

GRENIER & ASSOCIATES, INC.

ENVIRONMENTAL PLANNING • LICENSING & PERMITTING • REGULATORY COMPLIANCE

June 29, 2011

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Mr. Craig Hoffman
Compliance Project Manager
California Energy Commission
1516 Ninth Street MS-2000
Sacramento, CA 95661

Subject: Rice Solar Energy Project (Docket No. 09-AFC-10C)
Condition of Certification TRANS-1
Construction Transportation Control Plan

Dear Craig:

In accordance with the requirements of Condition of Certification TRANS-1, attached for your review and approval is the Construction Transportation Control Plan for the Rice Solar Energy Project.

Should you have any questions or require additional information related to this submittal, please contact me at (916) 780-1171.

Sincerely,



Andrea E. Grenier
Permitting and Compliance Manager

Attachment



Draft

Construction Traffic Control Plan Rice Solar Energy Project

Submitted to the:
California Energy Commission

Submitted by:

SOLARRESERVE

With Technical Assistance by:



July 2011

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Construction Traffic Control Plan

1. Introduction

Rice Solar Energy, LLC (RSE), a wholly owned subsidiary of SolarReserve, LLC, proposes to construct, own, and operate the Rice Solar Energy Project (RSEP). The RSEP will be a concentrating solar power facility constructed on privately owned property in unincorporated eastern Riverside County, California. The RSEP will have a nominal generating capacity of 150 megawatts, and will be capable of delivering 450,000 megawatt hours of renewable energy annually to help meet California's Renewable Portfolio Standard energy procurement goals.

RSE's concentrating solar power technology consists of a large field of mirrors (heliostats) that concentrate and focus the sun's energy onto a central receiver positioned on top of a tower. The project features thermal energy storage that allows solar energy to be captured throughout the day and retained in a liquid salt heat transfer fluid. When electricity is to be generated, the hot liquid salt is routed to a series of heat exchangers to produce steam. The steam is used to generate electricity in a conventional steam turbine cycle. Upon exiting the steam generation system, the salt is sent to a cold salt storage tank, and the cycle is repeated. The salt storage technology was demonstrated successfully at the U.S. Department of Energy-sponsored 10-MW *Solar Two* project near Barstow, California, in the 1990s.

A 10-mile, 230-kilovolt (kV) generator tie-line to connect the project with the existing Western Area Power Administration (Western) Parker-Blythe transmission line will also be constructed as part of the RSEP. The new tie-line will be routed along existing dirt roads for approximately 5.4 miles and will require minimal construction of approximately 4.6 miles of single-lane dirt access road for construction and inspection.

The Application for Certification for the RSEP was prepared in October 2009, and the traffic and transportation impacts for construction were assessed at that time. The Commission Decision issued in December 2010 by the California Energy Commission (CEC) included Conditions of Certification (COC), one of which was the preparation and approval of this document. The purpose of this Construction Traffic Control Plan (CTCP) is to identify strategies for managing construction activities to minimize construction-related traffic impacts. Section 2 of this report provides the COC incorporated in this plan. Sections 3 and 4 present a brief overview of the proposed project and construction staging activities. Section 5 provides details on traffic control measures. Section 6 discusses cumulative impacts and Section 7 identifies options to mitigate potential impacts.

2. Condition of Certification TRANS-1

The CEC issued ten COCs addressing potential traffic and transportation impacts in the 2010 Commission Decision. TRANS-1 requires preparation of this CTCP as follows.

The project owner shall consult with Riverside County, San Bernardino County, Caltrans, and Arizona and California Railroad and shall prepare and submit to the Compliance Project Manager (CPM) for approval a Construction Traffic Control Plan and implementation program. The Traffic Control Plan shall be prepared in accordance with Caltrans Manual on Uniform Traffic Control Devices and the WATCH Manual and shall include but is not limited to the following issues (as needed and as feasible):

Project Specific Measures:

- Encourage use of carpools, vanpooling or other ride share programs;
- Scheduling heavy equipment and building materials deliveries;
- Redirecting construction traffic with a flag person as needed;
- Signing, lighting, and traffic control device placement if required;
- Scheduling of construction work hours and arrival/departure times outside peak traffic periods as needed;
- Ensure access for emergency vehicles to and within the project site;
- Ensure access and movement of bicycles along US-95 construction truck routes;
- Identification of haul routes requiring rail crossings of oversize vehicles and safety measures to limit potential impacts;
- Temporary closure of travel lanes or disruptions to street segments and intersections during generation tie line construction activities or any other utility tie-ins. In the event any lane closures are required on the State Highway System, the Construction Traffic Control plan shall demonstrate compliance with Caltrans Section 517 of the Encroachment Permits Manual;
- Access to residential and/or commercial property located near generation tie line routes or any other utility tie-ins; and
- Identification of safety procedures for exiting and entering the site access gate(s).

Cumulative Measures:

- Take into account the cumulative traffic impacts of the overlapping construction schedules of other nearby renewable energy projects utilizing SR 62, US 95, or any roadway indicated by the Construction Traffic Control Plan as a haul route, ensuring that timing of heavy equipment and building materials deliveries as well as worker trips of overlapping construction schedules do not result in SR 62, US 95, or any freeway/roadway to operate at

an unacceptable LOS with the addition of cumulative construction traffic. These roadway LOS performance standards shall be established by the applicable General Plan, Congestion Management Plan, or overseeing agency of the utilized roadway; and

- If required, provide for a coordinated park-and-ride system of bus service for workers at nearby solar energy project sites.

Verification: At least 30 days prior to site mobilization the project owner or contractor shall provide to the CPM a copy of the Construction Traffic Control Plan and implementation program documents for review and approval.

3. Project Description

3.1 Project Site

The RSEP project site is located in an unincorporated area of eastern Riverside County, California immediately south of State Route (SR) 62 at milepost 109 about 1 mile east of the junction with Blythe-Midland Road. The nearest freeways are Interstate 40 (I-40) approximately 55 miles north of the site, and Interstate 10 (I-10) approximately 32 miles south of the site. The RSEP is located on private property in the Sonoran Desert. The nearest active residence and permanent settlement is Vidal Junction, approximately 15 miles northeast, at the junction of SR 62 and U.S. Route (US) 95. The RSEP generator tie-line will follow a 10-mile path from the project site to an intercept point along the existing Western Parker-Blythe transmission line, southeast of the project site. The generator tie-line will cross land owned by the federal government and managed by the U.S. Bureau of Land Management.

The surrounding regional and local roadway networks are shown in Figure 1.

3.2 Parking

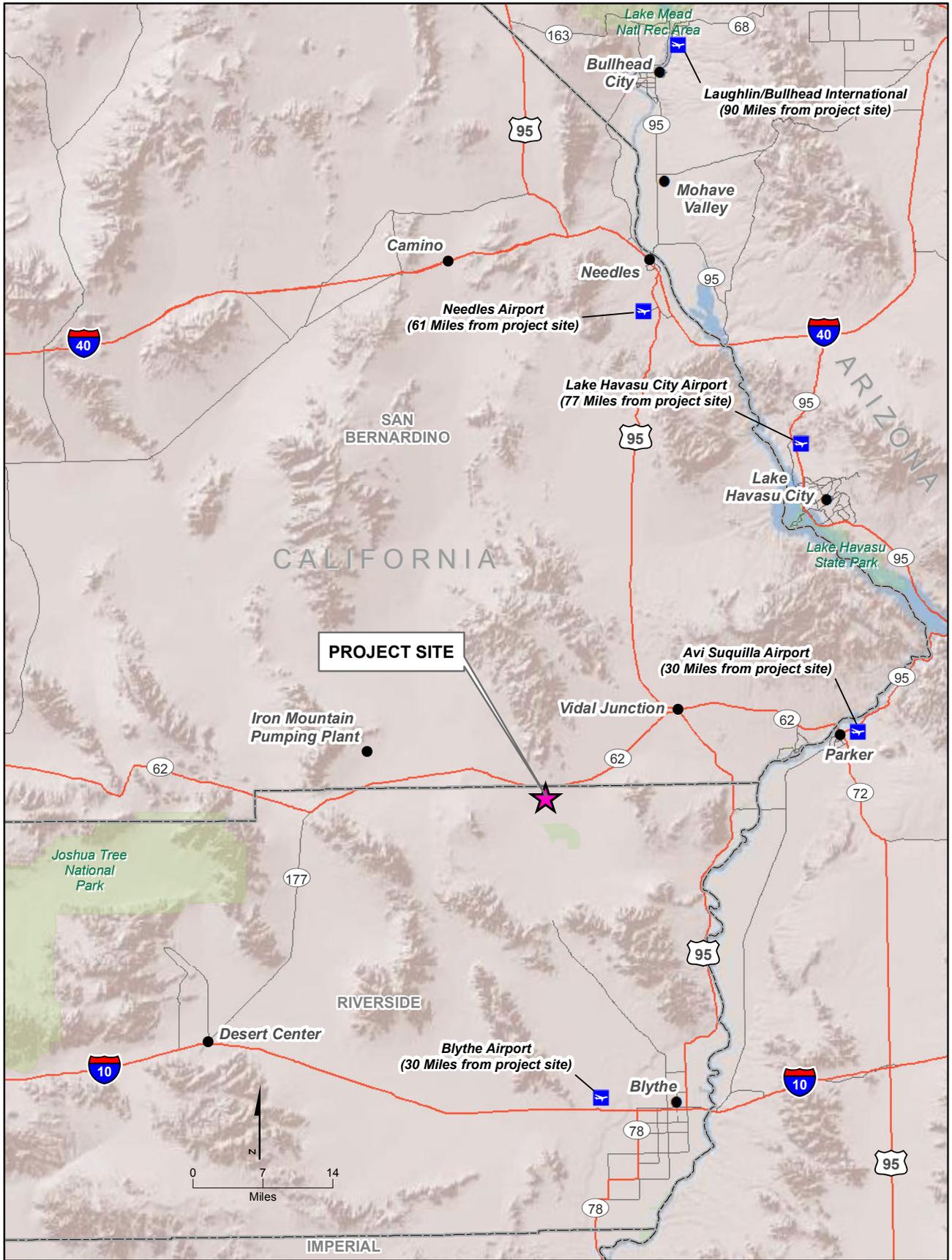
The RSEP will provide parking for construction worker vehicles within the project site. Due to the remote location of the project site it is estimated that 30 percent of workforce will carpool, reducing the amount of parking needed. All project-related vehicles will park within the project site during project construction and operation.

3.3 Bicycle and Pedestrian Facilities

Currently, Twentynine Palms Highway is a priority class II Bike Lane or class III Bikeway within Twentynine Palms and a proposed class II Bike Lane or class III Bikeway east of the city. US 95 within Riverside County is classified as a Regional Trail. Along a portion of I-10 within Blythe is the historic Bradshaw Trail. The La Paz County Comprehensive Plan includes the goal to develop an integrated bicycle trail system in the Parker Strip area.

3.4 Public Transit

No public transportation is available to or from the RSEP project site. Greyhound Bus Lines provides twice-daily stops at Needles and service to Blythe. Public transportation is available to varying levels for local service in the communities surrounding the RSEP project site.



LEGEND

★ PROJECT SITE

▭ COUNTY BOUNDARIES

FIGURE 1
REGIONAL TRANSPORTATION MAP
 RICE SOLAR ENERGY PROJECT
 RIVERSIDE COUNTY, CALIFORNIA

3.5 Rail Traffic

Four at-grade public railroad crossings are in the vicinity of the RSEP site. One is located on SR 62 near Radio Tower Road, about 7.5 miles northeast of the project site. Another crossing is on US 95, near Old Parker Road, about 17.5 miles northeast of the project site. Both crossings are protected with automatic arms. Northwest of the RSEP site, two crossings with flashing beacons but no arms are located on SR 62, about 2.5 miles from the project site. However, these are on an abandoned spur of the Arizona and California Railroad (ARZC).

Amtrak's Southwest Chief line has a stop in Needles. Two trains are provided daily from Needles to Los Angeles and Needles to Chicago. The Burlington Northern Santa Fe also has a hub in Needles.

3.6 Air Traffic

Blythe Airport (Federal Aviation Administration [FAA] Identifier KBLH) has a 6,543-foot runway located about 161,000 feet (30.5 miles) southeast of the project site. In 2006, there were 69 operations per day.

Avi Suquilla Airport (FAA Identifier P20) has a 4,780-foot runway located about 164,000 feet (31 miles) northeast of the project site. In 2006-2007, there were 28 operations per day.

Needles Airport (FAA Identifier EED) has a 5,005-foot runway and a 4,235-foot runway located about 258,000 feet (49 miles) northeast of the project site. In 2005-2006, there were 29 operations per day (AirNav, 2009).

4. Construction Activities

It is anticipated that workers will be primarily drawn from the labor pool in nearby Palm Springs and Blythe. During the peak construction phase of the facility (months 10 through 18, in 2012) construction will require a workforce of approximately 422 workers each day. During the peak construction phase of the generator tie-line (in 2013) construction will require a workforce of approximately 20 workers each day.

Although the exact origin of the construction workers is unknown, it was assumed that due to the remote location of the project site workers would choose to stay at a hotel or motel throughout the construction activity and commute from those locations, or will utilize the -RV and Trailer Parks located in the project vicinity. The three closest cities with accommodations to rent are Blythe, Twentynine Palms, and Parker. Construction workers and deliveries will access the project site from SR 62 during the construction period. Within the project site, construction activities will include surveying, clearing, grading, trenching, and concrete foundation and structure construction among other activities. Along the generator tie-line, construction activities will include surveying, clearing, and road and foundation construction.

Construction will typically occur Monday through Saturday from 5:30 a.m. to 4:00 p.m. during the summer, and in the winter, construction is anticipated to occur Monday through Saturday from 7:00 a.m. to 5:30 p.m. Construction at times may take place on a 24-hour, 7-days-per-week basis to make up schedule deficiencies, to work around extreme mid-day heat during summer months and other extreme weather events, or to complete critical

construction activities. In addition, construction of the receiver tower will occur on a 24-hour, 7-days-per-week schedule due to the concrete placement method to be employed. Receiver tower construction is anticipated to begin at the end of April 2012 through May 2012.

Figure 2 is an illustration of the proposed access routes for heavy haul and hazardous materials as well as construction workers. Neither route will require any new construction.

5. Traffic Control Plan

5.1 Purpose

The purpose of the CTCP is to identify traffic control measures that maintain safe and efficient transportation operations during construction. The CTCP is intended to provide specific guidance to the contractor about mitigation strategies to address traffic impacts.

5.2 Applicable Permits

Table 1 lists the permits related to traffic and transportation and the permit schedule. The vehicles used to transport heavy equipment and construction materials will require transportation permits when they exceed the size, weight, width, or length thresholds set forth in Section 35780 of the California Vehicle Code (CVC), Sections 117 and 660-711 of the California State Highway Code, and Sections 1411.1 to 1411.6 of the California Code of Regulations. Affected vehicles will be required to obtain transportation permits from Caltrans, Riverside County, and/or San Bernardino County depending on the route used to access the project site (Castillo, 2011).

TABLE 1
Permits and Permit Schedule for Traffic and Transportation

Permit	Agency Contact	Schedule
Single/annual-trip transportation permit for oversized loads and oversized vehicles	Caltrans – South Region Transportation Permits Office Permit Officer on Duty (909) 383-4637	Obtain when necessary, 2-hour processing time (single trip) to 2 weeks (annual trip)
Hazardous materials transportation license	CHP Hazardous Material Licensing Program (916) 327-5039	Obtain when necessary, approximately 2-week processing time
San Bernardino County transportation permit	San Bernardino County Transportation Division (909) 387-8046	Between 1 hour and 2 weeks
Riverside County transportation permit	Dan Castillo Riverside County Transportation Department (760) 863-7044	Same day
Schedule coordination and communication	Kevin Smith Transportation Manager Arizona California Rail Road (602) 738-6545	48 hours prior to crossing



LEGEND

-  PROJECT SITE
-  COUNTY BOUNDARIES
-  Truck Haul, Hazardous Materials and Construction Worker Routes

FIGURE 2
Truck Haul and Hazardous Materials Route
 RICE SOLAR ENERGY PROJECT
 RIVERSIDE COUNTY, CALIFORNIA

Transportation route arrangements would be required with Caltrans and CHP officials for permitting and escort, as applicable. Transportation of hazardous materials to and from the RSEP will be conducted in accordance with CVC Section 31303.

Although no permits are required for crossing of the ARZC, the ARZC representative has requested the date and time of the crossing be provided to the ARZC so that a representative can observe the crossing. (Smith, 2011)

5.3 Construction Trip Scheduling

Worker Trips

The typical construction workday at the RSEP will be from 5:30 a.m. to 4:00 p.m. in the summer and 7:00 a.m. to 5:30 p.m. in the winter. Workers will arrive at the project site prior to the start of the workday before the AM peak hour and leave after end of the workday after the PM peak hour. To minimize the number of worker trips to and from the project site the contractor may establish a rideshare program which would include posting information in a common area at the project site and a means to allow potential ridesharing partners to meet. The work schedule may be modified throughout the year to account for changing weather conditions (e.g., starting the work day earlier in summer months to avoid work during the hottest part of the day for health and safety reasons).

Truck Trips

The majority of construction equipment and material deliveries would occur outside of peak traffic hours. Smaller trucks, such as concrete mixers or other trucks requiring specific temperatures to complete construction activities, may travel during the AM peak hour. Heavy equipment and building material deliveries, when feasible, should be scheduled to occur during off-peak hours to minimize impacts on peak traffic hours. In order to minimize the number of concrete mixer truck trips it is anticipated that a mobile concrete batch plant will be erected at the project site.

5.4 Use of Flaggers and Temporary Lane Closures

The construction of the RSEP will not require the use of flaggers or temporary lane closures.

The generator tie-line construction will occur outside the project footprint; however, it will not cross any public roadways. Construction of a transmission line access road will be required for generator tie-line construction, but this will occur outside of and will not intersect with any public roadways.

For safety reasons, vehicles will not be permitted to pass below an unsecured generator tie-line.

5.5 Signing, Lighting, and Traffic Control Device Placement

The use of traffic control devices is not anticipated.

5.6 Emergency Vehicle Access

Emergency service provider contacts will be identified at project start-up. In the case of an emergency during project construction, emergency vehicles will be given priority over

construction and general purpose traffic. The contractor shall assist emergency vehicle access through the construction area as necessary.

5.7 Haul Routes

Construction vehicles accessing the project site will utilize routes indicated in Figure 2 whenever possible which include SR 62, US 95, I-40, I-10 and SR 177. Vehicles carrying hazardous materials, oversize vehicles and heavy haul vehicles will utilize only the haul routes indicated on Figure 2. These haul routes may require up to four railroad crossings. One crossing along US 95 near Old Parker Road is protected with automatic arms. One crossing along SR 62 approximately 7.5 miles east of the project site is also protected with automatic arms. Two additional crossings along SR 62 approximately 2.25 miles west of the project site have only flashing beacons, but are located on an abandoned spur line of the ARZC. The adherence to all traffic control measures by construction vehicles, including oversize and hazardous materials vehicles, will limit the potential for impacts.

For construction of the generator tie-line, construction vehicles will travel along the identified haul route to the greatest extent possible. Construction vehicles will also travel along existing and planned transmission line access roads.

All construction vehicle operators will be briefed on appropriate vehicle operations near bicyclists, particularly along US 95.

In addition to the CVC Sections 35550-35559, the City of Blythe Municipal Code (City of Blythe, 2008) Chapter 10.04.220 Section 13A prohibits the operation of any of the following vehicles in the central traffic district, except on Hobson Way, between the hours of 7:00 a.m. and 6:00 p.m. of any day.

- (a) Any freight vehicle more than 8.5 feet wide, with load, or any freight vehicle so loaded that any part of its load extends more than 20 feet to the front or rear of the vehicle.
- (b) Any vehicle carrying building material that has not been loaded, or is not to be unloaded, at some point within the central traffic district.

The City of Twentynine Palms Municipal Code (City of Twentynine Palms, 2009a) Chapter 12.67 prevents the circulation of 10,000-pound (gross weight) commercial vehicles or more within the city except on the established truck routes. In addition to Twentynine Palms Highway throughout the city, which is not regulated by the city for purposes of traffic restriction, the following streets and portions of streets are designated and established as truck routes (Ord. 195 §1(part), 2005):

- (a) Adobe Road between Sullivan Road and the Marine Corps Air-Ground Combat Center gate
- (b) Amboy Road throughout the city
- (c) Baseline Road from Wilshire Avenue to the easterly city limits
- (d) Bullion Mountain Road from Twentynine Palms Highway to Valle Vista Road
- (e) Indian Trail from the westerly city limits to Adobe Road
- (f) Lear Avenue from Twentynine Palms Highway north to the city limits

- (g) Mojave Road between Twentynine Palms Highway and Baseline
- (h) Wilshire Avenue from Twentynine Palms Highway south to Baseline Road
- (i) Utah Trail between Amboy Road and Valle Vista Road
- (j) Valle Vista Road between Adobe Road and the easterly city limits

The Town of Parker Town Code (Town of Parker, 2007) Title 7 Motor Vehicles and Traffic does not discuss truck restrictions on public roadways.

5.8 Bicycle Routes

All bicycle routes will remain open during project construction. All construction vehicle operators will be briefed on appropriate vehicle operations near bicyclists.

5.9 Residential and Commercial Property Access

Access to commercial or residential properties is not expected to be affected. However, if access to these properties is affected, the contractor will minimize any impacts on access to these properties. The contractor will provide advance notice to the affected parties, as necessary.

5.10 Exiting and Entering Site Access Gates

Access to the RSEP will be monitored at a gate house. Security guards will be present at the gate house 24 hours a day. Identification will be required to enter the project site.

6. Cumulative Measures

There are no active projects that are planned or in a permitting process leading to construction of significant scale within 15 miles of the project site. Therefore, the project will not cause cumulative adverse impacts.

7. Mitigation Measures

The following measures are proposed to mitigate project-related traffic impacts:

- Ridesharing Plan
- Access Strategies

7.1 Ridesharing Plan

As discussed in Section 5.3, approximately 30 percent of construction workers are expected to access the project site via rideshare. The contractor will post information on ridesharing in a common area at the project site and provide a means to allow potential ridesharing partners to meet.

7.2 Access Strategies

Safety at the main entrance will be addressed by prohibiting stopping/parking and not allowing construction material storage near the entrance.

Access to commercial or residential properties is not expected to be affected. However, if access to these properties is affected, the contractor will notify affected parties as necessary to minimize any impacts on access to their properties.

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