3.12 TRANSPORTATION AND TRAFFIC

This section summarizes the potential transportation and traffic impacts related to construction and operation of the proposed project. The section includes a review of existing conditions, a summary of applicable policies and regulations related to transportation and traffic, and an analysis of environmental impacts of the proposed project. Mitigation measures are identified, as necessary, to reduce impacts.

3.12.1 Existing Conditions

3.12.1.1 Regulatory Setting

State

California Department of Transportation

California Department of Transportation is responsible for planning, designing, constructing, operating, and maintaining all State-owned roadways in Los Angeles County. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the State highway system within the County of Los Angeles would need to be approved by Caltrans.

2010 Congestion Management Program for Los Angeles County

The Congestion Management Program (CMP) was enacted by the State legislature in 1989 to improve traffic congestion in California’s urbanized areas. The program became effective with the passage of Proposition III in June, 1990, which increased the State gas tax by nine cents over a five year period. The increase in funds generated by Proposition III is available to cities and counties for regional road improvements, provided that they are in compliance with CMP requirements. If a city does not comply with the CMP, it could lose funding under Proposition III. Under the program, regional agencies are designated within each County to prepare and administer the CMP. In Los Angeles County, the Congestion Management Agency is the Los Angeles County Transportation Commission (LACTC). LACTC has an established countywide Congestion Management Plan. As such each City within the County must take steps to administer elements of the plan locally. The City of Lancaster’s responsibilities include the following:

- Assisting in monitoring the CMP system;
- Adopting and implementing a trip reduction and travel demand ordinance;
- Analyzing the impacts of local land use discussions on the regional transportation system; and,
- Preparing annual deficiency plans for portions of the CMP system where level of service standards are not maintained. LACTC annually reviews the City’s performance of these responsibilities to ensure they are in compliance with the CMP. After notice and a correction period, LACTC reports local agencies that are out of compliance to the State Controller, who then withholds a portion of their State gas tax funds. LACTC adopted
County's Congestion Management Plan includes the following roadways within the City of Lancaster:

- Antelope Valley Freeway (Highway 14)
- Highway 138

Levels of service on these roadways must stay at LOS E or better; if they do not, the City must prepare a deficiency plan to bring the level of service back up to LOS E. Under the CMP legislation, once a roadway is entered into the CMP network it cannot be deleted, even if service levels are ultimately improved. A project that would trigger a regional trip analysis is one which contributes significant traffic to the regional network, decreasing its levels of service. The City is responsible for monitoring and reporting service levels on all CMP roadways.

**Local**

**City of Lancaster General Plan 2030**

The Plan for Physical Mobility of the City of Lancaster General Plan 2030 includes specific policies to maintain acceptable traffic operations and an efficient roadway system. Objectives, policies, and specific actions that are applicable to the proposed project are listed below:

**Objective 14.1:** Maintain a hierarchical system which balances the need for free traffic flow with economic realities, such that streets are designed to handle normal traffic flows with tolerances to allow for potential short-term delays at peak hours, (reference the Transportation Master Plan for details).

**Policy 14.1.1:** Design the City’s street system to serve both the existing population and future residents.

**Specific Action 14.1.1(c):** As part of the development review process, continue to analyze the potential impacts of traffic generated by projects and the effects on adjacent land uses and surrounding neighborhoods. This information shall be used to determine appropriate mitigation measures for the project and will be added to the citywide traffic data base.

**Specific Action 14.1.1(d):** As part of the development and environmental review process, ensure that new development meets the provisions of the Los Angeles County Congestion Management Program (CMP) by requiring preparation of Traffic Impact Analyses and provision of mitigation as outlined in the CMP.

**Specific Action 14.1.1(e):** Establish an ongoing traffic monitoring program for the City’s roadway network.

**Policy 14.1.2:** Maintain and improve the operation of the roadway network by adhering to the circulation system improvements of the Transportation Master Plan for the development and operation of the system, while providing the flexibility to allow consideration of innovative design solutions.
Specific Actions 14.1.2(b): As a condition of approval for new development, require, at a minimum, that all internal roadways be constructed to the Transportation Master Plan requirements.

Specific Actions 14.1.2(c): Maintain roadway standards which protect the rural character of areas designated for long-term non-urban use (> 2.0 du/ac).

Policy 14.1.3: Require that the fair and equitable cost of constructing arterials which connect outlying urban development to the City core be borne by developments which create the need for them.

Specific Actions 14.1.3(a): Establish a procedure to determine road construction needs generated by a proposed development, to assign costs and to arrange for reimbursement by future developments.

Specific Actions 14.1.4: Encourage the design of roads and traffic controls to optimize safe traffic flow by minimizing turning movements, curb parking, uncontrolled access, and frequent stops.

Specific Actions 14.1.6(a): Work with Caltrans, City of Palmdale, and County of Los Angeles to coordinate circulation plans including the Transportation Master Plan, between jurisdictions in order to maintain consistency and continuity where feasible.

Specific Actions 14.1.6(d): Coordinate roadway system improvements and signalization, and operations with regional and jurisdictional transportation plans.

Objective 14.2: Promote a roadway system which balances the need to move vehicles while protecting environmental, aesthetic, and quality of life issues.

Policy 14.2.1: Support and improve a roadway network that is sensitive to environmental issues such as, biological, land, and water resources, as well as air quality, while permitting continued development within the study area.

Policy 14.2.3: Support a roadway network that takes into consideration noise and safety issues, along with other quality of life issues.

Specific Actions 14.2.3(a): When considering the design of subdivisions, circulation patterns and street layouts, traffic flow requirements shall be balanced against their effect on pedestrian access and the livability of both existing and proposed neighborhoods. Where conflicts arise between motorist convenience and the livability and wellbeing of neighborhoods, the latter concerns shall have priority.

City of Lancaster Municipal Code

The City of Lancaster, through Municipal Code Section 15.56.030, has established a Transportation Demand Management (TDM) program. Per this program prior to approval of any development project, applicants are required to make provisions for applicable TDM and trip reduction measures for nonresidential projects. The proposed project does not specifically account for decreases in level of service on the local roadway network, therefore does not require participation in the TDM program.
Out of an abundance of caution; the following shall take place related to the proposed project’s traffic impacts from construction and operation:

Transportation information shall be provided in a highly visible place (on-site construction trailer) and will include the following information:

- Current maps, routes, and schedules for construction deliveries.
- Telephone numbers for referrals on transportation information including numbers for site manager and applicant.
- A site plan with employee parking and construction staging areas identified. Staging shall be limited as feasible, to avoid those areas where existing residential uses are adjacent to the site. Staging and parking areas will be located on-site; no off-site parking for the project will be allowed.
- A safe and convenient zone onsite in which delivery trips related to construction activities may deliver materials, supplies or other related construction material.

3.12.2 Environmental Setting

The existing regional and local roadway network in Lancaster is a hierarchical system of highways and local streets developed to provide regional traffic movement and local access. The following provides a description of the functional classification of the facilities within the project area.

**Streets and Highways**

**City of Lancaster**

**Regional Arterials**

Regional arterials are limited access facilities that provide service to through nonlocal traffic with minimal direct access to adjacent land uses. They have a design cross section of eight lanes (four in each direction) with medians and turn lanes at a limited number of access points. Regional arterials are designated as 106 feet roadways, typically within a 120 feet right-of-way. At their design capacity of Level of Service (LOS) D, most regional arterials can carry between 49,500 and 64,000 vehicles per day. The City Municipal Code and Engineering Design guidelines allow for bike lanes only on secondary arterials; however, if appropriate, bike lanes can exist within primary and regional arterials.

**Major Arterials**

Major arterials are primarily intended to serve through, non-local traffic and provide limited local access. They have a cross-section of three through lanes, and a raised landscape median and turn lanes at a limited number of access points. Major arterials are designated as 84-feet roadways within a 100 feet right-of-way. At LOS D, major arterials can accommodate between 40,000 and 44,000 vehicles per day.
Secondary Arterials

Secondary arterials provide more local access than major arterials, while also providing a reduced level of non-local through traffic service. Secondary arterials have a cross-section of four through lanes, a bike lane in each direction and a left-turn lane within 68 feet of curb-to-curb space, within an 84 feet right-of-way. These roadways are usually undivided with the potential for limited on-street parking, turn lanes at major intersections, and partial control of vehicular and pedestrian access from driveways, cross streets, and crosswalks. Secondary arterials can accommodate between 22,000 and 24,000 vehicles per day at an acceptable level of service.

Collectors

The primary role of collector roadways is to provide access between the arterial network and the neighborhoods and commercial development. These roadways are typically two lanes wide with limited access to driveways and cross streets. They are usually undivided and do not have turn lanes at intersections. Collectors in Lancaster are 44 feet, curb-to-curb, within 64 feet right-of-ways. The typical capacity of a collector street is approximately 15,000 vehicles per day.

Local Residential Streets

These streets serve adjacent residential land uses only, allowing access to residential driveways and providing on-street parking for neighborhoods. Local residential streets in Lancaster are designated as 42 feet roadways within a 60 feet right-of-way. These streets are not intended to serve through traffic traveling from one street to another. Traffic volumes on these streets should not exceed 2,500 vehicles per day and 200 to 300 vehicles per hour.

Regional Roadways

The Antelope Valley Freeway (Highway 14) is an important regional north-south transportation link to and from the Antelope Valley. Highway 14 provides the primary regional connection between the City of Lancaster, City of Palmdale and the Santa Clarita Valley, as well as metropolitan Los Angeles, approximately 45 miles (75 vehicle-travel miles) to the south. Highway 14 runs north to Kern County and then transitions to Interstate Highway 395 north of Inyokern.

Highway 58 branches from Highway 14 at Mojave to extend northwest to Bakersfield. Various arterials in the City of Lancaster and the study area also serve regional functions. Avenue D (Highway 138) extends west from Highway 14, and connects to the Golden State Freeway (I-5) near the Ventura County border, and extends east from the City of Palmdale, connecting with I-15. Avenue I becomes Lancaster Road at 110th Street West, and then proceeds northwest to intersect with Avenue D at 250th Street West. Sierra Highway links Lancaster with the community of Rosamond to the north and the City of Palmdale to the south. Sierra Highway continues south and connects to San Fernando Road in the northern San Fernando Valley.

Consequently, Sierra Highway is commonly used as an alternate route to Highway 14 by southbound commuters trying to connect to the San Fernando Valley. Similarly, mountain roads such as Soledad Canyon Road, Bouquet Canyon Road, and San Francisquito Canyon Road are utilized to travel from the Antelope Valley to Santa Clarita.
Alternative Transportation

The project site is surrounded by vacant undeveloped land on the southwestern side of Lancaster. No public transit service is available in the vicinity of the project site. Non-motorized transportation facilities, such as bikeways and sidewalks, are not available in the project vicinity, with the exception of the trail system along the California Aqueduct. The City approved a Master Plan of Trails and Bikeways in 2012. In conformance with the City of Lancaster, Master Plan of Trails and Bikeways, an 8 feet wide asphalt bike lane would be constructed along Avenue L between 80th Street West and 90th Street West and along 90th Street West from Avenue L to Quarry Ridge Road (Figure 2-3).

Roadway Capacities

The capacity per lane for each roadway type can be defined for different analysis periods. For the average daily traffic along a roadway segment, the City of Lancaster has established the following capacities:

- 7,000 vehicles per lane (vpl) per day for secondary arterials; and
- 8,000 vpl per day for major arterials.

These capacity assumptions were used to calculate the Volume to Capacity ratios related to temporary impacts from the proposed project. The roadway segments which were identified as having the potential of being affected by construction impacts are shown in Table 3.12-1, Existing Volumes and Level of Service. Given the rural nature, the intersections presented are those which were identified as being impacted by construction activities and existing LOS were extrapolated out to the project site based on the Master Environmental Assessment, supporting the City’s General Plan 2030.

Table 3.12-1: Existing Volumes and Levels of Service

<table>
<thead>
<tr>
<th>Roadway Section</th>
<th>Number of Lanes Combined</th>
<th>Type of Arterial</th>
<th>Volume</th>
<th>Capacity</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avenue K</td>
<td>2</td>
<td>Major</td>
<td>1,500</td>
<td>16,000</td>
<td>0.094</td>
<td>A</td>
</tr>
<tr>
<td>70th Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West to 60th</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street West</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avenue L</td>
<td>2</td>
<td>Major</td>
<td>4,400</td>
<td>16,000</td>
<td>0.275</td>
<td>A</td>
</tr>
<tr>
<td>70th Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West to 60th</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street West</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Roadways were selected based on proposed construction routes, in consultation with the City of Lancaster.
V/C = Volume-Demand-to-Capacity Ratio
Source: City of Lancaster General Plan 2030 Master Environmental Assessment 2009
3.12.3 Environmental Impacts

This section analyzes the proposed project’s potential transportation and traffic impacts associated with the construction and operation of the proposed project. When an impact was determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

Methodology for Analysis

Traffic impacts associated with the proposed project are primarily related to temporary construction and routine maintenance activities. This traffic assessment focuses on short-term traffic impacts associated with changes in traffic volumes and the increase in project-related traffic during construction and operation of the facility. Traffic impacts during construction are quantified, as construction would result in large numbers of trips for trucks and construction employee vehicles.

Traffic impacts during operation and maintenance are not quantified, as trips during operation and maintenance would be limited to employee trips for up to six employees per day, and equipment for panel washing up to two times per year.

The impact analysis qualitatively discusses the potential impacts from project operation on roadway operations, alternative transportation, emergency access, and safety hazards along the primary project access routes. Vehicle trips generated during construction were estimated using the construction information (construction schedule and duration, and number of truck and worker trips) described in Section 2, Project Description, and provided by the applicant.

The numbers of construction employee and truck traffic trips were estimated for project conditions to determine the potential traffic impacts that will occur over a 24 month period on Avenue L and Avenue K.

Trip Generation

Construction employees would generally arrive by private automobile; however, similar solar facilities have shown a high level of carpooling, especially during the later stages of project construction. For this analysis, it was assumed that none of the employees would be expected to carpool, even though a usual rate on similar projects is between 10-15 percent. Traffic exiting the project site would travel east on Avenue L to Highway 14 or east on Avenue K to access other points in Los Angeles County. Approximately 12,168 truck trips are assumed for the duration of the project construction-related deliveries (e.g., racking system, various supplies, and electrical system components). That equates to 507 trips per month, 127 trips per week, and 20 trips per day, based on a 6 day work week. Additionally there would be up to 250 workers onsite, at the peak of construction. For this analysis, a worst case scenario was assumed where the combination of delivery and construction worker trips would take place simultaneously; therefore, the total potential vehicle trip generation from the proposed project would be approximately 270 trips per day.

Thresholds of Significance
According to the CEQA Guidelines' Appendix G Environmental Checklist, the following questions were analyzed and evaluated to determine whether noise impacts are significant. Would the proposed project result in:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

- Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

- Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

- Result in inadequate emergency access?

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

### 3.12.3.1 Project Impact Analysis and Mitigation Measures

#### Traffic Increase

**Impact TRA-1** The proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

**Impact Analysis**

The proposed project would generate traffic through the transport of workers, equipment, and materials to and from the project site. Such transport activities would be temporary and required only during the proposed project’s construction; however, increases in traffic levels, although temporary, could potentially result in adverse effects to the local circulation system. As such, construction traffic impacts require evaluation. The analysis presents anticipated construction phase impacts.

Approximately 12,168 truck trips are assumed for the life of the project construction-related deliveries (e.g., tracking system, employees, various supplies, and electrical system components), equating to 507 trips per month, 127 trips per week, and 20 trips per day. For this analysis, a worst case scenario was assumed where the combination of delivery and construction worker trips would take place simultaneously; therefore, the total potential vehicle
trip generation from the proposed project would be approximately 270 trips per day. For the purposes of this traffic analysis, it is assumed that inbound construction traffic would arrive and exit the project site by traveling on Avenue L or Avenue K to Highway 14 to access other points in Los Angeles County.

As shown in Table 3.12-1, both Avenue L and Avenue K are operating at LOS A or better, which is an acceptable LOS according to both the existing City of Lancaster and County of Los Angeles General Plans. Although average daily trips (ADT) are not available for the segments adjacent to the project site. The ADT generated by project construction would result in an increase of a maximum 270 ADTs on Avenue K and Avenue L. Table 3.12-2 provides the proposed project’s maximum contribution to existing traffic volumes and assumes that all 270 trips travel on both Avenue K and Avenue L, for a worse case scenario.

### Table 3.12-2: Project’s Volumes and Levels of Service

<table>
<thead>
<tr>
<th>Roadway Section</th>
<th>Type of Arterial</th>
<th>Capacity</th>
<th>V/C</th>
<th>LOS</th>
<th>ADT*</th>
<th>Project’s Maximum Contribution to Capacity of Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avenue K</td>
<td>Major</td>
<td>16,000</td>
<td>0.094</td>
<td>A</td>
<td>1,500</td>
<td>1.68%</td>
</tr>
<tr>
<td>Avenue L</td>
<td>Major</td>
<td>16,000</td>
<td>0.275</td>
<td>A</td>
<td>400</td>
<td>1.68%</td>
</tr>
</tbody>
</table>

*Notes: *Roadways ADTs were projected for the project area, based on existing ADTs in more urbanized and heavily traveled sections of the same roads.

Source: City of Lancaster General Plan 2030 Master Environmental Assessment 2009

As shown in Table 3.12-2, the proposed project would increase traffic 1.68 percent during the most intensive phase of the project. Accordingly both Avenue K and Avenue L would operate at an acceptable LOS for roadways located within rural areas of the City and County. In order for these roadways to operate at an unacceptable LOS D or worse, trip volumes on Avenue K and L would have to increase more than a 100 times over existing traffic volumes. Thus, the project-related trip volume increases would not constitute an exceedance of the County’s LOS standards for roadways.

Given that each of these roadways presently operates well within minimum LOS standards, the temporary increase in daily trips would not increase traffic levels on these roadways to the extent that minimum LOS standards are exceeded. However, because of the rural nature of the project site, a traffic management plan will be developed in accordance with Mitigation Measure TRA-1 to address potential short-term impacts. The traffic management plan would include construction staging and traffic control measures to maintain levels of service and minimize impacts to traffic. The traffic management plan would also require provisions for emergency access and coordination with utility service providers, law enforcement, and emergency service providers to ensure minimal disruption to service during construction. The traffic management plan would also prohibit parking on adjacent roadways. Therefore, short-term construction impacts to the existing circulation system capacity would be less than significant.
Once operational, the proposed project would generate only a nominal amount of traffic, primarily maintenance vehicle trips. Periodic maintenance and panel cleaning activities would produce some traffic during the year, although such activities would be distributed throughout the year. During panel washing activities, it is projected that a maximum of 12 daily trips (6 round trips) would be generated. Out of an abundance of caution and the potential for the proposed project to impact the local roadway network, there is a potential for an unforeseen conflict from project construction. As such, Mitigation Measure TRA-1, when implemented, would decrease the operational impacts associated with the proposed project to a less than significant level.

**Level of Significance Before Mitigation**

Potentially Significant Impact.

**Mitigation Measures**

**MM TRA-1:** A traffic management plan shall be submitted to the City of Lancaster for review and approval prior to the issuance of any construction permits. The traffic management plan shall include strategies for minimizing impacts to traffic, effectively managing traffic flow and reducing the number of trips accessing the project site during the peak hours of 7a.m. to 9 a.m. and 4 p.m. to 6 p.m. These strategies shall include, but not be limited to:

- Require parking within designated areas on the project site and prohibit parking along the shoulders of adjacent roadways.
- Provide for emergency vehicle movement through the project site at all times during construction and operation.
- Provide approved offsite parking for workers with shuttle services to transport them onsite when and if onsite parking becomes restricted or unfeasible.
- Facilitate materials delivery during off-peak traffic hours and comply with regulations governing oversized loads.
- Encourage vanpool and carpool for construction employees commuting to the project site.

**Level of Significance After Mitigation**

Less Than Significant Impact.

**Congestion Management Program**

**Impact TRA-2** The proposed project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

**Impact Analysis**
As discussed in TRA-1, the proposed project would have a less than significant impact from short-term construction traffic. Given the limited construction time, coupled with the fact that Construction management Plans are intended to improve regional circulation over the long-term; construction traffic from the proposed project would be less than significant.

The County’s Congestion Management Plan includes the following roadways within the City of Lancaster: Antelope Valley Freeway (Highway 14) and Highway 138. Levels of service on these roadways must stay at LOS E or better; if they do not, the City must prepare a deficiency plan to bring the level of service back up to LOS E. Under the CMP legislation, once a roadway is entered into the CMP network it cannot be deleted, even if service levels are ultimately improved.

Under the CMP there are statutory requirements for a Land Use Analysis Program, which are similar to procedural guidelines for project review established by CEQA. CEQA requires an EIR to include the analysis of a project’s impacts on the regional transportation system. CEQA further requires that lead agencies consult with other affected agencies regarding a project’s impact on regional transportation facilities. Together, these two CEQA requirements embody the primary requirements for the CMP Land Use Analysis Program. The CMP Land Use Analysis Program has therefore been structured to coincide with and be implemented through the CEQA process. As identified in section 5.2.3 Exempted Projects, of the CMP, "Projects for which an NOP was prepared and distributed pursuant to CEQA prior to the local jurisdiction’s adoption of the Land Use Analysis Program". As part of the proposed project CEQA scoping process, an NOP was circulated and LACTC commented as such a project specific Land Use Analysis is not needed. However, as discussed above in TRA-1 the proposed project will not result in operational impacts that would affect the LOS to the adjacent roadways. Furthermore, in accordance with the 2010 CMP, Antelope Valley Freeway (Highway 14) and Highway 138 currently operate at a LOS D or better in both the a.m. and p.m. peak hours within and surrounding the City of Lancaster and Palmdale areas.

Once in operation, the proposed project would employ up to six employees to service and maintain the solar arrays. The scheduled maintenance activities, such as washing the solar panels, would typically take place up to twice a year. Because the scheduled maintenance and emergency repairs would only generate up to 12 employee trips per day, including water truck deliveries, the increase in vehicle trips, resulting from project operations, are not expected to substantially degrade the traffic operation of surrounding roadway network to unacceptable levels of service. In summary, the proposed project would not conflict with a congestion management program or standards set by the City of Lancaster or the County of Los Angeles; the impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation
Less Than Significant Impact.

**Air Traffic Patterns**

**Impact TRA-3**  The proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

**Impact Analysis**

The nearest public use airport to the project site is William J. Fox Airport approximately 4 miles northeast of the project site and the nearest private airstrip is Bohunk’s Airport located 5.7 miles northeast of the project site, however is no longer in operation. Additionally the proposed project would not involve any structures that would require registration with the Federal Aviation Administration. As documented by the United States Department of Defense, “solar photovoltaic projects pose little to no impact on military operations, testing, and training,” related to aircraft navigation (DOD 2013). As such, the proposed project would result in a less than significant impact to air traffic patterns.

**Level of Significance Before Mitigation**

Less Than Significant Impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less Than Significant Impact.

**Hazards**

**Impact TRA-4**  The proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

**Impact Analysis**

The proposed project requires no new circulation improvements other than previously approved roadway alignments and project related driveway approaches to the project site access points. Roadways in the project vicinity are generally straight with good sight distance, so visibility and access is acceptable. The maneuvering of slow-moving construction trucks and equipment among the general-purpose traffic on Avenue K and Avenue L in the project vicinity could temporarily slow traffic flow. However, the impact would be less than significant and further reduced through implementation of the Mitigation Measure TRA-1.

**Level of Significance Before Mitigation**

Less Than Significant Impact.
Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Emergency Access

Impact TRA-5  The proposed project would not result in inadequate emergency access.

Impact Analysis

Per the City’s Master Environmental Assessment, Avenue L is an evacuation route up to 90th Street West and 90th Street West is an evacuation route from Avenue L north to the county line. Both of these roadways are immediately adjacent to the project site. The project would not create significant traffic volumes during construction or operations. Additionally, it would not require the use of equipment, nor result in improvements that could obstruct movement of vehicles along these emergency access routes for the City of Lancaster. As such, the proposed project would result in a less than significant impact to emergency access.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Conflict with Alternative Transportation

Impact TRA-6  The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact Analysis

The project site is located in a rural area where alternative transportation is not commonly used. Because the proposed project is not adjacent to a roadway with alternative modes of transport (bike and pedestrian travel) the proposed project would not increase hazards or create barriers for pedestrians or bicyclists, nor would it interfere with bus routes or turnouts. In conformance with the City of Lancaster’s Master Plan of Trails and Bikeways, an 8 foot wide asphalt bike lane would be constructed along Avenue L between 80th Street West and 90th Street West and along 90th Street West from Avenue L to Quarry Ridge Road. Accordingly, the proposed project would not conflict with adopted policies supporting alternative transportation and no impacts would
occur. The proposed project would not generate demand for public transit, nor does it include transit facilities. Therefore, the proposed project would not conflict with policies or standards related to alternative transportation modes; the impact would be less than significant.

**Level of Significance Before Mitigation**

Less Than Significant Impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less Than Significant Impact.

### 3.12.4 Cumulative Impacts

The project would increase traffic along Avenue L and K by 1.68% during the most intensive phase of the project. Given that each of these roadways presently operates well within minimum LOS standards, the temporary increase in daily trips would not increase traffic levels on these highways and roadways to the extent that minimum LOS standards are exceeded. However, because of the rural nature of the project site, mitigation is proposed to facilitate the development and implementation of a traffic management plan to address potential short-term impacts. The implementation of a traffic management plan would include construction staging and traffic control measures to maintain and minimize impacts to traffic. The traffic management plan would also require the provision for emergency access and coordination with utility service providers, law enforcement, and emergency service providers to ensure minimal disruption to service during construction. Therefore, short-term construction and decommissioning impacts associated with the existing circulation system capacity would be less than significant.

The projects listed in Table 3-3 would also only result in temporary construction level impacts. Because multiple roadways would be used, the staggered construction schedules of the related cumulative projects, and the nominal amount of average daily traffic that would be generated during the operations phase of most of these facilities, only minimal impacts to the overall effectiveness of the local and regional circulation system are anticipated, and overall, less than significant cumulative impacts would occur. Thus, the proposed project plus related projects would result in less than significant cumulative impacts to transportation. Therefore, the proposed project would not have a cumulatively considerable impact on transportation.

Implementation of the related projects could lead to additional traffic on local streets within the City, which may result in traffic operations that would exceed the current LOS D standards adopted by the City. This could result in a potentially significant impact. However, the proposed project, along with all other related cumulative projects, would be required to comply with all standard transportation requirements concerning an agency’s ability to provide an appropriate level of service. Upon compliance with standard regulatory requirements, the proposed project, along with all other related projects, would not significantly affect operational traffic and transportation services.
Once operational, the proposed project would require an average crew of up to six technicians for scheduled maintenance or emergency repairs. Periodic maintenance and panel cleaning activities (up to twice a year) would also produce traffic during the year, although such activities would be distributed throughout the year. While panel washing activities are occurring, it is projected that a maximum of 12 daily trips would be associated with project operation. This additional operational traffic would not increase traffic levels on these roadways to the extent that minimum LOS standards are exceeded.