

### 3.1.7 Transportation

This section discusses potential impacts to transportation resulting from construction and operation of the proposed JVR Energy Park Project (Proposed Project). The analysis is based on the review of existing conditions, technical data, and applicable laws, regulations, and guidelines.

Comments received in response to the Notice of Preparation (NOP) included concerns regarding the effects of Proposed Project construction traffic on local roadways, on-site access road information, roadway hazards during construction, emergency access to and from the Project site. These concerns are addressed in this section. A copy of the NOP and comment letters received in response to the NOP is included in Appendix A of this Environmental Impact Report (EIR).

The Proposed Project area has been revised by increasing the Project's setbacks and realignment of an existing water main, a net reduction of 17 acres (see Section 1.2 Project Description of Chapter 1 in the Final EIR). As described in the Proposed Project Revisions Technical Memorandum (Appendix R), these changes will result in transportation impacts that are equal to or less than those presented in the Draft EIR and will not change any significance determinations in this Section 3.1.7 Transportation. Accordingly, this Section has not been updated to account for this changed Project area and conservatively reports impacts associated with a 643-acre Project.

#### 3.1.7.1 Existing Conditions

Regional access to the Project site is provided by Interstate 8 (I-8). Local access to the Project site would be provided by Old Highway 80, and Carrizo Canyon Road, as shown on Figure 3.1.7-1, Project Access. The following provides a description of the existing street system within the vicinity of the Project area.

**I-8.** This four-lane interstate freeway provides for the majority of east–west Southern California traffic flow through the region, bypassing rural towns. I-8 provides two lanes in each direction with a posted speed limit of 70 mph. The section of I-8 in southeastern San Diego County is heavily used by recreational vehicles and container trucks. I-8 also serves as a transportation route between California and Arizona. Local freeway access to the Project site is provided at the I-8 Carrizo Gorge Road and at the junction of Old Highway 80. The annual average daily traffic (AADT) volume on I-8 near the Project site is approximately 18,000 vehicles (Caltrans 2017).

**I-8 Access Road.** This road functions as an interchange and provides access to I-8 and Carrizo Gorge Road. The 500-foot-long, two-lane, undivided roadway has no posted speed, and parking is restricted. There is a service station at the south end of the road. The intersection of Carrizo Gorge Road is controlled with yield signs and pavement markings on the east and west legs and the I-8 eastbound and westbound exit ramps are stop-controlled.

**Old Highway 80.** This two-lane undivided county road connects I-8 with Old Highway 80 with Jacumba Hot Springs. Old Highway 80 is classified by the County Mobility Element as a light collector with bike lanes (County of San Diego 2011a). The posted speed limit on Old Highway 80 is 55 miles per hour (mph), and on-pavement parking is restricted.

**Carrizo Gorge Road.** This two-lane, undivided county road connects I-8 with Old Highway 80. Carrizo Gorge Road is classified by the County Mobility Element as a light collector (County of San Diego 2011a). On-pavement parking is restricted. The intersection of Old Highway 80 is controlled with a yield signs and pavement marking on the north leg of Carrizo Gorge Road. The north leg has a large flair that allows for separate southbound left- and right-turn movements.

### Transit and Rail Facilities

The San Diego Metropolitan Transit Service (MTS) Bus Route 888 operates on Mondays and Fridays only, and provides service between the Westfield Parkway Plaza in El Cajon and the end of the line in Jacumba Hot Springs/Old Highway 80 and Campo Street. The closest stop to the Project site on Route 888 is Campo Street/Old Highway 80 (MTS 2017), which is located approximately 1.0 mile from the Project site.

The Project site includes an easement for the San Diego and Arizona Eastern Railway (Railway). The Desert Line portion of this railway transects north-south on the western portion of the Project site. The railroad's route originates in San Diego and terminates in El Centro. The Metropolitan Transit System (MTS) has owned the Desert Line portion of the Railway since 1979. On June 2, 2016, a binational agreement culminated in a lease agreement between the Baja California Railroad company (Baja Rail) and MTS. Since the agreement, no progress has been made on the Desert Line portion of the Railway. The segment within the Project site is currently not in operation.

### **3.1.7.2 Approach and Methodology**

Vehicle Miles Traveled (VMT) is the metric used for the analysis of transportation impacts under California Environmental Quality Act (CEQA). Senate Bill 743, Public Resources Code Section 21099 and CEQA Guidelines Section 15064.3(b) changed the analysis of transportation impacts from Level of Service (LOS) or automobile delay to VMT. In addition, the Governor's Office of Planning and Research (OPR) approved the addition of new Section 15064.3 to the State's CEQA Guidelines, "Determining the Significance of Transportation Impacts," compliance with which is required as of July 1, 2020. The updated CEQA Guidelines state that "...generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts..." and define VMT as "...the amount and distance of automobile travel attributable to

a project...”. To implement the requirements of Senate Bill 743, as well as Public Resources Code 21099 and CEQA Guidelines Section 15064.3(b), the County adopted new Transportation Study Guidelines on June 24, 2020, which include the County’s own VMT analysis guidelines and thresholds.

VMT is a metric that accounts for the number of vehicle trips generated by a proposed project and the length or distance of those trips. For purposes of CEQA, “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. OPR has clarified in the Technical Advisory and recent informational presentations that heavy-duty truck VMT is not required to be included in the estimation of a project’s VMT. Other relevant considerations may include the effects of the project on transit and non-motorized traveled. It should also be noted that OPR and the County o

San Diego do not require a quantitative assessment of VMT generated by construction traffic and have not adopted a significance threshold for construction traffic.

VMT does not directly measure traffic operations but instead is a measure of network use or efficiency, especially if expressed as a function of population or employment (i.e. VMT per Resident). VMT tends to increase as land use density increases and travel becomes more reliant on the use of the automobile due to the long distances between origins and destinations. VMT also serves as a proxy for impacts related to energy use, air pollution emissions, greenhouse gas (GHG) emissions, safety, and roadway maintenance. The relationship between VMT and energy or emissions is based on fuel consumption. The traditional use of VMT in environmental impact analysis is to estimate mobile air pollution emissions, GHGs, and energy consumption.

### **3.1.7.3 Regulatory Setting**

#### Federal

##### Code of Federal Regulations

Title 23 of the Code of Federal Regulations, Section 450.220, requires each state to carry out a continuing, comprehensive, and intermodal statewide transportation planning process. This process must include development of a statewide transportation plan and transportation improvement program that facilitates the efficient, economical movement of people and goods in all areas of the state.

#### State Regulations

The following state regulations pertaining to transportation and traffic would apply to the Proposed Project.

### California Department of Transportation

Caltrans is responsible for planning, designing, building, operating, and maintaining California's State Highway System. Caltrans sets standards, policies, and strategic plans that aim to provide the safest transportation system in the nation for users and workers; maximize transportation system performance and accessibility; efficiently deliver quality transportation projects and services; preserve and enhance California's resources and assets; and promote quality service (Caltrans 2002).

In anticipation of SB 743 implementation, Caltrans released the Draft Transportation Impact Study Guide (TISG) in February 2020. Per the 2020 TISG, Caltrans' primary review focus is now VMT, replacing LOS as the metric used in CEQA transportation analyses.

The Project site is located within Caltrans District 11. Caltrans recommends use of OPR's recommended thresholds for land use projects and recommends following the guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018). Caltrans Draft Transportation Impact Study Guide, February 2020 and Safety Review Practitioners Guidance, will replace the Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). Per the 2020 Transportation Impact Study Guide, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses (Caltrans 2020).

Additionally, Caltrans requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code. Section 35250 of the California Vehicle Code requires that the maximum height of a vehicle cannot exceed 14 feet absent a special permit, requiring pilot cars, which typically provide overhead height warning devices, to ensure that oversized loads do not exceed undercrossing height limits. Due to the likelihood of heavy truck loads and use of vehicles that may exceed 14 feet, it is anticipated that the Proposed Project would need to obtain special permits from Caltrans.

### California Streets and Highways Code

The California Streets and Highways Code Division 1, Chapter 1, Article 3, Section 117; Division 1, Chapter 3 (regulations for the Care and Protection of State Highways); Division 2, Chapter 5.5 (regulations for the Care and Protection of County Highways); and Chapter 6 (regulations for the Obstructions and Injuries to County Highways) specify that permits issued by Caltrans be required for any roadway encroachment during truck transportation and delivery, as well as for any load that exceeds Caltrans' weight, length, or width standards for public roadways. The California Streets and Highway Code also includes regulations for the care and protection of state and county highways, and provisions for the issuance of written permits.

### California Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law, created a process which now changes the way that transportation impacts are analyzed under CEQA. Senate Bill 743 required the Governor's Office of Planning and Research to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Under the new transportation guidelines, LOS, or automobile delay, is not considered an environmental impact under CEQA.

The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. Under the new guidelines, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. The Governor's Office of Planning and Research's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020. This applies to any project with a CEQA document that has not been released for public review by July 1, 2020.

### Local Regulations

The following local/regional regulations pertaining to transportation and traffic would apply to the Proposed Project.

### County of San Diego Transportation Study Guidelines

As mentioned previously, the County of San Diego Transportation Study Guidelines (TSG), adopted in June 2020 includes a methodology to analyze a proposed project's transportation impacts in accordance with Senate Bill 743, Public Resources Code Section 21099 and CEQA Guidelines Section 15064.3(b). The TSG identifies VMT analysis methodology, establishes VMT thresholds for CEQA transportation impacts, and identifies possible mitigation strategies for land use and transportation projects.

Per the TSG, the transportation VMT analysis for CEQA should be conducted using the SANDAG Regional Travel Demand Model. The model outputs can be used to produce VMT per Resident, VMT per Employee, VMT per Service Population, and Total VMT. A detailed transportation VMT analysis would apply to all land development projects, except the ones that meet at least one of the following screening criteria, or that have been determined to have potentially significant environmental effects based on substantial evidence, notwithstanding compliance with one or more of the following criteria:

- Projects located in a VMT Efficient Area – Using location-based screening maps (consistent with project land uses)
- Small Residential and Employment Projects – Projects that generate or attract less than 110 average daily vehicle trips (trips are based on number of vehicle trips after any alternative modes/location-based adjustments are applied)

- Projects located in a Transit Accessible Area
- Locally Serving Retail/Service Projects- Projects that are 50,000 square feet or less.
- Locally Serving Public Facilities and Other Uses - Public facilities that serve the local community including transit centers, public schools, libraries, post office, park-and-ride lots, other government offices, parks/trail heads, and passive public uses.
- Redevelopment Projects with Greater VMT Efficiency- The proposed project's total daily project VMT is less than the existing land use's total daily VMT.
- Affordable Housing – Projects that include 100% affordable housing

Projects that do not meet the above screening criteria would be required to include a detailed evaluation of the VMT produced by the project. The significance thresholds and specific VMT metric used to measure VMT are described by land use in the County's TSG.

The guidance from County of San Diego does not require a quantitative VMT analysis for construction traffic. Neither OPR, nor the County have ~~not~~ specified VMT thresholds of significance for construction traffic.

### County of San Diego Consolidated Fire Code

The County, in collaboration with the local fire protection districts, created the first Consolidated Fire Code (CFC) in 2001, which was last updated in 2017. The CFC contains the County's and fire protection districts' amendments to the California Fire Code. Emergency ingress/egress is established by the County's CFC. Ingress/egress is necessary for both citizen evacuation and to provide access for emergency vehicles in the event of a fire or other emergency. Section 503 of the CFC dictates minimum design standards for "Fire Apparatus Access Roads" and includes minimum road standards, secondary access requirements, and restrictions for gated roads (County of San Diego 2017).

### County of San Diego Transportation Impact Fee Ordinance

The County developed a programmatic solution that addresses projected future road deficiencies in the unincorporated portion of the County. The County Transportation Impact Fee program has been used to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. The new projects are based on San Diego Association of Governments (SANDAG) regional growth and land use forecasts; SANDAG's Transportation Modeling was used to analyze projected buildout (year 2030) development conditions on the County's existing Mobility Element roadway network throughout unincorporated San Diego County (SANDAG 2018). It is anticipated that roadways in the Project vicinity would continue to experience increased levels of traffic congestion as future land use developments are approved

and population growth occurs. However, this area of the County has limited services and does not anticipate significant growth over the next 20 years. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan. This plan, which considers freeway buildout over the next 30 years, will use federal, state, and TransNet funding to improve freeways to projected LOS objectives provided in the Regional Transportation Plan (SANDAG 2011).

Transportation Impact Fee fees have been collected at or before issuance of a development permit (including building permits). The fees are used to fund identified transportation facilities, or portions thereof, that provide increased road capacity necessitated by the cumulative impacts of future development. This program is based on a summary of projections contained in an adopted planning document that evaluates regional or area-wide conditions contributing to cumulative transportation impacts. Although the program does not address every road in the unincorporated County, it is considered to be a broad-based approach to mitigation of cumulative traffic impacts from additional traffic generated by a project or series of projects (County of San Diego 2012a).

Subsequent to adoption of the County's Transportation Guidelines in June 2020, the County is currently not implementing the local Transportation Impact Fee program and is currently not collecting fees for mitigation of projects analyzed using VMT. The existing program was based on Level of Service impacts, which are no longer analyzed under CEQA in accordance with Senate Bill 743.

#### County of San Diego Department of Public Works – Permit Requirements

The County requires an encroachment permit for the placement of any structures on, over, or under County roads. Roadways owned and maintained by the County could potentially be affected by the Proposed Project construction. Encroachment permits are issued by the Department of Public Works for the installation of any tower, pole, or structure of any kind within, over, or under a County road right-of-way (ROW).

In addition to encroachment permits, the County's Department of Public Works requires a construction permit prior to initiation of any work within the County ROW, and a traffic control permit is typically required in concurrence with an encroachment and/or construction permit to ensure the safe travel of vehicles within a construction work zone.

#### County of San Diego Department of Public Works – Roadway Standards

The County has adopted roadway standards to establish minimum design and construction requirements for public and private road improvements required as conditions of land development approval in the unincorporated areas of the County. The standards are intended to keep the operating cost of maintaining public facilities at a reasonable level and also provide for the service

and protection of the public. The minimum road width required per the County of San Diego Private Road Standards is 24 feet. For access provided by a publicly maintained road, the minimum width required per the County of San Diego Public Road Standards is 28 feet, which meets the minimum interim public road width (County of San Diego 2012b, 2012c).

#### **3.1.7.4 Analysis of Proposed Project Effects and Determination as to Significance**

Direct, indirect, and cumulative impacts pertaining to transportation are evaluated based on specified thresholds identified in the CEQA Guidelines, Appendix G and in the County of San Diego's Guidelines for Determining Significance, including the following:

- County Transportation Study Guidelines, 2020
- County Guidelines for Determining Significance, Transportation and Traffic, 2011
- Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic, 2011

The County's Guidelines for Determining Significance are generally intended to address the questions posed in Appendix G of the CEQA Guidelines. In 2018, the CEQA Guidelines were updated and several of the questions listed in Appendix G were revised, deleted or modified. In accordance with Senate Bill 743, the County adopted the Transportation Study Guidelines in 2020 to address Senate Bill 743, Public Resources Code Section 21099 and CEQA Guidelines Section 15064.3(b), and the change in analyzing a project's transportation impacts via automobile delay to vehicle miles traveled under CEQA. Accordingly, this EIR analyzes the impacts from the Project using the County's Transportation Study Guidelines, the questions posed in Appendix G, and, to the extent they remain consistent with Senate Bill 743, the County Guidelines for Determining Significance, Transportation and Traffic, 2011.

For the purposes of this analysis, the ~~switchyard~~ Switchyard Facilities (as described in Chapter 1, Section 1.2.1.5 of the Project Description) is a component of the Project and has been analyzed as part of the whole of the action. However, this EIR highlights the specific analysis of the ~~switchyard~~ Switchyard Facilities under each threshold of significance in the event responsible agencies have CEQA obligations related to the ~~switchyard~~ Switchyard Facilities.



**3.1.7.4.1 Program, Plan, Ordinance or Policy****Guidelines for Determination of Significance**

Pursuant to Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would:

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

**Analysis**

The County's General Plan Mobility Element is discussed in Section 3.1.4, Land Use and Planning section of this EIR.

The County adopted an Active Transportation Plan in October 2018 that updated the County's standards for bicycle facilities and classifications. This plan also included a Pedestrian Gap Analysis appendix that identifies potential sidewalk and pathway improvements in villages throughout the County. Per the Mountain Empire Mobility Element, a Class II-Bike Lane exists along Carrizo Gorge Road and Old Highway 80 in the vicinity of the Project site.

Table 3.1.7-1 summarizes the trip generation for the Proposed Project construction and operation phases of the Project. It is estimated that the Proposed Project would generate a total of 1,158 daily trips, with 320 (297 inbound and 23 outbound) trips during the AM peak hour and 320 (23 inbound and 297 outbound) during the PM peak hour, during peak construction operations. It is estimated that the Proposed Project would generate a total of 20 daily trips, with 8 (5 inbound and 3 outbound) trips during the AM peak hour and 8 (3 inbound and 5 outbound) during the PM peak hour, during daily operations.

During the construction and future decommissioning phases, there may be some construction work or construction-related traffic occurring that could temporarily impede movement of vehicles, transit, bicyclists and/or pedestrians along Carrizo Gorge Road and/or Old Highway 80. Therefore, **PDF- TR-1** (Traffic Control Plan), **PDF-TR-2** (Preparation of a Construction Notification Plan) and **PDF- TR-3** (Notification of Property Owners and Provision of Access), would be prepared to ensure the safe and efficient movement of traffic through the project area and that local residents/motorists are properly notified of construction activities that could affect daily travel through the area. Additionally, a single point of contact would be established using the Private Development Construction Inspection (PDCI) which ensures construction work in the County is completed in accordance with approved plans and State and County requirements to assure safe communities and roads are provided for the public.

Due to the nature of the Proposed Project, the trips generated during the construction and future decommissioning phases would be short-term and temporary. Although temporary impacts are potentially significant, project development features (**PDF-TR-1**, **PDF-TR-2** and **PDF-TR-3**) reduce the impacts of temporary construction trips below significance. Trips generated during operation would be nominal and would not have the potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, the impact would be **less than significant**.

#### **3.1.7.4.2 Vehicle Miles Traveled**

##### Guidelines for Determination of Significance

Pursuant to Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would exceed the following threshold:

***b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1)? (CEQA Guidelines Appendix G)***

CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. Section 15064.3(b) is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The Project would involve construction that would generate temporary construction-related traffic for approximately 13 months and nominal operations traffic. Section 15064.3(b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type and states that, for many projects, a qualitative analysis of construction traffic may be appropriate.

In December 2018, the Governor's Office of Planning and Research (OPR) issued a Technical Advisory on Evaluating Transportation Impacts In CEQA (Technical Advisory) to assist lead agencies by providing technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.

The County has adopted thresholds of significance to evaluate transportation impacts related to a project's VMT, and a Transportation Study Guide (TSG) to provide guidance on conducting VMT analysis. This guidance comports with CEQA Guidelines section 15064.3 and OPR's Technical Advisory, which focus on a project's operational contribution to VMT.

The guidance from County of San Diego does not require a VMT analysis for construction traffic. Neither OPR or the County has specified models or methods to estimate VMT or VMT thresholds of significance for construction traffic. Therefore, a qualitative analysis of construction traffic is provided below.

### Analysis

#### Operations

For operations impacts, the County has identified several “screening criteria,” whereby if a project meets “at least one of the screening criteria [it] would have a less than significant impact due to project characteristics and/or location” absent substantial evidence to the contrary. (County TSG, p. 17.) One of the screening criteria provides: “Projects generating less than 110 daily vehicle trips (trips are based on the number of vehicle trips calculated using national ITE trip generation rates with any alternative modes/location-based adjustments are applied) may be presumed to have a less than significant impact absent substantial evidence to the contrary.” (*Id.* at 18.)

OPR has recommended that “projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.” (OPR Technical Advisory, p. 12.), This screening criteria is based on a categorical exemption provided by CEQA for existing facilities, including additions to existing structures, that would generate or attract an additional 110-124 trips per 10,000 square feet (based on typical project types such as general office building, single tenant office building, office park, and business park for which trip generation increases linearly with building footprint) so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) According to CEQA, Public Resources Code § Section 21084, classes of projects within a categorical exemption have been determined not to have a significant effect on the environment. Similarly, transportation impacts not exceeding those of a project within the categorical exemption established by CEQA Guideline 15031(e)(2) can be presumed not to be significant.

The solar facility, including the ~~switchyard~~ Switchyard Facilities, would ~~be~~ not be staffed onsite. Maintenance and operation of the solar facility would generate a nominal number of trips. Per the County’s TSG, *Screening Threshold for Small Projects*, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant VMT impact for transportation. With the exception of one major maintenance inspection which would take place annually, requiring approximately 20 personnel for approximately one week, the operation of the Proposed Project would not generate a significant number of daily trips. As mentioned previously, the operation of the Proposed Project is conservatively estimated to generate 20 daily trips, including 8 trips during the AM peak hour, and 8 trips during the PM peak hour. Therefore, utilizing the guidance provided by the TSG, the operation of the Proposed Project, including the ~~switchyard~~ Switchyard Facilities, would not generate a significant number of trips and thereby would not cause substantial amount of VMT. In addition, the TSG does not identify the Proposed Project as a land use type that must be analyzed due to its potential to cause significant

transportation impacts, and on that basis, the Proposed Project is not required to be analyzed for significance under VMT thresholds. (TSG, at Appendix D.) Therefore, the operation of the Proposed Project would not conflict with or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant**.

As an alternative basis for assessing a project's VMT impacts, the OPR Technical Advisory notes that "projects that generate or attract fewer than 110 trips per day may be assumed to cause a less-than-significant transportation impact." (Technical Advisory, at p. 12). Further, the Technical Advisory does not identify the Proposed Project as the type of project that would generate potentially significant transportation impacts with respect to VMT. On that basis, the operation of the Proposed Project would not conflict with or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant**.

### Construction and Decommissioning

CEQA Guidelines Section 15064.3(b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type. Specifically, Section 15064.3(b)(3) states that a qualitative analysis of construction traffic may be appropriate for VMT analysis. OPR's Technical Advisory states "Generally, qualitative analyses should only be conducted when methods do not exist for undertaking a quantitative analysis." (P. 7, fn 12.) The guidance from County of San Diego does not require a quantitative VMT analysis for construction traffic, and neither OPR nor the County has specified models or methods to estimate VMT or VMT thresholds of significance for construction traffic. Therefore, a qualitative analysis of construction traffic VMT is provided below.

Pursuant to SB 743, the criteria for determining the significance of transportation impacts must promote: (1) reduction of greenhouse gas emissions; (2) development of multimodal transportation networks; and (3) a diversity of land uses. Vehicle-trip generation (for construction workers and trucks) as a result of Proposed Project construction has been summarized in Table 3.1.7-1. The VMT for the Proposed Project using approximate trip lengths for construction worker commute, vendor, and haul trips has been estimated using default values for the San Diego region from the California Emissions Estimator Model (CalEEMod) and has been included in the Proposed Project's air quality and greenhouse gases analysis. This analysis determined the Proposed Project's GHG impacts would not be significant.

Even though it is anticipated that about 15% of the construction workers would carpool to the site, managing worker and vendor trip lengths is not feasible because of the remote location and duration of individual activities. Limited accessibility to alternative modes of transportation is available for workers due to the remote location of the Project in the rural portion of county. However, to further reduce, prior to start of construction the developer would implement a

voluntary construction period Transportation Demand Management (TDM) (**PDF TR-4**) program to encourage construction workers to carpool or use alternative transportation modes in order to reduce the single- occupancy vehicle trips and temporary VMT related to the construction of the Proposed Project. The TDM program would include following components:

- Encouragement of carpooling among workers to reduce worker commuter trips entering and exiting the Project Area.
- A transportation package would be provided to workers, prior to commencing work on the Project, with information about how to access the project by alternative transportation and benefits of doing so.
- The applicant will evaluate the feasibility of a vanpool or shuttle service to facilitate worker commute trips if feasible.

Moreover, construction related trips are temporary and would not generate permanent trips. Once construction is completed, the construction-related traffic would cease and any such traffic would return to pre-construction conditions. Because construction traffic VMT will be reduced by the TDM program (**PDF TR-4**) and will be eliminated on completion of construction and later decommissioning work, the Proposed Project would not result in impacts that would significantly interfere with (1) reduction of greenhouse gas emissions; (2) development of multimodal transportation networks; and (3) a diversity of land uses.

Therefore, the Proposed Project's construction and decommissioning VMT would not conflict with or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant**.

#### **3.1.7.4.3 Hazards**

##### **Guidelines for Determination of Significance**

Pursuant to Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would:

- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);*

The determination of significant hazards to an existing transportation design feature shall be on a case by-case basis, considering the following factors:

- Design features or physical configurations of an access road that may adversely affect the safe transport of vehicles along the roadway;
- The percentage or magnitude of increased traffic on the road that would affect the safety of the roadway;

- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that may result in vehicle conflicts with other vehicles or stationary objects;
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.

The determination of significant hazards to pedestrians or bicyclists shall be on a case by-case basis, considering the following factors:

- Design features/physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The amount of pedestrian activity at the project access points that may adversely affect pedestrian safety.
- The preclusion or substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.
- The percentage or magnitude of increased traffic on the road due to the proposed project that may adversely affect pedestrian and bicycle safety.
- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that may result in vehicle/pedestrian, vehicle/bicycle conflicts.
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable. The potential for a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.

### Analysis

#### Construction

Potential road hazards can occur due to a design feature or physical configuration of existing or proposed roads that can adversely affect the safe transport of vehicles along a roadway. As described previously, primary access to Project would be via two-lane undivided roadways of Carrizo Gorge Road and Old Highway 80. The Project does not propose any changes to the design of Carrizo Gorge Road or Old Highway 80. As such, there are no known hazards along these existing roadways.

The Proposed Project is located in a relatively remote area of unincorporated San Diego County; therefore, a majority of construction materials and equipment would be brought to the Project site from long distances and/or construction workers would have to travel from surrounding

communities or other areas within San Diego County as well as from the Imperial County to the east. Project-related traffic would use I-8 for regional travel, and Carrizo Gorge Road and Old Highway 80 for accessing the Project site. It is anticipated that during the peak construction of the Proposed Project, approximately 500 workers will be working across the entire Project site. Workers would arrive and depart between 6:00 a.m. – 4:00 p.m. during the construction period of approximately 13 months.

A typical construction day would generate approximately 30 trucks, which would include the transportation of Proposed Project component parts; movement of heavy equipment; and use of dump trucks, concrete trucks, water trucks, and subcontractor trucks. These trucks are expected to use the I-8 access road and the height of the under-crossing on I-8 would be considered to calculate the maximum height of the trucks that can possibly use this access road. The California Vehicle Code (Section 35250) suggests that the maximum height of a vehicle cannot exceed 14 feet. The Project applicant would need to contact Caltrans and obtain special permits for vehicles that exceed 14 feet in height. Also, any excessive height/length vehicles are expected to require pilot cars, which typically provide overhead height warning devices to ensure that oversized loads do not exceed undercrossing height limits. To ensure that construction related activities and traffic do not cause a hazardous condition, the applicant shall prepare a Traffic Control Plan (TCP) as specified by project design feature **PDF-TR-1** (see Section 3.1.7.7.). The TCP would address construction traffic on both regional and local roads in the Project area. Implementation of **PDF-TR-1** would ensure that trucks, or any other construction equipment, would not create a safety hazard and/or be a temporary inconvenience to travelers along regional and local roadways. The County-required TCP would address the increased traffic anticipated on local area roadways during Proposed Project construction and would contain measures for construction noticing, signage, and policy guidelines. For the State Highway System, Caltrans requires a TCP to be submitted to District 11's Transportation Permits Issuance Branch at least 30 days prior to the start of any construction.

In addition, property owners and others who may be affected during Project construction would be notified to address potential conflicts that may arise between construction traffic and day-to-day traffic on local area roadways. **PDF-TR-2** (Preparation of a Construction Notification Plan) and **PDF-TR-3** (Notification of Property Owners and Provision of Access), would be prepared to ensure the safe and efficient movement of traffic through the project area and that local residents/motorists are properly notified of construction activities that could affect daily travel through the area.

The Proposed Project would involve construction of access roads and improvements to provide access and circulation within the Project site. A safe and adequate sight distance would be required at all new roadways to the satisfaction of the County Director of the Department of Public Works, and all improvements would be constructed according to County private road standards (County of San Diego 2012b). Access roads would be designed in compliance with County private road

standards and designed to allow safe passage of construction vehicles, including oversized trucks. Furthermore, the Proposed Project would comply with fire protection measures defined in the CFC. In addition, the Proposed Project would not entail the introduction of curves, slopes, walls, or other barriers that would create potential conflicts between vehicles or potential conflicts between vehicles and stationary objects.

**PDF-TR-1** (TCP) would ensure measures required for the sole convenience of safely passing non-construction traffic (including transit, bicyclists and pedestrians) through and around construction areas would be implemented. The Project's impacts to bicycle and pedestrian facilities in the study area would be **less than significant**.

In summary, with implementation of **PDF-TR-1** (TCP), **PDF-TR-2** (Preparation of a Construction Notification Plan) and **PDF-TR-3** (Notify Property Owners and Provide Access), construction of the Proposed Project would not substantially increase hazards and impacts would be **less than significant**.

### Operation

The Project does not propose any changes to the design of Carrizo Gorge Road or Old Highway 80. The access driveways off Carrizo Gorge Road and Old Highway 80 shown on Figure 3.1.7-1 would be designed per County of San Diego Public Road Standards and Design Standards to meet applicable standards of safety, design, and sight distance. Once operational, the Project would have access driveways, a perimeter drive and interior driveways within the solar facility. Access to the solar facility from Carrizo Gorge Road and Old Highway 80 would be through construction of six driveways that would be located at the following five locations:

- Access 1 – Full access driveway along Carrizo Gorge Road (east leg), approximately 1,000 feet southeast of the I-8 interchange;
- Access 2 – Full access driveway along Carrizo Gorge Road (west leg), approximately 1,450 feet southeast of the I-8 interchange;
- Access 3 – Full access driveway along Carrizo Gorge Road (east leg), approximately 2,100 feet southeast of the I-8 interchange;
- Access 4 – Full access driveway along Carrizo Gorge Road (west leg), approximately 2,800 feet southeast of the I-8 interchange;
- Access 5 – North and south leg full access driveways along Old Highway 80, approximately 1,200 feet east of Campo Street.

A Glare Study was prepared for the Proposed Project which evaluates and documents any occurrences of glare that would potentially cause distractions to viewers from roadways. Solar



facility operations were analyzed at Key Observation Points located at I-8, Old Highway 80 and Carrizo Gorge Road. Based on the Glare Study results, no potential glare is anticipated for motorists. The Glare Study is included as Appendix A to the Visual Resources Report (Appendix B of the Final EIR).

Operation of the Proposed Project would not substantially increase hazards and impacts would be less than significant.

### **Switchyard Facilities**

As previously discussed, construction of the ~~switchyard~~ Switchyard Facilities would include construction of a new permanent access road and improvements to provide access and circulation within the ~~switchyard pad itself site or along the~~ Switchyard Facilities. A new permanent access road would incorporate applicable County standards regarding internal road design and circulation, particularly those provisions related to emergency vehicle access. The ~~switchyard~~ Switchyard Facilities site would be accessed from Carrizo Gorge Road via an existing SDG&E access road, which would be improved. Adequate sight distance would be required at this new roadway to the satisfaction of the County Director of the Department of Public Works, and all improvements would be constructed according to County private road standards (County of San Diego 2012b). The ~~switchyard~~ Switchyard Facilities would generate additional traffic on regional and local roads and would likely require the use of oversize construction vehicles. A typical construction day would generate approximately five trucks, which would include the transportation of Proposed Project component parts; movement of heavy equipment; and use of dump trucks, concrete trucks, water trucks, and subcontractor trucks.

**PDF-TR-1** (TCP) would be implemented to ensure that trucks, or any other construction equipment, would not create a safety hazard and/or be a temporary inconvenience to travelers along Carrizo Gorge Road. The applicant will also follow construction notification procedures in accordance with County and Caltrans' requirements as mentioned in **PDF-TR-1** (TCP), **PDF-TR-2** (Preparation of a Construction Notification Plan) and **PDF-TR-3** (Notify Property Owners and Provide Access).

The access road to the ~~switchyard~~ Switchyard Facilities would be designed in compliance with County private road standards and designed to allow safe passage of construction vehicles, including oversized trucks. In addition, the Switchyard Facilities would not entail the introduction of curves, slopes, walls, landscaping, or other barriers that would create potential conflicts between vehicles or potential conflicts between vehicles and stationary objects. Proposed permanent fencing would be included around the ~~switchyard~~ Switchyard Facilities, but it would be relatively transparent and would not impair the visibility of motorists on Carrizo Gorge Road.

As mentioned above, the ~~switchyard~~ Switchyard Facilities would be un-staffed and operation would generate a nominal amount of traffic. The operational traffic would not create hazards to existing geometric design features of the transportation system. It would cause a nominal increase in traffic that would not impact the safety of the roadway or vehicles. Therefore, impacts would be **less than significant**.

#### **3.1.7.4.4      *Emergency Access***

##### **Guidelines for Determination of Significance**

Pursuant to Appendix G of the CEQA Guidelines, a project would have a significant impact on the environment if it would:

##### ***d) Would the Project result in inadequate emergency access?***

##### **Analysis**

During construction, as part of the **PDF-TR-1** (TCP), the applicant would establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. This would ensure that the Proposed Project would not result in inadequate emergency access during construction.

Access to the solar facility during operations would be provided by a total of six driveways shown on Figure 3.1.7-1. These driveways would be paved, would be a minimum of 24 feet in width, and would be fully accessible to emergency services via a Knox Box placed at each access driveway. Within the fenced solar facility, the perimeter access would be constructed to a minimum improved width of approximately 24 feet. The interior access would be constructed to a minimum improved width of 20 feet. All access would provide a minimum inner turning radius of 28-feet, would be graded and maintained to support the imposed loads of a fire apparatus (not less than 75,000 pounds), and would be designed and maintained to provide all-weather driving capabilities. Minimum vertical clearance of 13 feet 6 inches from the driving surface shall be maintained for the interior access. Thus, the Proposed Project has been designed to allow ease of access for emergency responders both externally and internally.

There would be adequate access to emergency service providers such as fire protection during the construction and operation of the Proposed Project; therefore, impacts would be **less than significant**.

### 3.1.7.5 Cumulative Impact Analysis

#### Program, Plan, Ordinance or Policy

The Proposed Project trips during construction would be temporary and short term. During operations, the trips would be nominal. Cumulative energy generation projects would also generate trips during construction which would be temporary and short term. Implementation of features such as Traffic Control Plan, Construction Notification Plan and Notification of Property Owners by those cumulative projects would further reduce any potential construction period transportation impacts to an adopted program, plan or policy. Additionally, PDCI may coordinate with concurrent projects that are under construction and require inspection from County.

The cumulative projects are also expected to generate an insignificant amount of operational project trips. Additionally, SANDAG Series 13 traffic forecast data shows a general increase of only 300 daily vehicles along the study roadways between years 2020 and 2035, indicating a very nominal population increase. Therefore, the Proposed Project would **not have result in a cumulatively considerable impact** on any program, plan, or policy addressing the circulation system.

#### Vehicle Miles Traveled

As described previously, construction related VMT would be temporary and short term. Once construction is completed the VMT from construction related traffic would cease and go back to pre-project level. The operation of the project would not generate significant number of trips and thereby not cause substantial amount of VMT. As such, the Proposed Project **would not result in a cumulatively considerable impact** for vehicle miles traveled.

#### Hazards

The reasonably foreseeable cumulative projects in the Project area, as previously described, would individually need to comply with requirements for grading and building permits from the County, provide for traffic control and safety, and address design hazards for road construction. From the view of cumulative projects in the area, the other projects would utilize other access roads than the Proposed Project. SANDAG traffic forecasts indicate a nominal increase in traffic from planned projects due to a nominal increase in population. The potential for increase in pedestrian or bicycle activity under cumulative conditions is limited. All proposed driveways would be constructed to the requirements of the private or public road standards. Therefore, hazardous conditions due to design features would not occur and the Proposed Project **would not result in a cumulatively considerable impact** related to hazards.

### Emergency Access

As part of the **PDF-TR-1** (TCP), the applicant would establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. As described in Section 2.12, Wildfire, the Proposed Project would cumulatively contribute to increase in potential demand for emergency services such as fire response. The Project would include fire access and circulation throughout the Project site including emergency access. Further, the Proposed Project would implement a Fire Protection and Mitigation Agreement with the SDCFA to help fund fire services that would be used to improve future fire services and implement a site-specific Fire Protection Plan and Construction Fire Protection Plan to reduce the risk of wildfire on the site during operations and construction and to improve the effectiveness of an emergency response should a fire occur on site. Therefore, the Project, **does not result in a cumulatively considerable impact** related to emergency access.

#### **3.1.7.6 Significance of Impacts Prior to Mitigation**

### Plans, Policies and Programs

As presented in Section 3.1.7.4 the Proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, the impacts would be **less than significant**.

### Vehicle Miles Traveled

As presented in Section 3.1.7.4 the construction related VMT would be temporary and short term. Measures to reduce the VMT generated by workers and trucks are limited, and there are no thresholds or significance criteria for temporary, construction-related VMT. Further, OPR and County does not require a quantitative assessment of VMT generated by heavy-duty trucks, and CEQA Guidelines 15064.3 states that “a qualitative analysis of construction traffic may be appropriate.”

Maintenance and operation of the solar facility would generate or attract fewer than 110 trips per day which would meet the County’s screening threshold for small projects that may be assumed to cause a less-than-significant VMT impact. Therefore, the Proposed Project’s construction transportation would not conflict with or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant**.

### Hazards

With implementation of project design features **PDF-TR-1** (TCP), **PDF-TR-2** (Preparation of a Construction Notification Plan), **and PDF-TR-3** (Notify Property Owners and Provide Access), construction of the Project would not significantly increase hazards during construction. Once operational, the proposed project would have access driveways, perimeter access and interior access within the solar facility. Access to the solar facility from Carrizo Gorge Road and Old Highway 80 would be through construction of six driveways which would be designed per County of San Diego Public Road Standards and Design Standards to meet applicable standards of safety, design, and sight distance. Therefore, the impacts would be **less than significant**

### Emergency Access

As part of the **PDF-TR-1** (TCP), the applicant would establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. This would ensure that the Proposed Project would not result in inadequate emergency access during construction. The Proposed Project would be designed to allow ease of access for emergency responders both externally and internally. There would be adequate access to emergency service providers such as fire protection during the construction and operation of the Proposed Project; therefore, impacts would be **less than significant**.

### Cumulative Impacts

The Proposed Project would not result in any cumulatively considerable impacts.

#### **3.1.7.7 Mitigation Measures and Project Design Features**

The project design features listed below would be implemented and would ensure impacts would be less than significant during construction. All transportation impacts were determined to be less than significant; therefore, no mitigation measures are required.

**PDF-TR-1 Traffic Control Plan.** Prior to obtaining a grading permit from the County of San Diego, the applicant shall implement a construction Traffic Control Plan (TCP) that includes the following measures:

- Temporary traffic control devices in accordance with the California Department of Transportation's (Caltrans) California Manual on Uniform Traffic Control Device to identify locations/sections where construction is ongoing. This may include slow-moving-vehicle warning signs, signage to warn of merging trucks, barriers for separating construction and non-construction traffic, use of traffic

control flaggers, and any additional measures required for the sole convenience of safely passing non-construction traffic (including transit, bicyclists and pedestrians) through and around construction areas.

- Coordination with Caltrans to secure the necessary encroachment and trip permits necessary for specialized haul trucks. Also, any excessive height/length vehicles should use pilot car services to provide safe over-the-road operations and overhead height warnings, if necessary.
- Notification of the California Highway Patrol, if necessary, to facilitate slowing freeway traffic to ensure safe access for motorists.
- Coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department. For the State Highway System, Caltrans requires a TCP to be submitted to District 11's Transportation Permits Issuance Branch at least 30 days prior to the start of any construction.
- Employment of a contract transport company that would be responsible for surveying the route to determine how turns on existing roads would be accomplished and ensuring that is reflected in the TCP.
- Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities.

**PDF-TR-2 Preparation of Construction Notification Plan.** Forty-five days prior to construction, the project applicant would prepare and submit a construction notification plan to the appropriate land use jurisdiction agency for approval. The construction notification plan would identify the procedures that would be used to inform property owners of the location and duration of construction, identify approvals that would be needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The construction notification plan would address at a minimum two of the following components

***Public notice mailer***

A public notice mailer would be prepared and mailed no fewer than 15 days prior to construction. The notice would identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties. The notice would state the type of construction activities that would be conducted and the location and duration of construction, including all helicopter activities. The project applicant or construction contractor would mail the notice to

all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice would be prepared and distributed.

***Public liaison person and toll-free information hotline***

The project applicant would identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person would be included in notices distributed to the public. The project applicants would also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls would be addressed in the construction notification plan.

**PDF-TR-3    Notify property owners and provide access.** To facilitate access to properties that might be obstructed by construction activities, the project applicant would notify property owners and tenants at least 24 hours in advance of construction activities and would provide alternative access if required.

**PDF TR-4    Traffic Demand Management Program.** The Project applicant shall implement a voluntary construction period Transportation Demand Management program to encourage construction workers to carpool or use alternative transportation modes. The program shall include the following: (1) encouragement of carpooling among workers to reduce worker commuter trips entering and exiting the Project Area; (2) a transportation package would be provided to workers, prior to commencing work on the Project, with information about how to access the project by alternative transportation and the benefits of doing so; and, (3) the applicant shall evaluate the feasibility of a vanpool or shuttle service to facilitate worker commute trips if feasible.

**3.1.7.8    Conclusion**

This section provides a synopsis of the conclusions reached in each of the threshold and impact analyses, with implementation of any required mitigation measures and project design features.

**Plans, Policies and Programs**

The Proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, the impacts would be **less than significant**.

### Vehicle Miles Traveled

Maintenance and operation of the solar facility would generate or attract fewer than 110 trips per day which would meet the County's screening threshold for small projects that may be assumed to cause a less-than-significant VMT impact for transportation. The Proposed Project's construction transportation would not conflict with or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be **less than significant**.

### Hazards

With implementation of project design features **PDF-TR-1** (TCP), **PDF-TR-2** (Preparation of a Construction Notification Plan), **and PDF-TR-3** (Notify Property Owners and Provide Access), construction of the Project would not significantly increase hazards during construction. Based on the Glare Study for the Proposed Project, no potential glare is anticipated for motorists on I-8, Old Highway 80, and Carrizo Gorge Road. Therefore, the impacts would be **less than significant**.

### Emergency Access

As part of the **PDF-TR-1** (TCP), the applicant would establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities. There would be adequate access to emergency service providers such as fire protection during the construction and operation of the Proposed Project; therefore, impacts would be **less than significant**.

### Cumulative Impacts

The Proposed Project would **not result in any cumulatively considerable impacts**.



**Table 3.1.7-1**  
**Trip Generation Summary**

Description	Units	Trip Rate	Daily trips	AM Peak-Hour					PM Peak-Hour				
				% of ADT <sup>a</sup>	In:Out Ratio <sup>a</sup>	In	Out	Total	% of ADT <sup>a</sup>	In:Out Ratio <sup>a</sup>	In	Out	Total
JVR Solar Construction													
Daily Workers	462 emp.	2.3 / emp.	1,063	30%	9.42:0.58	300	19	319	30%	0.58:9.42	19	300	319
Carpool Reduction (15% reduction)	69 emp.	-2.3/ emp.	-159	30%	9.42:0.58	-45	-3	-48	30%	0.58:9.42	-3	-45	-48
Heavy Construction/Delivery Vehicles <sup>b</sup>	22 trucks	2 / truck	44	15%	7.78:2.22	5	2	7	15%	2.22:7.78	2	5	7
Passenger Car Equivalent <sup>c</sup>	22 trucks	6 / truck	132	15%	7.78:2.22	15	6	21	15%	2.22:7.78	6	15	21
Total JVR Solar Construction Operations Traffic			1,036			270	22	292			22	270	292
Switchyard/Switchyard Facilities Construction Operations													
Daily Workers	38 emp.	2.3 / emp.	87	30%	9.42:0.58	25	1	26	30%	0.58:9.42	1	25	26
Carpool Reduction (15% reduction)	6 emp.	-2.3/ emp.	-13	30%	9.42:0.58	-4	0	-4	30%	0.58:9.42	0	-4	-4
Heavy Construction/Delivery Vehicles <sup>b</sup>	8 trucks	2 / truck	16	15%	7.78:2.22	2	0	2	15%	2.22:7.78	0	2	2
Passenger Car Equivalent <sup>c</sup>	8 trucks	6 / truck	48	15%	7.78:2.22	6	0	6	15%	2.22:7.78	0	6	6
Total Switchyard/Switchyard Facilities Construction Operations Traffic			122			27	1	28			1	27	28
Daily Workers	500 emp.	2.3 / emp.	1,150	30%	9.42:0.58	325	20	345	30%	0.58:9.42	20	325	345
Carpool Reduction (15% reduction)	75 emp.	-2.3 / emp.	-172	30%	9.42:0.58	-49	-3	-52	30%	0.58:9.42	-3	-49	-52
Heavy Construction/Delivery Vehicles <sup>b</sup>	30 trucks	2 / truck	60	15%	7.78:2.22	7	2	9	15%	2.22:7.78	2	7	9
Passenger Car Equivalent <sup>c</sup>	30 trucks	6 / truck	180	15%	7.78:2.22	21	6	27	15%	2.22:7.78	6	21	27
Total Construction Traffic			1,158			297	23	320			23	237	320
Daily Operations													
Daily Workers	2 emp.	4 / emp.	8	25%	1.00:0.00	2	0	2	25%	0.00 :1.00	0	2	2
Heavy Maintenance/Delivery Vehicles <sup>b</sup>	2 trucks	2 / truck	4	50%	5.00:5.00	1	1	2	50%	5.00 :5.00	1	1	2
Passenger Car Equivalent <sup>c</sup>	2 trucks	6 / truck	12	50%	5.00:5.00	3	3	6	50%	5.00 :5.00	3	3	6
Total Daily Operations Traffic			20			5	3	8			3	5	8

**Notes:** emp. = employees.

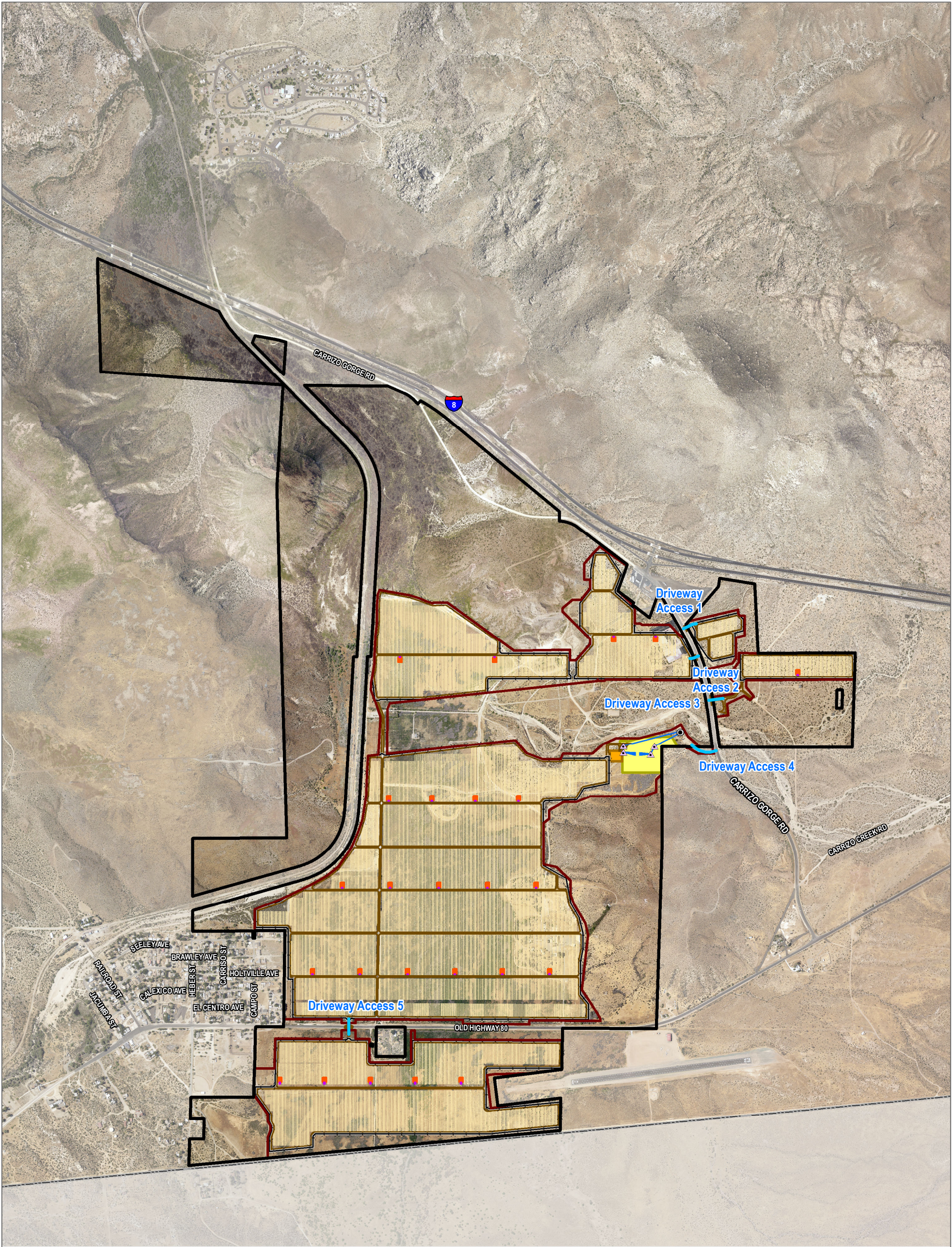
<sup>a</sup> Custom Trip Generation Rates based on peak construction operations and daily operations information provided by developer. Information includes anticipated number of daily workers, heavy vehicles and work schedules.

<sup>b</sup> Excluded from totals and shown for reference only.

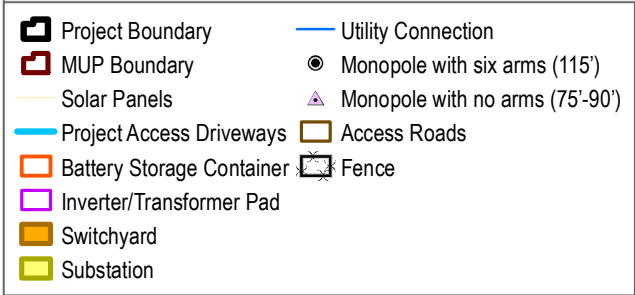
<sup>c</sup> Passenger Car Equivalent of 3.0 is used for Heavy Construction/Delivery Vehicles and Heavy Maintenance/Delivery Vehicles.

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MEXICO



SOURCE: Kimley-Horn 2021; SANGIS 2017, 2020



**FIGURE 3.1.7-1**  
Project Access Driveways  
JVR Energy Park Project



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