

Solar Panel Project at the Caltrans Transportation Lab Facility

5900 Folsom Boulevard in Sacramento County, California

03-SAC L-5501

EA 03-0AA064

(E-FIS 0000001248)

Initial Study with Proposed Negative Declaration



Prepared by the
State of California Department of Transportation



March 2011

General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of the proposed project located in Sacramento, California. The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts, and the proposed avoidance and minimization measures.

What should you do?

- Please read this Initial Study. Additional copies are available along at the Sacramento Central Library, 828 I Street, Sacramento, CA 95816; and the McKinley Branch Library, 601 Alhambra Avenue, Sacramento, CA 95816.
- The document is also available at the following website:
<http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm>.
- We welcome your comments. If you have any comments regarding the proposed project, please send your written comments to Caltrans at the following address:

Jeremy Ketchum, Senior Environmental Planner
Office of Environmental Management
California Department of Transportation
2379 Gateway Oaks Drive, Suite 150, Sacramento, CA 95833

Or submit comments via email to: **Jeremy_Ketchum@dot.ca.gov**

Submit comments by the deadline: May 4, 2011

What happens next?

After comments are received from the public and the reviewing agencies, Caltrans may (1) give environmental approval of the proposed project, (2) conduct additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could proceed with design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, audiocassette or computer disk. To obtain a copy in one of these alternate formats, please call or write: Mark Dinger, Public Information Officer, Caltrans - District 3, 703 B Street, Marysville, CA 95901, (530) 741-4572 (voice phone) or (530) 741-4509 (TTY).

SCH:
03-SAC, L5501
EA: 03-0AA064

Solar Panel (CREB) Project at the Caltrans Transportation Lab Facility

5900 Folsom Boulevard in Sacramento County
03-SAC
EA: 03-0AA064
(E-FIS 0000001248)

Initial Study with Proposed Negative Declaration

Submitted Pursuant to: (State) Division 13, California Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

30 March 2011
Date of Approval


John Webb, Chief
North Region Environmental Services
California Department of Transportation

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to install solar panels at their Transportation Lab facility, located at 5900 Folsom Boulevard in Sacramento, California. This endeavor is part of a pilot project to comply with the Clean Renewable Energy Bonds (CREB) program and the Governor's Executive Order S-20-04. The work will require trenching existing ground (30 inches deep by 24 inches wide) to place conduit and the new concrete pads for electrical equipment. Utility relocation, vegetation, and tree removal may also be required. This location is within Caltrans right of way. This project will receive state-only funding and is therefore subject to the California Environmental Quality Act (CEQA) and the PRC 5024.

Determination

Caltrans has prepared an Initial Study for this project and, pending public review and comments, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have minimal or no effect on aesthetics, agricultural resources, air quality, cultural resources, geology/soils, land use and planning, mineral resources, noise, population/housing, public services, recreation, transportation, traffic patterns, utilities, and water quality.
- In addition the proposed project would have no significant effect on any hazardous waste or material.
- No mitigation measures are required.

Date of Approval

John Webb, Chief
North Region Environmental Services
California Department of Transportation

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Initial Study

Project Title

Solar Panel Project in District 3, at the Caltrans Transportation Lab Facility

Lead Agency Name and Address

California Department of Transportation (Caltrans)
2379 Gateway Oaks Drive, Suite 150
Sacramento, CA 95833

Contact Person

Jeremy Ketchum, Senior Environmental Planner
Environmental Management Branch S1
(916) 274-0621

Project Location

The proposed project is located in District 3 at the Caltrans Transportation Lab facility in Sacramento County at 5900 Folsom Boulevard, at the intersection of Folsom and 59th Street in Sacramento, California.

Project Sponsor's Name and Address

California Department of Transportation (Caltrans)
John Webb, Chief of Environmental Services - South
703 B St
Marysville, CA 95901

Purpose and Need

The California Department of Transportation (Caltrans) proposes to install solar panels at two existing buildings at the Caltrans Transportation Lab (Translab) site: the Structural Materials Building and the Geotech Building. The Department has committed to the Clean Renewable Energy Bond (CREB) program, and this project is one of several projects in District 3 that will install Photovoltaic (PV), or solar, panels in various state-owned buildings within the district. The purpose of this project is to provide clean, renewable energy and demonstrate Caltrans' commitment to California's Clean Renewable Energy Bond (CREB) program and the Governor Executive Order (E.O.) S-20-04. The E.O. states that all state-owned facilities are to take measures to reduce grid-based energy purchases by the year 2015. This project proposes to place photovoltaic panels on the roof of the building and to tie the electrical output of the system into the local electrical utility.

Alternatives

There are two alternatives being studied, the “No Build” alternative and the build alternative, which is described below.

Description of Project

The proposed project is located at Caltrans’ Transportation Laboratory (Translab) on 5900 Folsom Boulevard in Sacramento, California. The Translab complex is comprised of several buildings, and the project proposes to install PV panels on top of two buildings within the complex, the recently-constructed Geotechnical (Geotech) Building (built in 2006) and the older Structural Materials Building (constructed in 1967).

The project proposes to install approximately 2,140 total square feet of PV panels on the rooftop of the Geotech Building, and approximately 4,860 total square feet of PV panels installed on the rooftop of the Structural Materials Building. The panels will be placed with a tilt of 10 degrees oriented south, so that they won’t be seen from the street but so that the panels have maximum sun exposure, and are connected to each other by wires in series and in parallel. Mounting of the panels is by a self-ballasted system and then connecting it to existing structural members. Several panels (12 + or -) are in a series (a string) and are wired to an electrical combiner box that combines several strings in parallel. From the combiner box, conduit and wire is installed so that power can go to an inverter, which changes the power from DC to AC and matches the utility power frequency. All of the conduit and wire will be routed so it cannot be seen from the street level. From the inverter, the power is fed into an existing electrical main switchboard (MSB). The electrical feed from the inverter requires a trench, approximately 30 inches deep by 180-feet long, adjacent to the older Structural Material Building. (see page 6, Electrical Plans page EE-1). The proposed PV panel systems for the newer Geotech Building will connect to an existing electrical panel within the building and does not require any trenching.

Purpose and Need

The purpose and need of the project is to comply with E.O. S-20-04, which states that all state-owned facilities must take measures to reduce their grid utility power by 20% by the year 2015 and use clean, renewable energy. The goal of the proposed project is to reduce the Translab’s use of conventional electric utility power by 20% by installing the PV systems on the Geotech and the Structural Materials Building. Installing the PV systems will generate solar electrical power to the facility in unison with the grid electrical power, which will save utility cost and employ green, renewable energy.

Surrounding Land Uses and Setting

At the Translab at 5900 Folsom Boulevard in East Sacramento, the surrounding properties are mixed commercial and industrial uses.

Permits and Approvals Needed

No environmental permits are required to construct the project. Additionally, the project is consistent with the Sacramento County General Plan

Project Vicinity Map

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
STRUCTURE PLANS	
2	GENERAL PLAN AND LEGEND
3-7	ELECTRICAL PLANS
8-13	"FOR REFERENCE ONLY" SHEETS

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

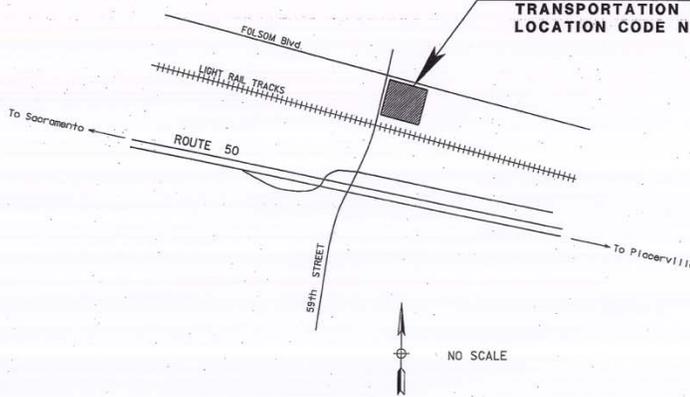
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR BUILDING CONSTRUCTION
IN SACRAMENTO COUNTY
IN SACRAMENTO
AT THE
MAIN TRANSPORTATION LABORATORY
AT 5900 FOLSOM BOULEVARD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

DIST	COUNTY	LOCAL OR STATE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	L5501		1	13



LOCATION OF CONSTRUCTION
TRANSPORTATION LABORATORY
LOCATION CODE No. 5501



NO SCALE

CALIFORNIA STATE FIRE MARSHAL
APPROVED
 Approval of this plan does not constitute an approval or opinion of the State Fire Marshal regarding the safety or soundness of the project. The user of this plan shall be responsible for the safety and soundness of the project.
 Approved by: _____
 Approved Date: _____
PHOTOVOLTIC SYSTEMS
 DSM FILE # 00-00-00-0000

PROJECT MANAGER
 CLARK PERRY
 DESIGN ENGINEER
 ALAN TORRES

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

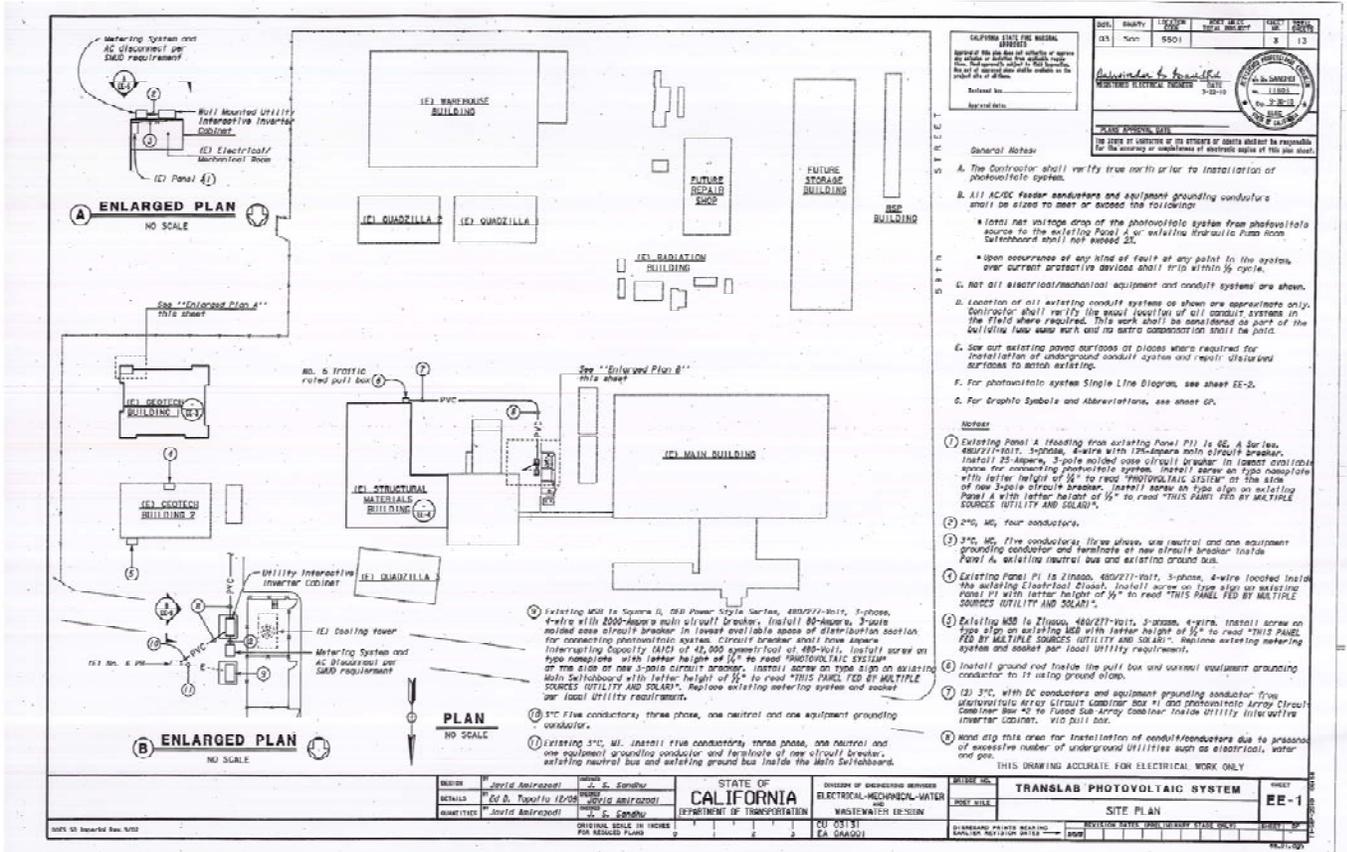
Reviewed to transfer
 PROJECT ENGINEER DATE
 REGISTERED ELECTRICAL ENGINEER
 00-00-00
 No. 11803
 Exp. 8-20-10
 ELEC
 BOARD OF CALIFORNIA REGISTERED PROFESSIONAL ENGINEERS

PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No. **03-0AA004**
 CU 03131 EA 0AA001

7/28/2010 11:28:00 AM
 100-00-10 TIME PLOTTED -> 04:35

Electrical Plan EE-1



DATE	REVISION	BY	DATE
03/10/03	1	EA	03/10/03
03/10/03	2	EA	03/10/03

- General Notes**
- The Contractor shall verify true north prior to installation of photovoltaic system.
 - All AC/DC feeder conductors and equipment grounding conductors shall be sized to meet or exceed the following:
 - Must not violate drop of the photovoltaic system from photovoltaic source to the existing Panel A or existing Hydraulic Pump Room (intermediate panel) not exceed 2%.
 - Upon occurrence of any kind of fault in the system, over current protective devices shall trip within 1/2 cycle.
 - Not all electrical/mechanical equipment and conduit systems are shown.
 - Location of all existing conduit systems as shown are approximate only. Contractor shall verify the exact location of all conduit systems in the field where required. This work shall be completed as part of the building take away work and no extra compensation shall be paid.
 - See out existing power conditions at places where required for installation of underground conduit system and repair utilization according to match existing.
 - For photovoltaic system Single Line Diagram, see sheet EE-2.
 - For Graphic Symbols and Abbreviations, see sheet G1.

- Notes**
- Existing Panel A feeding from existing Panel P11 is 66, 4-wire, 480/277V-3-phase, 4-wire with 200-ampere main circuit breaker. Install 25-ampere, 3-pole molded case circuit breaker in lowest available space of distribution section for connecting photovoltaic system. Circuit breaker shall have ampere interrupting capacity (AIC) of 40,000 symmetrical at 480V-10kV. Install screw on type nameplate with letter height of 1/8" to read "PHOTOVOLTAIC SYSTEM" on the side of new 3-pole circuit breaker. Install screw on type sign on existing Main Switchboard with letter height of 1/8" to read "THIS PANEL FED BY MULTIPLE SOURCES UTILITY AND SOLAR". Replace existing metering system and socket per local utility requirement.
 - 2" MC, 4-wire, four conductors.
 - 3" MC, 5-wire conductors; three phase, one neutral and one equipment grounding conductor and terminate at new circuit breaker inside Panel A, existing neutral bus and existing ground bus.
 - Existing Panel P1 is 2100va, 480/277V-3-phase, 4-wire located inside the existing Electrical Room. Install screw on type sign on existing Panel P1 with letter height of 1/8" to read "THIS PANEL FED BY MULTIPLE SOURCES UTILITY AND SOLAR". Replace existing metering system and socket per local utility requirement.
 - Install ground rod inside the pull box and connect equipment grounding conductor to it using ground clamp.
 - 3" MC, 5-wire conductors and equipment grounding conductor from electrical room circuit combiner box #1 and photovoltaic Array Circuit Combiner Box #2 to fused sub-array combiner inside Utility Interactive Inverter Cabinet. See D111 for details.
 - Weld dip this area for installation of conduit/ductwork due to presence of excessive number of underground utilities such as electrical, water and gas.

DESIGNER	DATE	CHECKED	DATE	STATE OF CALIFORNIA	DIVISION OF	PROJECT NO.	SHEET NO.
José A. Amador	03/10/03	E. Sanjour	03/10/03	CALIFORNIA	ELECTRICAL-MECHANICAL-WATER	03-03131	EE-1
Ed B. Tassilo (EPA)		José A. Amador		DEPARTMENT OF TRANSPORTATION	WASTEWATER RE-USE	EA 030001	
José A. Amador		E. Sanjour					

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one “Less than significant impact” as indicated by the checklist on the following pages.

- | | |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> | Aesthetics |
| <input type="checkbox"/> | Agricultural Resources |
| <input type="checkbox"/> | Air Quality |
| <input type="checkbox"/> | Biological Resources |
| <input type="checkbox"/> | Cultural Resources |
| <input type="checkbox"/> | Geology/Soils |
| <input checked="" type="checkbox"/> | Hazards and Hazardous Materials |
| <input type="checkbox"/> | Hydrology/Water Quality |
| <input type="checkbox"/> | Land Use/Planning |
| <input type="checkbox"/> | Mineral Resources |
| <input type="checkbox"/> | Noise |
| <input type="checkbox"/> | Population/Housing |
| <input type="checkbox"/> | Public Services |
| <input type="checkbox"/> | Recreation |
| <input type="checkbox"/> | Transportation/Traffic |
| <input type="checkbox"/> | Utilities/Service Systems |
| <input type="checkbox"/> | Mandatory Findings of Significance |

Impacts Checklist

On the next page, the impacts checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act (CEQA) category of environmental impact levels include: “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. The checklist is followed by a focused discussion of hazardous waste issues relating to this project.

In addition, climate change is discussed to address Executive Order S-3-05, signed on June 1, 2005 by Governor Arnold Schwarzenegger. The goal of this Executive Order is to reduce California’s greenhouse gas (GHG) emissions.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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I. AESTHETICS — Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations check marked in the above section are based on the Visual Impact Assessment Memo of February 18, 2011.

II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations check marked in the above section are based on the project location and scope.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations check marked in the above section are based on the Air Quality Analysis of July 22, 2009.

IV. BIOLOGICAL RESOURCES — Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

“No impact” determinations check marked in the above section are based on the Natural Environmental Study (NES) Memo of October 22, 2009.

V. CULTURAL RESOURCES — Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d) Disturb any human remains, including those interred outside of formal cemeteries?

“No impact” determinations check marked in the above section are based on the Cultural Resource and Screened Undertaking Assessment of April 15, 2010.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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VI. GEOLOGY AND SOILS — Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” determinations check marked in the above section are based on the location and scope of the project.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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VII. HAZARDS AND HAZARDOUS MATERIALS — Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” determinations check marked in the above section are based on the Hazardous Waste Initial Site Assessment of March 3, 2010.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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VIII. HYDROLOGY AND WATER QUALITY —

Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Result in inundation by a seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” determinations check marked in the above section are based on the Water Quality Assessment of July 15, 2009.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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IX. LAND USE AND PLANNING — Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations check marked in the above section are based on the project scope and location.

X. MINERAL RESOURCES — Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No impact” determinations check marked in the above section are based on the project scope and location.

XI. NOISE — Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No impact” determinations check marked in the above section are based on the Noise Analysis Memo of July 21, 2009.

XII. POPULATION AND HOUSING —

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

“No impact” determinations check marked in the above section are based on the project scope and location.

XIII. PUBLIC SERVICES —

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Police protection?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” determinations check marked in the above section are based on the project scope and location.

XIV. RECREATION —

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” determinations check marked in the above section are based on the project scope and location.

XV. TRANSPORTATION/TRAFFIC —

Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” determinations check marked in the above section are based on the project scope and location.

XVI. UTILITY AND SERVICE SYSTEMS — Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

g) Comply with federal, state, and local statutes and regulations related to solid waste?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

“No impact” determinations check marked in the above section are based on the project scope and location.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE —

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND AVOIDANCE MEASURES

HAZARDOUS WASTE

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

PHYSICAL ENVIRONMENT

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

The "Cortese List" (required by Government Code Section 65926.5) contains information about contaminated properties. It is mandatory to check the Cortese list as part of the Preliminary Site Investigation, or initial screening, for all projects. A property's presence on the list has a bearing on the local permitting process as well as on compliance with CEQA. A search of hazardous waste databases determined that the Caltrans Transportation Laboratory (Translab) is a site on the Cortese List, for asbestos-containing materials, petroleum-contaminated groundwater, and lead-based paint.

In 2003 and 2004 hazardous waste consultants, Geocon Consultants and National Analytical Laboratories (NAL), Inc. conducted hazardous waste Site Investigations (SI) at the Translab facility for project, EA 03-2C8431, which added fire, safety, and Americans with Disability Act (ADA) improvements to the Main Building and the Geotech Building. Geocon, Inc. consultants tested for lead-based paint, contaminated groundwater, and also performed a limited asbestos survey, which accounted for the work scope of project EA 03-2C8431. Contaminated groundwater was detected at approximately 40 feet below the ground's surface. Additionally, NAL consultants performed a survey for mold, and they detected various types of mold on the surface area of the roof of the Geotech Building

The Site Investigation (SI) detected that the Geotech Building has varying concentrations of asbestos in the window putty, tile floor mastic (sealant), and the joint compounds associated with gypsum board walls and ceiling systems throughout the facility; and also in wall panels used in the main entry. However, the rooftop of the Geotech Building was free of asbestos and lead-containing paint. For the Structural Materials Building the SI detected varying concentrations of asbestos in pipefitting and joint compounds associated with gypsum board walls and ceilings throughout the facility. Additionally, lead concentrations were detected in peeling and flaking white exterior paint on the west stairwell/access ramp. The SI did not survey the Structural Material Building's rooftop, so there is potential for asbestos-containing material (ACM) within the rooftop of this building.

Environmental Consequences/Avoidance and Minimization Measures

The work scope for the proposed project will install strings of PV panels on the rooftops of the both the Geotech and Structural Materials Building by using a self-ballasted system that will be fastened to the rooftop. Construction of the self-ballasted system will involve working on the surface of the rooftop and will not penetrate the roof. The rest of the work scope

PHYSICAL ENVIRONMENT

involves wiring the PV strings to an electrical combiner box; and then from the combiner box the installation of conduit and wire so that power can go to an inverter device, which changes the power from DC to AC and matches the utility power frequency. From the inverter, the 30-inch deep by 180 foot-long trench will be dug for installing conduit and wire into the trench, so that power can be connected to the existing electrical main switchboard (MSB). Although the Translab is a listed site on the Cortese List for contaminated groundwater, the shallow 30-inch depth of the trench will avoid the contaminated groundwater, which is located 40 feet below the surface.

Various types of mold were found on the surface areas of the Geotech Building's roof, which is a newer building than the Structural Materials Building. Typically, mold growth indicates an excess moisture condition. Before construction NAL Inc. recommended that the affected roofing material be cleaned and sanitized once rainstorms have stopped for the season. Because work for the project will involve installing self-ballasted PV panels onto the rooftop of the Geotech and Structural Materials Building, it is recommended that these rooftops be cleaned and sanitized before construction work begins on the rooftops of both buildings.

Additionally, the Site Investigation determined there was the presence of lead-based paint in the older Structural Materials Building on the west stairwell/access ramp. Lead-based paint is not anticipated to be disturbed by construction activities.

Asbestos identified within the Geotech building will not be disturbed by project construction.

The SI did not survey for asbestos-containing materials (ACMs) within the Structural Materials Building or within its rooftop. Because of the age of the Structural Materials Building, and because at that time ACMs were routinely used in building construction, there is potential for ACMs in the rooftop.

Therefore, the following Avoidance and Minimization Measure will apply to ensure health and safety of construction workers and Translab employees:

- The PV Panels will be fastened to the roof in a self-ballasting system and no construction will penetrate the roof.
- The rooftops of the Geotech and the Structural Materials Building should be cleaned and sanitized so that they are free of various mold species.

PHYSICAL ENVIRONMENT

With the inclusion of the avoidance and minimization measures above, the project is not anticipated to result in any substantial impacts. Therefore, the project would not be expected to contribute to a cumulative impact.

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions human activity-related GHG, including carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007 (See *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011). However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. This standard is the same standard that was proposed by California; therefore, the California waiver request has been shelved.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the year 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations specifically addressing GHG emissions reductions and climate change have been enacted. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et al., 549 U.S. 497 (2007)). The court ruled that GHG does fit within the Clean Air Act’s definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

According to *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable.” See CEQA Guidelines sections 15064(i) (1) and 15130. To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task. As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below is a graph from that update which shows the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

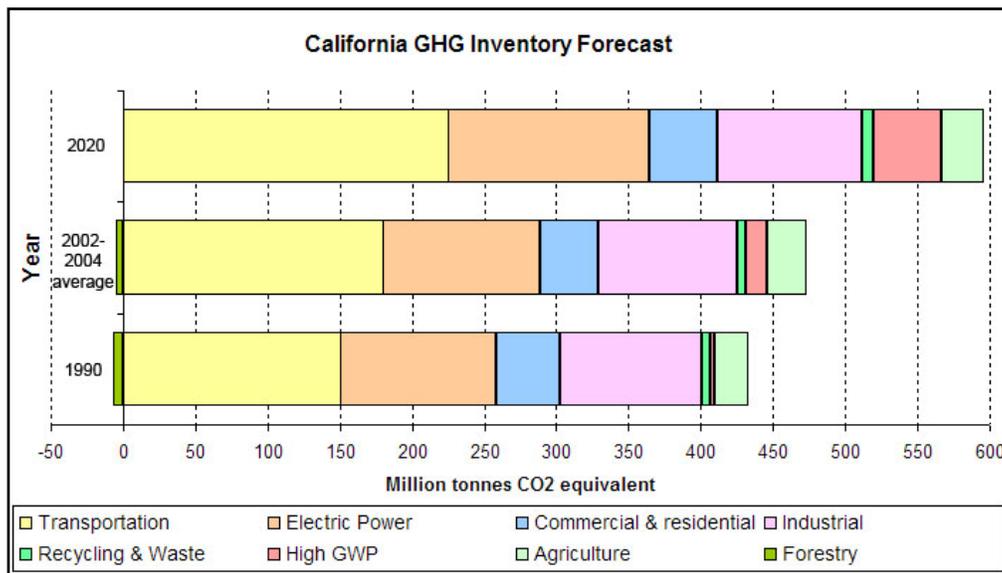


FIGURE 2: CALIFORNIA GREENHOUSE GAS INVENTORY
 Taken from : <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation (see Climate Action Program at Caltrans, December 2006). Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at: <http://www.dot.ca.gov/docs/ClimateReport.pdf>

Project Analysis

This project proposes to install a self-ballasting system of PV panels onto the rooftops of the Geotech and the Structural-Materials Building at the Caltrans' Translab. The project will not increase traffic or change long-term traffic. There will be no increase in operational GHG emissions occurring from the project. The project will supplement the existing grid-based electricity with solar-powered electricity. Adding solar-based power will help operate the building's electrical heating, air conditioning, and ventilation (HVAC) system, as well as help power test equipment for both the Geotech and the Structural-Materials Buildings. Adding solar-based electricity will increase the energy efficiency of these buildings and will reduce their operational costs. The project will help play a beneficial role in California's economy by saving money and using clean, renewable energy.

Additionally, the project is compliant with two recent pieces of legislation that focus on energy use. Assembly Bill 32, or AB 32, (Nunez, Chapter 488, Statutes of 2006) was passed in 2006 by California State Legislature and Governor's Office to address greenhouse gas emissions. AB 32 requires "reductions in California's greenhouse gas emissions to 1990 levels by the year 2020 and to 80 percent below 1990 levels by 2050. Though not specifically mentioning buildings, increasing building energy efficiency is expected to play a significant role in meeting AB 32 goals." ¹ (Source: <http://www.energy.ca.gov/2008publications/CEC-400-2008-005/CEC-400-2008-005-CMF.PDF>)

As previously mentioned, the project is also compliant with Executive Order (E.O.) S-20-04, which Governor Arnold Schwarzenegger in December 2004. E.O. S-20-04 "set a goal of reducing energy use in state-owned buildings by 20 percent by 2015 (from a 2003 baseline) and encouraged cities, counties, schools, and the private sector to take all cost-effective measures to reduce building electricity use. This action built upon the state's strong history of energy efficiency efforts that have saved Californians and California businesses energy and money for decades. They are a cornerstone of greenhouse gas reduction efforts." ² (Source: <http://www.energy.ca.gov/2010publications/CAT-1000-2010-005/CAT-1000-2010-005.PDF>)

Construction Emissions

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from

traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase. Their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement life, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be reduced to some degree by longer intervals between maintenance and rehabilitation events.

For this project, GHG emissions during construction would be unavoidable but temporary. Thus, construction related impacts on GHG would not be considered long-term. Caltrans BMPs to reduce GHG emissions during construction would include limiting one way traffic wait time to no more than 10 minutes (thereby reducing idle time).

AB 32 Compliance

Caltrans continues to be actively involved on the Governor’s Climate Action Team as CARB works to implement the Governor’s Executive Orders and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Governor Arnold Schwarzenegger’s Strategic Growth Plan calls for a \$238.6 billion infrastructure improvement program to fortify the state’s transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding through 2016.¹ As shown in the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to accomplish this decrease in traffic while accommodating growth in population and the economy. A suite of investment options has been created, when combined yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach with a variety with strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

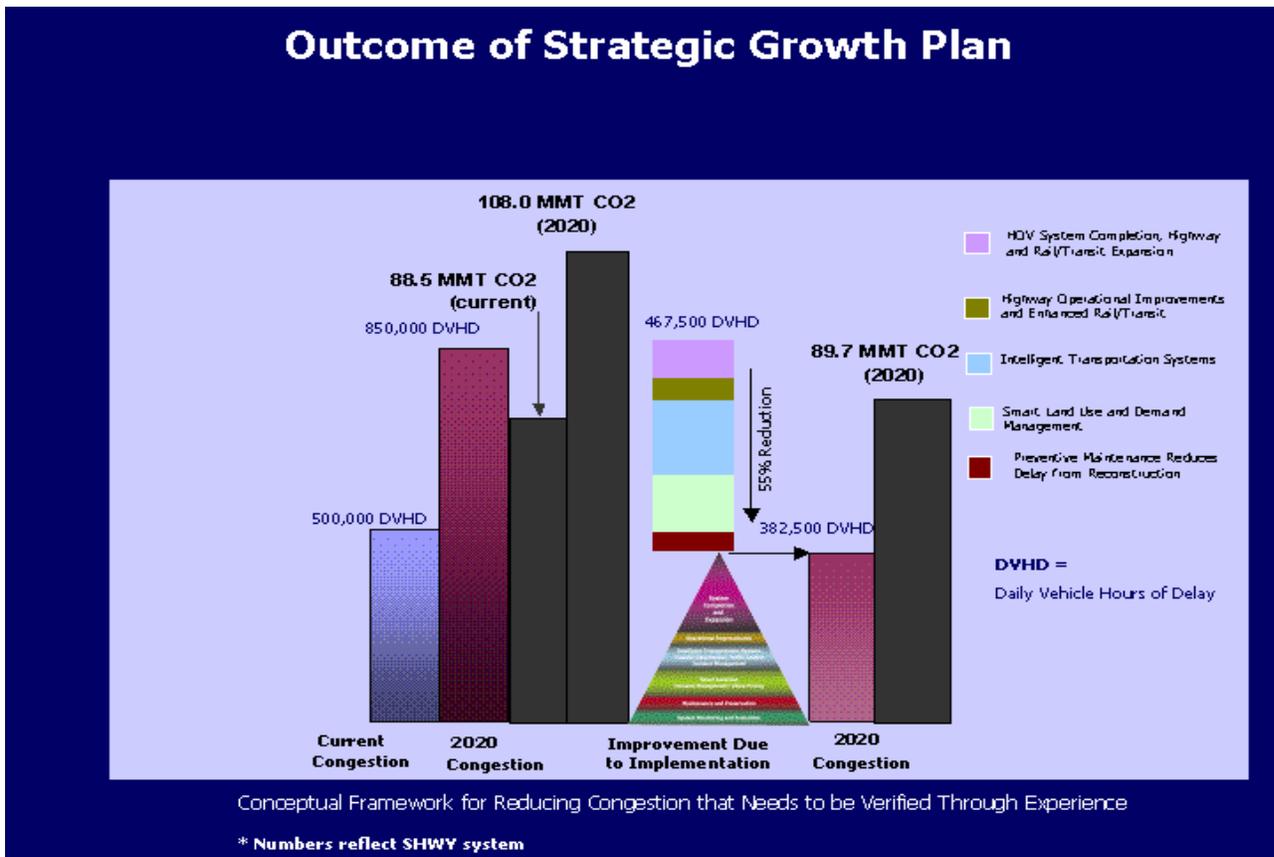


Figure 3: Outcome of Strategic Growth Plan

¹ Governor’s Strategic Growth Plan, Fig. 1 (<http://gov.ca.gov/pdf/gov/CSGP.pdf>)

As part of the Climate Action Program at Caltrans (December 2006, <http://www.dot.ca.gov/docs/ClimateReport.pdf>), Caltrans supports efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is accomplishing improvements by supporting on-going research efforts at universities, by supporting legislative efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by EPA and CARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the UC Davis.

The Climate Change Strategies table below summarizes the departmental and statewide efforts that Caltrans is implementing in order to reduce GHG emissions. For more detailed information about each strategy, please see Climate Action Program at Caltrans (December 2006). It is available at <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.45 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.67

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the State’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Climate change adaption must also involve the natural environment. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies to plan and implement mitigation strategies for programs and projects.

For additional information regarding the potential impacts of climate change in California, see *Our Changing Climate: Assessing the Risks to California, A Summary Report from the California Climate Change Center* at <http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF>.

Summary of Hazardous Waste Avoidance and Minimization Measures

The following measures will be incorporated into the project plans and specifications to avoid and minimize hazardous waste impacts:

- The PV Panels will be fastened to the roof in a self-ballasting system and no construction will penetrate the roof. The self-ballasted system method of construction will avoid any potential for encountering asbestos-containing material.
- The rooftops of the Geotech and the Structural Materials Building should be cleaned and sanitized so that they are free of various mold species. This cleaning and sanitizing will avoid exposing construction workers to mold.

Distribution List

A copy of this Initial Study with Proposed Negative Declaration was sent to the following agencies, organizations, and individuals:

Local and Regional Agencies

City of Sacramento
Community Development - Planning Division
300 Richards Boulevard
Sacramento, CA 95811-0218

State Agencies

The Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

California Transportation Commission
Commission Chair
1120 N Street, Room 2221 (MS-52)
Sacramento, CA 95814

Caltrans Headquarters Environmental Program
Office of Environmental Management
P.O. Box 942874
Sacramento, CA 94274-0001

Public Utilities Commission
Executive Director
505 Van Ness Avenue
San Francisco, CA 94102

Director
Department of Water Resources
1416 9th Street, Room 1115-1
Sacramento, CA 94236-0001

Director
State Department of Housing and Community Development
MS 0000
P.O. Box 997413
Sacramento, CA 95899-7413

Executive Officer
State Lands Commission

100 Howe Avenue, Suite 100
Sacramento, CA 95825

Director
Department of Fish and Game
1416 Ninth Street
Sacramento, CA 95814

Director
Department of Parks and Recreation
915 I Street, 5th Floor
Sacramento, CA 95814

Executive Officer
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Director
Department of Conservation
801 K Street, MS 24-01
Sacramento, CA 95814

Executive Officer
Integrated Waste Management Board
8800 Cal Center Drive
Sacramento, CA 95826

Secretary
Resources Agency
1416 Ninth Street
Sacramento, CA 95814

Executive Officer
State Air Resources Board
1001 I Street
P.O Box 2815
Sacramento, CA 95812

Executive Director
Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Director
Department of Health Services
714/744 P Street
Sacramento, CA 95814

References and Footnotes

¹ Source: AB 2160 Green Building Report, Commission Report, January 2008, CEC-400-2008-005-CMF by the State of California Energy Commission: Website:

<http://www.energy.ca.gov/2008publications/CEC-400-2008-005/CEC-400-2008-005-CMF.PDF>

² Source: California Climate Action Team's "Climate Action Team Report to Governor Schwarzenegger and the California Legislature", December 2010, published by the California Environmental Protection Agency. Website: <http://www.energy.ca.gov/2010publications/CAT-1000-2010-005/CAT-1000-2010-005.PDF>

³ Source: Caltrans Standard Environmental Reference (SER), Annotated Outline IS/EA, posted May 17, 2010. Website: <http://www.dot.ca.gov/ser/forms.htm>

Appendix A: Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. Box 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
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Be energy efficient!*

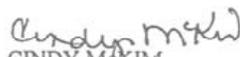
July 20, 2010

**TITLE VI
POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, or age, please visit the following web page:
http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: charles_wahnnon@dot.ca.gov.


CINDY MCKIM
Director

"Caltrans improves mobility across California"

List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

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Clark Peri, Project Manager. Contribution: Project Manager

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Kathleen Grady, Landscape Architect. Contribution: Visual Impact Report

Sharon Tang, Transportation Engineer. Contribution: Air Quality Assessment

Benjamin Tam, Transportation Engineer. Contribution: Noise Assessment

Kevin Evarts, Transportation Engineer. Contribution: Water Quality Assessment

Technical Studies

- Air Quality Assessment, July 22, 2009.
- Noise Analysis Report, July 21, 2009.
- Cultural Resource Report & Finding/Screened Undertaking Assessment, April 15, 2010.
- Natural Environment Study (NES), October 22, 2009.
- Hazardous Waste Initial Site Assessment, March 3, 2010.
- Visual Impact Report, February 18, 2011.
- Water Quality Assessment, July 15, 2009.