BMPs**
- EQUIPMENT CLEANING (SOLAR PANELS, NOT VEHICLES OR OTHER MECHANICAL EQUIPMENT) WILL BE TERMINATED PRIOR TO CAUSING RUNOFF
  - BINDING AGENT TO ALL ACCESS ROADS AND ON ALL DISTURBED OR EXPOSED SURFACE AREAS

**TOPOGRAPHY AND GRADING**

VOLUME OF CUT: 370,000 CY  
VOLUME OF FILL: 370,000 CY  
EXPORT/IMPORT: 0 CY  
GRADING QUANTITIES SHOWN ARE RAW CUT AND FILL VOLUMES.

MAXIMUM SITE RETAINING WALL HEIGHT: N/A  
OUT SLOPE HEIGHT: N/A  
FILL SLOPE HEIGHT: N/A

TOTAL DISTURBED AREA BEFORE PROJECT: 4.00 AC  
TOTAL DISTURBED AREA AFTER PROJECT: 338.10 AC

**ASSESSOR PARCEL NUMBER**  
253-390-57      253-390-58

**LEGAL DESCRIPTION**  
THE SOUTHWEST QUARTER OF SECTION 36, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

**BASIS OF BEARINGS**  
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6, BASED LOCALLY UPON THE FOLLOWING CORS STATIONS PH P487, PH P488 & PH USGS AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER

**BENCHMARK**  
ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER NGS DATA SHEETS DX0333, DX0335, & DX0338 BASED LOCALLY UPON THE FOLLOWING NGS BENCH MARKS. (NGS ELEVATIONS DERIVED FROM USING VERTCON TO CONVERT FROM NAVD83)  
BM H 579 = 28.30      DATUM: NAVD88  
BM K 579 = 28.30      DATUM: NAVD88  
BM M 579 = 28.30      DATUM: NAVD88

**OWNER/APPLICANT**  
GILDED BUILDING COMPANY  
650 WEST C STREET, SUITE 1820  
SAN DIEGO, CA 92101  
(619) 683-5544  
CONTACT: RICH GEISLER

**OCOTILLO WELLS SOLAR**  
COUNTY OF SAN DIEGO, CA  
**PRELIMINARY GRADING PLAN**  
3300-12-004 (MUP) 3912-12-12-001 (ER)

DECEMBER 10, 2013  
SHEET 1 OF 1

**RBF CONSULTING**



---

# CHAPTER 3. COMMUNITY CHARACTER ANALYSIS

## 3.1 APPLICABLE PLANS AND POLICIES

### 3.1.1 SAN DIEGO COUNTY GENERAL PLAN

The County of San Diego General Plan (adopted August 3, 2011) is intended to provide guidance for the long-term development of San Diego County. The General Plan includes various Elements that provide guidance for accommodating future growth while retaining or enhancing the County's rural character, its economy, its environmental resources, and its unique communities. Goals, policies and objectives are provided within each of the Elements to guide future land development and ensure consistency with the County's intended vision for the future of San Diego County. The Guiding Principles of the General Plan are to:

- ∞ Support a reasonable share of projected regional population growth;
- ∞ Promote health and sustainability by locating new growth near existing and planned infrastructure, services, and jobs in a compact pattern of development;
- ∞ Reinforce the vitality, local economy, and individual character of existing communities when planning new housing, employment, and recreational opportunities;
- ∞ Promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance;
- ∞ Ensure that development accounts for physical constraints and the natural hazards of the land;
- ∞ Provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns and, when appropriate, plan for development which supports public transportation;
- ∞ Maintain environmentally sustainable communities and reduce greenhouse gas emissions that contribute to climate change;

- ∞ Preserve agriculture as an integral component of the region’s economy, character, and open space network;
- ∞ Minimize public costs of infrastructure and services and correlate their timing with new development; and,
- ∞ Recognize community and stakeholder interests while striving for consensus.

Table 2, below, identifies the existing County General Plan land use, zoning, and Regional Category designations for the Project site. Refer to Table 3, Project Consistency with Applicable Plans, Policies and Goals, for a discussion of Project consistency with applicable goals and policies of the County General Plan. The proposed land use would be consistent with the RL-80 (Rural Lands) land use designation, and therefore, no changes to the existing designation are required or proposed.

As part of the General Plan, a number of Community and Subregional Plans have been prepared to provide more focused goals and policies to guide development within specific communities throughout the County. With the General Plan, no Community Plan or Subregional Plan includes the Ocotillo Wells area. Therefore, the Project is limited to demonstrating conformance with the General Plan.

**TABLE 2**  
**EXISTING GENERAL PLAN LAND USE / ZONING / REGIONAL CATEGORY**

Assessor Parcel Number	Approximate Acreage*	General Plan Land Use Designation	Zoning	Regional Category
253-390-57	280	RL-80 (Rural Lands)	General Rural Use (S92)/ “D” Setback Designator and “G” Height Designator/ No Special Area Regulations	Rural Lands
253-390-58	160	RL-80 (Rural Lands)	General Rural Use (S92)/ “D” Setback Designator and “G” Height Designator/ No Special Area Regulations	Rural Lands

\* The Project would be limited to approximately 336.4 acres on the two affected parcels which total 440 acres.

### 3.1.2 SAN DIEGO COUNTY ZONING ORDINANCE

The Project site has a zoning designation of S92, General Rural Use. This zoning designation is "intended to provide appropriate controls for land use regulations which is: rugged terrain, watershed, dependent on groundwater for a water supply, desert, susceptible to fires and erosion, or subject to other environmental constraints. Various applications of the S92 Use Regulations with appropriate development designators can create or protect areas suitable for low intensity recreational uses, residences on very large parcels, animal grazing, and other uses" consistent with the intent of the zone.

Portions of the County Zoning Ordinance that may affect the assessment of community character are generally zoning overlay designators. Relevant designators include:

- ⌘ B – Community Design Review Area
- ⌘ D – Design Review Area
- ⌘ G – Sensitive Resource
- ⌘ H – Historic/Archaeological Landmark or District
- ⌘ J – Special Historic District
- ⌘ S – Scenic Area

None of these Designators apply to the Project or other associated lands affected by Project-related infrastructure improvements; however, the "C" Designator with regard to Building Type does apply.

The proposed Project is considered a Civic Use Type: Major Impact Services and Utilities, as defined in the County Zoning Ordinance. The use is permitted within the S92 zone with approval of a Major Use Permit from the County of San Diego. Proposed development would be required to demonstrate consistency with the findings required to approve a MUP, as set forth in Section 7358a of the County Zoning Ordinance; refer also to Section 3.4, Consistency with County of San Diego Zoning Ordinance, of this report.

## 3.2 THRESHOLDS OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) Guidelines define "environment" to include "objects of...aesthetic significance (Section 15360)." As such, the County of San Diego has identified thresholds of significance to assess potential impacts resulting from proposed development.

Project impacts to community character would be considered significant if any of the following occur:

- ☞ Inconsistency with goals, standards, or policies related to community character as given in the County General Plan;
- ☞ Development that is incompatible with existing and planned land uses of the community;
- ☞ Conflict with any applicable habitat conservation plan, regulation or ordinance;
- ☞ Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale color, architecture, building materials, etc.) or by being consistent with applicable design guidelines;
- ☞ Increased levels of traffic generated by the Project relative to that existing in the surrounding area that would result in a change in existing community character; or,
- ☞ Division of an established community.

### **3.3 CONSISTENCY WITH PLANS AND POLICIES**

According to the significance thresholds, a significant impact would occur if the proposed Project resulted in any of the following:

- ☞ Inconsistency with goals, standards, or policies related to community character as given in the County General Plan; or,
- ☞ Development that is incompatible with existing and planned land uses of the community.

The proposed Project would be subject to the goals, policies, and objectives of the County of San Diego General Plan. Through the following analysis, the Project was found to be consistent with all applicable goals, policies and objectives, as summarized in Table 3, Project Consistency with Applicable Plans, Policies, and Goals. As such, the Project would not result in a significant impact as the result of inconsistency with goals, standards, or policies related to community character as given in the County General Plan, or by creating development that is incompatible with existing or planned land uses within the community.

In addition, according to the significance thresholds, a significant impact would occur if the Project would:

☞ Conflict with any applicable habitat conservation plan, regulation, or ordinance.

The State of California passed the Natural Communities Conservation Planning (NCCP) Act in 1991. The NCCP Act is intended to identify and protect individual species that have declined significantly in number, as well as to conserve natural communities and accommodate compatible land uses. The pilot program for the NCCP is focused on protection of the coastal sage scrub habitat of Southern California. To implement the NCCP, a number of “subareas” have been established. The County of San Diego is participating in the NCCP and has established a Multiple Species Conservation Program (MSCP) for Southern portions of the County.

The subject site is not located within the area affected by the MSCP. Therefore, Project compliance with the NCCP would be required instead for any impacts to habitat, as appropriate. As such, no significant impacts would occur as the result of Project conflict with an applicable habitat conservation plan, regulation, or ordinance.

**TABLE 3**  
**PROJECT CONSISTENCY WITH APPLICABLE PLANS, POLICIES, AND GOALS**

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>County of San Diego General Plan</b>	
<b>Chapter 3 – Land Use Element</b>	
<b>Goals</b>	
<p><b>LU-2: Maintenance of the County’s Rural Character.</b></p> <p>Conservation and enhancement of the unincorporated County’s varied communities, rural setting, and character.</p>	<p>The Project has been designed to minimize potential effects on the existing rural character of the surrounding community. Project components would be distanced from major roadways and low-lying within the landscape, reducing their visibility from offsite vantage points, with existing vegetation along the valley floor providing a natural screening effect. Grading is estimated to require a maximum of approximately 370,000 cubic yards (c.y.) of balanced cut and fill. This total would include approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; however, as the site is generally flat, a significant visual change to onsite topography would not occur. Impacts with regard to community character are considered to be less than significant.</p>
<b>Policies</b>	
<p><b>LU-2.3 Development Densities and Lot Sizes.</b></p> <p>Assign densities and minimum lot sizes in a manner that is compatible with the character of each unincorporated community.</p>	<p>The Project does not propose a change to the existing General Plan land use or zoning designations and would be an allowable use with County approval of a MUP. The Project does not propose a lot split or subdivision of the affected parcels. The Project is an unmanned solar facility that does not propose any residential structures, and would therefore not conflict with the allowable density.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<p><b>LU-2.4 Relationship of Land Uses to Community Character.</b></p> <p>Ensure that the land uses and densities within any Regional Category or Land Use Designation depicted on the Land Use Map reflect the unique issues, character, and development objectives for a Community Plan area, in addition to the General Plan Guiding Principles.</p>	<p>Project consistency with the goals and policies of the County General Plan is discussed herein in Table 3. The proposed land use would be consistent with the RL-80 land use designation, and therefore, no changes to the existing designation are required or proposed. No Community Plan or Subregional Plan applies to the proposed Project.</p>
<p><b>GOAL</b></p>	
<p><b>LU-4 Inter-jurisdictional Coordination</b></p> <p>Coordination with the plans and activities of other agencies and tribal governments that relate to issues such as land use, community character, transportation, energy, other infrastructure, public safety, and resource conservation and management in the unincorporated County and the region.</p>	<p>Refer also to Policy LU-2.4, above. The Project applicant has addressed potential issues of environmental concern with regard to Project implementation and mitigation measures are proposed, as appropriate, to reduce any impacts to less than significant. The Project applicant continues to coordinate with the County and other affected agencies to ensure that potential effects of the Project are minimized or avoided.</p>
<p><b>Policies</b></p>	
<p><b>LU-4.6 Planning for Adequate Energy Facilities.</b></p> <p>Participate in the planning of regional energy infrastructure with applicable utility providers to ensure plans are consistent with the County’s General Plan and Community Plans and minimize adverse impacts to the unincorporated County.</p>	<p>The Project would involve construction of a solar energy electrical generation facility to provide electricity for public consumption. The Project would not conflict with any goal or policy given in the General Plan, and does not propose any change to the existing General Plan Land Use designation or zoning. No Community Plan or Subregional Plan applies to the Project site.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>GOAL</b>	
<p><b>LU-6 Development – Environmental Balance</b></p> <p>A built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities.</p>	<p>Refer also to Goal LU-2, above. The Project site is generally undeveloped with exception of the onsite groundwater well and well house. Several structures formerly located onsite (two abandoned mobile homes and miscellaneous outbuildings used for storage), all of which were in a deteriorated state, have been demolished. The Project applicant has addressed potential issues of environmental concern with regard to Project implementation and mitigation measures are proposed, as appropriate, to reduce any impacts to less than significant.</p> <p>As stated above, water used for maintenance purposes would be supplied by the proposed well, or alternatively, via the existing onsite well or via water trucked in from a local water source. Onsite groundwater supplies have been determined adequate to supply a portion of the anticipated Project demands. If it is determined that water from either the proposed or existing wells is too hard to be utilized for panel washing, a filtration system would be used to treat the water.</p>
<b>Policies</b>	
<p><b>LU-6.9 Development Conformance with Topography.</b></p> <p>Require development to conform to the natural topography to limit grading; incorporate and not significantly alter the dominant physical characteristics of a site; and to utilize natural drainage and topography in conveying storm water to the maximum extent practicable.</p>	<p>The MUP development area would be cleared and grubbed to allow for installation of the panels and associated facilities; refer to Figure 4, Preliminary Grading Plan. Although the majority of land surface within the development area is generally flat, portions would require grading. Grading is estimated to require a maximum of approximately 370,000 cubic yards (c.y.) of balanced cut and fill. This total would include approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; however, as the site is generally flat, a significant visual change to onsite topography would not occur. Blading for the onsite roadways and improvement of the offsite easements for access purposes would also be required to provide connection to Split Mountain Road. Therefore, site topography would remain largely in its natural state.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>GOAL</b>	
<p><b>LU-10 Function of Semi-Rural and Rural Lands</b></p> <p>Semi-Rural and Rural Lands that buffer communities, protect natural resources, foster agriculture, and accommodate unique rural communities.</p>	<p>Refer also to Goal LU-2, above. The Project site has a General Plan land use designation of RL-80 (Rural Lands) with a S92 (General Rural Use) zoning designation, and the Project would be allowed under the existing General Plan land use and zoning designations with County approval of a MUP. Surrounding lands are generally undeveloped. The Project has been designed to minimize potential effects on visual resources and community character through minimizing grading requirements, limiting the size and scale of the Project components, and generally through the nature of required operational/maintenance activities.</p>
<b>Policies</b>	
<p><b>LU-10.2 Development - Environmental Resource Relationship.</b></p> <p>Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character and avoid sensitive or intact environmental resources and hazard areas.</p>	<p>Refer to Goal LU-6 and LU-10, above. No hazardous areas (e.g. areas prone to landslides) occur onsite. Although occasional flooding may occur within the valley, “breakaway” fencing would be installed along portions of the MUP boundary where storm water flows would occur perpendicular to the fence to ensure that the fence gives way in the event of a flood, thereby eliminating potential obstruction of the flow of floodwaters and associated debris.</p>
<b>GOAL</b>	
<p><b>LU-12 Infrastructure and Services Supporting Development</b></p> <p>Adequate and sustainable infrastructure, public facilities, and essential services that meet community needs and are provided concurrent with growth and development.</p>	<p>The Project would involve construction of a PV or CPV solar energy electrical generation facility to provide electricity for public consumption. The site would be unmanned, and therefore, the Project would not require connection to a public sewer system. Electric and gas service are presently provided to the Project site. The proposed Project would generate electricity via the solar panels; the use of natural gas is not anticipated, and therefore, the extension of such services to the site is not required or proposed. Fire protection services would be provided by the San Diego County Fire Authority. The nearest responding station is the Ocotillo Wells Volunteer Fire Department, which can adequately serve the Project site with no addition of staff or facility improvements.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>Policies</b>	
<p><b>LU-12.3 Infrastructure and Services Compatibility.</b></p> <p>Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.</p>	<p>Refer to Goal LU-12, above. Due to the nature of the proposed use, minimal infrastructure and/or public services would be required to serve the site; however, all such infrastructure and services can be adequately provided with no significant effects on the environment.</p>
<p><b>LU-12.4 Planning for Compatibility.</b></p> <p>Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas. Require context sensitive Mobility Element road design that is compatible with community character and minimizes visual and environmental impacts; for Mobility Element roads identified in Table M-4, an LOS D or better may not be achieved.</p>	<p>Refer to Goal LU-2 and Policy LU-12.3, above. No preserve areas are present onsite. An estimated 336.4 acres on the two affected parcels would be brushed and cleared of vegetation to allow for installation of the solar panels and associated facilities. Within this area, Project grading would vary slightly depending upon the type of technology installed, but is estimated to require approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; however, as the site is generally flat, a significant visual change to onsite topography would not occur. Long-term access would be from Split Mountain Road via a 24-foot wide all-weather paved road over a 40-foot wide access/utility easement to provide connection to the southwestern corner of the site. No other offsite roadway improvements are required or proposed.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>Chapter 4 – Mobility Element</b>	
<b>Policies</b>	
<p><b>M-4.3 Rural Roads Compatible with Rural Character.</b></p> <p>Design and construct public roads to meet travel demands in Semi-Rural and Rural Lands that are consistent with rural character while safely accommodating transit stops when deemed necessary, along with bicyclists, pedestrians, and equestrians. Where feasible, utilize rural road design features (e.g., no curb and gutter improvements) to maintain community character.</p>	<p>Refer to Policy LU-12.4, above.</p>
<p><b>M-4.4 Accommodate Emergency Vehicles.</b></p> <p>Design and construct public and private roads to allow for necessary access for appropriately-sized fire apparatus and emergency vehicles while accommodating outgoing vehicles from evacuating residents.</p>	<p>Refer to Policy LU-12.4, above. Interior access would be provided onsite via a series of north-south and east-west trending all-weather access roads of minimum 24-foot width (covered with a binding agent), would be provided. Additionally, a series of internal roads would be provided within the solar field for purposes of maintenance. The interior fire access roads would be designed and maintained to support the imposed loads of fire service apparatus (not less than 50,000 lbs). The interior fire access roads would be constructed to facilitate a maximum fire hose pull of approximately 160 feet.</p>
<p><b>M-4.5 Context Sensitive Road Design.</b></p> <p>Design and construct roads that are compatible with the local terrain and the uses, scale, and pattern of the surrounding development. Provide wildlife crossings in road design and construction where it would minimize impacts in wildlife corridors.</p>	<p>Refer to Policy LU-12.4 and M-4.4, above. No established wildlife corridors are present onsite, and therefore, no effects on wildlife migration as the result of Project implementation would occur.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>Chapter 5 – Conservation and Open Space Element</b>	
<b>GOAL</b>	
<p><b>COS-11 Preservation of Scenic Resources.</b></p> <p>Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.</p>	<p>The Project has been designed to minimize potential effects on the existing rural character of the surrounding community. Project components would be distanced from major roadways and low-lying within the landscape, reducing their visibility from offsite vantage points, with existing vegetation along the valley floor providing a natural screening effect. Grading of the site is required for installation of the solar panels (estimated maximum of approximately 370,000 cubic yards of balanced cut and fill, depending on the type of solar technology selected); however, as the site is generally flat, no significant changes to the visual appearance of the site would occur with Project grading. No designated scenic resources are present onsite, and implementation of the Project would not adversely affect any offsite designated scenic resources or vistas. Refer also to the Visual Resources/Aesthetics Analysis (March 2013, revised December 2013) prepared for the Project (available under separate cover).</p>
<b>Policies</b>	
<p><b>COS-11.1 Protection of Scenic Resources.</b></p> <p>Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.</p>	<p>Refer to Goal COS-11, above. No scenic roadways are located adjacent to or within close proximity to the Project site. State Highway 78, located approximately 3.1 miles to the north of the site, is designated as a State Scenic Highway through Anza Borrego State Park. Additionally, State Highway 78 is designated as a County Scenic Highway from Wynola Road east to the Imperial County line (excluding the portion within Anza-Borrego Desert State Park), and from Via Rancho Parkway to State Route 79 (excluding the portion within the City of San Diego), as identified in the Conservation and Open Space Element of the General Plan. The Project would not significantly impact existing views from this scenic highway, due to Project design, intervening topography and vegetation, and distance from the Project site to SR 78. No prominent ridgelines, dominant landforms, reservoirs, or scenic landscapes occur onsite or offsite within proximity of the site that would be adversely affected by implementation of the proposed Project.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<p><b>COS-11.2 Scenic Resource Connections.</b>                      Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.</p>	<p>Refer to Policy COS-11.1, above. No designated historic landmarks or points of regional historic or cultural interest occur onsite, and no such resources at offsite locations would be affected by the proposed Project.</p> <p>Although a number of public recreational trails occur in areas surrounding the Project site (e.g. within Anza-Borrego Desert State Park), views from these trails would not be adversely affected, largely due to distance from the site, intervening vegetation, and Project design.</p>
<p><b>COS-11.3 Development Siting and Design.</b>                      Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:</p> <ul style="list-style-type: none"> <li>▪ Creative site planning</li> <li>▪ Integration of natural features into the project</li> <li>▪ Appropriate scale, materials, and design to complement the surrounding natural landscape</li> <li>▪ Minimal disturbance of topography</li> <li>▪ Clustering of development so as to preserve a balance of open space vistas, natural features, and community character.</li> <li>▪ Creation of contiguous open space networks</li> </ul>	<p>Refer to Goal LU-2 and Policy COS-11.1, above.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<p><b>COS-11.4 Collaboration with Agencies and Jurisdictions.</b></p> <p>Coordinate with adjacent Federal and State agencies, local jurisdictions, and tribal governments to protect scenic resources and corridors that extend beyond the County's land use authority, but are important to the welfare of County residents.</p>	<p>Refer to Goal LU-2 and Policy COS-11.1, above. The Project applicant has been in coordination with the County and other potentially affected agencies, as appropriate, to identify potential impacts of the Project on the community and to avoid or reduce such impacts to a less than significant level.</p>
<p><b>COS-11.5 Collaboration with Private and Public Agencies.</b></p> <p>Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.</p>	<p>Refer to Goal LU-2, Policy COS-11.1, and Policy COS-11.4, above.</p>
<p><b>COS-11.7 Underground Utilities.</b></p> <p>Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.</p>	<p>Panel arrays would be electrically connected into panel strings using wiring, and panel strings would be electrically connected to each other via underground wiring. Wire depths would be in accordance with local, State, and Federal codes. Gathering lines would connect individual panel array strings to one or more inverters/transformers and combiner boxes. Wiring from the panel strings would be connected to combiner boxes. Electrical current would then be transferred to the inverters which would convert the Direct Current (DC) produced by the solar panels into Alternating Current (AC). A pad-mounted transformer next to the inverter would increase the voltage. The AC would then travel through underground gathering lines to a common utility interconnection point or the proposed onsite substation.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<b>GOAL</b>	
<p><b>COS-13 Dark Skies</b></p> <p>Preserved dark skies that contribute to rural character and are necessary for the local observatories.</p>	<p>Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting (100 watts or less) would also be installed at the main entry gate, switchgear yard and substation entrances, control room, and operation buildings to facilitate safety and access. Lighting would be placed on entrance gates or attached directly onto the substation facilities and would be 100 watts or less (total combined per each location). Illuminated signage at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker would also be installed.</p> <p>All Project lighting would be operated manually or activated via motion sensors. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and/or public lands. All lighting would conform to County of San Diego outdoor lighting requirements to ensure that the Project contributes to the long-term protection of dark skies. Additionally, the potential for glare effects from the Project would be further minimized, as all solar panels would be coated with a non-reflective coating.</p>
<b>Policies</b>	
<p><b>COS-13.1 Restrict Light and Glare.</b></p> <p>Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.</p>	<p>Refer to Goal COS-13, above.</p>
<p><b>COS-13.2 Palomar and Mount Laguna.</b></p> <p>Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.</p>	<p>Refer to Goal COS-13, above.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<p><b>COS-13.3 Collaboration to Retain Night Skies.</b></p> <p>Coordinate with adjacent Federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.</p>	<p>Refer to Goal COS-13, above.</p>
<b>GOAL</b>	
<p><b>COS-14 Sustainable Land Development</b></p> <p>Land use development techniques and patterns that reduce emissions of criteria pollutants and GHGs through minimized transportation and energy demands, while protecting public health and contributing to a more sustainable environment.</p>	<p>The Project would involve construction of a solar energy electrical generation facility to provide electricity for public consumption. The Project represents an opportunity to provide the residents of Ocotillo Wells and the greater surrounding area with a sustainable source of clean energy from renewable sources. Although operation of construction equipment and vehicles during the construction phase would generate a minimal amount of air pollution, such effects would not significantly affect air quality and would be temporary, ceasing upon completion of construction. Due to the operational characteristics of the proposed solar facilities, the Project would result in minimal generation of air pollutants or GHGs over the long-term, thereby contributing to the protection of public health and a more sustainable environment. Refer also to the Air Quality Assessment prepared by Ldn Consulting, Inc. (December 2013), available under separate cover.</p>
<b>Policies</b>	
<p><b>COS-14.4 Sustainable Technology and Projects.</b></p> <p>Require technologies and projects that contribute to the conservation of resources in a sustainable manner, that are compatible with community character, and that increase the self-sufficiency of individual communities, residents, and businesses.</p>	<p>Refer to Goal LU-2 and Goal COS-14, above.</p>

TABLE 3, CONTINUED

APPLICABLE PLAN OR POLICY	PROJECT COMPATIBILITY
<p><b>COS-14.7 Alternative Energy Sources for Development Projects.</b></p> <p>Encourage development projects that use energy recovery, photovoltaic, and wind energy.</p>	<p>The Project would involve construction of a solar energy electrical generation facility to provide electricity for public consumption. The proposed facilities are anticipated to have an overall production capacity of approximately 42 to 54 MW, (alternating current - AC), depending on the type of solar technology selected.</p>
<b>GOAL</b>	
<p><b>COS-18 Sustainable Energy</b></p> <p>Energy systems that reduce consumption of non-renewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities.</p>	<p>Refer to Goal LU-2 and Goal COS-14, above. All potential impacts to natural resources or the surrounding community would be avoided or reduced to less than significant through Project design or the implementation of mitigation measures. Refer also to the technical analyses prepared for the Project (available under separate cover).</p>
<b>Policies</b>	
<p><b>COS-18.1 Alternate Energy Systems Design.</b></p> <p>Work with San Diego Gas and Electric and non-utility developers to facilitate the development of alternative energy systems that are located and designed to maintain the character of their setting.</p>	<p>Refer to Goal LU-2 and Goal COS-14, above.</p>
<b>Chapter 8 – Noise Element</b>	
<b>GOAL</b>	
<p><b>N-5 Non-transportation-related Noise Sources</b></p> <p>A noise environment that provides minimal noise spillovers from industrial, commercial, agricultural, extractive, and similar facilities to adjacent residential neighborhoods.</p>	<p>The Project site is located in a rural location near the desert community of Ocotillo Wells. Due to the operational characteristics of the solar facilities, impacts with regard to noise would be less than significant, and no impact on the surrounding community would occur. Refer also to the Technical Noise Analysis prepared by Ldn Consulting, Inc. (December 2013), available under separate cover.</p>

THIS PAGE LEFT BLANK INTENTIONALLY.

### 3.4 CONSISTENCY WITH COUNTY OF SAN DIEGO ZONING ORDINANCE

According to the significance thresholds, a significant impact would occur if the Project were to result in any of the following:

- ∞ Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale color, architecture, building materials, etc.) or by being consistent with applicable design guidelines; or,
- ∞ Increased levels of traffic generated by the Project relative to that existing in the surrounding area that would result in a change in existing community character.

To approve a Major Use Permit, pursuant to Section 7358a of the County Zoning Ordinance, certain required findings must be made to demonstrate a Project's consistency with approved land use regulations and compatibility with existing land uses. To receive approval of a Major Use Permit the following findings must be made:

- a. *"The location, size, design, and operating characteristics of the proposed use will be compatible with adjacent uses, residents, buildings, or structures with consideration given to:*
  - 1. *Harmony in scale, bulk, and coverage;"*
  - 2. *The availability of public facilities, services, and utilities;*
  - 3. *The harmful effect, if any, upon desirable neighborhood character;*
  - 4. *The generation of traffic and the capacity and physical character of surrounding streets;*
  - 5. *The suitability of the site for the type and intensity of use or development which is proposed; or,*
  - 6. *Any other relevant impact of the proposed use.*

- b. *The impacts, as described in Findings (a) above, and the location of the proposed use will be consistent with the San Diego County General Plan.*
- c. *That the requirements of the California Environmental Quality Act have been complied with.*

Finding “a.” above can be addressed in two parts. The first part, “The location, size, design, and operating characteristics of the proposed use will be compatible with adjacent uses, residents, buildings, or structures...,” addresses how the proposed development would relate to the existing environment. The second part of the finding addresses how the proposed Project would be compatible with the existing infrastructure and built environment of the surrounding area. These points are discussed in detail in the paragraphs below.

### LOCATION/LOT SIZE

The land area that comprises the Project site are located just east of the community of Ocotillo Wells, California, within northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The Project would affect a portion of two parcels totaling approximately 440 acres, located approximately 0.4 mile east of Split Mountain Road and approximately 3.1 miles south of State Highway 78.

The County Assessor Parcel Numbers (APNs) that comprise the Project area for the main facilities are 253-390-57 and 253-390-58, totaling 440 acres (approximately 280 acres and 160 acres, respectively); however, the Project would be limited to approximately 336.4 of the 440 acres, allowing approximately 103.6 acres of the two affected parcels to remain in their natural, undeveloped state.

As stated previously, the proposed Project is considered a Civic Use Type: Major Impact Services and Utilities, as defined in the Zoning Ordinance. The proposed use is allowed under the S92 zone designation (with County approval of a Major Use Permit) and therefore, is consistent with the County’s intended land use for the site.

In the Project vicinity, parcels are generally large-acre parcels with low-density uses (if developed). A number of smaller parcels are located to the west and north/northwest of the Project site, particularly within the more developed areas of Ocotillo Wells (e.g. near State Highway 78 and Split Mountain Road). The Project does not propose to subdivide or change the existing size of any of the parcels affected by the proposed improvements, and therefore, would not create lot sizes that were inconsistent with the County General Plan

or Zoning Ordinance, or with the existing visual character or size of other parcels in the surrounding area.

Although the majority of lands within the area surrounding the site are undeveloped (including the adjoining Anza-Borrego Desert State Park), scattered residential development does occur to the north/northwest of the Project site; refer to Figure 1, Regional/Local Vicinity Map. Other lands within the vicinity of the site have the potential to be developed in the future, as allowed under the General Plan and Zoning Ordinance; however, such future land development is unknown at this time and would be evaluated by the County for compatibility with surrounding land uses if and when proposed.

As such, due to the character of surrounding lands and the Project's consistency with the existing General Plan land use and zoning designations, the Project is not anticipated to be incompatible with adjacent uses, residents, buildings, or structures with regard to location or lot size.

### **GENERAL DESIGN MEASURES**

To illustrate the ultimate design of the proposed Project within the existing landscape, a series of visual simulations were prepared. Refer to Figure 8, Key Viewpoint Locations, and Figures 9 through 13, which provide a view of the existing conditions and visual simulations of how the Project would appear once constructed.

#### **1. *Harmony in scale, bulk, and coverage;***

### **BULK AND SCALE**

An evaluation of bulk and scale includes an analysis of the visual appearance of structures, relative to other existing development in the surrounding area. Visual bulk and scale of surrounding structures varies depending on the type of use. Residential and commercial uses tend to be of smaller scale (generally one to two stories in height) and visually horizontal in nature. Many of the residential uses in the area are single-family homes of average square footage, or mobile homes located within trailer parks, and therefore, are of limited scale and bulk. Similarly, the majority of commercial uses within the area, which are generally focused along SR 78 and Split Mountain Road, are similar in scale and bulk to that of a single-family home, and are generally low-lying within the visual landscape (generally one story). Agricultural, service-type, and industrial-type uses generally support structural elements (e.g. storage facilities, sheds, barns) of greater bulk and scale within the visual landscape, such as recreational buildings associated with mobile home parks, firehouse (volunteer fire department), and limited storage facilities/barns located on privately-owned

parcels in the community, which are generally of a greater square footage and height than a single-family home.

It is anticipated that the apparent visual bulk and scale of the proposed Project facilities would generally be consistent with that of surrounding uses, due to the design requirements of the solar facilities and associated infrastructure, structural/equipment heights, and required development regulations of the applicable zone.

Depending on the type of technology selected, the panel configurations would vary; however, total height of the systems measured from ground surface would range from approximately 9.5 feet to 30 feet. As such, the solar panels would be generally low-lying within the landscape and would not be of significant scale. Similarly, the overall size of each of the panels would vary; however, as compared to other elements within the surrounding visual landscape (e.g. residential units or commercial uses), the panels would not represent elements of significant bulk. The panels would be of a minimal thickness and would support the mechanisms required for collection of energy from the sun.

In addition, the structural elements (substation, inverter/transformer enclosures, storage operations/maintenance building, control house) would be dispersed within the overall acreage of the parcels. The substation would reach an approximate height of 35 feet at its apex, with the other proposed structures ranging between approximately 10-16 feet in height. As these facilities would be relatively low-lying within the landscape and limited in height, they are not considered to be of significant scale that would be inconsistent with surrounding land uses or community character.

In addition, these supporting structural elements would range from an estimated 600 s.f. to 96,750 s.f. (footprint), and would not be of significant visual bulk, due to their function and utilitarian design; refer also to Figures 3A to 3F, Major Use Permit Plot Plan(s). The proposed Project components would therefore not represent elements that would detract from the existing visual character or quality of the site, or that would significantly dominate the surrounding visual landscape. Furthermore, the visibility of the Project components would be reduced due to existing vegetation along the valley floor, relatively level topography of the valley floor (flat viewing plane), and distance of the site from potential public vantage points in the surrounding area.

The bulk and scale of the proposed Project components would be consistent with existing structural elements within the surrounding area. Therefore, the proposed Project is considered to be consistent with this finding for compatibility with regard to bulk and scale.

## BUILDING COVERAGE

To demonstrate the proposed Project's compatibility with existing development in the surrounding area, an analysis of lot coverage for the proposed site and for existing development in the area was conducted. The *building footprint* is the amount of structural development (in square feet) at ground level. *Lot coverage* is generally expressed as a percentage and represents the area of land covered by the building footprint (building area divided by total lot area). The building footprint does not include paved areas, such as driveways or parking areas, nor walkways around the proposed structures, as defined by Section 1110 of the County Zoning Ordinance.

Figure 14, Surrounding Land Use, depicts the study area boundary and Assessor Parcel Number (APN) of parcels within the study area considered. The study area was selected by viewing an aerial photograph to determine the extent of development within the area surrounding the site. Additionally, the surrounding land development pattern logically changes to one of higher density within the core of the Ocotillo Wells community, particularly around State Highway 78/Split Mountain Road (approximately 4.5 miles northwest of the site). The character of the proposed development on the Project site would have a greater potential to affect lands within close proximity, rather than when viewed with the development patterns or characteristics of the more densely developed areas of the community, particularly due to distance and the limits of the setting in which the Project would be visible. As such, a ½-mile boundary from the Project boundary was established for the study area, with exception of Split Mountain Road which generally defines a portion of the south/western boundary.

Many undeveloped lands are present in the area surrounding the Project site, and therefore, do not support structures or built elements; refer to Figure 2, Aerial Photograph. Through the analysis, it was determined that only four parcels within or immediately adjacent to the study area have been developed to date. Table 4, Study Area – Building Analysis (Existing Development), gives the APN, street address, lot size, building square footage, and percentage of coverage for the parcels considered.

On the limited number of parcels where development has occurred, the majority of surrounding developed lands are large-acre parcels with structures of varied square footage, depending on the use (i.e., single-family residential versus industrial-type). As lot sizes generally decrease in the vicinity of the Ocotillo Wells “commercial core,” south of State Highway 78, lot coverage typically increases.

With installation of the Dual-Axis Tracker Units (which represents a development scenario considered to have the greatest potential for impact on the existing visual setting, due to height of the solar panels), the Project design would include construction of one substation, approximately supporting equipment pads, and an operations/maintenance building within the MUP area. The substation (footprint) would total approximately 62,500 s.f., overall (250 feet by 250 feet). The equipment pads would be approximately 15 feet by 40 feet, or 600 s.f. each. In addition, the operation/maintenance building would total approximately 1,040 s.f. As the land area affected by the proposed development would be approximately 336.4 acres (or 14,653,584 s.f.) of the total 440 acres, overall lot coverage within the MUP area would generally be less than one percent for any of the four technologies considered. As such, Project building coverage would represent only a fractional portion of the affected parcels, consistent with the generally rural character of surrounding lands. As shown in Table 4, lot coverage was determined utilizing the Dual-Axis Tracker Units, which would require 39 equipment building pads. Therefore, lot coverage for the Project would be similar in comparison with other properties in the surrounding area.

Although from an aerial perspective, the panels would appear to cover a substantial land surface area, the panels would be mounted on poles and/or in combination with a concrete foundation, thereby minimizing the footprint, or coverage, of each panel row within the array. Taking this into account, the Project coverage represents a fractional portion of the affected parcels, thereby further enhancing Project consistency with lot coverage typical of other developed properties within the area. The Project is considered to be consistent with this finding with regard to lot coverage.

**TABLE 4**  
**STUDY AREA - BUILDING ANALYSIS (EXISTING DEVELOPMENT)**

APN #	Address	Existing Land Use	Lot Size (Acres)	Total Building Size (Sq. Ft.)	Building Footprint <sup>1</sup>	Lot Coverage (Estimated) <sup>2</sup>
253-360-55 (adjacent to Study Area)	N/A	Residential	20.0 (871,200 s.f.)	N/A	N/A	N/A
253-390-57 and -58 (Proposed Project)	Split Mountain Road	Undeveloped / Onsite Groundwater Well (not in use) / Well House	336.4 (14,653,584 s.f.)	87,766	87,766	0.59%

TABLE 4, CONTINUED

APN #	Address	Existing Land Use	Lot Size (Acres)	Total Building Size (Sq. Ft.)	Building Footprint <sup>1</sup>	Lot Coverage (Estimated) <sup>2</sup>
253-390-13	6953 Split Mountain Road	SF Residential	40.0 (1,741,529 s.f.)	1,441	1,441	0.08%
253-390-30 (adjacent to Study Area)	7004 Split Mountain Road	Residential (Mobile Home)	9.1 (395,525 s.f.)	1,248	1,248	0.32%
253-390-45 (adjacent to Study Area)	7104 Split Mountain Road	Residential	10.0 (435,600 s.f.)	768	768	0.18%

<sup>1</sup> Land surface area covered by structures. Assumes one-story building where number of stories is unknown.

<sup>2</sup> Lot coverage = Building Footprint/Lot Size

<sup>3</sup> Reflects square footage of building footprint for the Dual-Axis Tracker Units to account for layout of substation (62,500 s.f. footprint including control house), operations/maintenance building (1,040 s.f.), 40 equipment pads (24,000 s.f.), and two water storage tanks (226 s.f. total) = 87,766 s.f. total; refer to Figure 3E, Major Use Permit Plot Plan- Dual-Axis Tracker Units. A third 10,000 water storage tank may be installed onsite for temporary storage of brine generated by panel washing, if an RO system is used; however, due to the minimal size of the tank and the fact that the tank would not be installed if an RO system is not used, the brine storage water tank is not included in the lot coverage calculation.

The appearance of the above-described Project elements within the landscape is not anticipated to significantly detract from or contrast with the existing visual character and/or quality of the surrounding neighborhood, community, or localized area. The location, size, and design of the proposed use would be compatible with area uses, residents, and/or structures with consideration given to harmony in scale, bulk, and coverage. As such, the Project is considered to be consistent with this finding.

## 2. *The availability of public facilities, services, and utilities;*

Water for construction would be provided via the proposed onsite well. Alternatively, water for construction may be provided via the existing onsite well or via water truck that would be filled at an offsite location and trucked to the site on an as-needed basis. Water would be used to support Project construction activities and for purposes of dust control.

To allow for ongoing maintenance, the solar panels would be washed four times per year to remove dust particles and other buildup to ensure optimum solar absorption. Water with a

binding agent would also be applied once every year for dust suppression purposes for the onsite roadways. Water used for maintenance purposes would be supplied by the proposed well, or alternatively, via the existing onsite well or via water trucked in from a local water source. Onsite groundwater supplies have been determined adequate to supply a portion of the anticipated Project demands. If it is determined that water from either the proposed or existing wells is too hard to be utilized for panel washing, a filtration system would be used to treat the water.

The site would be unmanned; however, construction of a septic system is proposed at the operations and maintenance building for use by Project maintenance staff. Electric and gas service are presently provided to the Project site. The proposed Project would generate electricity via the solar panels; the use of natural gas is not anticipated, and therefore, the extension of such services to the site is not required or proposed.

The Project site is located within the service area of the San Diego County Fire Authority. The nearest responding station is the Ocotillo Wells Volunteer Fire Department, located at 5841 State Highway 78 in the community of Ocotillo Wells, approximately 6.75 miles to the northwest of the Project site. The station is staffed full-time with volunteer and career firefighters. Travel time to the Project site is approximately 15.6 minutes, per the National Fire Protection Association (NFPA). The General Plan does not identify a maximum travel time for emergency fire services response for the RL-80 land use designation.

The Project site is located within the County's Wildland Urban Interface area. As such, Project design provides for a 30-foot wide brush clearing zone (measured inward from the perimeter of MUP boundary) to reduce the potential for wildfire to occur and/or spread. Water for fire protection purposes would be supplied by two proposed 10,000 gallon water storage tanks to be constructed onsite.

As requested by the County Department of Planning and Development Services, the applicant has prepared a Fire Protection Plan (FPP) Letter Report to address water supply, access, building ignition and fire resistance, fire protection systems and equipment and vegetation management with regard to fire code requirements (available under separate cover). The FPP Letter Report shall meet all requirements of Article 86, Section 8601 of the California Fire Code.

As such, the Project is considered to be consistent with this finding.

**3. *The harmful effect, if any, upon desirable neighborhood character;***

Through design, the proposed Project would exhibit compatibility with the existing character of the Ocotillo Wells community. Views of the Project site would generally be

limited from other private land ownerships and public roadways located along the valley floor, due to intervening vegetation and minimal differences in elevation (flat viewing plane), as well as from outlying locations occurring at a higher elevations, due to distance from the site and vegetation. Refer also to Figure 8, Key Viewpoint Locations; and, Figures 9 through 13, which provide a view of the existing visual setting and a visual simulation of how the Project would appear once constructed.

Neither of the two affected parcels, nor offsite areas affected by the Project for access purposes, support designated landmarks, historic resources, significant trees, or rock outcroppings. Although the Project would result in the installation of the solar panels and associated facilities within the existing landscape, no resources either onsite or offsite that contribute significant value to the visual character of the site or site vicinity would be removed or substantially changed as the result of Project implementation.

## ARCHITECTURAL DESIGN

Architectural design of structures within the area surrounding the Project is varied, due to a mixture of use types. The limited number of residential uses typically exhibit ranch-style features with wooden exteriors and roofing, and generally non-decorative elements. Several residential uses are constructed in the Spanish style, with stucco exteriors and tile roofing. Residential uses in the form of mobile homes further to the north/northwest of the site (near State Highway 78) are utilitarian in nature, exhibiting simple architectural design elements and limited fenestration. The limited commercial and industrial uses within the community also exhibit more utilitarian features with minimal architectural design features or decoration (e.g., several restaurants, retail store, San Felipe Substation, etc.).

The Project would involve installation of the solar panels on the two subject parcels, with supporting infrastructure that includes a substation and control house, small-scale structures to house the inverters and switching gear, and an operations and maintenance building. As the Project represents a utility use, Project components would be utilitarian in nature and would not represent structural features such as residential or commercial buildings that would require detailed architectural design or design features intended for visual enhancement. Architectural design of the proposed facilities is not anticipated to significantly contrast with the visual character of other uses found in the surrounding area. The architectural design of Project elements would not result in features that are visibly dominant within the visual landscape that would significantly contrast with the existing visual character or disrupt the visual intactness or unity of the landscape.

## MATERIALS AND COLORS

Development on lands within the surrounding area generally exhibit a range of materials and colors, depending on the land use considered. Materials typically range from metal, wood, stucco, and concrete block for the limited residential and commercial uses. Metal and/or stucco structures are typical of area industrial- and agricultural-type uses. Exterior colors of area structures are generally earthtoned in nature.

### Solar Panels

The solar panels would be made of materials that are highly absorptive and that would generally range in color from black to gray. The materials used to construct the panels are designed to minimize the potential for reflection and retain as much of the solar spectrum as possible, thereby reducing glare. The solar panels would be mounted on pile-driven pier footings that would be galvanized to minimize reflection of light from exposed surfaces. Additionally, the potential for glare effects from the Project would be further minimized, as all solar panels would be coated with a non-reflective coating.

### Substation

The onsite substation would include transformers, breakers, switches, meters, and related equipment. Such elements would by nature be constructed of various metals with non-reflective surfaces, similar to those found at the existing San Felipe Substation located to the northwest of the Project site, adjacent to Split Mountain Road. The proposed onsite substation would support a control house that would be enclosed within a metal structure. The structure would be earthtoned in color (i.e., light brown, green) to visually blend the building into the surrounding landscape and avoid contrast with the existing rural character of the area.

### Inverter Enclosures

A number of small-scale, aboveground structures would be constructed within the solar panel fields to weatherize inverters and switching gear (the total number of which would vary with each of the four technologies considered by the Project applicant). The structures would be constructed of non-flammable materials (i.e., steel) with an earthtone finish. Roofing for these structures would also be metal and of an earthtone finish to reflect the visual character of the surrounding natural environment.

Overall, the Project would result in the construction of elements within the landscape that would be respective of the existing visual character and visual quality with regard to

materials and color. No design features are proposed that would sharply visually contrast with surrounding elements, or that would create a visually dominant feature within the landscape.

## **HEIGHT/SQUARE FOOTAGE**

Vacant land generally surrounds the Project site; however, a limited number of small-scale, single-family rural residential, in addition to several mobile home parks and commercial uses, are present to the west/northwest along Split Mountain Road and SR 78. Such structures are generally one to two stories in height. Limited industrial-type and/or agricultural uses on surrounding lands support structural elements that generally range from 10 to 30 feet in height, with various elements of greater height, depending on their function.

Square footage of buildings in the area varies, due to the type of use, with residential uses generally of smaller scale (one to two stories) and commercial and industrial-type uses supporting structures of greater square footage.

## **Solar Panels**

Due to the limited height of the solar panels and the generally flat topography of the two affected parcels, visibility of the panels within the landscape would be reduced. As stated above, depending on the type of solar technology used, panel height would range from approximately 9.5 feet to 30 feet as measured from the ground surface. As sensitive land uses (i.e., residential uses) are not located in the immediate area surrounding the affected parcels, and views to the site would instead generally occur at a distance from developed properties and/or public roadways, views of the panels would be limited.

## **Substation**

The overall footprint of the Project substation would be approximately 250 feet by 250 feet (62,500 square feet or s.f.), with various supporting equipment installed within the area; refer to Figures 3A to 3F, Major Use Permit Plot Plan(s). Overall height of the substation would be approximately 35 feet at the apex. The height of the substation, which would be the largest structure built as part of the Project, would generally be consistent with the height of a two-story single-family residential home. Although the footprint of the substation would be approximately 62,500 s.f., due to the nature of the substation facilities, varied heights, and spacing, the equipment would not represent a solid wall or façade, but instead would allow for views through the equipment, thereby reducing the visual

appearance. In addition, similar larger-scale elements or structures are associated with other existing uses within the surrounding area (e.g. San Felipe Substation).

### Inverter Enclosures

The individual onsite structures intended to house the inverters/transformers would be approximately eight feet in height at the apex. The inverter platforms would be approximately 600 s.f. in size. As such, these structures would be relatively small in nature, and would not represent a size or height that would significantly contrast to existing land uses in the surrounding area (i.e., residential, industrial, small-scale commercial uses, etc.).

### Operations and Maintenance Building

The onsite operations and maintenance building would be approximately 1,040 s.f. in size. The structure would range from approximately 11 feet to 16 feet in height. As such, this structure would be small-scale in nature, consistent with land uses generally found in the surrounding area.

### Transmission Facilities

It is anticipated that the existing utility poles located within the SDG&E easement along the southern Project boundary and within the utility easement running to the north of the Project (R-Line) would remain at their present height with Project implementation. The Project proposes to connect to the existing aboveground utility line to the north of the site.

## **LIGHTING/GLARE**

Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting (100 watt) would also be installed at the main entry gate, switchgear yard and substation entrances, control room, and operation buildings to facilitate safety and access. Lighting would be placed on entrance gates or attached directly to the substation components and would be 100 watts or less (total combined per each location). Illuminated signage at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker would also be installed.

All Project lighting would be operated manually or activated via motion sensors. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and/or public lands. All lighting would conform to County of San Diego outdoor lighting requirements.

Additionally, the potential for glare effects from the Project would be further minimized, as all solar panels would be coated with a non-reflective coating. Uncoated clear glass has a typical reflection rate of approximately eight percent;<sup>1,2</sup> however, the majority of windows today have coatings that increase reflectivity in order to reduce the amount of heat gain within a building or occupied space. For solar PV applications, the more light that is reflected away from the glass surface becomes lost energy for power conversion, and therefore, anti-reflective coatings are utilized to ensure that the maximum amount of sunlight strikes the solar cells beneath the glass. The typical PV solar modules in use today have an anti-reflective coating with a reflection rate of less than six percent. The anti-reflective coating would be applied by the manufacturer at the manufacturing plant at the time when the panels are constructed, and the panels would be transported to the site for installation.

Three separate glare analyses were prepared to evaluate the glare potential of the four solar technologies considered for the proposed Project. These studies include the following: “Single-Axis Tracker Glare Study” (for the Single-Axis Rack System) and “Fixed Photovoltaic Panel Glare Study” (for the Fixed-Axis Rack System), both dated September 16, 2013 and prepared by POWER Engineers (available under separate cover). An additional study, entitled “Dual-Axis Tracker Glare Study” for the concentrated photovoltaic (or CPV) systems was prepared on September 16, 2013 by POWER Engineers to analyze the CPV solar technologies (available under separate cover). The three glare studies were prepared to determine if glint/glare effects from the Project would be visible to sensitive visual receptors [e.g. residential uses, Ocotillo Wells State Vehicle Recreation Area (OWSVRA)] in the surrounding area, and if so, how long such effects would last and when and where would they occur. Glare impacts on operations at the Ocotillo Airport were considered but eliminated from further study, due to panel orientation and distance from the proposed solar farm.

The studies modeled solar operations as proposed with the Project from four public key observation points (KOPs) in the surrounding community and 16 private residential locations located within 1.5 miles of the Project site. The four public KOPs included

---

<sup>1</sup> Commercial Windows – Windows for High-Performance Commercial Buildings. URL Online: <http://www.commercialwindows.org/reflectance.php>. Accessed September 24, 2013.

<sup>2</sup> PGO-Online: Anti-Reflective Coatings ARC Series. URL Online: <http://www.pgo-online.com/intl/katalog/antireflection.html>. Accessed September 24, 2013.

vantage points from State Highway 78; Split Mountain Road adjacent to the San Felipe Substation; Anza-Borrego Desert State Park; and, Split Mountain Road just west of the Project site. The studies focused on these key locations where potential glare/glint from the Project may be visible to ground-based viewers.

Three-dimensional (3D) simulations were developed to accurately create and study potential Project glare, based on the behavior of the solar equipment. 3D elements within the digital scene included terrain models, 3D solar equipment, and a 3D sun system. This information was assembled in a 3D computer program to create an accurate virtual representation of the Project equipment and the surrounding area. Once the 3D site was assembled, analysts animated the trajectory of the sun and the behavior of the types of solar panels to determine when and where glare would be visible to the KOPs. Each KOP was evaluated during daytime hours of Project operation during the spring/fall equinox and summer/winter seasons solstice events.

Additionally, the glare analyses considered a worst-case scenario and did not document or evaluate the potential for existing vegetation either at the KOPs or on intervening lands to further reduce the visibility of the Project site (and related glare potential); however, subsequent to preparation of the glare analyses, each of the KOPs was visited and onsite vegetation documented in September 2013. Based on the evaluation of the KOPs, it was determined that such vegetation would either partially or fully screen views of the Project site from each of these locations, thereby further reducing any potential glare effects experienced.

### **SINGLE-AXIS RACK SYSTEM**

For the Single-Axis Rack System, the panels were modeled based on manufacturer specifications, including panel design and height, and considered with regard to panel orientation, backtracking, and tilt. If this technology were utilized with implementation of the proposed Project, the 3D geometric analysis determined that no glare/glint effects from operation of the Project would be visible from the KOPs due to distance from the Project site and the orientation of the solar panels. Similarly, no adverse glare effects would occur for users of the OWSVRA. Refer to the “Single-Axis Tracker Glare Study” (available under separate cover) for additional discussion.

### **FIXED-AXIS RACK SYSTEM**

For the Fixed-Axis Rack System, 3D models of the fixed PV panels were developed based on manufacturer specifications, including panel design and height. For the Project, the PV

panels would be oriented facing south with a tilt of 25 degrees; panel layout and orientation were modeled to reflect the proposed Project design. The study determined that limited and brief occurrences of glare would occur with the Project (only if this technology is selected) in the morning hours when the sun is lowest in the sky relative to the south facing panel angle, as this technology does not track the sun. Potential glare would occur for less than 15 minutes in the early morning around the time of the spring and fall equinox and summer solstice. As such, the study determined that glare resulting from the proposed Fixed-Axis Rack System (if this technology is installed) would have a low overall impact on occupants of nearby residential structures because of the limited length of exposure and distance of at least 1,650 feet (nearest residence) from the Project site. Further, the site is located approximately three miles from the OWSVRA, and similar minimal (or no) glare effects are expected to be experienced by any recreational occupants of the State Park. Therefore, no significant glare impacts would occur with operation of the Fixed-Axis Rack System, and no mitigation measures are required. Refer to the “Fixed Photovoltaic Panel Glare Study” (available under separate cover) for additional discussion.

### CPV DUAL-AXIS RACK SYSTEM AND DUAL-AXIS TRACKER UNITS

An analysis of the glare potential of the two-axis solar technologies (represented by the Dual-Axis Rack System and the Dual-Axis Tracker Units) considered for the proposed Project was also prepared. The study focused on the location, duration, and potential situations where glare may be visible to offsite viewers if either of these technologies were utilized with Project implementation.

The CPV modules are designed to directly face and track the sun throughout the day while absorbing solar energy inward towards the panel to produce electricity. The design allows for maximum efficiency and energy output of the modules. By tracking the sun, potential reflection of sunlight and any subsequent glare can be predicted. During hours of operation, any reflection of sunlight off of the panels would bounce directly back towards the sun. Due to operational limits, the panels would never move lower than five degrees off horizon; however, to account for any deviations in panel tracking movement or surface scattering, the modeling for these panels used a one degree light spread from the face of the panel, resulting in reflections never lower than four degrees off horizon.

Review of the 3D geometric analysis determined that no glare effects would be visible to the KOPs from the proposed solar operations, due to the distance of KOPs to the Project site and the orientation of the CPV modules. The minimum five degree stow position of the trackers would cause any resulting glare to be redirected above all KOPs when the sun is

lowest in the sky. The height of glare above the KOPs would increase as the sun rises in sky and the panels begin tracking operations.

Therefore, operation of the Dual-Axis Rack System or the Dual-Axis Tracker Units, if installed with the proposed Project, would not be expected to result in significant glare effects on surrounding residential uses, area public roadways, or the OWSVRA. No significant glare impacts would occur, and no mitigation measures are required. Refer to the “Dual-Axis Tracker Glare Study” (available under separate cover) for additional discussion.

Furthermore, in addition to numerous other investigations, in order to evaluate the potential glare/glint effects of solar panels, an investigation was conducted by the Federal Aviation Administration (FAA) for the installation of a 4-megawatt solar power generation array adjacent to Denver International Airport (DIA) in Colorado in 2006. A number of tests were performed to analyze glare effects, such as placing sample solar panels at different installation locations and at variable angles. No glare was noted by observers in any of the panel orientations. An aerial observation was also conducted. Reflectivity of the panels was measured four times per day, concluding that 96 percent of the sun’s light was absorbed by the panels, and that the light reflected was dispersed. Since the panels were installed in August 2008, no complaints have been filed with DIA with regard to glare effects from the panels. A similar solar panel project was installed on the Express Hub at the Fresno Airport in Fresno, California. The project involved installation of flat plate modules and modules that capture and concentrate sunlight onto a solar cell which allow only reflected light from heat. No adverse effects from glare on airport operations have been reported.

Other similar solar panel projects throughout the U.S. and globally have been installed near airports with no impacts on flight operations with regard to glare. Such locations include the Munich Airport in Germany; the Love Field Airport in Prescott, Arizona; and, the San Francisco, California Airport. Additional solar studies considered in this visual analysis for the proposed Project included the Panoche Valley Solar Farm Project Glint and Glare Study (Panoche Report)<sup>3</sup> and a Technical Memorandum provided by SunPower Corporation,

---

<sup>3</sup> Panoche Valley Solar Farm Project Glint and Glare Report, prepared by Power Engineers, May 10, 2010.

(SunPower Report),<sup>4</sup> both of which concluded findings of no significant adverse effects with regard to glare generated by solar panels.

Based on the above discussion and findings for glare effects of similar solar panel installations, potential Project-related glare effects for viewers from the Ocotillo Airport would not occur. Potential glare effects on surrounding public (and private) vantage points are also not anticipated to occur with any of the solar technologies considered, with exception of the fixed-axis PV panels; however, any glare effects resulting with this technology (if selected) would be minimal and brief, and no significant impacts on community character would occur.

Based on the technical evidence evaluating the reflectivity of the solar panels, the proposed Project would not install highly reflective building materials resulting in a substantial increase in light or glare that could affect the surrounding area or produce reflective light that would create adverse disability or discomfort glare. The proposed Project would be in accordance with the County's Guidelines of Determining Significance for Lighting and Glare. The slight increase in glare resulting with the Project would not create an adverse effect on the surrounding community.

## PARKING

The Project does not propose the location of any designated onsite parking spaces; however, ample land area would be provided at the onsite substation and along the interior, onsite roadways to accommodate parking needs for maintenance vehicles as they circulate within the MUP boundary. No offsite parking is required or proposed with the Project, and the Project would not result in parking impacts on surrounding land uses.

## OPERATING CHARACTERISTICS

Daily operation of the Project is not anticipated to result in impacts on the surrounding neighborhood character. The proposed facilities would be monitored remotely. Once the solar panels are installed, the panels would operate during daylight hours, seven days per week, and 365 days per year.

Security would be maintained through installation of a 6-foot high chain-link fence topped with 12 inches of two-strand barbed wire along the perimeter of the MUP area. A secured

---

<sup>4</sup> SunPower Corporation Technical Notification #T09014, Solar Module Glare and Reflectance, dated September 29, 2009.

gate would be provided off of the main access drive from Split Mountain Road at the southwest corner of the MUP area. The gate would meet County Fire Code Section 96.1.503.6 for automatic operation with battery back-up. The gate would open immediately upon emergency vehicle strobe light activation from either direction of approach and would include a Knox-box key-operation. Additionally, a switch would be installed inside of the entrance gate to the site to allow authorized Project personnel and emergency service providers to automatically place the solar panels in a stow position in the event of an emergency or high winds (applicable to the Dual-Axis Tracker System and the Dual-Axis Tracker Units technologies, which allow for panel rotation). It is anticipated that maintenance of the facilities would require occasional visual inspections and minor repairs. Overall, minimal maintenance requirements are anticipated, as the panels would operate on their own with little human involvement required. On intermittent occasions, the presence of several workers may be required if major equipment repairs are required; however, due to the nature of the facilities, such actions are anticipated to be infrequent. Occasional equipment replacement or refurbishing may also be conducted.

Additionally, although the construction phase of the Project would result in a minor increase in existing noise levels from operation of construction equipment and machinery, the increase would be temporary and would cease once construction is completed. Additionally, as no sensitive receptors (e.g. residential uses) are located adjacent to the site, and adjoining lands are undeveloped, construction noise effects on the surrounding community character would be less than significant; refer also to the Technical Noise Analysis prepared by Ldn Consulting (December 2013), available under separate cover. Additionally, due to the operational characteristics of the solar facilities, operational noise would not result in significant noise impacts. Refer also to Finding “4,” below, with regard to anticipated effects on area traffic and circulation resulting with the proposed Project.

As discussed above, the proposed Project addresses such measures as architectural design, materials and colors, height/square footage, parking effects, lighting/glare, and operational characteristics to ensure that the Project would not conflict with the character of the surrounding community. Refer also to the discussion under Finding “1,” above. As such, no harmful effect upon desirable neighborhood character is anticipated with the proposed Project. Therefore, the Project is considered to be consistent with this finding of site suitability.

4. *The generation of traffic and the capacity and physical character of surrounding streets;*

No offsite improvements to the existing street system are required or proposed as part of the Project. Long-term access to the site would be provided from Split Mountain Road via an existing private access road that extends eastward to the southwestern boundary of the 280-acre parcel. Access to the development area would be provided via a 24-foot wide all-weather paved road over a 40-foot wide access/utility easement; refer to 3A to 3F, Major Use Permit Plot Plan(s).

Construction activities for the Project would generate limited construction traffic along area roadways, including Split Mountain Road. Table 5, Anticipated Construction Equipment, identifies the anticipated number of vehicle trips generated during the construction phase. Such vehicle trips would not exceed County significance criteria established to determine traffic impacts, and no significant impacts on the roadway system due to an increase in vehicle trips would occur with the Project.

**TABLE 5 ANTICIPATED CONSTRUCTION EQUIPMENT**

Equipment Identification	Quantity	Hours Per Day
<b>Mass Site Grading</b>		
Rubber Tired Dozer	3	8
Graders	5	8
Tractors/Loaders/Backhoes	8	8
Water Trucks	4	8
<b>Trenching</b>		
Tractors/Loaders/Backhoes	5	8
Trenchers	2	8
Water Trucks	1	8
<b>Building Construction</b>		
Other Industrial Equipment (Hydraulic Pile Driver)	2	8
Cranes	2	7
Air Compressor	1	7
Forklifts	1	8
Generator Sets	1	8
Welders	1	8

TABLE 5, CONTINUED

\*The quantity and type of equipment are based upon assumptions from projects of similar size and scope, and are consistent with the Air Quality Assessment prepared by Ldn Consulting, Inc. (December 2013) available under separate cover.

Operation of the Project would involve washing the panels and various maintenance activities onsite. It is anticipated that maintenance of the facilities would require occasional visual inspections and minor repairs. Overall, minimal maintenance requirements are anticipated, as the panels would operate on their own with little human involvement required. A worst-case trip generation would be less than 25 daily trips and would only occur at this intensity during maintenance of the solar facilities; however, due to the nature of the facilities, such actions are anticipated to be infrequent. Occasional equipment replacement or refurbishing may also be conducted. Water for panel washing is anticipated to be supplied by either the onsite existing well or the proposed well; however, if it is determined that water from these wells is too hard to be used for panel washing, a filtration (reverse osmosis, or RO) system may be used to treat the water. If a RO system is used, an estimated four one-way trips [8 average daily trips (ADT), or round-trips] per quarter, or 16 one-way trips (32 ADT, or round-trips) per year would be required to dispose of the brine wastewater generated by panel washing.

As such, the capacity and physical character of surrounding streets would not be significantly impacted by traffic generated by the proposed Project. The proposed Project would not result in increased levels of traffic that would adversely affect the existing community character of the surrounding area. The Project is considered to be consistent with this finding.

**5. *The suitability of the site for the type and intensity of use or development which is proposed;***

The Project site is located in an area that is generally surrounded by undeveloped lands, with limited scattered residential, agricultural, industrial uses. Lands immediately adjacent to the site are undeveloped, with the Anza-Borrego Desert State Park adjacent to the south.

The proposed Project is considered a Civic Use Type: Major Impact Services and Utilities, as defined in the County Zoning Ordinance. The use is permitted within the S92 zone with approval of a Major Use Permit from the County of San Diego. Proposed development would be required to demonstrate consistency with the findings required to approve a MUP, as set forth in Section 7358a of the County Zoning Ordinance.

Additionally, to the south of the site, an alluvial fan landform exists where Fish Creek Wash descends from Split Mountain towards the Salton Sea. Although the majority of drainage currently flows away from the Project site, the flow path of any major flood is uncertain anywhere on the alluvial fan and it is possible that flows during the 100-year storm event could flow into the Project site from the south. Alluvial fans typically occur in arid environments where steep mountains encounter a flat valley floor. These areas typically experience infrequent but intense storms. This particular combination of topography and climate tends to produce flash floods yielding high sediment loads along the steep mountainside, while channel braiding and sediment deposition occur along the gentle slopes of the valley floor.

There are no existing storm drain facilities on or within the immediate vicinity of the Project site. No drainage structures are proposed with the Project, due to the rural nature of the area and the lack of existing storm drain facilities or open channels within the immediate project vicinity. The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

The Project does not propose to place structures with a potential for human occupation or access roads or other improvements that would limit access during flood events within the flow path. The limited grading required for installation of the solar panels would not significantly alter the existing drainage pattern of any portions of the site in a manner that would result in substantial erosion or siltation on- or offsite.

Additionally, breakaway fencing would be installed along portions of the perimeter of the MUP area to allow for sheet flow water to traverse the site and to eliminate any potential diversion. The Project would not increase or contribute to any additional runoff, or divert any waters from the site, thus complying with the requirements of the BVFMP.

The Project as proposed is a suitable land use that is ideal for the site because a solar energy system is low intensity type of development, is compatible with other existing adjacent land uses (largely undeveloped lands) in the vicinity of the Project site, and is a non-residential use that would comply with the requirements of the BVFMP. The proposed solar facilities would not conflict with any land use plan or policy adopted, and would be compatible with surrounding existing uses with regard to site suitability. Therefore, the Project is considered to be consistent with this finding.

6. *Any other relevant impact of the proposed use;*

Construction of currently approved and pending projects in the Project vicinity would permanently alter the nature and appearance of the area as future development occurs over upcoming years. Gradual development of lands within the Ocotillo Wells area would result in a change in the existing conditions over time; however, it is not anticipated that such change would result in a significant impact to the existing community character, as it would not substantially alter the overall visual landscape of the desert or the valley floor.

It is anticipated that future construction activities would occur on various sites and at varied times, when an application for development is made. Associated construction-related impacts would be short-term and would cease upon completion. In addition, all new development projects would be subject to environmental and design review on a site-specific, project-by-project basis by County staff to ensure visual and/or community character impacts are limited to the extent possible during the construction process. All future construction activities would be required to be consistent with the County's regulatory requirements and applicable conditions of approval to reduce potential effects of construction to less than significant.

In addition, future development within the Project vicinity could permanently convert existing offsite open space or undeveloped lands to developed lands, potentially resulting in the incremental loss of visible open space within the Ocotillo Wells area. Such future development could also contribute to the alteration of views to designated visual resources. All future development within the community would be subject to an evaluation of the significance of potential visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community.

As the Ocotillo Wells area offers a desert environment with abundant sunshine, combined with available undeveloped lands that are generally flat, the area represents optimal conditions for the sighting of additional solar energy facilities in the future. If proposed, it is anticipated that any future installation of solar panels along the valley floor would occur sporadically on available parcels as independent development applications, rather than concentrated in one area of the valley. Thus, the potential visual effects or impacts on the existing community character of such installations would be reduced, as a range of small-scale to larger-scale projects would likely be proposed, depending on available land, existing zoning, and the intent of the applicant.

In addition, as evaluated for the proposed Project, potential glare impacts on a cumulative level as the result of additional solar energy facilities locating within the Ocotillo Wells area

would be less than significant. As all solar panels are designed to absorb sunlight, potential glare effects from future additional solar installations would not create significant glare or reflective surfaces that would create adverse effects on surrounding land uses or on views from surrounding vantage points.

Future solar installations along the valley floor would have a similar visual effect as other types of development would have in that they would generally change undeveloped land to developed land. Over time, it is anticipated that development within the valley will continue to occur. As the valley floor is extensive, development of any future solar installations would represent a minimal overall percentage of such lands, and would therefore not be expected to result in a significant visual change in the appearance of the valley floor when viewed from the surrounding area.

It is not anticipated that the addition of similar future solar projects would remove, or create a substantial adverse change to, any features that represent a valued visual resource in the area. The valley floor would still be visible from higher elevations and would still appear to have a scattered development pattern, in the event that additional solar projects are constructed. It is not anticipated that any such projects would alter the mountain views from the valley floor from places where they are currently observed, or substantially obstruct or detract from valued lookouts or panoramic views from public roads, scenic highways, or recreational areas.

It is assumed that the development of such future projects would generally match the existing development pattern in the valley. From a vantage point where all such development would be visible, it would appear as a continuation of the existing development pattern in the area. The viewpoint would likely be located at a higher elevation than the valley floor and would be several miles away from any one of the proposed solar projects. Because of the anticipated distance between any future solar projects and the distance from surrounding public viewpoints, it is not anticipated that the overall visual effect of any future solar projects would substantially obstruct views from scenic vistas or public roads.

Additionally, all future development within the Ocotillo Wells community would be subject to an evaluation of the significance of potential visual and aesthetic changes on a site-specific, project-by-project basis with consideration for its scope and contribution to a change in the overall visual pattern or character within the community. Adherence to General Plan policies and goals, zoning restrictions, and applicable County Design Standards would further reduce potential impacts relative to the potential long-term

alteration of the existing community character. The Project is considered to be consistent with this finding.

- b. *That the impacts, as desired in paragraph “a” of this Section, and the location of the proposed use will be consistent with the San Diego County General Plan.*

Potential impacts, as desired in paragraph “a” of this Section, and the location of the proposed use would be consistent with the San Diego County General Plan. Refer to the discussion under paragraph “a,” above, and Table 3, Project Consistency with Applicable Plans, Policies, and Goals. The Project is considered to be consistent with this finding.

- c. *That the requirements of the California Environmental Quality Act have been complied with.*

The proposed Project has been evaluated consistent with the requirements of the California Environmental Quality Act, as appropriate. Refer also to the environmental technical analyses prepared for the Project which evaluate potential impacts resulting with Project implementation, in accordance with the requirements of CEQA, and provide mitigation measures to reduce Project impacts to less than significant, as applicable. The Project is considered to be consistent with this finding.

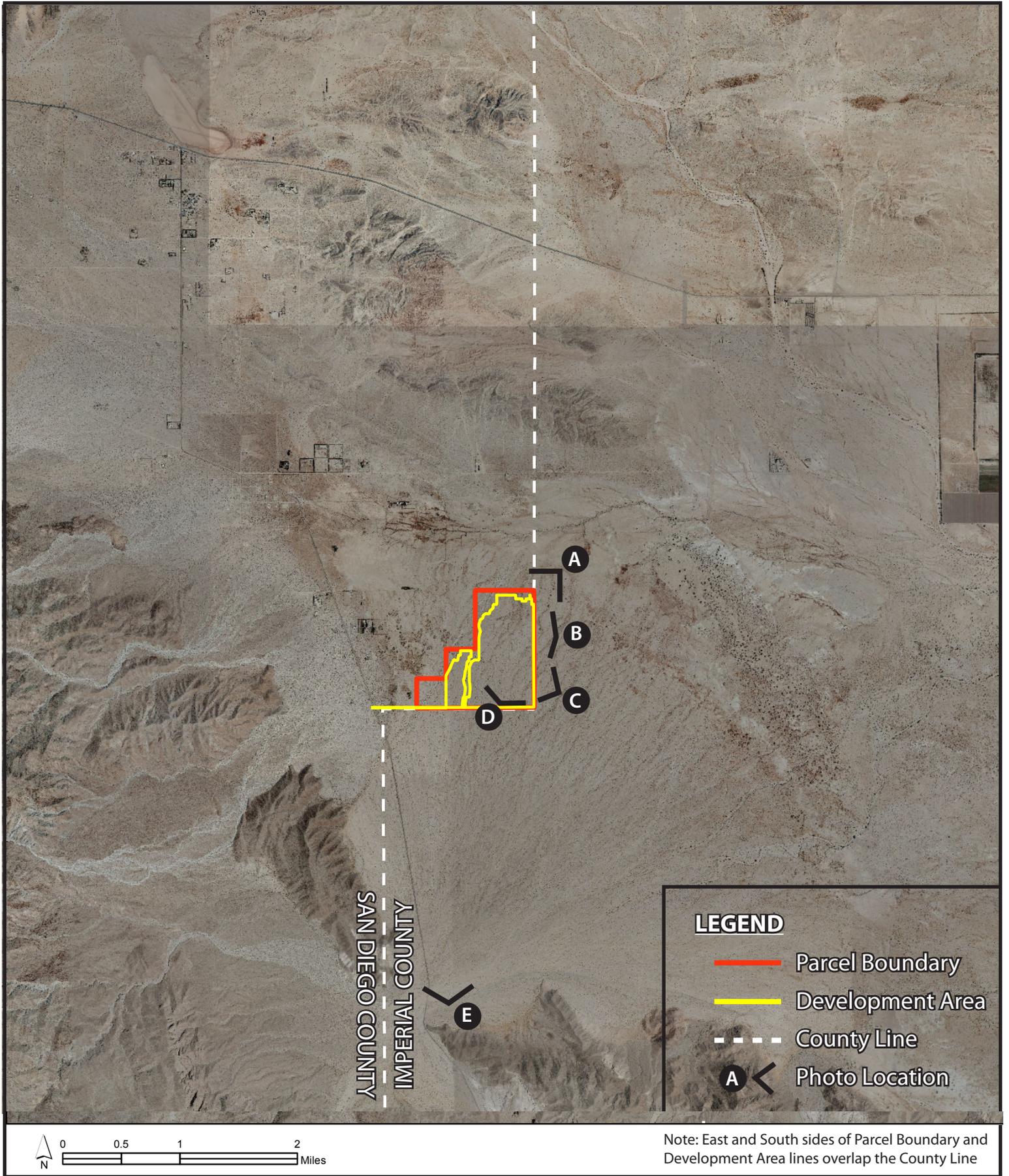
## ESTABLISHED COMMUNITY

According to the significance thresholds, the Project could result in significant impacts if it were to cause the division of an established community. The Project site is located in a rural setting and is under private ownership. All development proposed would occur onsite, with exception of limited offsite improvements to provide adequate access to the site. Development of the proposed solar facilities would not interfere with surrounding land uses, nor would it restrict or eliminate existing public or private access to any surrounding properties. Due to the nature of the improvements proposed, the Project would not create a physical division within the existing surrounding neighborhood.

Additionally, the Project is proposed on privately-held lands and would not cause a shift in land uses to occur, as no amendments to the existing land use designation or zoning restrictions are required or proposed to allow for the proposed use. Other future development projects on surrounding lands would be subject to land use and zoning regulations, and would be reviewed by the County for compliance at the time when improvements are proposed to evaluate potential effects on the established Ocotillo Wells community.

The Project does not require new or additional infrastructure to be brought to the property. As such, the proposed Project would not result in the physical division of an established community, and impacts would be less than significant.

**THIS PAGE LEFT BLANK INTENTIONALLY**



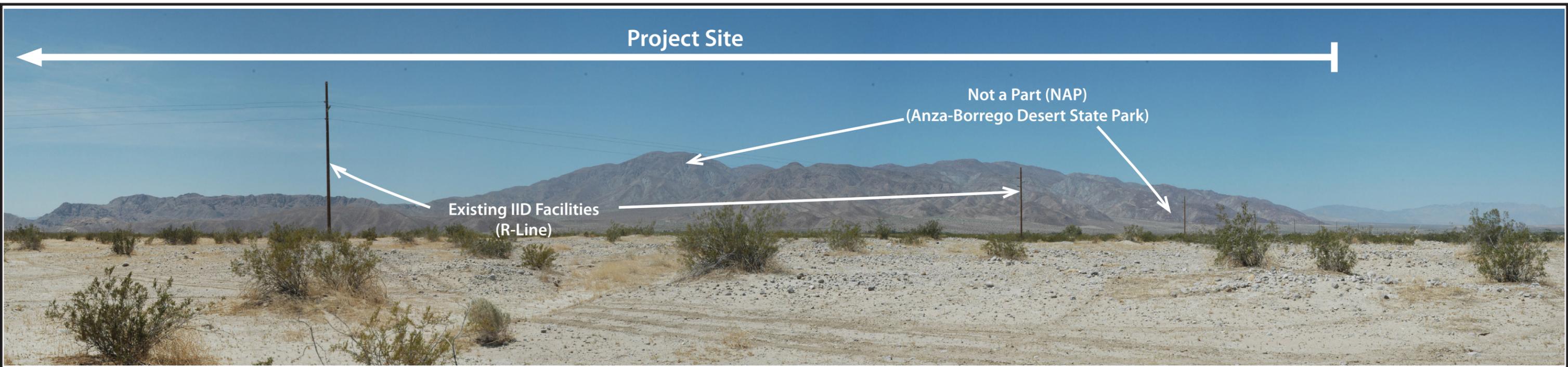


Photo A: View looking southwest across Project Site from northeast corner.

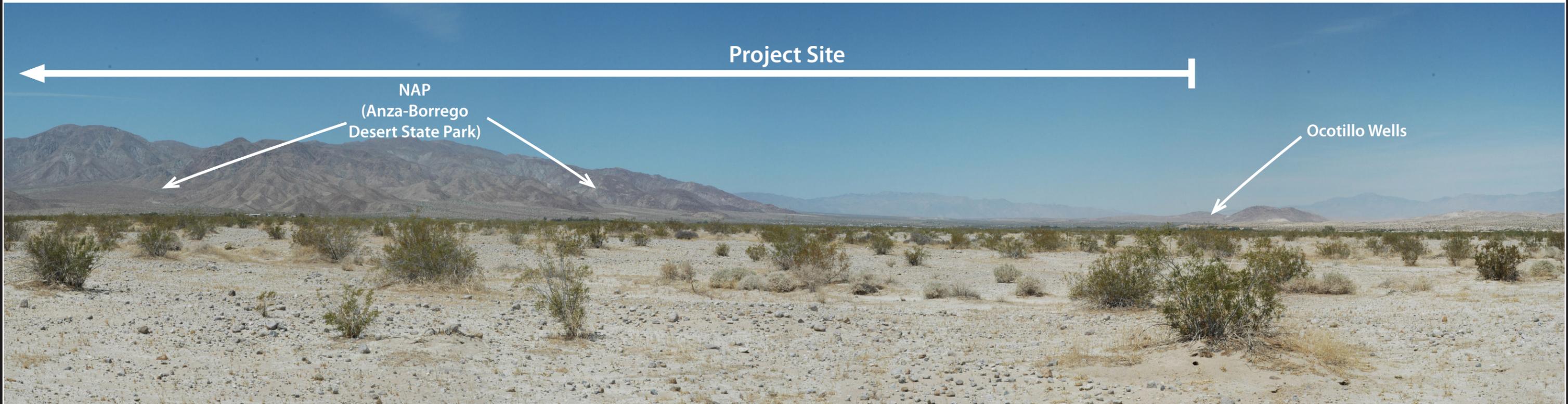


Photo B: View looking southwest to northwest from eastern property boundary.

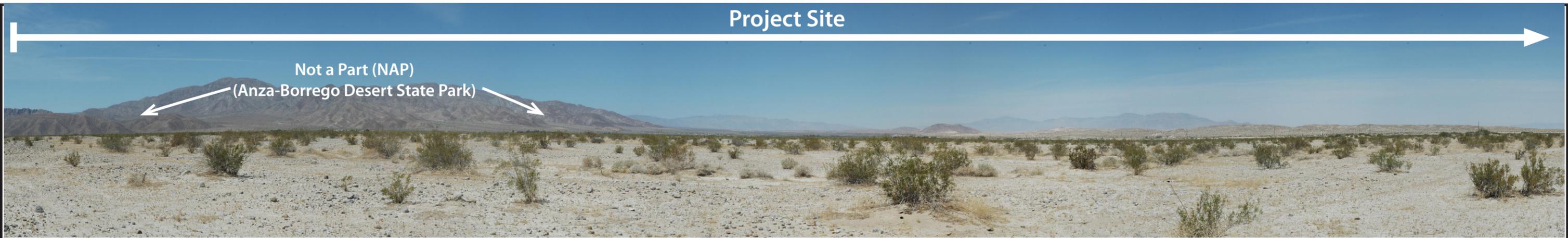


Photo C: View looking west/northwest across Project Site from southeastern property boundary.



Photo D: View looking north/northwest across Project Site from southern property boundary.

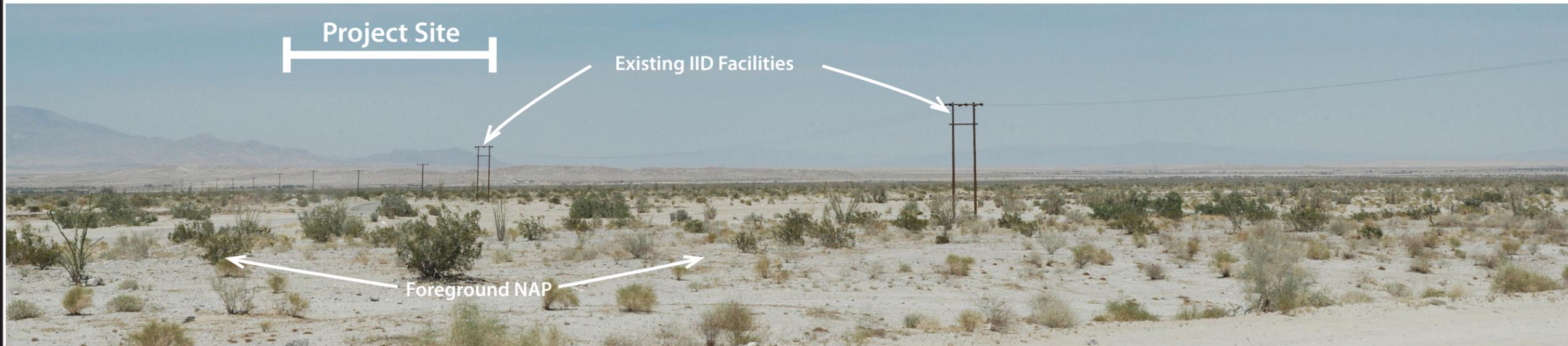
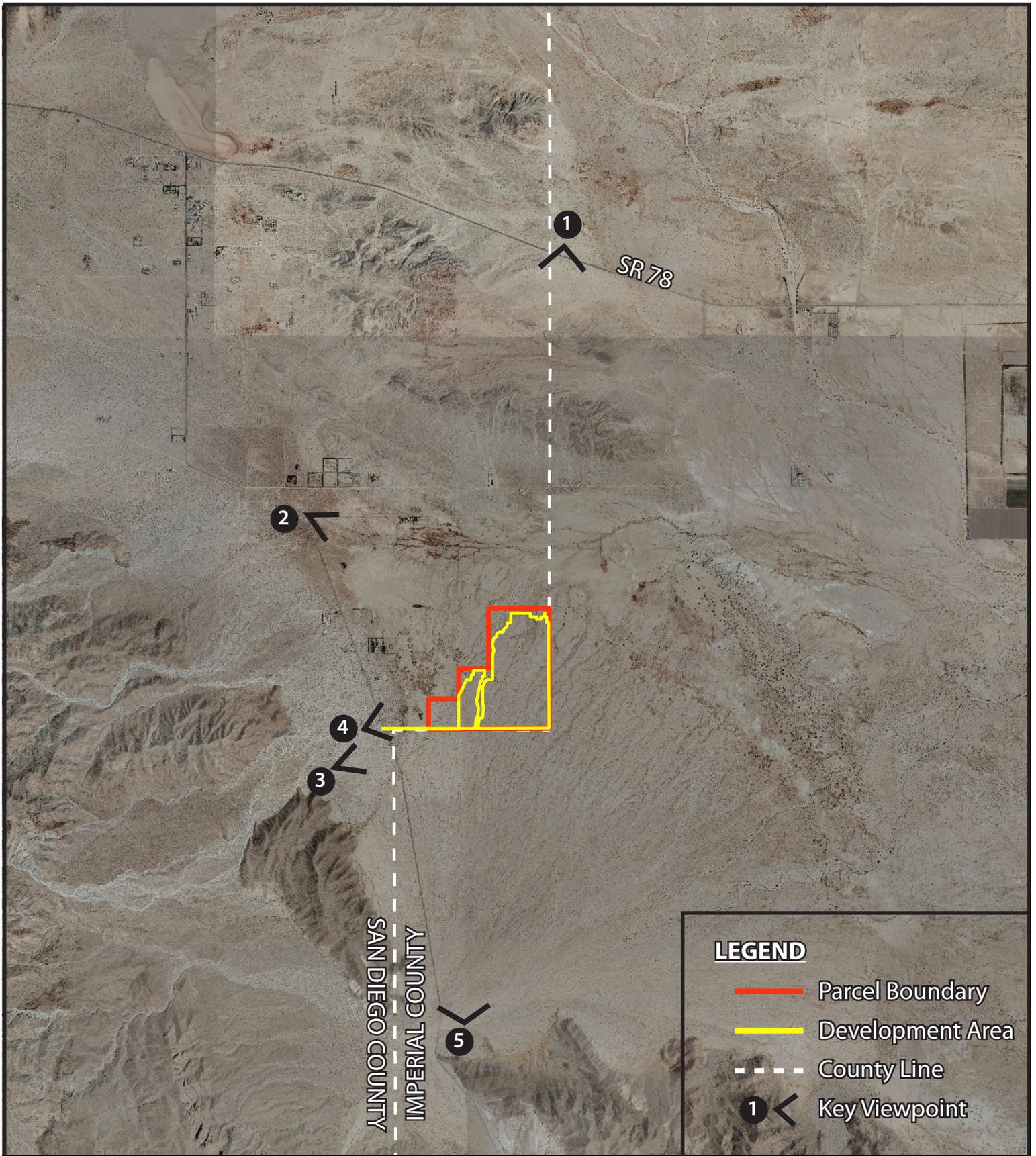
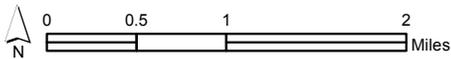


Photo E: (Off-site) View looking north from south of Project Site (Anza-Borrego Desert State Park).



Note: East and South sides of Parcel Boundary and Development Area lines overlap the County Line

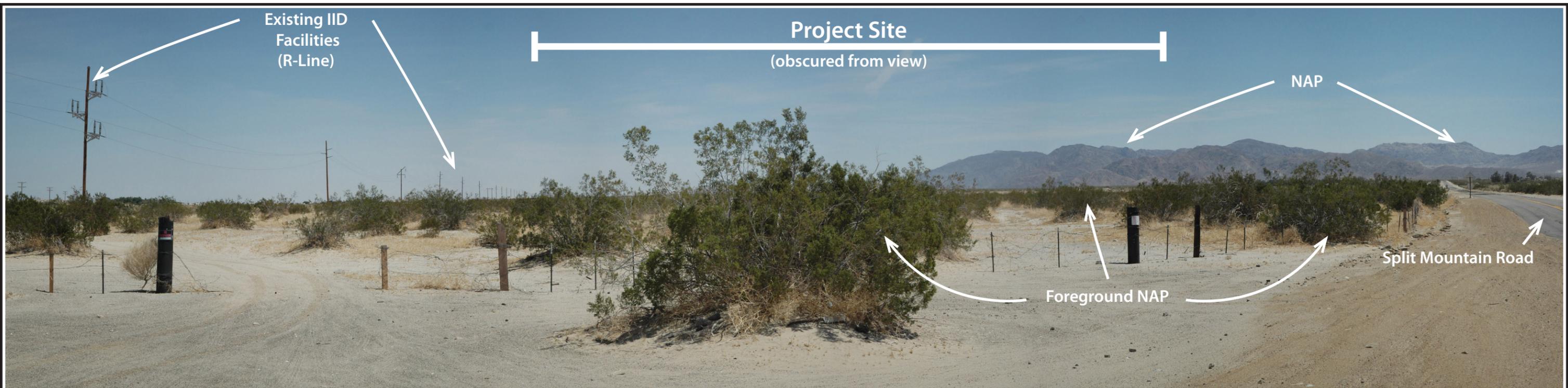




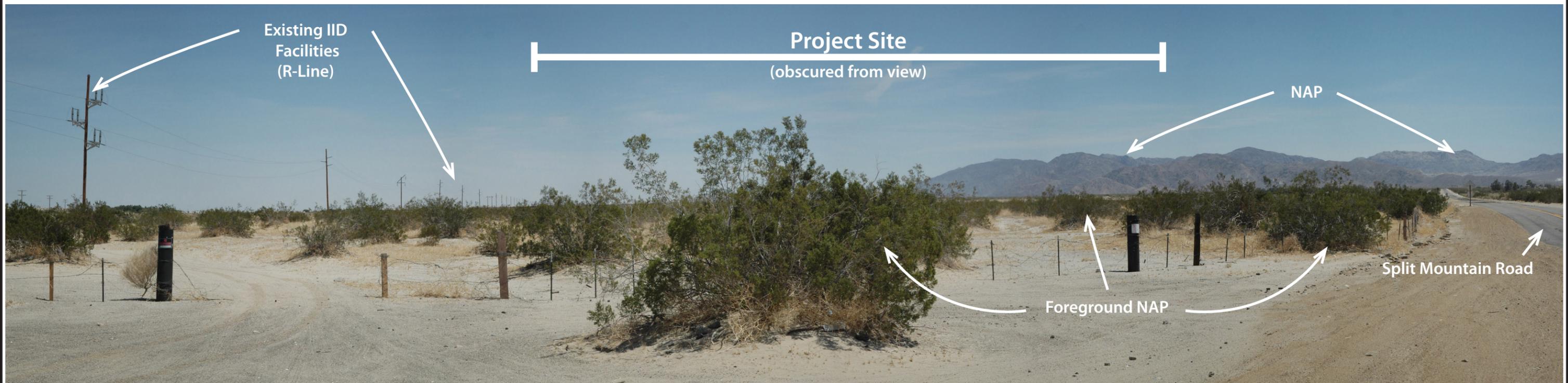
View 1A: Existing view looking south from State Highway 78.



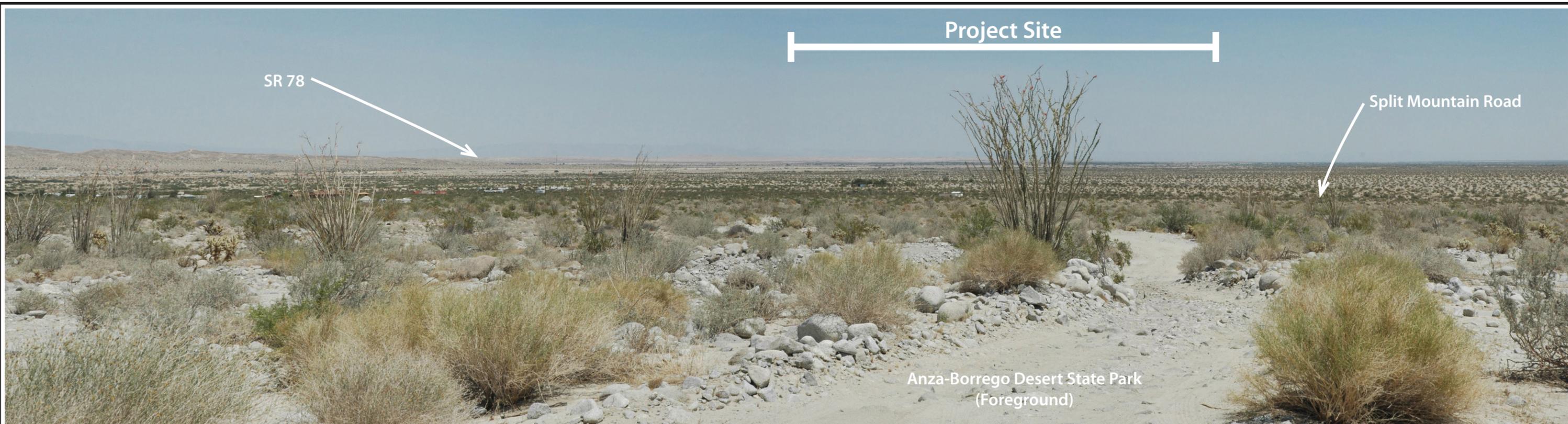
View 1B: Proposed view looking south from State Highway 78.



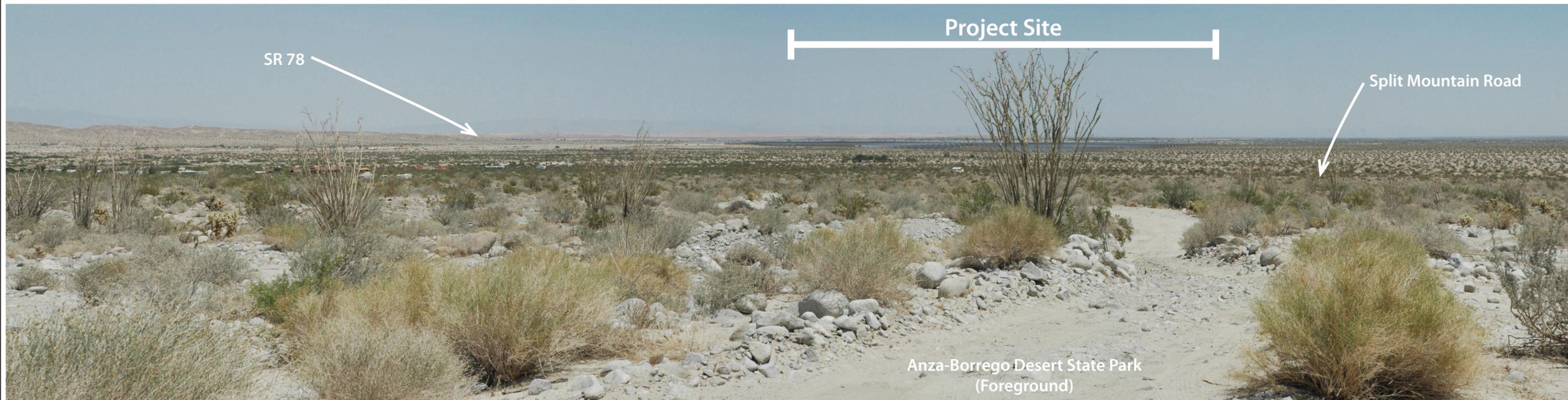
View 2A: Existing view looking southeast from Split Mountain Road near existing Ocotillo Substation.



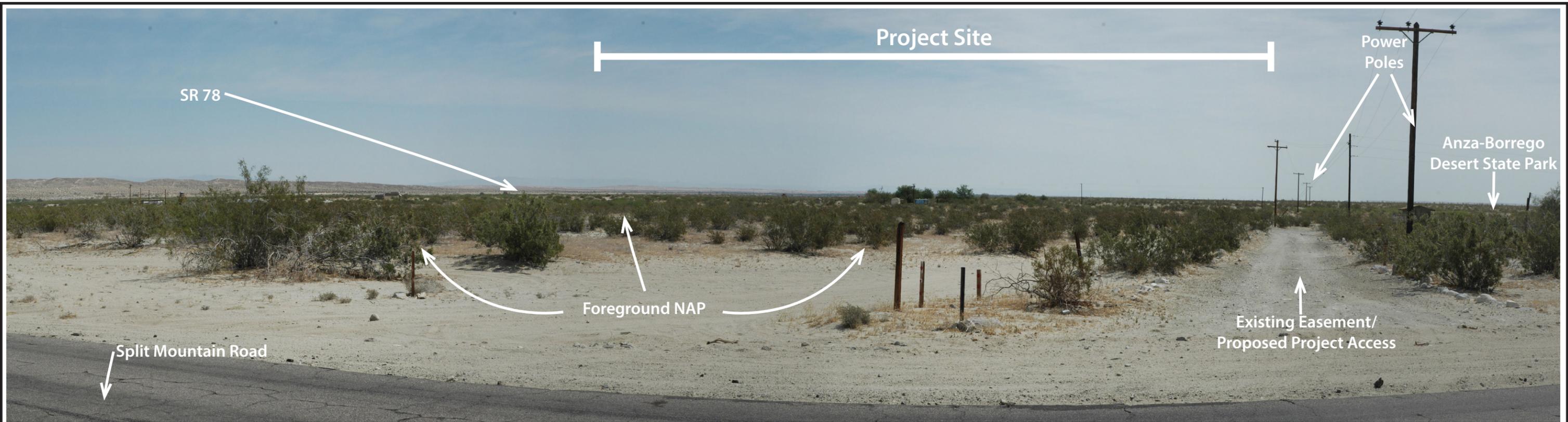
View 2B: Proposed view looking southeast from Split Mountain Road near existing Ocotillo Substation.



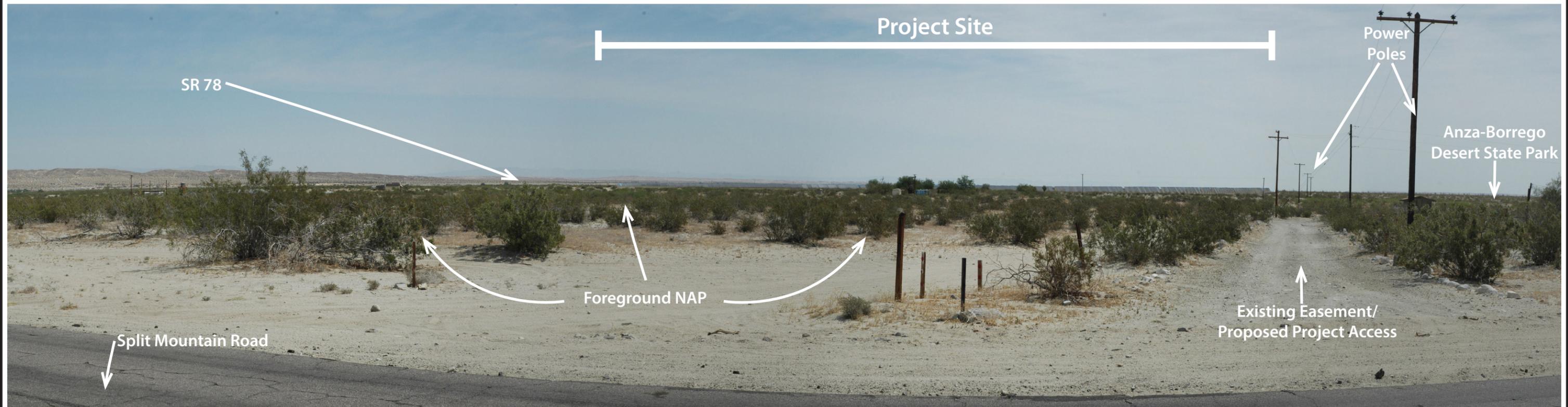
View 3A: Existing view looking northeast from Anza-Borrego Desert State Park.



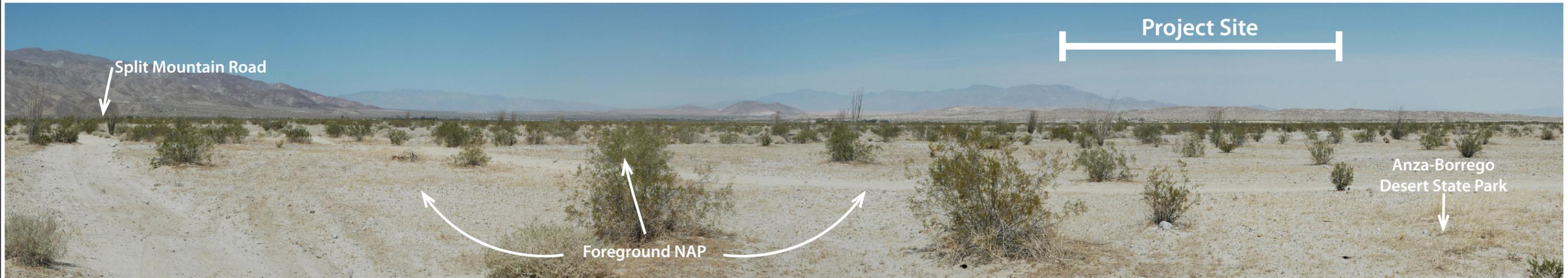
View 3B: Proposed view looking northeast from Anza-Borrego Desert State Park.



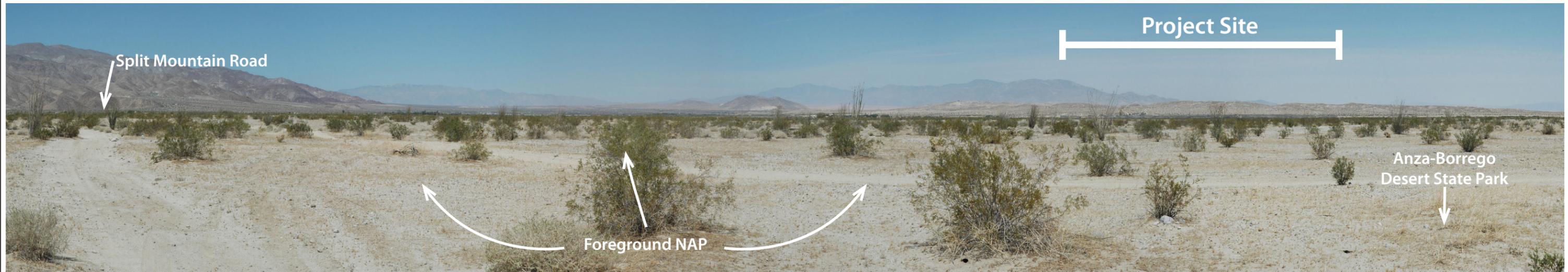
View 4A: Existing view looking east from Split Mountain Road near Project Site.



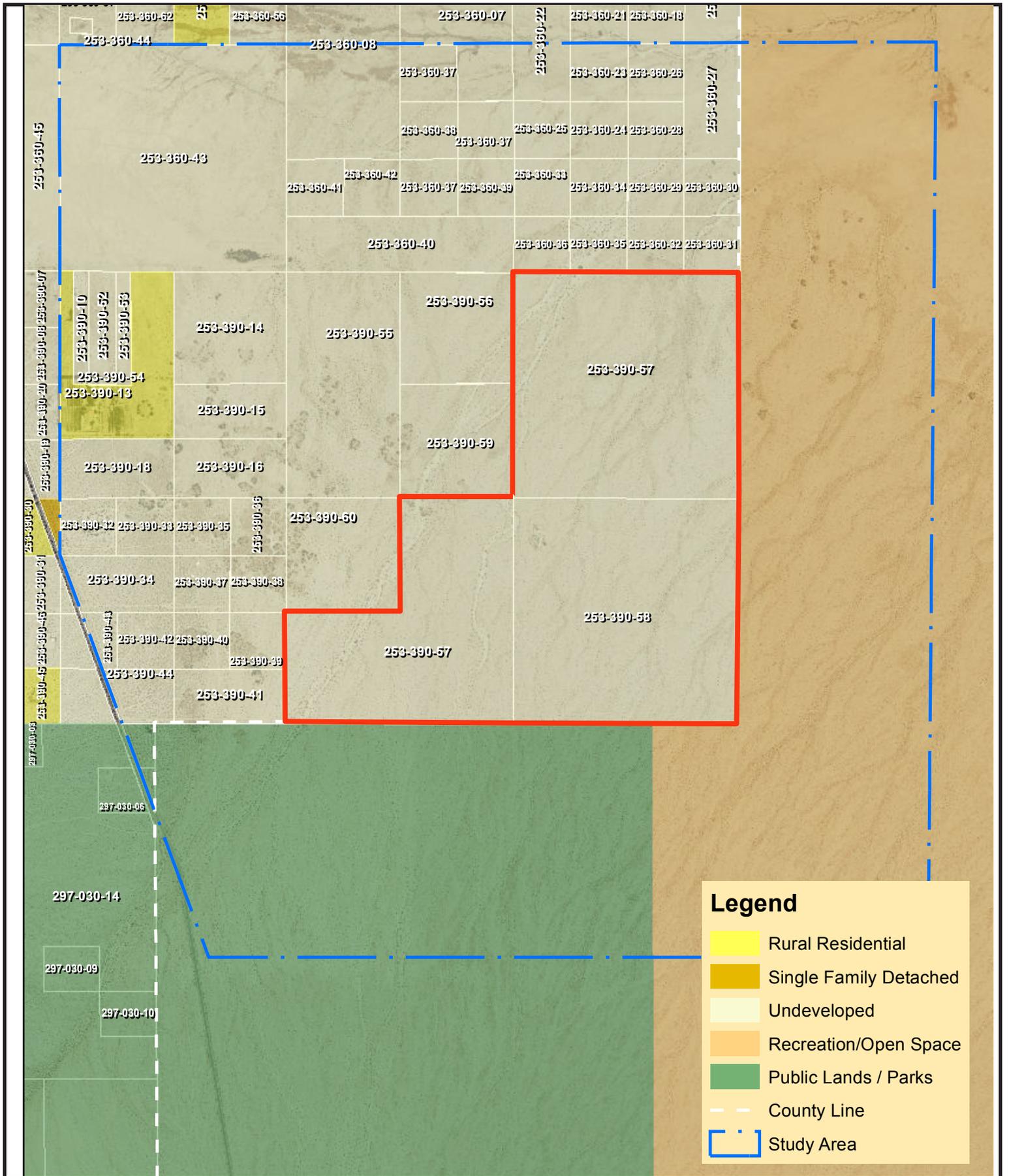
View 4B: Proposed view looking east from Split Mountain Road near Project Site.



View 5A: Existing view looking north from the railroad tracks near Project Site.



View 5B: Proposed view looking north from the railroad tracks near Project Site.



**Legend**

- Rural Residential
- Single Family Detached
- Undeveloped
- Recreation/Open Space
- Public Lands / Parks
- County Line
- Study Area



Parcel Boundary



Sources: SANDAG (SD Co Landuse), Imperial County General Plan 3/1/2007  
(Imperial Co Landuse), NAIP (Aerial), SanGIS (Parcels)

OCOTILLO WELLS SOLAR  
**SURROUNDING LAND USE**

Figure 14

---

# CHAPTER 4. RECOMMENDED MITIGATION MEASURES

The proposed Project would be consistent with the County of San Diego General Plan and Zoning Ordinance. No significant impacts to community character were identified as a result of operation of the facility, including resulting traffic and noise impacts. For these reasons, the proposed Project would not result in significant impacts to the existing community character of the Ocotillo Wells community, and therefore, no mitigation measures are required or proposed.

**THIS PAGE LEFT BLANK INTENTIONALLY.**

---

# CHAPTER 5. CONCLUSIONS

The proposed Ocotillo Wells Solar Farm Project has been designed to ensure compatibility with the existing rural character of the Ocotillo Wells community. The layout of the solar panels and supporting facilities has been designed for each of the four technologies being considered by the Project applicant such that grading on the site would be minimized and the need for the construction of retaining walls avoided. As the site is generally flat, proposed Project grading would mimic the existing topographic conditions, and therefore, would not result in a significant visual change to the existing topography. Minor blading would be required to widen two existing easements from Split Mountain Road to provide adequate emergency access to the site; however, no significant change to the visual character of these easements would occur as a result.

The Project has been designed to integrate design features similar to those visible in the surrounding rural community in terms of building materials and colors and exterior lighting, as well as building height, scale, bulk, and lot coverage. The analysis demonstrates that the scale and size of the proposed Project facilities are within the range of building sizes of existing development within the surrounding area. The Project components (e.g. solar panels, inverters, substation, operations and maintenance building, etc.) would all be of limited height and relatively small scale, bulk, and size, thereby reducing their visibility within the visual landscape. Furthermore, as the majority of lands within the vicinity of the Project site are undeveloped or support small-scale residential or other land use types, combined with the relatively low number of vehicle trips on roadways within the Project vicinity, a substantial number of viewers would not experience views of the proposed facilities following construction.

Although no landscape screening is proposed, existing vegetation within the surrounding landscape would help to reduce views of the site from public (or private) offsite vantage points, largely due to the relatively flat viewing plane of the desert floor. Although views from public roadways (e.g. Split Mountain Road), recreational trails, or privately-held lands may occur at vantage points within the valley located at a higher elevation than the Project site, such views would be reduced by distance from the site, established vegetation, and varied landforms within the visual landscape.

The analysis in this study demonstrates the proposed Project would be consistent with the County of San Diego County General Plan and Zoning Ordinance. All proposed development would conform to zoning requirements for maximum lot coverage, minimum

setbacks, and maximum height, as applicable. As such, the proposed structures would be consistent with the size and dimensions of existing development in the surrounding area. The proposed Project would further be compatible with existing area development as the lot coverage of the proposed Project is within the range of lot coverage of existing homes in the surrounding area. Based on the Project's consistency in scale, bulk, and lot coverage, no other conflicts with community character, public facilities, traffic, site suitability, or intensity of development were identified. As such, the Project design would be consistent with the required Major Use Permit findings, as set forth in Section 7358a of the County Zoning Ordinance.

In addition, operational aspects of the Project, including traffic generation and noise, are not anticipated to result in a potential adverse impact to the existing community character. The proposed use is allowed under the S92 zone designation (with County approval of a Major Use Permit) and therefore, is consistent with the County's intended land use for the site.

For the above reasons, the proposed Project as designed is considered to be compatible with the existing rural character of the Ocotillo Wells community. No significant impacts to community character were identified for the Project, and no mitigation measures are required or proposed.

---

# CHAPTER 6. REFERENCES

Air Quality Assessment. Ldn Consulting, Inc. December 2013.

County of San Diego General Plan. Adopted August 3, 2011.

County of San Diego Zoning Ordinance. Updated with Ordinance Update No. 80, October 2009.

County of San Diego Wildland Urban Interface Ordinance. Ordinance No. 9670.

Noise Assessment. Ldn Consulting, Inc. December 2013.

Ocotillo Airport Land Use Compatibility Plan. Adopted December 2006.

Ocotillo Wells Solar Project: Draft Glare Study Executive Summary, prepared by Power Engineers, September 16, 2013.

Ocotillo Wells Solar Project: Dual-Axis Tracker Glare Study, prepared by Power Engineers, September 16, 2013.

Ocotillo Wells Solar Project: Fixed Photovoltaic Panel Glare Study, prepared by Power Engineers, September 16, 2013.

Ocotillo Wells Solar Project: Single-Axis Tracker Glare Study, prepared by Power Engineers, September 16, 2013.

Panoche Valley Solar Farm Project Glint and Glare Report, prepared by Power Engineers, May 10, 2010.

SunPower Corporation Technical Notification #T09014, Solar Module Glare and Reflectance. September 29, 2009.

**THIS PAGE LEFT BLANK INTENTIONALLY.**

---

# CHAPTER 7. PREPARERS

## RBF CONSULTING

Nicole Marotz, AICP, LEED AP

Senior Environmental Planner

*Primary Author of Community Character Analysis*

**THIS PAGE LEFT BLANK INTENTIONALLY.**