City of Paso Robles
Planning Commission Agenda Report

From: Darren Nash, Associate Planner

Subject: Planned Development (PD 16-007) Black Oak Lodge - a new 4-story, 96-room hotel, 4-story, 59,000± sf hotel at 2717 Black Oak Drive, APN 008-132-019 & 021
Applicant – Black's Hatchery, Matt Masia

Date: May 8, 2018

Facts

1. George Garcia, Architect on behalf of Black's Hatchery, has proposed to construct a 96-room, 4-story, 59,000± sf hotel. The hotel is proposed on a vacant infill parcel that is approximately 1.8-acres in area, located at 2717 Black Oak Drive. See Attachment 1, Location Map.

2. The property is within the Uptown/Town Center Specific Plan (UTSP) and designated Riverside Corridor (RSC), and Commercial Service (CS) land use designation. Hotels are a permitted land use in the RSC zone, and are consistent with the CS General Plan designation.

3. The UTSP allows flex shed type buildings to be four stories and up to 50-feet in height. The specific plan does limit the massing of the fourth story to only cover 50-percent of the third floor. Therefore, in order to allow for the 100 percent fourth floor coverage as proposed with this project, in would be necessary for the Planning Commission to allow for a modification to this development standard.

4. The other modification being requested with the Black Oak Lodge project is a request to allow an expanded front setback (from Black Oak Drive) of the hotel building to be approximately 75-feet from the property line as opposed to the 10-foot front setback required by the UTSP RSC zone.

5. A no-build easement exists across the front of the site in favor of Carl's Jr. restaurant, to prevent structures being built on the subject site that would block views of Carl's Jr. from 24th Street. This easement is the reason for the front setback modification to 75-feet. The setback area is used for parking for the hotel.

6. The project would require 96 parking spaces for guest rooms and approximately 8 employee parking spaces, for a total of 104 parking spaces. The plan has been designed to include 120 parking spaces.

7. The Development Review Committee (DRC) reviewed this project on May 22, 2017. The DRC discussed the scale and massing of the hotel, and based on the site being infill, in an existing highway oriented development pattern, the DRC supported the project, including the request for 100 percent fourth floor coverage and expanded front setback. The DRC recommended approval of the Black Oak Lodge project to the Planning Commission.

8. An environmental initial study was prepared for this project (see Attachment 7) that concluded that environmental mitigation measures related to Air Quality (dust control during construction) and Green House Gas (on going GHG impacts related to the on-going operation of the hotel) are necessary to reduce the project environmental impacts to less than significant.

9. A traffic study was prepared by Associated Traffic Engineers (ATE), where the impacts resulting from added vehicle trips from the project were evaluated. The ATE study concluded that the added trips to the City intersections would continue to operate at a Level of Service (LOS) of C or better during weekday peak periods, and impacts related to the City intersections would not be significant.

   The ATE study was provided to Caltrans for initial comments. Caltrans requested that the traffic study be updated to include analysis of the project's impacts to the Highway 101 on and off ramps using Friday peak hour trip counts. ATE provided an updated Traffic Study (July 26, 2017), which concluded that an increase of 5-6 cars would be added to the Highway 101 north and south on and off ramps. The City Engineer reviewed the trip data and concluded the increase in the number of trips to the US 101 Highway on/off ramps are less than significant, representing a 1% ± increase in intersection trips. The July 26, 2017 (revised December 21, 2017) ATE Traffic Study is included in the staff report as Attachment 5 to the Initial Study (Exhibit A to Resolution A, Attachment 5).

10. Pursuant to the Statutes and Guidelines of the California Environmental Quality Act (CEQA) and the City's Procedures for Implementing CEQA, an Initial Study and Negative Declaration (ND) was prepared and circulated for public review and comment. Based on the information and analysis contained in the Initial Study (and comments and responses thereto), a determination has been made that the project may be approved with a Mitigated Negative Declaration.

Options

1. Approve the project by approving the attached Resolution A. certifying a Mitigated Negative Declaration, (Attachment 5); and approve Draft Resolution B (Attachment 6), approving Planned Development (PD 16-007).
2. Refer the project back to staff for additional analysis on specific issues identified, and continue the public hearing to a date-certain.
3. Deny Planned Development 16-007, based on specific findings for denial to be made by the Planning Commission.

Analysis and Conclusions

1. **<u>Project Summary</u>**

   The Black Oak Lodge project is a proposal to establish a 4-story, 96 room hotel on an existing, vacant, in-fill lot. The project includes 120 parking spaces, which exceeds the Zoning Code requirement for 104 spaces allowing for one space per guest room and 8 spaces for employees. Parking spaces include standard, compact, EV charger, and handicapped accessible parking stalls, in addition to motorcycle spaces, and bicycle parking facilities.

   The project will be requesting modifications from the development standards outlined in the Specific Plan for the RSC corridor including a request to exceed the 100 percent fourth floor coverage, and increased setbacks to accommodate an existing no-building easement adjacent to Black Oak Drive.

2. <u>Modification Requests</u>

- Fourth Floor Coverage:

  As a result of a code amendment that was done in relation to the Oaks Hotel project on Riverside Avenue, the UTSP allows for four story, 50-foot height limits for flex shed and flex block buildings in the RSC zone. Therefore, the requested 47'11" height for the Black Oak Lodge project is consistent with the Specific Plan.

  What is not consistent with the specific plan is the percentage of coverage of the fourth floor. The specific plan requires that fourth floors only cover 50 percent of the third floor. The Black Oak Lodge project is requesting a 100 percent coverage for the fourth floor. It is necessary to request a modification by the Planning Commission to allow for 100 percent fourth floor coverage. The findings for this modification are included in Resolution B.

- Setback:

  As a result of a no build easement that currently exists on the project site to allow for the Carl's Jr. building to have a clear line of site from 24th Street, the Black Oak Lodge building has to be setback around 75-feet from the property line. The Specific Plan requires that buildings to be setback from the front property line, no greater than 10-feet. It is necessary for the project to have an increased front building setback to accommodate the existing no-build easement. The findings for this modification are included in Resolution B.

3. <u>Architectural Theme</u>

The proposed "modern lodge" architectural theme includes a flat roof design with architectural shed roof elements that break up the main building form. The use of wood/timber, glass, and rock accents create the "modern lodge" theme. The architectural style is generally consistent with the forms and materials of the **Warehouse Industrial** architectural style listed in the Specific Plan.

4. <u>McDonald's Drive Through</u>

The other topic of discussion was the parking and access in relation to the adjacent McDonalds drive-through. Staff was concerned with the possible conflict between the cars stacking in the drive through into the driveway for the hotel.

This issue was discussed with the DRC. George Garcia indicated that check-in and check-out times for the hotel are at different peak drive-through times for the restaurant. It was discussed that on-sight directional signage for the hotel, directing hotel guests leaving the site to use Riverside Avenue would help the circulation for the project. A condition of approval has been added to the project requiring that a sign program including directional signage be brought back to the DRC.

Additionally, the ATE traffic study prepared for the project reviewed the issue and provided a Drive Through Que Study. The drive through stacking was monitored during the lunch time period on Thursday, January 26, 2017, from 11:30am to 1:30pm. The analysis indicates that there were no more than four (4) cars queing in the drive through lanes at the same time, from the hours of 11am to 1:30pm.

A Mitigated Negative Declaration (MND) has been prepared for this project, which analyzed potential environmental impacts that may result from this development. The MND incorporates mitigation measures to be applied to the project through implementation of the Mitigation Monitoring and Reporting Program. Mitigation measures are proposed to reduce potential impacts to air quality and green house gas emissions.

With regard to traffic, staff had previously received comments from Caltrans regarding the traffic study methodology and potential traffic impacts. Comments were received late in the afternoon the date this project was scheduled for Planning Commission on August 8, 2017, requesting this item be continued to allow additional time for Caltrans to clarify with the project traffic engineer traffic model inputs and outputs. At this point, the City and Caltrans have worked with the Traffic Engineer to update the traffic study to clarify the methodology used, the incremental traffic impacts of this project will be addressed through payment of transportation impact fees that will help fund transportation improvements identified in the Parallel Routes Study. Additionally, the project has been conditioned to provide signage that will prevent cars leaving the hotel to exit on to Black Oak Drive. Caltrans has provided a letter concurring with the project conditions (see Attachment 5c to the Initial Study / MND, Attachment 7).

5. **Conclusion:**

The proposed project is consistent with the requirements for development in the RSC zoning district, as well as the Commercial Services land use district. It would meet the intent of the General Plan Land Use Element and Economic Strategy Plan by providing a highway-oriented use to provide accommodations for travelers.

6. **Analysis of Options**

Option 1
The applicant is proposing an attractive hotel project that supports highway oriented development goals in the Riverside Corridor area on a vacant infill site. The project would be consistent with the General Plan, Zoning Ordinance, Uptown/Town Center Specific Plan, and Economic Strategy.

Option 2
The Commission may wish to make suggestions to the site plan or architecture, and continue the public hearing to provide staff and the applicant time to address issues raised.

Option 3
If the Planning Commission decides to deny approval of the hotel project, the Commission must make specific findings as to how the project is not consistent with City policies and/or standards.

Fiscal Impact

The City of Paso Robles anticipates a net financial benefit to result from this hotel project through payment of Transient Occupancy Taxes (TOT) to the City's General Fund.

Recommendation

Option 1 – Approve the project by approving Draft Resolution A, certifying the Mitigated Negative Declaration, and approve Resolution B approving Planned Development (PD 16-007).

Attachments

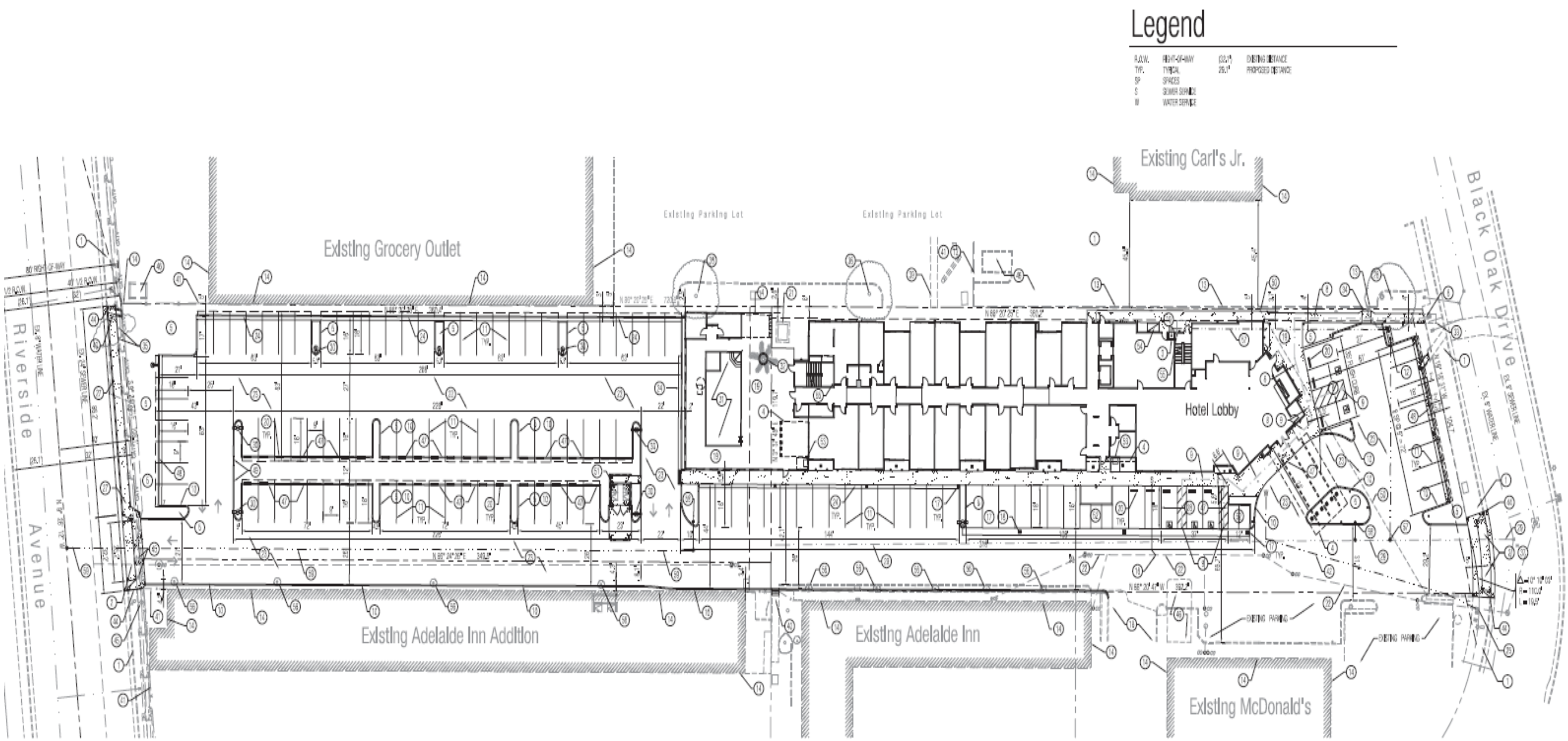
1. Location Map
2. Site Plan
3. Building Elevations
4. Perspective View
5. Draft Resolution A, to approve MND
6. Draft Resolution B, to approve PD 16-007
   - Exhibits A-R – Project Conditions and Exhibits
7. Initial Study / Mitigated Negative Declaration
8. Public Hearing Notices

Agenda Item 1

ATTACHMENT - 1

Agenda Item 1

ATTACHMENT - 2



Building Section

South Elevation

ATTACHMENT - 4

View of Porte Cochere / Main Hotel Entrance

View looking Northeast

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Black Oak Lodge
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applicant/owner:
Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:
Perspective Views

revisions:

legal stuff:

sheet data:

sheet:
A3.2

Attachment 5
Draft Resolution A

DRAFT RESOLUTION PC 18-xxx

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF PASO ROBLES ADOPTING A MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE BLACK OAK LODGE (PLANNED DEVELOMENT 16-007) 2717 BLACK OAK DRIVE, APN: 008-132-019 & 021 APPLICANT – MATT MASIA

WHEREAS, George Garcia, on behalf of Matt Masia, has submitted a Planned Development (PD 16-007) application to construct a 96-room, 4-story, 59,000 sf hotel on a vacant infill parcel that is approximately 1.8-acres in area, located at 2717 Black Oak Drive, APN 008-132-019 & 021; and

WHEREAS, the property is zoned in the Uptown/Town Center Specific Plan as Riverside Corridor (RSC), and is designated in the General Plan as Commercial Service (CS); and

WHEREAS, Hotels are a permitted land use in the RSC zone, and are consistent with the CS General Plan designation; and

WHEREAS, pursuant to the Statutes and Guidelines of the California Environmental Quality Act (CEQA), Public Resources Code, Section 21000, et seq., and the City's Procedures for Implementing CEQA, an Initial Study and a Draft Mitigated Negative Declaration (MND) was prepared and circulated for a 30-day public review period beginning on July 10, 2017 through August 8, 2017. No public comments were received on the MND prior to the Planning Commission meeting, a copy of the Draft MND/Initial Study is included in Exhibit A (Attachment 4 of the project staff report) of this Resolution, and it is on file at the Paso Robles Community Development Department; and

WHEREAS, mitigation measures have been incorporated into the MND and will be imposed on the project through the City's adoption of a Mitigation Monitoring and Reporting Program (MMRP) in compliance with CEQA Guideline 15074(d). These mitigation measures are imposed on the project to address potential environmental effects from: cultural resources. With the implementation of this mitigation, all potential environmental effects will be reduced to a less than significant level. These mitigation measures are provided in Exhibit B, "Mitigation Monitoring and Reporting Program" attached to this Resolution; and

WHEREAS, mitigation measures set forth in the MMRP are specific and enforceable. The MMRP adequately describes implementation procedures, monitoring responsibility, reporting actions, compliance schedule, and verification of compliance in order to ensure that the Project complies with the adopted mitigation measures; and

WHEREAS, the mitigation measures contained in the MMRP will also be imposed as enforceable conditions of approval; and

WHEREAS, the applicant has executed a Mitigation Agreement whereby the applicant has agreed to incorporate all of the mitigation measures listed in Exhibit B into the project. A copy of the executed Mitigation Agreement is on file in the Community Development Department; and

Attachment 5
Draft Resolution A

WHEREAS, public notice of the proposed Draft MND was posted as required by Section 21092 of the Public Resources Code; and

WHEREAS, a public hearing was continued by the Planning Commission on August 8, 2017; and

WHEREAS, a public hearing was conducted by the Planning Commission on May 8, 2018, to consider the Initial Study and the draft MND prepared for the proposed project, and to accept public testimony on the Planned Development, Conditional Use Permit, and environmental determination, at the close of this public hearing, the Planning Commission adopted the MND and approved the proposed project; and

WHEREAS, based on the information and analysis contained in the Initial Study prepared for this project and testimony received as a result of the public notice, the Planning Commission finds that there is no substantial evidence supporting a fair argument that there would be a significant impact on the environment with mitigation measures imposed on the project; and

WHEREAS, pursuant to CEQA the Planning Commission has independently reviewed the Initial Study, the Mitigated Negative Declaration, and all comments received regarding the Mitigated Negative Declaration, and based on the whole record before it finds that the Mitigated Negative Declaration was prepared in compliance with CEQA and the CEQA Guidelines, that there is no substantial evidence that the Project will have a significant effect on the environment with the incorporation of mitigation, and the Mitigated Negative Declaration reflects the independent judgment and analysis of the Planning Commission.

NOW, THEREFORE, BE IT RESOLVED, the Planning Commission of the City of El Paso de Robles, based on its independent judgment and analysis, adopts the Mitigated Negative Declaration (Exhibit A) for the Black Oak Lodge project and adopts a Mitigation Monitoring and Reporting Program (Exhibit B), and imposes each mitigation measure as a condition of approval, in accordance with the Statutes and Guidelines of the California Environmental Quality Act (CEQA) and the City's Procedures for Implementing CEQA.

PASSED AND ADOPTED THIS 8th day of May, 2018, by the following roll call vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

____
DOUG BARTH, CHAIRPERSON

ATTEST:

____
WARREN FRACE, SECRETARY OF THE PLANNING COMMISSION

Exhibits:

A. Exhibit A – Mitigated Negative Declaration / Initial Study (refer to Attachment 7 of the Planning Commission staff report)
B. Exhibit B – Mitigation Monitoring and Reporting Program

Exhibit B
Mitigation Monitoring and Reporting Plan

Project File No./Name: PD 16-007 Black Oak Lodge – Black's Hatchery

Approving Resolution No.: Resolution ______by: ☒Planning Commission ☐ City Council Date: _August 8, 2017__________

The following environmental mitigation measures were either incorporated into the approved plans or were incorporated into the conditions of approval. Each and every mitigation measure listed below has been found by the approving body indicated above to lessen the level of environmental impact of the project to a level of non-significance. A completed and signed checklist for each mitigation measure indicates that it has been completed. A description of each measure is provided in Exhibit A, attached to this document.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
	Project	CDD			Prior to certificate of occupancy.
AQ-1 The following measures shall be implemented to minimize construction-generated emissions. These measures shall be shown on grading and building plans: 1. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter. 2. Reduce the amount of the disturbed area where possible; 3. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible; 4. All dirt stock pile areas should be sprayed daily as needed; 5. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities; 6. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;	Project, ongoing	CDD Building			Written description, prior to certificate of occupancy.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
7. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD; 8. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid a s soon as possible after grading unless seeding or soil binders are used; 9. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site; 10. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114; 11. Install construction stabilized entrance and exit to construction site to help remove dust, mud and debris from vehicles. 12. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible; 13. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912. 14. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant). For more information, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.					

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
15. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.					
AQ-2 The following measures shall be implemented to reduce expose of sensitive receptors to substantial pollutant concentrations. These measures shall be shown on grading and building plans: a. Implement Mitigation Measure AQ-1, as identified in "Impact AQ-C", above. b. Prior to any grading activities a geologic evaluation shall be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. These requirements may include but are not limited to: 1. Development of an Asbestos Dust Mitigation Plan which must be approved by the SLOAPCD before operations begin, and, 2. Development and approval of an Asbestos Health and Safety Program (required for some projects). If NOA is not present, an exemption request must be filed with the SLOAPCD. More information on NOA can be found at http://www.slocleanair.org/rules-regulations/asbestos/noa.php. c. On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles: 1) Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and, 2) Shall not operate a diesel-fueled auxiliary power system to power a heater, air conditioner, or any	Project	Building Dept			Prior to issuance of grading permit

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation. d. Maintain all construction equipment in proper tune according to manufacturer's specifications; e. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); f. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation; g. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation. h. Electrify equipment when possible; i. Substitute gasoline-powered in place of diesel-powered equipment, when available; and, j. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.					
GHG-1 The proposed project shall implement, at a minimum, the following GHG-reduction measures: a. Utilize high-efficiency lighting in parking lots and other public areas (i.e., sodium, light-emitting diode [LED]). b. Utilize built-in energy efficient appliances (i.e., Energy Star rated). c. Install energy-saving systems in guest rooms that reduce energy usage when rooms are not occupied. d. Provide on-site bicycle parking beyond those required by California Green Building Standards Code and related facilities to support long-term use (lockers, or a locked room with standard racks and access limited to bicyclists only). e. Provide a pedestrian access network that internally links all uses and connects all existing or planned external streets, pedestrian facilities, and public transit stops contiguous with the project site f. The project site shall be designed to minimize barriers to pedestrian access and interconnectivity. g. Implement traffic calming improvements as appropriate (e.g., marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, median islands, mini-circles, tight corner radii, etc.) h. Comply with CALGreen Tier 1 or Tier 2 standards for water efficiency and conservation.	Project	CDD, Building Dept			Prior to issuance of certificate of occupancy

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
i. Divert, at a minimum, 65 percent of non-hazardous construction or demolition debris. j. Include the planting of native and drought tolerant trees beyond those required as mitigation for tree removal.					

Explanation of Headings:

Type: ....Project, ongoing, cumulative
Monitoring Department or Agency: ....Department or Agency responsible for monitoring a particular mitigation measure
Shown on Plans: ....When a mitigation measure is shown on the plans, this column will be initialed and dated.
Verified Implementation: ....When a mitigation measure has been implemented, this column will be initialed and dated.
Remarks: ....Area for describing status of ongoing mitigation measure, or for other information.

Attachment 6
Draft Resolution B

RESOLUTION PC 18-xxx

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EL PASO DE ROBLES APPROVING PLANNED DEVELOPMENT (PD 16-007) FOR A 96-ROOM, 4-STORY, 59,000± SF HOTEL

APPLICANT BLACK OAK LODGE/MATT MASIA
2717 BLACK OAK DRIVE, APN: 008-132-019 & 021

WHEREAS, George Garcia, on behalf of Matt Masia, has submitted a Planned Development (PD 16-007) application to construct a 96-room, 4-story, 59,000 sf hotel on a vacant infill parcel that is approximately 1.8-acres in area, located at 2717 Black Oak Drive, APN 008-132-019 & 021; and

WHEREAS, the property is zoned in the Uptown/Town Center Specific Plan as Riverside Corridor (RSC), and is designated in the General Plan as Commercial Service (CS); and

WHEREAS, Hotels are a permitted land use in the RSC zone, and are consistent with the CS General Plan designation; and

WHEREAS, the UTSP allows flex shed type buildings to be four stories and up to 50-feet in height, with a limitation on massing of the fourth story to only cover 50-percent of the third floor, the project is requesting a modification to allow 100 percent fourth floor coverage, it is necessary for the Planning Commission to allow for a modification to this development standard; and

WHEREAS, in addition to the massing exception, the applicants are also requesting a modification from the required 10-foot front building setback to be increased to 75-feet, as a result of an existing no-building easement in favor of the adjacent Carl's Jr. restaurant; and

WHEREAS, the project would require 104 parking spaces for guest rooms and approximately eight employee parking spaces, the project has been designed to provide 120 parking spaces; and

WHEREAS, the building is designed to be the flex shed building type, where the architect describes the architectural character of the building as "modern lodge" incorporating a modern style with the use of shed roofs, glass and stone accents; and

WHEREAS, the "modern lodge" design is consistent with the Warehouse Industrial architectural type allowed along the 24th Street – Riverside Avenue area that has been historically highway oriented uses, with typical roadside architecture; and

WHEREAS, the Development Review Committee (DRC) reviewed this project on May 22, 2017, where they supported the project, including the request for 100 percent fourth floor coverage and expanded front setback, and recommended approval of the Black Oak Lodge project to the Planning Commission; and

WHEREAS, the duly noticed public Planning Commission hearing on August 8, 2017 was continued; and

WHEREAS, a duly noticed public hearing was conducted by the Planning Commission on May 8, 2018, on this project to accept public testimony on the Mitigated Negative Declaration and the proposed project; and

WHEREAS, a resolution was adopted by the Planning Commission certifying a Mitigated Negative Declaration for this project, in accordance with the California Environmental Quality Act; and

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission of the City of El Paso de Robles does hereby approve Planned Development 16-007, based on the following findings and conditions of approval:

Section 1. The above recitals are true and correct and incorporated herein by reference.

Section 2. Findings. In accordance with Zoning Ordinance Section 21.23B.050, Findings for Approval of Development Plans, and based upon the facts and analysis presented in the staff report and the attachments thereto, the public testimony received, and subject to the Conditions of Approval listed below, the Planning Commission makes the following findings:

1. The project is consistent with the goals and policies established by the General Plan, since the project would provide for expanded hotel development that supports infill development in the downtown, and additional tourist-oriented development.

2. The project is consistent with and supports the intent of the Riverside Corridor (RSC) zone in the Uptown/Town Center Specific Plan since it would provide highway oriented uses on 24th Street, between Riverside Avenue and Highway 101.

3. The project is a "permitted" use in the Riverside Corridor (RSC) Zone in the Uptown/Town Center Specific Plan (UTCSP), and complies with all applicable development standards in the UTCSP and Zoning Ordinance.

4. The proposed development plan will not be detrimental to the health, safety, morals, comfort, convenience and general welfare of the person residing or working in the neighborhood, or be injurious or detrimental to property and improvements in the neighborhood or to the general welfare of the city since the property is surrounded by similar land uses, and it would not result in significant noise, traffic, light, glare, or other potential effects.

5. The proposed development plan accommodates the aesthetic quality of the City as a whole since it is designed consistent with the highway oriented, historic road side architecture that has existed along 24th Street at Highway 101 for many years.

6. The proposed development plan is compatible with, and is not detrimental to, surrounding land uses and improvements, provides an appropriate visual appearance, and contributes to the mitigation of any environmental and social impacts; and

7. The proposed development plan is compatible with existing surrounding development, as noted in #4 above.

8. The proposed development plan contributes to the orderly development of the city as a whole by providing a well-designed project that is suitable for the location where it is proposed and surrounding land uses in the vicinity.

Section 3. Allowing 100 percent fourth floor coverage for a 50-foot tall, four-story hotel is reasonable and consistent with the massing allowed for multi-story hotels for the flex shed building type in the TC-1 and TC-2 zones.

Section 4. The setback modification from the required 10-foot front building setback to be increased to 75-feet, is necessary to accommodate the existing no-building easement in favor of the adjacent Carl's Jr. restaurant. The development pattern with parking between the street and the building is consistent with the development pattern in the RSC district.

Section 5. Approval. The Planning Commission of the City of El Paso de Robles does hereby approve Planned Development 16-007, subject to the following Conditions of Approval.

1. This project shall comply with the Project Specific Conditions of Approval attached hereto as Exhibit A, and the checked Standard Conditions of Approval, attached hereto as Exhibit B, and incorporated herein by reference.
2. This project shall consistent with Exhibits C-R as attached.

PASSED AND ADOPTED THIS 8th day of May, 2018 by the following Roll Call Vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

____
Doug Barth, Chairperson

ATTEST:

____
Warren Frace, Secretary of the Planning Commission

Exhibits:

A. Project Specific Conditions of Approval
B. Standard Conditions
C. Project Summary
D. Survey
E. Site Plan
F. Preliminary Grading Plan
G. Landscape Plan
H. 1st Floor Plan
I. 2nd Floor Plan
J. 3rd Floor Plan
K. 4th Floor Plan
L. Roof Plan
M. Elevations
N. Elevations
O. Rendering of Color and Materials
P. Rendering of Color and Materials
Q. Rendering of Color and Materials
R. Window Recess Detail

Exhibit A

PROJECT SPECIFIC CONDITIONS:

NOTE: In the event of conflict or duplication between standard and site-specific conditions, the site-specific condition shall supersede the standard condition.

Planning Division Conditions:

1. The project shall be constructed in substantial conformance with the Conditions of Approval established by this Resolution and it shall be constructed in substantial conformance with the following Exhibits:

EXHIBITS DESCRIPTION

- B. Standard Conditions
- C. Project Summary
- D. Survey
- E. Site Plan
- F. Preliminary Grading Plan
- G. Landscape Plan
- H. 1st Floor Plan
- I. 2nd Floor Plan
- J. 3rd Floor Plan
- K. 4th Floor Plan
- L. Roof Plan
- M. Elevations
- N. Elevations
- O. Rendering of Color and Materials
- P. Rendering of Color and Materials
- Q. Rendering of Color and Materials
- R. Window Recess Detail.

2. The project shall be designed and constructed to be in substantial conformance with the site plan, landscape plan, elevations, floor plans, colors and materials, and preliminary grading plan approved with this resolution.

3. Approval of this project is valid for a period of two (2) years from date of approval. Unless permits have been issued and site work has begun, the approval of Planned Development 16-007 shall expire on May 8, 2020. The Planning Commission may extend this expiration date if a Time Extension application has been filed with the City along with the fees before the expiration date.

4. Prior to issuance of certificates of use and occupancy, the property owner or authorized agent is required to pay the City's Development Impact Fees.

5. No underground or aboveground storage of hazardous materials shall be allowed on-site without first obtaining City approval.

6. Temporary construction noise levels in excess of 60 decibels shall be restricted to the daylight hours of 7am to 6pm. Noise levels shall be measured or monitored from site boundaries or the nearest adjoining residential use to determine compliance.

7. Use and operation of the project and its appurtenances shall be conducted in compliance with the City's General Performance Standards for all uses (Section 21.21.040 of Chapter 21.21 Performance Standards of the City's Zoning Ordinance).

8. Along with the project identification signage, an on-site directional signage program shall be installed to guide hotel guests to use Riverside Avenue as the primary entrance and exit per the City Engineer's approval. Signs need review and approval by the Development Review Committee.

9. Prior to the issuance of a building permit a lot merger shall be recorded that merges the two parcels into one parcel.

10. Self-generating water softener equipment shall be prohibited.

Engineering Division Conditions:

11. Prior to grading permit issuance, the applicant shall submit a final stormwater control plan for the project.

12. After project completion, the Applicant shall submit stormwater reports to the City detailing activities conducted in the previous reporting period.

Mitigation Measures

AQ-1: The following measures shall be implemented to minimize construction-generated emissions. These measures shall be shown on grading and building plans:

a. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter.
b. Reduce the amount of the disturbed area where possible.
c. Use water trucks, APCD approved dust suppressants (see Section 4.3 in the CEQA Air Quality Handbook), or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the District's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. For a list of suppressants, see Section 4.3 of the CEQA Air Quality Handbook.
d. All dirt stock pile areas should be sprayed daily as needed.
e. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
f. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.

g. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.

h. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

i. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

j. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.

k. Install wheel washers at the construction site entrance, wash off the tires or tracks of all trucks and equipment leaving the site, or implement other SLOAPCD-approved methods sufficient to minimize the track-out of soil onto paved roadways.

l. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.

m. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.

n. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant). For more information, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.

o. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.

AQ-2: The following measures shall be implemented to reduce expose of sensitive receptors to substantial pollutant concentrations. These measures shall be shown on grading and building plans:

a. Implement Mitigation Measure AQ-1, as identified in "Impact AQ-C", above.

b. Prior to any grading activities a geologic evaluation shall be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. These requirements may include but are not limited to:

    1. Development of an Asbestos Dust Mitigation Plan which must be approved by the SLOAPCD before operations begin, and,

2. Development and approval of an Asbestos Health and Safety Program (required for some projects).

If NOA is not present, an exemption request must be filed with the SLOAPCD. More information on NOA can be found at http://www.slocleanair.org/rules-regulations/asbestos/noa.php.

c. On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:

   1) Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,

   2) Shall not operate a diesel-fueled auxiliary power system to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation.

d. Maintain all construction equipment in proper tune according to manufacturer's specifications;

e. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);

f. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;

g. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation.

h. Electrify equipment when possible;

i. Substitute gasoline-powered in place of diesel-powered equipment, when available; and,

j. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

GHG-1: The proposed project shall implement, at a minimum, the following GHG-reduction measures:

a. Utilize high-efficiency lighting in parking lots and other public areas (i.e., sodium, light-emitting diode [LED]).

b. Utilize built-in energy efficient appliances (i.e., Energy Star rated).

c. Install energy-saving systems in guest rooms that reduce energy usage when rooms are not occupied.

d. Provide on-site bicycle parking beyond those required by California Green Building Standards Code and related facilities to support long-term use (lockers, or a locked room with standard racks and access limited to bicyclists only).

e. Provide a pedestrian access network that internally links all uses and connects all existing or planned external streets, pedestrian facilities, and public transit stops contiguous with the project site

f. The project site shall be designed to minimize barriers to pedestrian access and interconnectivity.

g. Implement traffic calming improvements as appropriate (e.g., marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, median islands, mini-circles, tight corner radii, etc.)
h. Comply with CALGreen Tier 1 or Tier 2 standards for water efficiency and conservation.
i. Divert, at a minimum, 65 percent of non-hazardous construction or demolition debris.
j. Include the planting of native and drought tolerant trees beyond those required as mitigation for tree removal.

EXHIBIT B

CITY OF EL PASO DE ROBLES
STANDARD DEVELOPMENT CONDITIONS

☒ Planned Development

☐ Conditional Use Permit

☐ Tentative Parcel Map

☐ Tentative Tract Map

Approval Body: Planning Commission

Date of Approval: August 8, 2017

Applicant: Black Oak Lodge

Location: 2717 Black Oak Drive

APN: 008-132-019 & 021

The following conditions that have been checked are standard conditions of approval for the above referenced project. The checked conditions shall be complied with in their entirety before the project can be finalized, unless otherwise specifically indicated. In addition, there may be site specific conditions of approval that apply to this project in the resolution.

COMMUNITY DEVELOPMENT DEPARTMENT - The applicant shall contact the Community Development Department, (805) 237-3970, for compliance with the following conditions:

A. GENERAL CONDITIONS – PD/CUP:

☒ 1. This project approval shall expire on May 8, 2020 unless a time extension request is filed with the Community Development Department, or a State mandated automatic time extension is applied prior to expiration.

☒ 2. The site shall be developed and maintained in accordance with the approved plans and unless specifically provided for through the Planned Development process shall not waive compliance with any sections of the Zoning Code, all other applicable City Ordinances, and applicable Specific Plans.

☒ 3. To the extent allowable by law, Owner agrees to hold City harmless from costs and expenses, including attorney's fees, incurred by City or held to be the liability of City in connection with City's defense of its actions in any proceeding brought in any State or Federal court challenging the City's actions with respect to the project. Owner understands and acknowledges that City is under no obligation to defend any legal actions challenging the City's actions with respect to the project.

☐ 4. Any site specific condition imposed by the Planning Commission in approving this project **(Conditional Use Permit)** may be modified or eliminated, or new conditions may be added, provided that the Planning Commission shall first conduct a public hearing in the same manner as required for the approval of this project. No such modification shall be made unless the Commission finds that such modification is necessary to protect the public interest and/or neighboring properties, or, in the case of deletion of an existing condition, that such action is necessary to permit reasonable operation and use for this approval.

☒ 5. The site shall be kept in a neat manner at all times and the landscaping shall be continuously maintained in a healthy and thriving condition.

☒ 6. All signs shall be subject to review and approval as required by Municipal Code Section 21.19 and shall require a separate application and approval prior to installation of any sign.

☐ 7. All walls/fences and exposed retaining walls shall be constructed of decorative materials which include but are not limited to splitface block, slumpstone, stuccoed block, brick, wood, crib walls or other similar materials as determined by the Development Review Committee, but specifically excluding precision block.

☒ 8. Prior to the issuance of a Building Permit a landscape and irrigation plan consistent with the Landscape and Irrigation Ordinance, shall be submitted for City review and approval. The plan needs to be designed in a manner that utilizes drought tolerant plants, trees and ground covers and minimizes, if not eliminates the use of turf. The irrigation plan shall utilize drip irrigation and limit the use of spray irrigation. All existing and/or new landscaping shall be installed with automatic irrigation systems.

☐ 9. A reciprocal parking and access easement and agreement for site access, parking, and maintenance of all project entrances, parking areas, landscaping, hardscape, common open space, areas and site lighting standards and fixtures, shall be recorded prior to or in conjunction with the Final Map. Said easement and agreement shall apply to all properties, and be referenced in the site Covenants, Conditions and Restrictions (CC&Rs).

☐ 10. All outdoor storage shall be screened from public view by landscaping and walls or fences per Section 21.21.110 of the Municipal Code.

☒ 11. For commercial, industrial, office or multi-family projects, all refuse enclosures are required to provide adequate space for recycling bins. The enclosure shall be architecturally compatible with the primary building. Gates shall be view obscuring and constructed of durable materials. Check with Paso Robles Waste Disposal to determine the adequate size of enclosure based on the number and size of containers to be stored in the enclosure.

(Adopted by Planning Commission Resolution _________)

☒ 12. For commercial, industrial, office or multi-family projects, all existing and/or new ground-mounted appurtenances such as air-conditioning condensers, electrical transformers, backflow devices etc., shall be screened from public view through the use of decorative walls and/or landscaping subject to approval by the Community Development Director or his designee. Details shall be included in the building plans.

☒ 13. All existing and/or new roof appurtenances such as air-conditioning units, grease hoods, etc. shall be screened from public view. The screening shall be architecturally integrated with the building design and constructed of compatible materials to the satisfaction of the Community Development Director or his designee. Details shall be included in the building plans.

☒ 14. All existing and/or new lighting shall be shielded so as to be directed downward in such a manner as to not create off-site glare or adversely impact adjacent properties. The style, location and height of the lighting fixtures shall be submitted with the building plans and shall be subject to approval by the Community Development Director or his designee.

☒ 15. It is the property owner's responsibility to insure that all construction of private property improvements occur on private property. It is the owner's responsibility to identify the property lines and insure compliance by the owner's agents.

☐ 16. Any existing Oak trees located on the project site shall be protected and preserved as required in City Ordinance No.835 N.S., Municipal Code No. 10.01 "Oak Tree Preservation", unless specifically approved to be removed. An Oak tree inventory shall be prepared listing the Oak trees, their disposition, and the proposed location of any replacement trees required. In the event an Oak tree is designated for removal, an approved Oak Tree Removal Permit must be obtained from the City, prior to removal.

☒ 17. No storage of trash cans or recycling bins shall be permitted within the public right-of-way.

☒ 18. Prior to recordation of the map or prior to occupancy of a project, all conditions of approval shall be completed to the satisfaction of the City Engineer and Community Developer Director or his designee.

☒ 19. Two sets of the revised Planning Commission approved plans incorporating all Conditions of Approval, standard and site specific, shall be submitted to the Community Development Department prior to the issuance of building permits.

(Adopted by Planning Commission Resolution _________)

☒ 20. Prior to the issuance of building permits, the
- ☐ Development Review Committee shall approve the following:
- ☒ Planning Division Staff shall approve the following:

  - ☒ a. A detailed site plan indicating the location of all structures, parking layout, outdoor storage areas, walls, fences and trash enclosures;
  - ☒ b. A detailed landscape plan;
  - ☒ c. Detailed building elevations of all structures indicating materials, colors, and architectural treatments;
  - ☒ d. Other: grading plan review

B. GENERAL CONDITIONS – TRACT/PARCEL MAP:

☐ 1. In accordance with Government Section 66474.9, the subdivider shall defend, indemnify and hold harmless the City, or its agent, officers and employees, from any claim, action or proceeding brought within the time period provided for in Government Code section 66499.37, against the City, or its agents, officers, or employees, to attack, set aside, void, annul the City's approval of this subdivision. The City will promptly notify subdivider of any such claim or action and will cooperate fully in the defense thereof.

☐ 2. The Covenants, Conditions, and Restrictions (CC&Rs) and/or Articles Affecting Real Property Interests are subject to the review and approval of the Community Development Department, the Public Works Department and/or the City Attorney. They shall be recorded concurrently with the Final Map or prior to the issuance of building permits, whichever occurs first. A recorded copy shall be provided to the affected City Departments.

☐ 3. The owner shall petition to annex residential Tract (or Parcel Map)________ into the City of Paso Robles Community Facilities District No. 2005-1 for the purposes of mitigation of impacts on the City's Police and Emergency Services Departments.

☐ 4. Street names shall be submitted for review and approval by the Planning Commission, prior to approval of the final map.

☐ 5. The following areas shall be permanently maintained by the property owner, Homeowners' Association, or other means acceptable to the City:

____

(Adopted by Planning Commission Resolution _________)

****

ENGINEERING DIVISION- The applicant shall contact the Engineering Division, (805) 237-3860, for compliance with the following conditions:

All conditions marked are applicable to the above referenced project for the phase indicated.

C. PRIOR TO ANY PLAN CHECK:

☒ 1. The applicant shall enter into an Engineering Plan Check and Inspection Services Agreement with the City.

D. PRIOR TO ISSUANCE OF A GRADING PERMIT:

☐ 1. Prior to approval of a grading plan, the developer shall apply through the City, to FEMA and receive a Letter of Map Amendment (LOMA) issued from FEMA. The developer's engineer shall provide the required supporting data to justify the application.

☐ 2. Any existing Oak trees located on the project site shall be protected and preserved as required in City Ordinance No. 553, Municipal Code No. 10.01 "Oak Tree Preservation", unless specifically approved to be removed. An Oak tree inventory shall be prepared listing the Oak trees, their disposition, and the proposed location of any replacement trees required. In the event an Oak tree is designated for removal, an approved Oak Tree Removal Permit must be obtained from the City, prior to its removal.

☒ 3. A complete grading and drainage plan shall be prepared for the project by a registered civil engineer and subject to approval by the City Engineer. The project shall conform to the City's Storm Water Discharge Ordinance.

☒ 4. A Preliminary Soils and/or Geology Report providing technical specifications for grading of the site shall be prepared by a Geotechnical Engineer.

☒ 5. A Storm Water Pollution Prevention Plan per the State General Permit for Strom Water Discharges Associated with Construction Activity shall be provided for any site that disturbs greater than or equal to one acre, including projects that are less than one acre that are part of a larger plan of development or sale that would disturb more than one acre.

E. PRIOR TO ISSUANCE OF A BUILDING PERMIT:

☒ 1. All off-site public improvement plans shall be prepared by a registered civil engineer and shall be submitted to the City Engineer for review and approval. The improvements shall be designed and placed to the Public Works Department Standards and Specifications.

(Adopted by Planning Commission Resolution _________)

☐ 2. The applicant shall submit a composite utility plan signed as approved by a representative of each public utility.

☒ 3. Landscape and irrigation plans for the public right-of-way shall be incorporated into the improvement plans and shall require approval by the Streets Division Supervisor and the Community Development Department.

☐ 4. In a special Flood Hazard Area as indicated on a Flood Insurance Rate Map (FIRM) the owner shall provide an Elevation Certificate in accordance with the National Flood Insurance program. This form must be completed by a land surveyor or civil engineer licensed in the State of California.

F. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY OR RECORDATION OF THE FINAL MAP:

The Planning Commission has made a finding that the fulfillment of the construction requirements listed below are a necessary prerequisite to the orderly development of the surrounding area.

☐ 1. The applicant shall pay any current and outstanding fees for Engineering Plan Checking and Construction Inspection services.

☒ 2. All public improvements are completed and approved by the City Engineer, and accepted by the City Council for maintenance.

☐ 3. The owner shall offer to dedicate and improve the following street(s) to the standard indicated:

Street Name	City Standard	Standard Drawing No.

☐ 4. If, at the time of approval of the final map, any required public improvements have not been completed and accepted by the City the owner shall be required to enter into a Subdivision Agreement with the City in accordance with the Subdivision Map Act.

Bonds required and the amount shall be as follows:
Performance Bond...............100% of improvement costs.
Labor and Materials Bond........50% of performance bond.

☐ 5. If the existing City street adjacent to the frontage of the project is inadequate for the traffic generated by the project, or will be severely damaged by the construction, the applicant shall excavate the entire structural section and replace it with a standard half-width street plus a 12' wide travel lane and 8' wide graded shoulder adequate to provide for two-way traffic.

(Adopted by Planning Commission Resolution ________)

☐ 6. If the existing pavement and structural section of the City street adjacent to the frontage of the project is adequate, the applicant shall provide a new structural section from the proposed curb to the edge of pavement and shall overlay the existing paving to centerline for a smooth transition.

☐ 7. Due to the number of utility trenches required for this project, the City Council adopted Pavement Management Program requires a pavement overlay on <u>Airport Road</u> along the frontage of the project.

☐ 8. The applicant shall install all utilities. Street lights shall be installed at locations as required by the City Engineer. All existing overhead utilities adjacent to or within the project shall be relocated underground except for electrical lines 77 kilovolts or greater. All utilities shall be extended to the boundaries of the project.

☐ 9. The owner shall offer to dedicate to the City the following easement(s). The location and alignment of the easement(s) shall be to the description and satisfaction of the City Engineer:

- ☐ a. Public Utilities Easement;
- ☐ b. Water Line Easement;
- ☐ c. Sewer Facilities Easement;
- ☐ d. Landscape Easement;
- ☐ e. Storm Drain Easement.

☐ 10. The developer shall annex to the City's Landscape and Lighting District for payment of the operating and maintenance costs of the following:

- ☐ a. Street lights;
- ☐ b. Parkway/open space landscaping;
- ☐ c. Wall maintenance in conjunction with landscaping;
- ☐ d. Graffiti abatement;
- ☐ e. Maintenance of open space areas.

☐ 11. For a building with a Special Flood Hazard Area as indicated on a Flood Insurance Rate Map (FIRM), the developer shall provide an Elevation Certificate in accordance with the National Flood Insurance Program. This form must be completed by a lands surveyor or civil engineer licensed in the State of California.

☐ 12. All final property corners shall be installed.

☐ 13. All areas of the project shall be protected against erosion by hydro seeding or landscaping.

☐ 14. All construction refuse shall be separated (i.e. concrete, asphalt concrete, wood gypsum board, etc.) and removed from the project in accordance with the City's Source Reduction and Recycling Element.

(Adopted by Planning Commission Resolution ________)

☐ 15. Clear blackline mylars and paper prints of record drawings, signed by the engineer of record, shall be provided to the City Engineer prior to the final inspection. An electronic autocad drawing file registered to the California State Plane – Zone 5 / NAD83 projected coordinate system, units in survey feet, shall be provided.

****

PASO ROBLES DEPARTMENT OF EMERGENCY SERVICES- The applicant shall contact the Department of Emergency Services, (805) 227-7560, for compliance with the following conditions:

G. GENERAL CONDITIONS

1. ☒ Prior to the start of construction:
   - ☒ Plans shall be reviewed, approved and permits issued by Emergency Services for underground fire lines.
   - ☒ Applicant shall provide documentation to Emergency Services that required fire flows can be provided to meet project demands.
   - ☒ Fire hydrants shall be installed and operative to current, adopted edition of the California Fire Code.
   - ☒ A based access road sufficient to support the department's fire apparatus (Engines-43.5 lbs.,Truck-69.5k lbs.) shall be constructed and maintained for the duration of the construction phase of the project.
   - ☐ Access road shall be at least twenty (20) feet in width with at least thirteen (13) feet, six (6) inches of vertical clearance.
   - ☒ Truck access road shall be at least twenty six (26) feet in width with at least thirteen (13) feet, six (6) inches of vertical clearance. Minimum setback fifteen (15) feet, maximum of thirty (30) feet.

2. ☒ Provide central station monitored fire sprinkler system for all residential, commercial and industrial buildings that require fire sprinklers in current, adopted edition of the California Building Code, California Fire Code and Paso Robles Municipal Code.

   - ☒ Plans shall be reviewed, approved and permits issued by Emergency Services for the installation of fire sprinkler systems.

3. ☒ Provide central station monitored fire alarm system for all residential, commercial and industrial buildings that require fire alarm system in current, adopted edition of the California Building Code, California Fire Code and Paso Robles Municipal Code.

4. ☒ Provide class 1 standpipe system(s) with 2 ½ " hose connections to supply water for use by fire department personnel at each floor in accordance to NFPA 14 for all residential, commercial and industrial buildings that are or exceed three (3) stories in height of above 30 feet. Location shall be the entrance/exit way of the stairway system. Travel distance greater than 200' will compel additional standpipe system(s) in each stairwell.

   ☒ Plans shall be reviewed, approved and permits issued by Emergency Services for the installation of fire sprinkler systems.

5. ☒ If required by the Fire Chief, provide on the address side of the building if applicable:

   ☐ Fire alarm annunciator panel in weatherproof case.
   ☒ Knox box key entry box or system.
   ☒ Fire department connection to fire sprinkler system.

6. ☐ Provide temporary turn-around to current City Engineering Standard for phased construction streets that exceed 150 feet in length.

7. ☒ Project shall comply with all requirements in current, adopted edition of California Fire Code and Paso Robles Municipal Code.

8. ☒ Prior to the issuance of Certificate of Occupancy:

   ☒ Final inspections shall be completed on all underground fire lines, fire sprinkler systems, fire alarm systems and chemical hood fire suppression systems.

   ☒ Final inspections shall be completed on all buildings.

<u>Note: Ladder truck access requires a minimum 26' feet width throughout entire parking area. Hydrant location is not clear on preliminary drawings, minimum dependent on CFC requirements.</u>

(Adopted by Planning Commission Resolution _________)

Agenda Item 1

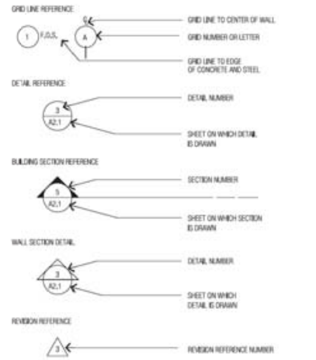
Planned Development Drawings For:

EXHIBIT - C

Black Oak Lodge

2717 Black Oak Drive Paso Robles, CA 93447

Symbols / Legend



Abbreviations

ADJ	ADJUSTABLE	E.G.	EXISTING GRADE	P.T.	PRESSURE TREATED
ALUM	ALUMINUM	FT	FOOT/FEET	P.C.	PULL CHAIN
A.B.	ANCHOR BOLT	F.F.	FINISHED FLOOR	REF	REFRIGERATOR
A.C.	ASPHALTIC CONCRETE	FIN	FINISH	RS	RESAWN
A.F.F.	ABOVE FINISHED FLR	F.G.	FINISH GRADE	RT	RIGHT
BLK	BLOCK	F.E.	FIRE EXTINGUISHER	R.T.	ROOF DRAIN
BLKG	BLOCKING	FLSHG	FLASHING	RFG	ROOFING
BD	BOARD	FLR	FLOOR	RO	ROUGH
BLDG	BUILDING	F.J.	FLOOR JOISTS	SECT	SECTION
CAB	CABINET	FLUOR	FLUORESCENT	SHT	SHEET
C.I.	CAST IRON	F.L.	FLOW LINE	S.&P.	SHELF AND POLE
C.B.	CATCH BASIN	FTG	FOOTING	SIM	SIMILAR
CTR	CENTER	FDN	FOUNDATION	SQ	SQUARE
C.L.	CENTER LINE	GA	GAGE OF GAUGE	S.S	STAINLESS STEEL
CER	CERAMIC	GALV	GALVANIZE	STD	STANDARD
C.T.	CERAMIC TILE	HDW	HARDWARE	STL	STEEL
CH	CHIMES	HDWD	HARD WOOD	ST	STREET
CLR	CLEAR	HTG	HEATING	STRUCT	STRUCTURAL
CLO	CLOSET	H.B.	HOSE BIB	TEL	TELEPHONE
COL	COLUMN	INSUL	INSULATION	TEMP	TEMPERED
COMP	COMPOSITION	LAM	LAMINATE	THRU	THROUGH
CONC	CONCRETE	LAV	LAVATORY	T.P.	TOILET PAPER
CSK	COUNTERSINK	M.C.	MEDICINE CABINET	T&G	TONGUE AND GROOVE
DW	DISHWASHER	MANUF.	MANUFACTURER	T.C.	TOP OF CONCRETE
DR	DOOR	M&S	MIRROR AND SHELF	T.S.	TOP OF SLAB
D.F.	DOUGLAS FIR	MISC	MISCELLANEOUS	T.W.	TOP OF WALL
DS	DOWNSPOUT	N	NORTH	T.	TREAD (STAIR DETAIL)
DWR	DRAWER	N.I.C.	NOT IN CONTRACT	TYP.	TYPICAL
EA	EACH	N.T.S.	NOT TO SCALE	U.N.O.	UNLESS NOTED OTHERWISE
ELEC	ELECTRIC	(N)	NEW		
ELEV	ELEVATION	OBS	OBSCURE	UND	UNDULATING
EQ	EQUAL	O.C.	ON CENTER	VERT	VERTICAL
EQUIP	EQUIPMENT	O/H	OVERHEAD	WC	WATERCLOSET
EXT	EXTERIOR	PR	PAIR	W.H.	WATER HEATER
EXT. PL.	EXTERIOR PLASTER	PL	PLATE	W/	WITH
EX. (E)	EXISTING	PLYWD.	PLYWOOD	W/O	WITHOUT
				WD	WOOD

Project Data

SCOPE OF WORK: REQUEST FOR A PLANNED DEVELOPMENT (PD) APPROVAL FOR A NEW 59,2259 S.F., 4-STORY HOTEL ON TWO EXISTING COMMERCIAL PARCELS, WITH ON-SITE PARKING, LANDSCAPING AND OTHER TYPICAL SITE IMPROVEMENTS.

APPLICANT: MATT MASIA / BLACK'S HATCHERY
P.O.BOX 486
PASO ROBLES, CA 93447
PH: 805.238.2770

SITE INFORMATION:

JURISDICTION:	CITY OF PASO ROBLES
GENERAL PLAN:	CS - COMMERCIAL SERVICE
SPECIFIC PLAN:	UPTOWN / TOWN CENTRE SPECIFIC PLAN
ZONING DISTRICT:	RSC - RIVERSIDE CORRIDOR
REQUIRED APPROVAL:	PD - PLANNED DEVELOPMENT
A.P.N:	008-132-019 (PARCEL 1, PRAL85-357) 008-132-021 (PARCEL 3, PRAL85-357)
STREET ADDRESS:	2717 BLACK OAK DRIVE PASO ROBLES, CA 93447
LOT SIZE:	38,332 S.F. (0.88AC) PARCEL 1 (PRAL85-357) 45,302 S.F. (1.04AC) PARCEL 3 (PRAL85-357)

BUILDING INFORMATION:

NUMBER OF STORIES:	4
OCCUPANCY GROUP:	R-1 HOTEL GUEST ROOMS A-3 MEETING ROOMS / LOUNGE B BUSINESS / OFFICES
CONSTRUCTION TYPE:	TYPE V-B
SPRINKLERED:	YES
MAXIMUM HEIGHT:	50'
STORIES:	4

UTILITY INFORMATION:

ELECTRICITY:	PG&E
NATURAL GAS:	THE GAS COMPANY
WATER:	CITY OF PASO ROBLES
SEWER:	CITY OF PASO ROBLES
TELEPHONE:	AT&T
CABLE:	CHARTER

Governing Codes

CODE COMPLIANCE:

2013	CALIFORNIA BUILDING CODE, VOLUMES 1+2 (BASED ON 2012 IBC)
2013	CALIFORNIA ELECTRIC CODE (2011 NEC)
2013	CALIFORNIA MECHANICAL CODE (2012 UMC)
2013	CALIFORNIA PLUMBING CODE (2012 UPC)
2013	CALIFORNIA GREEN BUILDING CODE
2013	CALIFORNIA FIRE CODE (2012 IFC)
2013	CALIFORNIA ENERGY CODE

Parking Analysis

Required Vehicle Parking

PER UPTOWN/TOWN CENTRE SPECIFIC PLAN SEC. 5.4.8.G, HOTEL USE TYPE:	
1.0 VEHICLE SPACE PER GUEST ROOM:	96
1.0 VEHICLE SPACE PER EMPLOYEE ON MAXIMUM SHIFT:	8
TOTAL REQUIRED VEHICLE PARKING SPACES:	104

Vehicle Parking Provided:

STANDARD VEHICLE PARKING SPACES:	115
ACCESSIBLE PARKING SPACES:	5
TOTAL VEHICLE PARKING SPACES PROVIDED:	120

Refer to Sheet AS1.1 for location of vehicle parking

Required Bicycle Parking:

PER SEC. 21.22.042.B REQUIRED SHORT-TERM BICYCLE PARKING: 2 BICYCLE SPACES / 20,000SF OF BUILDING FOOTPRINT 59,229SF / 20,000SF = 5.9 SPACES REQ'D = 6 SPACES	6
TOTAL BICYCLE SPACES PROVIDED:	6
PER SEC. 21.22.042.B REQUIRED LONG-TERM BICYCLE PARKING: 2 BICYCLE LOCKERS / 50,000SF OF BUILDING FOOTPRINT 59,229SF / 50,000SF = 1.2 LOCKERS REQ'D = 2 LOCKERS	2
TOTAL BICYCLE LOCKERS PROVIDED:	2

Refer to Sheet AS1.1 for location of short and long-term bicycle parking

Required Motorcycle Parking:

PER SEC. 21.22.060 REQUIRED MOTORCYCLE PARKING: 1 MOTORCYCLE SPACE / 20 REQUIRED VEHICLE SPACES 104 REQUIRED SPACES / 20 = 5.2 SPACES	5
TOTAL MOTORCYCLE SPACES PROVIDED:	5

Refer to Sheet AS1.1 for location of motorcycle parking

Project Summary

Project Area Summary:

59, 229 S.F. 4-STORY HOTEL WITH OUTDOOR POOL AREA

Area Summary By Floor:

GROUND FLOOR AREA:	15,910 S.F.
SECOND FLOOR AREA:	12,975 S.F.
THIRD FLOOR AREA:	15,172 S.F.
FOURTH FLOOR AREA:	15,172 S.F.
TOTAL FLOOR AREA:	59,229 S.F.
OUTDOOR POOL AREA	4,007 S.F.

Development Statistics

SETBACKS:

REQUIRED SETBACK PER UPTOWN/TOWN CENTRE SPECIFIC PLAN (Sec. 5.4.B.C.1)

PRIMARY STREET SETBACK:	5'
SIDE YARD SETBACK:	5'
REAR YARD SETBACK:	10'

HEIGHT / STORIES:

HEIGHT AND STORIES PER UPTOWN/TOWN CENTRE SPECIFIC PLAN (Sec. 5.4.B.B)

ALLOWED: 38' / 3 STORIES

PARKING:

PARKING PER UPTOWN/TOWN CENTRE SPECIFIC PLAN (Sec. 5.4.B.G.1)

ALLOWED: 1.0 SPACE PER GUEST ROOM PLUS 1.0 SPACE PER EMPLOYEE ON THE MAXIMUM SHIFT

Notes

Sheet Index

Sheet	Description
T1.1	TITLE SHEET / SHEET INDEX / PROJECT DATA
SV1.1	EXISTING SITE SURVEY PLAN
AS1.1	PRELIMINARY SITE PLAN / UTILITY PLAN / LIGHTING PLAN
C3.1	PRELIMINARY GRADING & DRAINAGE PLAN
L1.1	PRELIMINARY LANDSCAPE PLAN
A1.1	1ST FLOOR PLAN
A1.2	2ND FLOOR PLAN
A1.3	3RD FLOOR PLAN
A1.4	4TH FLOOR PLAN
A1.5	ROOF PLAN
A2.1	BUILDING SECTION / ELEVATION
A2.2	ELEVATIONS
A3.1	PERSPECTIVE VIEWS
A3.2	PERSPECTIVE VIEWS
A2.2	PERSPECTIVE VIEWS

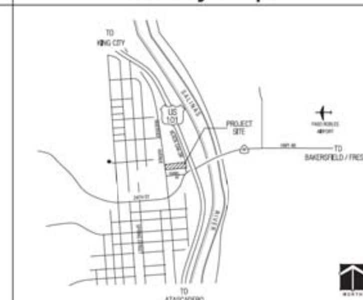
Project Directory

OWNER/APPLICANT: BLACK'S HATCHERY
MATT MASIA
P.O. BOX 486
PASO ROBLES, CA 93447
PH: 805.238.2770

ARCHITECT: GARCIA ARCHITECTURE + DESIGN
1308 MONTEREY STREET, SUITE 230
SAN LUIS OBISPO, CA 93401
PH: 805.783.1880
CONTACT: GEORGE F. GARCIA, AIA

CIVIL ENGINEER/ STORMWATER CONSULTANT: ROBERTS ENGINEERING, INC.
2015 VISTA DE LA VINA
TEMPLETON, CA 93465
PH: 805.239.0664
CONTACT: TIMOTHY ROBERTS, PE, QSD/QSP

Vicinity Map



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consultant:

project:
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Paso Robles, CA

applicant/owner:
Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:
Title Sheet / Project Data

revision:

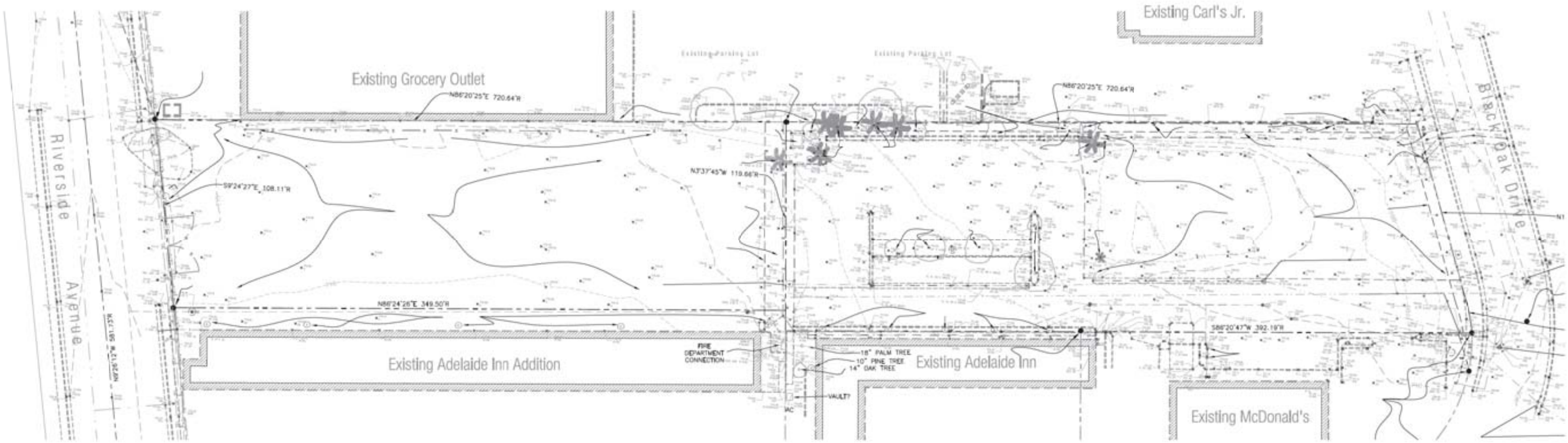
legal stuff:

sheet data:

sheet:

T1.1

EXHIBIT - D



Existing Site Survey

SCALE: 1"-30'

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sheet title:

Existing Site Survey

revision:

legal stuff:

sheet data:

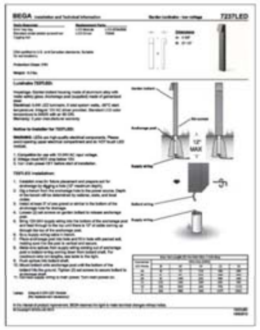
sheet:

SV1.1

Agenda Item 1

EXHIBIT - E

Lighting Legend

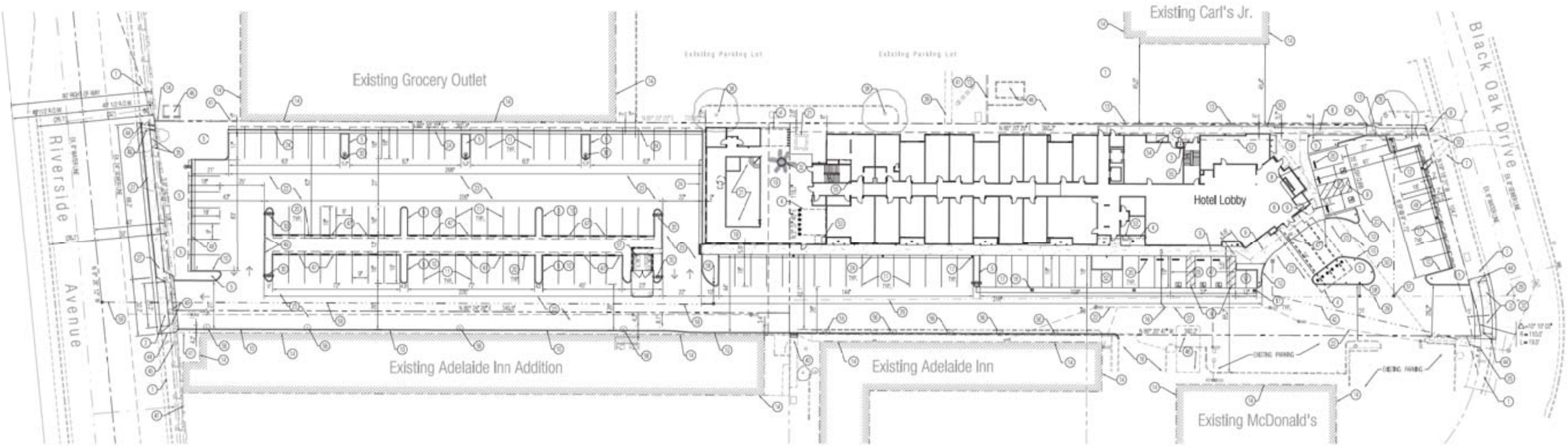
	Pole Area Light	Bollard Light	Wall Mounted Light	Porte Cochere Light
Fixture Symbol				
Type of Lighting	Pole Area Light	Bollard Light	Wall Mounted Light	Porte Cochere Light
Fixture Specification				

Site Reference Notes

1. EXISTING CONCRETE C,G & S TO REMAIN
2. NEW COMMERCIAL DRIVEWAY WITH 5' WIDE ACCESSIBLE PATH PER CITY STANDARD
3. FIRE RISER ROOM
4. LINE OF BUILDING AND/OR ROOF ABOVE
5. PLANTER AREA
6. TWO (2) ACCESSIBLE PARKING SPACES WITH 8' VAN OFFLOAD AREA
7. EXISTING OVERHEAD UTILITY LINES
8. ACCESSIBLE PATH OF TRAVEL FROM PUBLIC R.O.W.
9. ACCESSIBLE PATH OF TRAVEL FROM ACCESSIBLE ON-SITE PARKING SPACES
10. NEW 6" CONCRETE CURB
11. NEW PARKING SPACE STRIPING
12. NEW DETECTOR CHECK ASSEMBLY FOR NEW BUILDING AUTOMATIC FIRE SPRINKLER SYSTEM
13. EXISTING CMU WALL TO REMAIN
14. EXISTING OFF-SITE BUILDING
15. NEW SEWER CONNECTION TO EXISTING SEWER LINE
16. EXISTING DRIVE-THRU FOR McDONALD'S
17. NEW CATCH BASIN
18. NEW CONCRETE SWALE
19. NEW CONCRETE FLATWORK
20. NEW CONCRETE WHEELSTOP
21. EXISTING PAD MOUNTED TRANSFORMER
22. EXISTING 6" SEWER LINE
23. NEW AC PAVING
24. NEW CONCRETE CURB AND GUTTER
25. EXISTING WATER METER
26. EXISTING SHRUB OR TREE TO REMAIN
27. NEW CONCRETE CURB, GUTTER AND SIDEWALK PER CITY STANDARD
28. THREE (3) ACCESSIBLE PARKING SPACES WITH TWO (2) 5' OFFLOAD AREAS
29. EXISTING 8" WATER LINE
30. NEW 15' TALL MAX. POLE MOUNTED SITE LIGHTING, LIGHT FIXTURE TO BE SHIELDED.
31. NEW POOL & SPA WITH ACCESSIBLE LIFT CHAIR
32. EXISTING PALM TO REMAIN
33. 6' LANDING AT BOTTOM OF ACCESSIBLE RAMP
34. 5' LANDING AT TOP OF ACCESSIBLE RAMP
35. EXISTING TREE(S) TO REMAIN IF POSSIBLE WITH NEW CONCRETE SIDEWALK INSTALLATION
36. EXISTING CYPRESS TREES TO REMAIN IF POSSIBLE WITH NEW CONCRETE CURB
37. REMOVE AND REPLACE EX. DRIVEWAY WITH NEW CITY DRIVEWAY AT ENTRANCE PER CITY STANDARDS
38. EXISTING 15" SYCAMORE TO REMAIN
39. EXISTING CONCRETE SWALE TO REMAIN
40. EXISTING CONCRETE FLATWORK TO REMAIN
41. EXISTING FENCE TO REMAIN
42. NEW WATER SERVICE TO HOTEL
43. NEW SIDEWALK UNDERDRAIN
44. MATCH EXISTING CONCRETE CURB, GUTTER AND SIDEWALK ELEVATIONS WITH NEW CONCRETE CURB, GUTTER AND SIDEWALK.
45. EXISTING JOINT UTILITY POLE TO BE RE-SET AND/OR RELOCATED TO ELIMINATE GUY ANCHORS IN NEW DRIVEWAY
46. EXISTING TRASH AND TRASH ENCLOSURE AREA
47. NEW FLUSH CONCRETE CURB
48. NEW 6" CONCRETE CURB AND GUTTER
49. PROVIDE OPENINGS IN CURB FOR INFLOW OR EMERGENCY SURFACE OVERFLOW
50. EXISTING EASEMENT LINE IN FAVOR OF CARL'S JR. PROPERTY
51. NEW TRASH ENCLOSURE, 6' TALL CMU WITH METAL GATES. EXTERIOR PAINTED TO MATCH BUILDING
52. MOTORCYCLE PARKING, TYPICAL OF FIVE (5) LOCATIONS
53. 3 BICYCLE CAPACITY BIKE RACK, TYPICAL OF TWO (2) LOCATIONS
54. 2 BICYCLE CAPACITY BIKE LOCKER
55. FIRE STANDPIPE
56. EXISTING SHRUB OR TREE TO BE REMOVED TO MAINTAIN REQUIRED 26' WIDE FIRE LANE
57. NEW 6" FIRE SPRINKLER LINE
58. NEW FIRE HYDRANT: LOCATION AND QUANTITY PER CFC AND CITY REQUIREMENTS
59. NEW 8" WATERLINE LOOP, AS REQUIRED

Legend

R.O.W.	RIGHT-OF-WAY	(20.1')	EXISTING DISTANCE
TYP.	TYPICAL	20.1'	PROPOSED DISTANCE
SP	SPACES		
S	SEWER SERVICE		
W	WATER SERVICE		



Preliminary Site Plan / Utility Plan / Lighting Plan

SCALE: 1"=30'

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project:

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applicant/owner:

Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:

Preliminary Site Plan
Utility Plan
Lighting Plan

revision:

legal stuff:

sheet data:

ga+d job no: area 588
CAD file: AS1.1.dwg
drawn by:
plot date:

sheet:

AS1.1

Agenda Item I

EXHIBIT - F

Site Stormwater Information

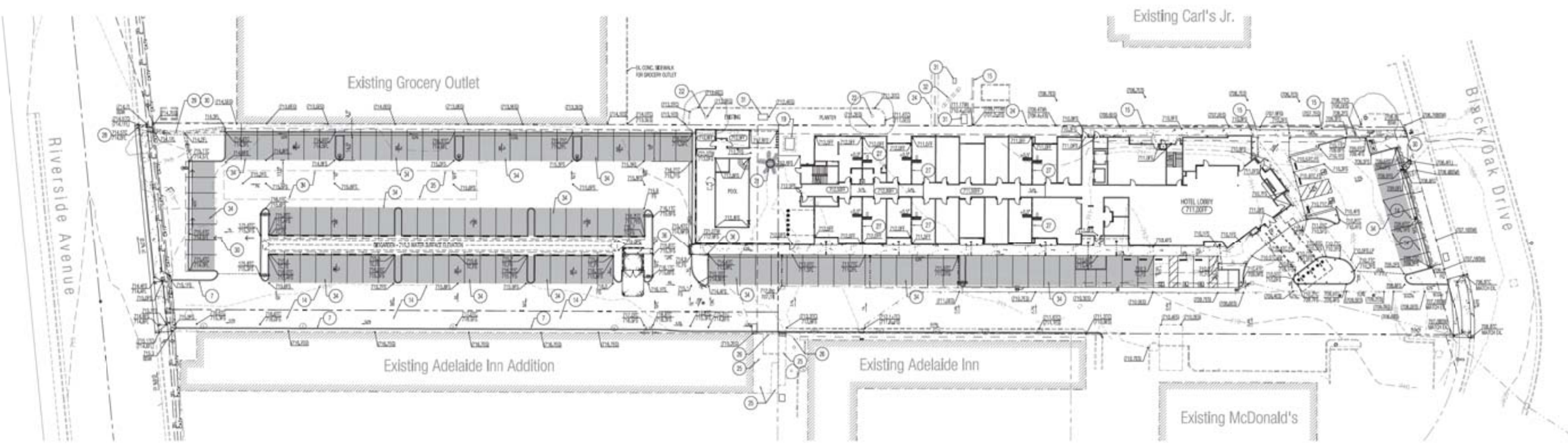
TOTAL SITE AREA:	83,360 S.F. (1.91 AC, PARCEL 1 - 38,250SF PARCEL 3 - 45,110SF)
EXISTING IMPERVIOUS AREA:	23,100 S.F. (EXISTING PARKING LOT AND DRIVE AISLE)
EXISTING PERVIOUS AREA:	60,260 S.F.
PROPOSED IMPERVIOUS AREA:	74,332 S.F.
NET IMPERVIOUS AREA INCREASE:	51,232 S.F. (74,332 SF NEW - 23,100 SF EXISTING)
PROPOSED PERVIOUS AREA:	9,028 S.F.
PROPOSED LANDSCAPED AREA:	7,500 S.F.
PROPOSED PERMEABLE PAVER AREA:	17,1802 S.F.
TREATMENT VOLUME REQUIRED:	5,785 C.F.
TREATMENT VOLUME PROVIDED:	6,247 C.F.
INFILTRATION / STORAGE PROVIDED:	6,150 C.F. (UNDERGROUND RAINSTORE3 FACILITY)

Grading & Drainage Plan Notes

1. EXISTING CONCRETE C,G & S TO REMAIN
2. NEW COMMERCIAL DRIVEWAY WITH 5' WIDE ACCESSIBLE PATH
3. LINE OF BUILDING AND/OR ROOF ABOVE
4. PLANTER AREA
5. ACCESSIBLE PARKING SPACES WITH VAN OFFLOAD AREA
6. NEW ACCESSIBLE CURB RAMP WITH TACTILE WARNING
7. NEW 6" CONCRETE CURB
8. NEW PARKING SPACE STRIPING
9. NEW REPLACEMENT CONCRETE CURB, GUTTER AND SIDEWALK PER CITY STANDARDS
10. NEW DETECTOR CHECK ASSEMBLY
11. NEW 3' WIDE CONCRETE SWALE
12. NEW CONCRETE PAVING
13. NEW AC PAVING
14. OUTLINE OF SUBSURFACE RAINSTORE3 FACILITY FOR RETENTION / INFILTRATION
15. EXISTING CMU WALL TO REMAIN
16. EXISTING OFF-SITE BUILDING
17. NEW SEWER CLEANOUT
18. CATCH BASIN
19. EXISTING PAD MOUNTED TRANSFORMER
20. EXISTING SEWER CLEANOUT
21. EXISTING 18" PALM TREE TO REMAIN
22. EXISTING TREE TO REMAIN
23. NEW CONCRETE GUTTER
24. EXISTING CONCRETE SWALE TO REMAIN
25. EXISTING CONCRETE FLATWORK TO REMAIN
26. EXISTING FENCE TO REMAIN
27. 0.5" STEP IN BUILDING FINISH FLOOR, TYPICAL
28. NEW SIDEWALK UNDERDRAIN
29. NEW SWALE FOR SIDEWALK UNDERDRAIN
30. OVERLAND EMERGENCY STORM WATER ESCAPE ROUTE
31. EXISTING UTILITY VAULT TO REMAIN
32. EXISTING DUAL-POLE MOUNTED SIGNAGE FOR ADJACENT PROPERTY
33. NEW TRASH ENCLOSURE, 6' TALL CMU WITH METAL GATES
34. SHADED AREA DENOTES PERMEABLE PAVERS IN PARKING SPACES
35. OUTLINE OF UNDERGROUND RAINSTORE3 FACILITY FOR INFILTRATION/STORAGE 6,150 C.F. CAPACITY
36. 6" WIDE TRENCH DRAIN WITH 3" PIPE TO DISCHARGE INTO GUTTER

Legend

TC	TOP OF CURB	(713.2)	EXISTING ELEVATION
FS	FINISH SURFACE	713.4	PROPOSED ELEVATION
FL	FLOWLINE	(0.5%)	EXISTING SURFACE SLOPE
ES	EXISTING SURFACE	1.2%	PROPOSED SURFACE SLOPE
EG	EXISTING GROUND		
SSCO	SANITARY SEWER CLEANOUT		
BSW	BACK OF SIDEWALK		
CONC	CONCRETE		
TW	TOP OF WALL		



Preliminary Grading and Drainage Plan

SCALE: 1" 30'

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sheet title:

Preliminary Grading and Drainage Plan

revision:

legal stuff:

sheet data:

g+a+d job no: area 588
CAD file: C3.1.dwg
drawn by:
plot date:

sheet:

C3.1

Agenda Item 1

EXHIBIT - G

Preliminary Plant List

LARGE TREES (24" BOX MIN)	WUCOLS	BOTANICAL NAME / COMMON NAME
48" BOX	VL	QUERCUS AGRIFOLIA / COAST LIVE OAK - SPECIMEN
	L	PISTACHIA CHINENSIS / CHINESE PISTACHE
	L	QUERCUS ILEX / VIRGINIA OAK
	L	SOPHORA JAPONICA / JAPANESE PAGODA TREE
	L	SALVAGED EXISTING WASHINGTONIA PALM (SINGLE AND MULTI-TRUNK) (SEE GENERAL NOTE #5 THIS SHEET)

ACCENT TREES (15 GAL MIN)	WUCOLS	BOTANICAL NAME / COMMON NAME
	L	VITEX AGNUS-CASTUS / CHASTE TREE
	L	ALBIZIA JULIBRISSIN / SILK TREE
	VL	CHILOPSIS LINEARIS / DESERT WILLOW

LARGE SHRUBS (5 - 15 GAL)	WUCOLS	BOTANICAL NAME / COMMON NAME
	L	DODONAEA VISCOSA 'PURPUREA' / PURPLE LEAFED HOPSEED BUSH
	L	BUDDLEJA DAVIDII / COMMON BUTTERFLY BUSH
	L	CEANOTHUS 'JULIA PHELPS' / JULIA PHELPS CEANOTHUS
	VL	CERCOCARPUS BETULOIDES / MOUNTAIN MAHOGANY
	L	RHAMNUS CALIFORNICA / COFFEEBERRY
	VL	ROMNEYA COULTERI / MATILIJA POPPY
	VL	NOLINA BIGELOVII / DESERT NOLINA

SHRUBS (1 - 5 GAL)	WUCOLS	BOTANICAL NAME / COMMON NAME
	L	ARCTOSTAPHYLOS DENSIFLORA 'HOWARD McMINN' / HOWARD McMINN MANZANITA
	L	ARCTOSTAPHYLOS 'EMERALD CARPET' / MANZANITA EMERALD CARPET
	L	ARCTOSTAPHYLOS HOOKERI / MONTEREY MANZANITA
	L	CISTUS X HYBRIDUS / WHITE ROCKROSE
	L	CISTUS X PURPUREUS / ORCHID SPOT ROCKROSE
	VL	FREMONTODENDRON 'KEN TAYLOR' / KEN TAYLOR FLANNEL BUSH
	L	RIBES AUREUM / GOLDEN CURRANT

GROUNDCOVER (1 GAL)	WUCOLS	BOTANICAL NAME / COMMON NAME
A	L	ACHILLEA 'MOONSHINE' / YELLOW YARROW
B	L	ARCTOSTAPHYLOS HOOKERI / 'MONTEREY CARPET' MANZANITA
C	L	CISTUS 'SUNSET' / SUNSET ROCKROSE
D	L	COPROSMA KIRKII / NCN
E	L	MUHLENBERGIA RIGENS / DEER GRASS
F	L	RAPHIOLEPIS INDICA 'BALLERINA' / INDIA HAWTHORN (PINK)
G	L	TEUCRIUM X LUCIDRYS / TRAILING GERMANDER

VINE (5 GAL)	WUCOLS	BOTANICAL NAME / COMMON NAME
A	L	BOUGAINVILLEA 'SCARLETT O'HARA' / SCARLETT O'HARA (AKA SAN DIEGO RED)
B	L	ROSA BANKSIAE 'ALBA PLENA' / WHITE LADY BANKS' ROSE

BIO / INFILTRATION GARDEN	WUCOLS	BOTANICAL NAME / COMMON NAME
SEE PLAN	L	BIO / INFILTRATION PLANT MATERIAL; INCLUDING BUT NOT LIMITED TO COMBINATION OF RED FESCUE (F. RUBRA), BROME (BROMUS CARINATUS), CREEPING WILD RYE (LEYMUS TRITICOIDES), BERKLEY SEDGE (CAREX TUMULICOLA), GREY RUSH (JUNCUS PATENS)

General Notes

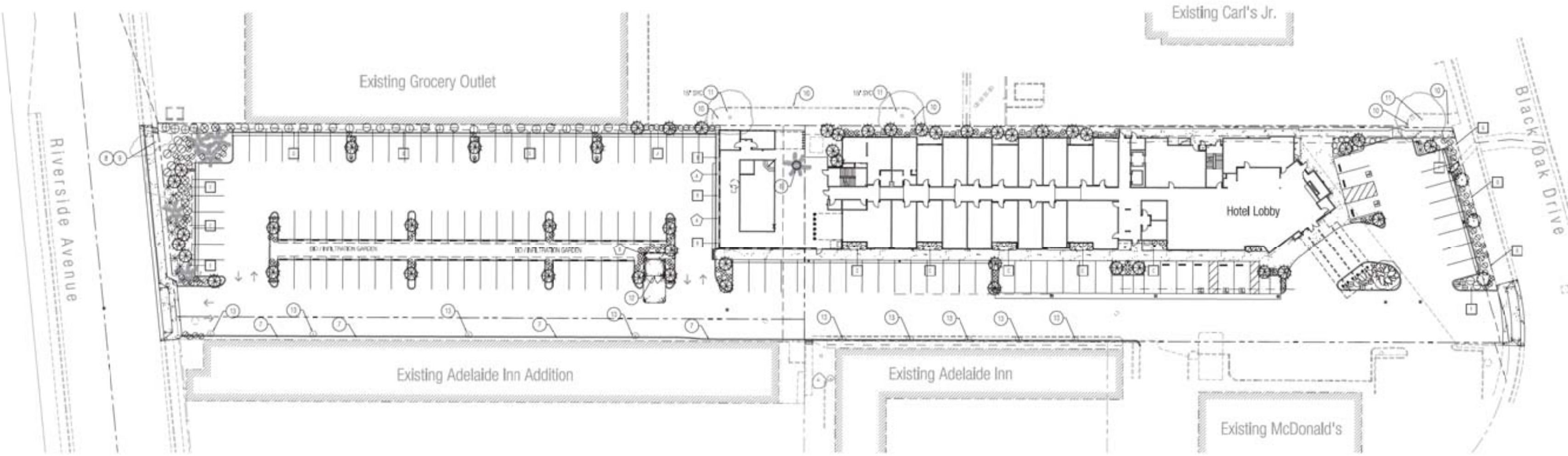
1. PLANT FACTORS ARE BASED ON WUCOLS LATEST EDITION, ADJUSTED FOR LOCAL CLIMATE AND SOIL TYPE.
2. ALL AREAS WITHOUT PLANTED GROUNDCOVER SHALL RECEIVE 2" MIN. OF WALK-ON BARK MULCH.
3. IRRIGATION SYSTEM CONTROLLERS SHALL BE WEATHER BASED.
4. SPRAY HEADS SHALL BE ADJUSTED TO ELIMINATE ANY OVER-SPRAY AND RUNOFF FROM ADJACENT IMPERVIOUS SURFACES.
5. EXISTING ON-SITE PALMS (SINGLE AND MULTI-TRUNK) ARE TO BE SALVAGED AND RELOCATED AS SHOWN ON THIS PLAN. IF PALMS ARE UNABLE TO BE SALVAGED, LARGE AND ACCENT TREES PER PLANTING SCHEDULE SHALL BE PLANTED IN LIEU OF PALMS.

Landscape Reference Notes

1 OUTLINE OF BUILDING OR ROOF ABOVE
2 NEW AC PAVED AREA
3 NEW BIOFILTRATION PLANTER
4 RAINSTORE3 FACILITY LOCATED BENEATH PAVING
5 EXISTING ITALIAN CYPRESS TO REMAIN IF POSSIBLE WITH NEW CURB INSTALLATION. IF NOT, PROVIDE REPLACEMENT IN KIND.
6 EXISTING 18" PALM TREE TO REMAIN. PROVIDE 48" DIAMETER (MIN.) PLANTER AROUND BASE
7 EXISTING LANDSCAPING TO REMAIN. REPLACE DAMAGED OR REMOVED WITH IN-KIND REPLACEMENT PLANT MATERIAL
8 EXISTING TREE(S) TO REMAIN IF POSSIBLE WITH INSTALLATION OF NEW CONCRETE SIDEWALK ALONG RIVERSIDE AVE.
9 SAFETY PRUNE EXISTING TREE TO REMOVE CURVED TRUNK
10 EXISTING PLANTER ADJACENT TO PROPERTY LINE TO REMAIN
11 EXISTING TREE TO REMAIN
12 NEW TRASH ENCLOSURE
13 EXISTING SHRUB OR TREE TO BE REMOVED

Legend

GAL	GALLON (CONTAINER SIZE)
WUCOLS	WATER USE CLASSIFICATION OF LANDSCAPE SPECIES
L	LOW WATER USAGE PER WUCOLS
VL	VERY LOW WATER USAGE PER WUCOLS
NCN	NO COMMON NAME



Preliminary Landscape Plan

SCALE: 1" 30'

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plot date:

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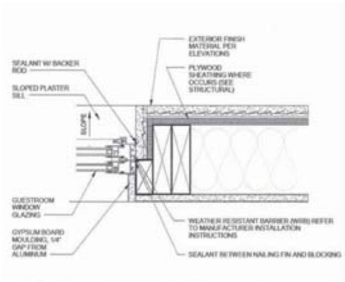
L1.1

EXHIBIT - H



A Typical Recessed Window Detail TYPICAL ALL GUEST ROOM WINDOWS ON ALL FLOORS

Floor Plan Notes

1. ACCESSIBLE RESTROOM
2. ELEVATOR
3. STAIR
4. DECK / BALCONY
5. GRAND STAIRCASE
6. RECEPTION / LOBBY AREA
7. MEETING ROOM
8. FOOD PREP
9. HOUSEKEEPING
10. STORAGE
11. FIREPLACE
12. BACK OF HOUSE / ADMIN
13. CONCRETE WALKWAY
14. FITNESS ROOM
15. HALLWAY
16. CONCRETE CURB
17. LOUNGE / BREAKFAST AREA
18. ELEVATOR EQUIPMENT ROOM
19. (E) SITE WALL TO REMAIN
20. LINE OF BLDG / SOFFIT ABOVE
21. FIRE RISER LOCATION
22. GUEST WASHER / DRYER AREA
23. SINGLE-PLY PVC ROOF
24. ASPHALT DRIVEWAY
25. DEX-O-TEX DECKING
26. POOL / SPA
27. 42" TALL PROTECTIVE GLASS RAILING
28. BIKE STORAGE
29. FIRE STAND-PIPE
30. MECHANICAL CHASE

Wall Legend

2x6 STUD WALL
2x4 STUD WALL
2x6 PONY WALL @ 42" HIGH

1st Floor Plan
SCALE: 3/32"=1'-0"

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seal:

LICENSED ARCHITECT GEORGE F. GARCIA C 24540 STATE OF CALIFORNIA

consultant:

project:
Black Oak Lodge
2717 Black Oak Drive
Paso Robles, CA

applicant/owner:
Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:
1st Floor Plan

revision:

legal stuff:

sheet data:
ga+d job no:
CAD file:
drawn by:
plot date:

sheet:

A1.1

EXHIBIT - I

Floor Plan Notes

1. ACCESSIBLE RESTROOM
2. ELEVATOR
3. STAIR
4. DECK / BALCONY
5. GRAND STAIRCASE
6. RECEPTION / LOBBY AREA
7. MEETING ROOM
8. FOOD PREP
9. HOUSEKEEPING
10. STORAGE
11. FIREPLACE
12. BACK OF HOUSE / ADMIN
13. CONCRETE WALKWAY
14. FITNESS ROOM
15. HALLWAY
16. CONCRETE CURB
17. LOUNGE / BREAKFAST AREA
18. ELEVATOR EQUIPMENT ROOM
19. (E) SITE WALL TO REMAIN
20. LINE OF BLDG / SOFFIT ABOVE
21. FIRE RISER LOCATION
22. GUEST WASHER / DRYER AREA
23. SINGLE-PLY PVC ROOF
24. ASPHALT DRIVEWAY
25. DEX-O-TEX DECKING
26. POOL / SPA
27. 42" TALL PROTECTIVE GLASS RAILING
28. BIKE STORAGE
29. FIRE STAND-PIPE
30. MECHANICAL CHASE

Wall Legend

- 2x6 STUD WALL
- 2x4 STUD WALL
- 2x6 PONY WALL @ 42" HIGH

2nd Floor Plan

SCALE: 3/32"=1'-0"

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project:
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sheet title:
2nd Floor Plan

revision:

legal stuff:

sheet data:

sheet:
A1.2

EXHIBIT - J

Floor Plan Notes

1. ACCESSIBLE RESTROOM
2. ELEVATOR
3. STAIR
4. DECK / BALCONY
5. GRAND STAIRCASE
6. RECEPTION / LOBBY AREA
7. MEETING ROOM
8. FOOD PREP
9. HOUSEKEEPING
10. STORAGE
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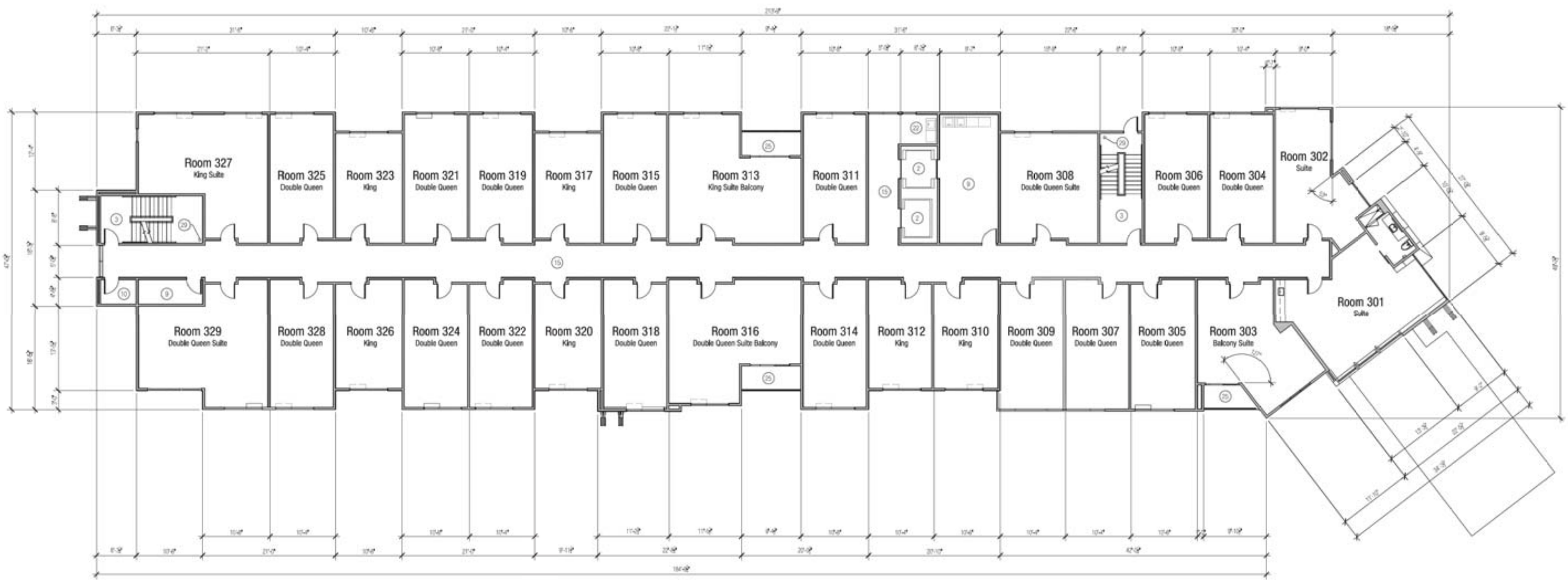
24. ASPHALT DRIVEWAY
25. DEX-O-TEX DECKING
26. POOL / SPA
27. 42" TALL PROTECTIVE GLASS RAILING
28. BIKE STORAGE
29. FIRE STAND-PIPE
30. MECHANICAL CHASE

Wall Legend

2x6 STUD WALL
2x4 STUD WALL
2x6 PONY WALL @ 42" HIGH



3rd Floor Plan

SCALE: 3/32"=1'-0"

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consultant:

project:
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applicant/owner:
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sheet title:
3rd Floor Plan

revision:

legal stuff:
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CAD file:
drawn by:
plot date:

sheet:
A1.3

EXHIBIT - K

Floor Plan Notes

1. ACCESSIBLE RESTROOM
2. ELEVATOR
3. STAIR
4. DECK / BALCONY
5. GRAND STAIRCASE
6. RECEPTION / LOBBY AREA
7. MEETING ROOM
8. FOOD PREP
9. HOUSEKEEPING
10. STORAGE
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19. (E) SITE WALL TO REMAIN
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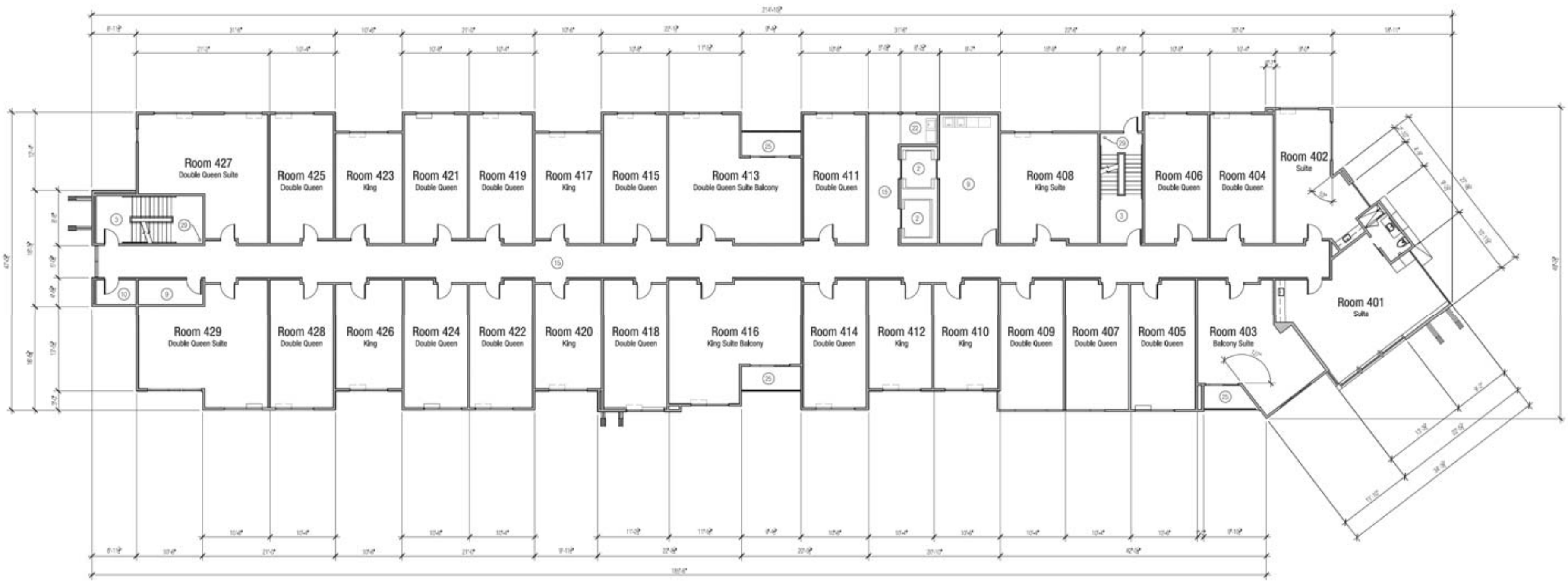
23. SINGLE-PLY PVC ROOF
24. ASPHALT DRIVEWAY
25. DEX-O-TEX DECKING
26. POOL / SPA
27. 42" TALL PROTECTIVE GLASS RAILING
28. BIKE STORAGE
29. FIRE STAND-PIPE
30. MECHANICAL CHASE

Wall Legend

- 2x6 STUD WALL
- 2x4 STUD WALL
- 2x6 PONY WALL @ 42" HIGH



4th Floor Plan

SCALE: 3/32"=1'-0"

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consultant:

project:
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Paso Robles, CA

applicant/owner:
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Paso Robles, CA 93447

sheet title:
4th Floor Plan

revision:

legal stuff:

sheet data:

sheet:
A1.4

EXHIBIT - L

Floor Plan Notes

1. ACCESSIBLE RESTROOM
2. ELEVATOR
3. STAIR
4. DECK / BALCONY
5. GRAND STAIRCASE
6. RECEPTION / LOBBY AREA
7. MEETING ROOM
8. FOOD PREP
9. HOUSEKEEPING
10. STORAGE
11. FIREPLACE
12. BACK OF HOUSE / ADMIN
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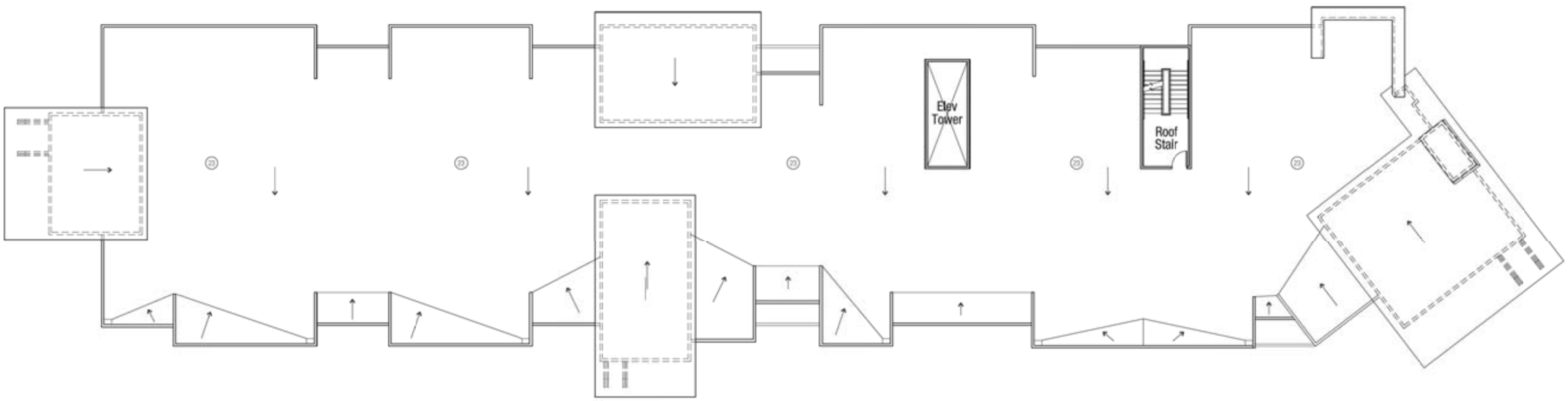
26. POOL / SPA
27. 42" TALL PROTECTIVE GLASS RAILING
28. BIKE STORAGE
29. FIRE STAND-PIPE
30. MECHANICAL CHASE

Wall Legend

- 2x6 STUD WALL
- 2x4 STUD WALL
- 2x6 PONY WALL @ 42" HIGH



Roof Plan

SCALE: 3/32"=1'-0"

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project:
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Paso Robles, CA

applicant/owner:
Black's Hatchery
Matt Masia
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sheet title:
Roof Plan

revision:

legal stuff:

sheet data:
ga+d job no: ... 588
CAD file:
drawn by:
plot date: ... 16.2000

sheet:

A1.5

Agenda Item 1

EXHIBIT - M

Building Section

SCALE: 3/32"=1'-0"

South Elevation

SCALE: 3/32"=1'-0"

Material / Object

1. 3-COAT CEMENT PLASTER WITH SMOOTH STEEL TROWEL FINISH
2. CORETEN STEEL PANELS
3. STONE VENEER
4. COMPOSITE WOOD SIDING
5. ALUMINUM WINDOW
6. METAL DOOR
7. STEEL HANDRAIL @ 42" A.F.F. W/ CABLE INFILL
8. STOREFRONT SYSTEM
9. CUSTOM EXPOSED WOOD STRUCTURE
10. PRECAST CONCRETE TRIM
11. METAL PANEL

Color / Finish

A. LIGHT BEIGE : SW 6092
B. NATURAL WEATHERED STEEL
C. NATURAL
D. DARK BRONZE
E. NATURAL CONCRETE

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seal:

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consultant:

project:

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2717 Black Oak Drive
Paso Robles, CA

applicant/owner:

Black's Hatchery
Matt Masia
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Paso Robles, CA 93447

sheet title:

Elevation and Section

revision:

legal stuff:

sheet data:

ga+d job no:
CAD file:
drawn by:
plot date:

sheet:

A2.1

Agenda Item 1

EXHIBIT - N

West Elevation

SCALE: 3/32"=1'-0"

East Elevation

SCALE: 3/32"=1'-0"

North Elevation

SCALE: 3/32"=1'-0"

Material / Object

1. 3-COAT CEMENT PLASTER WITH SMOOTH STEEL TROWEL FINISH
2. CORETEN STEEL PANELS
3. STONE VENEER
4. COMPOSITE WOOD SIDING
5. ALUMINUM WINDOW
6. METAL DOOR
7. STEEL HANDRAIL @ 42" A.F.F. W/ CABLE INFILL
8. STOREFRONT SYSTEM
9. CUSTOM EXPOSED WOOD STRUCTURE
10. PRECAST CONCRETE TRIM
11. METAL PANEL

Color / Finish

A. LIGHT BEIGE : SW 6092
B. NATURAL WEATHERED STEEL
C. NATURAL
D. DARK BRONZE
E. NATURAL CONCRETE

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project:
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Paso Robles, CA

applicant/owner:
Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:
Elevations

revision:

legal stuff:

sheet data:

sheet:

A2.2

EXHIBIT - O

View of Main Hotel Entrance / Drop-Off Area

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consultant:

project:

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2717 Black Oak Drive
Paso Robles, CA

applicant/owner:

Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:

Perspective Views

revision:

legal stuff:

sheet data:

ga+d job no:
CAD file:
drawn by:
plot date:

sheet:

A3.1

EXHIBIT - P

View of Porte Cochere / Main Hotel Entrance

View looking Northeast

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seal:

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STATE OF CALIFORNIA

consultant:

project:

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2717 Black Oak Drive
Paso Robles, CA

applicant/owner:

Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:

Perspective Views

revision:

legal stuff:

sheet data:

ga+d job no:
CAD file:
drawn by:
plot date:

sheet:

A3.2

EXHIBIT - Q

Aerial View of Pool Deck Area

View from Northwest

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consultant:

project:

Black Oak Lodge
2717 Black Oak Drive
Paso Robles, CA

applicant/owner:

Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:

Perspective Views

revision:

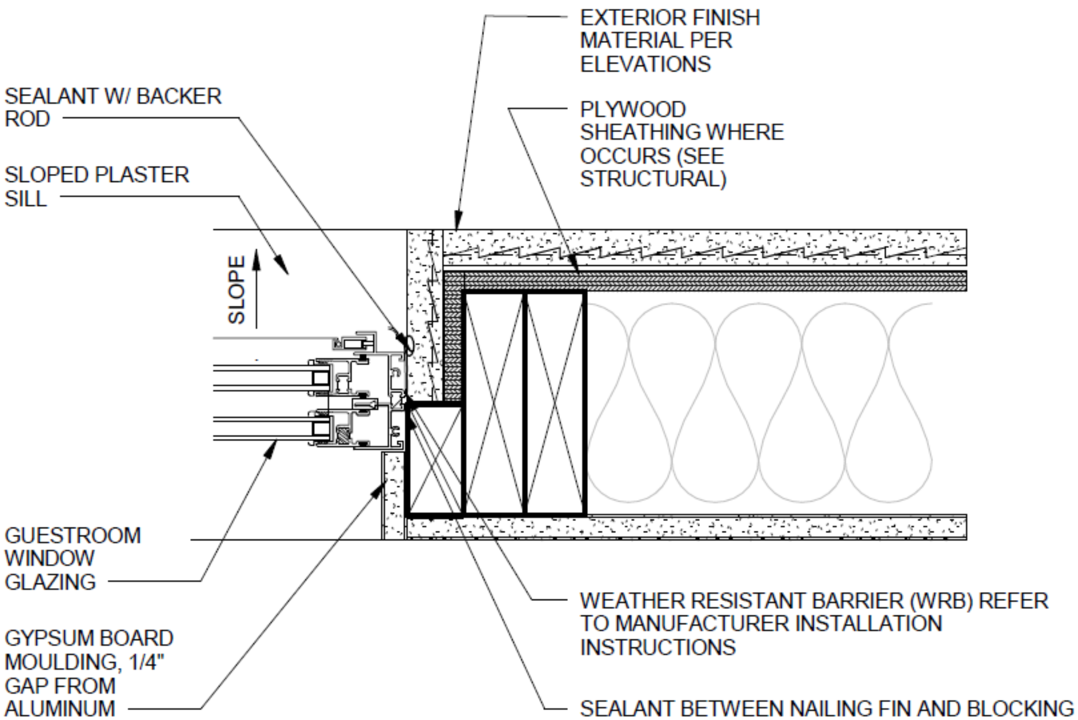
legal stuff:

sheet data:

sheet:

A3.3

Exhibit R



2 — Typical Recessed Window Detail

A-11 — 3" = 1'-0"

ENVIRONMENTAL INITIAL STUDY CHECKLIST FORM
CITY OF PASO ROBLES
Recirculated April 18, 2018 – May 8, 2018

1. **PROJECT TITLE:** Black Oak Lodge

   Concurrent Entitlements: Planned Development (PD 16-007)

2. **LEAD AGENCY:** City of Paso Robles
   1000 Spring Street
   Paso Robles, CA 93446

   Contact: Darren Nash
   Phone: (805) 237-3970
   Email: dnash@prcity.com

3. **PROJECT LOCATION:** 2717 Black Oak Drive, just north of 24th Street
   Paso Robles, CA 93446
   (See Attachment 1, Vicinity Map)

   Assessor Parcel Numbers:
   008-132-019 & 021

4. **PROJECT PROPONENT:** Black's Hatchery – Matt Masia

   Contact Person: George Garcia, Garcia Architecture + Design
   Phone: (805) 783-1880
   Email: george@garciaarchitecture.com

5. **GENERAL PLAN DESIGNATION:** Commercial Service (CS)

6. **ZONING:** Riverside Corridor (RSC)

7. **PUBLIC REVIEW PERIOD:** July 10, 2017 through August 8, 2017

8. **PROJECT DESCRIPTION:** This is a proposal to establish a 4-story, 96 room hotel. The project includes 120 parking spaces, which exceeds the Zoning Code requirement for 104 spaces allowing for one space per guest room and 8 spaces for employees. Parking spaces include standard, compact, EV charger, and handicapped accessible parking stalls, in addition to motorcycle spaces, and bicycle parking facilities.

   The project will be requesting modifications from the development standards outlined in the Specific Plan for the RSC corridor including a request to exceed the 36-foot height limit to up to 50-feet for some of the architectural tower elements. Allowing for a increased front yard setback to accommodate an existing no-building easement adjacent to Black Oak Drive will also be requested.

   The project shares a common driveway with the neighboring McDonalds drive through restaurant. Cars waiting in the drive through lane could back up into the drive isle for hotel. Since the project site has access to Riverside Avenue, it is anticipated that people staying at hotel will use Riverside Avenue for ingress and egress rather than Black Oak Drive.

See Attachments: 2 - Site Plan, and 3 - Elevations.

The hotel will include ancillary guest facilities including:

- lounge for hotel guests
- meeting rooms
- fitness center
- outdoor pool

The total existing lot area is 1.8 acres, and includes 2 separate parcels. The application includes a proposal to merge the two lots. The site is currently vacant.

9. **ENVIRONMENTAL SETTING:** The project site is located on Black Oak Drive, approximately 260 feet north of 24th Street. State Highway 101 is located across Black Oak Drive and is parallel with Black Oak Drive. The property is adjacent to Black Oak Drive to the east, Riverside Avenue to the west, and highway commercial development to the north and south. The site is accessed from Black Oak Drive and Riverside Avenue. There are no existing biological resources located on the site or in the near vicinity.

   The property is within the City limits and is zoned for commercial development, including hotels. The land use classification and potential commercial development of this property was included in the 2010 Urban Water Master Plan. If this project is approved, the property would be served with municipal water service for potable and irrigation water needs. It would also be provided with City sewer service.

10. **OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS NEEDED)**:

    None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☒	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Geology /Soils
☒	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials	☐	Hydrology / Water Quality
☐	Land Use / Planning	☐	Mineral Resources	☐	Noise
☐	Population / Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☐	Utilities / Service Systems	☐	Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

______________________________ April 18, 2018

Signature: Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. "Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from ""Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. The explanation of each issue should identify:
   a. the significance criteria or threshold, if any, used to evaluate each question; and
   b. the mitigation measure identified, if any, to reduce the impact to less than significance

Response to Comments – 8/8/17 Caltrans Letter
Section XVI.a and b. Transportation / Traffic:

The initial Traffic Impact Analysis was prepared for the project by Associated Transportation Engineers (ATE) dated April 3, 2017 was circulated as part of the Mitigated Negative Declaration (MND) for the project from July 10, 2017 to August 8, 2017. The traffic and circulation study contained an analysis of potential traffic impacts associated with development of the Black Oak Lodge Hotel proposed in the City of Paso Robles. The study reviewed Existing, Existing + Project, Cumulative, Cumulative + Project traffic conditions in the vicinity of the site including the intersection of SR 101 / 24th Street.

The ATE traffic study concluded that based on the analysis in the traffic study providing that the trips added to the neighboring intersections would operate a level of service from A to C, and that the added trips that would use State Highway 101 would be minimal. Therefore, Negative Declaration prepared by the City concluded that the project impacts on transportation and traffic would be less than significant. The project was conditioned to pay traffic impact development fees for the proportionate share of impacts associated with the project to mitigate its impacts to traffic and roadways.

In response to the circulation of the MND in July 2017, Caltrans provided comments related to traffic impacts from the project to the Northbound US 101 ramp at SR 46. The City received the letter from Caltrans on August 8, 2017 (see Attachment 5), indicating that the ATE study has deficiencies as follows:

- Caltrans indicates that currently ramps at the US 101/ SR 46 intersection operates at an unacceptable level of service (LOS), and any additional trips should be considered a significant traffic impact, and should be mitigated accordingly.
- That the ATE study used an incorrect Peak Hour Factor (PHF) and needs to be updated using the correct factors;
- That incorrect assumptions were used when calculating "existing + project" conditions and the assumptions should be reconsidered utilizing signal timings currently established by Caltrans for each interchange approach.
- In relation to the proposed mitigations which included the payment of City traffic mitigation fees, Caltrans indicates that there is no established development fee program for the project area, that the mitigation for traffic impacts has not been adequately addressed.

The Planning Commission was scheduled to review the project along with the mitigated negative declaration on August 8, 2017, however, in order to allow additional time for Staff along with the Traffic Consultant to address the comments outlined in the August 8th Caltrans letter, the item was continued to a future Planning Commission hearing.

Since the August 8th hearing, City Staff has been in contact with Caltrans Staff as well as ATE to strategize on ways to respond to the Caltrans letter. ATE has provided an updated Traffic Impact Analysis dated December 21, 2017 (See Attachment 5a). The study took in consideration the previous ATE study along with the concerns raised in the Caltrans letter related to impacts to US 101 ramp at SR 46 intersection.

The ATE study evaluated the potential transportation impacts of the Black Oak Lodge project and how traffic trips generated from the project impacts to the US 101 ramp at SR 46 intersection. The Study indicates that the project is expected to generate 85 daily trips, 41 AM peak hour trips, and 44 PM peak hour trips under the cumulative scenario.

The City's Transportation Impact Analysis Guidelines and Caltrans criteria are applied to identify transportation deficiencies. The Study concludes that no transportation deficiencies were identified in the analysis of the proposed development and that the project will be required to pay traffic mitigation fees to the City to offset its cumulative effect to the US Highway 101/State Route 46E interchange and the State Route 46 corridor. These fees will go toward the parallel route roadway and Union Road interchange improvements.

In addition to paying traffic impact fees for future improvements, the City is recommending that the project's Black Oak Drive driveway be restricted to inbound only traffic. The outbound traffic would be via the Riverside Avenue driveway. Signage on Riverside Avenue would direct southbound project traffic to U.S. Highway 101/17th Street southbound on-ramp away from the U.S. 101 State Route 46E interchange. Northbound traffic would be directed to the Spring Street on-ramp at the North end of the City.

Based on the ATE Traffic Impact Analysis concluding that the Black Oak Lodge project will not create transportation deficiencies to Northbound US 101 ramp at SR 46, the projects impacts on the circulation system and congestion management will be less than significant. No additional mitigation changes are proposed to the Mitigation Monitoring and Reporting Program. Conditions of approval will be included in the project Resolution of approval that require traffic impact fees to be paid, and a signage program be established that directs cars leaving the site to use Riverside Avenue.

Caltrans Staff provided a letter dated April 5, 2018 (See Attachment 5c), indicating concurrence with the projects IS/MND and recommends implementation of the proposed mitigation/conditions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Discussion: The project site is located in close proximity to the intersection of 24th Street and State Highway 101. This location is identified as a "gateway" to the City in the City's General Plan, Conservation Element (Figure C-3), as well as the City's Gateway Design Standards, which establishes policy guidance to ensure that new development presents an attractive design that integrates well into the surroundings, and is consistent with design themes in the City. However, the project location is not designated as being in a scenic view corridor, nor is it within a scenic vista.

The site is currently vacant. The proposed hotel project will upgrade the existing visual quality of the site, and not result in a substantial adverse effect on scenic resources.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

Discussion: The project site is not located within a State scenic highway. There are no scenic resources such as rock outcroppings, natural resources such as oak trees, or historic buildings located on the site. Therefore, the project would not result in significant impacts to scenic resources.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒

Discussion: The existing visual quality of the site is low since it is vacant, has no landscaping and is currently used as overflow parking for the neighboring businesses. The request to exceed the 36-foot building height to up to 50-feet would not seem to conflict surrounding uses. There is no residential on the surrounding properties.

The proposed project would upgrade and enhance the visual quality of the site, and improve the overall view of the property and surroundings with a new contemporary designed hotel, landscaped site improvements, pool, and parking lots with trees and landscaping. Therefore, the proposed project would likely improve the existing visual quality of the site and surroundings.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Sources: 1, 2, 10)	☐	☐	☒	☐

Discussion: The proposed hotel will include building lighting and parking lot light standards that will architecturally tie in to the architectural style of the building. Parking lot lights will be kept to the minimum height necessary to provide for site safety. The building and monument signs will include subdued backlighted design features. There are no residents or other sensitive land uses within the near vicinity since the project site is within an existing developed commercial area. Lighting fixtures will comply with specific plan design and height limit standards. Therefore, the proposed project will result in less than significant impacts from light or glare.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST 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?	☐	☐	☐	☒
Discussion: The project site is designated in the General Plan and is zoned on the City's Zoning Map for commercial development. The property is not identified in the City General Plan, Open Space Element (Figure OS-1, Important Farmland Map) as having either prime, unique or farmland of statewide importance. This area of the City is already fully developed and disturbed with urban land uses, and it is not presently farmed. Therefore, the project would not result in impacts on converting prime or other significant soils to urban land uses.				
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
Discussion: The site is not under Williamson Act contract, nor is it currently used for agricultural purposes.				
c. Conflict with existing zoning for, or cause rezoning of, forest, land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 5114(g))?	☐	☐	☐	☒
Discussion: There are no forest land or timberland resources within the City of Paso Robles.				
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
Discussion: See II c. above.				
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
Discussion: There are no properties with agricultural resources or activities located within the near vicinity. Therefore, the proposed project could not result in pressure to convert agricultural land to urban uses.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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? (Source: Attachment 5)	☐	☒	☐	☐

Discussion: An Air Quality Analysis was prepared by AMBIENT Consulting for this project. (See Attachment 4.) The study evaluated project consistency with the SLO County Air Pollution Control District Clean Air Plan (APCD CAP).

According to the SLOAPCD's CEQA Air Quality Handbook (2012), a consistency analysis with the Clean Air Plan is required for a program-level environmental review, and may be necessary for a larger project-level environmental review, depending on the project being considered. Project-Level environmental reviews which may require consistency analysis with the CAP include: large residential developments and large commercial/industrial developments. For such projects, evaluation of consistency is based on a comparison of the proposed project with the land use and transportation control measures and strategies outlined in the CAP. If the project is consistent with these measures, the project is considered consistent with the CAP.

The proposed project is not considered a large development project that would have the potential to result in a substantial increase in population, or employment. In addition, the proposed project is also consistent with existing zoning designations and would not result in the installation of any major stationary sources of emissions. However, as noted in Impact AQ-C, short-term emissions associated with the project would exceed SLOAPCD's recommended significance thresholds. Projects that exceed SLOAPCD's recommended significance thresholds would also be considered to potentially conflict with regional air quality planning efforts. This impact is considered potentially significant.

Particulate Matter Report – Implementation of SB 656 Requirements

In July 2005, SLOAPCD adopted the Particulate Matter Report (PM Report). The PM Report identifies various measures and strategies to reduce public exposure to PM emitted from a wide variety of sources, including emissions from permitted stationary sources and fugitive sources, such as construction activities. As discussed in Impact AQ-C, uncontrolled fugitive dust generated during construction may result in localized pollutant concentrations that may result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions of fugitive dust would be considered to have a potentially significant impact.

Mitigation Measures: Implement Mitigation Measure AQ-1 and AQ-2. See Attachment 7 Mitigation Monitoring and Reporting Program.

Significance After Mitigation

Implementation of Mitigation Measure AQ-1 would include measures to reduce construction-generated emissions of fugitive dust, as well as, mobile-source emissions associated with construction vehicle and equipment operations and evaporative emissions from architectural coatings. With mitigation, overall emissions of fugitive dust would be reduced by approximately 56 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact is considered less than significant. Refer to Impact AQ-C and Impact AQ-D for additional discussion of air quality impacts and proposed mitigation measures.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Source: 11)	☐	☒	☐	☐

Discussion:

As noted in Impact AQ-C and AQ-D, below, short-term construction activities may result in localized concentrations of pollutants that could adversely affect nearby land uses. As a result, this impact is considered ***potentially significant***. Refer to *Impact AQ-C* and *Impact AQ-D* for additional discussion of air quality impacts and proposed mitigation measures.

Mitigation Measures: Implement Mitigation Measure AQ-1 and AQ-2. See Mitigation Monitoring and Reporting Plan, Attachment 7.

Significance After Mitigation

Implementation of Mitigation Measure AQ-1 would include measures to reduce construction-generated emissions of fugitive dust, as well as, mobile-source emissions associated with construction vehicle and equipment operations and evaporative emissions from architectural coatings. With mitigation, overall emissions of fugitive dust would be reduced by approximately 56 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact is considered ***less than significant***. Refer to *Impact AQ-C* and *Impact AQ-D* for additional discussion of air quality impacts and proposed mitigation measures.

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)? (Source: 11)	☐	☒	☐	☐

Discussion:

<u>Short-term Construction Emissions</u>

Construction-generated emissions are of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. The construction of the proposed project would result in the temporary generation of emissions associated with site grading and excavation, paving, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces. Short-term construction emissions would result in increased emissions of ozone-precursor pollutants (i.e., ROG and NO_X) and emissions of PM. Emissions of ozone-precursors would result from the operation of on- and off-road motorized vehicles and equipment. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities and can result in increased concentrations of PM that can adversely affect nearby sensitive land uses.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Estimated daily and quarterly emissions associated with initial construction of the proposed hotel are presented in Table 9 and Table 10, respectively. Construction-generated emissions in comparison to SLOAPCD significance thresholds are summarized in Table 11. As depicted, maximum daily emissions associated with construction of the proposed hotel would total approximately 179.8 lbs/day of $ROG+NO_X$ and approximately 2.0 lbs/day of exhaust PM_{10}. Maximum quarterly construction-generated emissions would total approximately 1.0 tons of $ROG+NO_X$, less than 0.1 tons of Fugitive PM_{10}, and 0.1 tons of DPM.

Table 9
Daily Construction Emissions Without Mitigation

Construction Activity	Daily Emissions (lbs)	
	$ROG+NO_X$	Exhaust PM_{10}
Site Preparation	43.7	1.3
Grading/Excavation	20.1	0.9
Building Construction	25.5	1.2
Paving	12.1	0.6
Architectural Coating	142.2	0.2
Maximum Daily Emissions	**179.8**	2.0
SLOAPCD Significance Thresholds	137	7
Exceed SLOAPCD Thresholds?	**Yes**	No

Maximum Daily Emissions: Assumes that facility construction, paving, and application of architectural coatings could potentially occur simultaneously on any given day. Totals may not sum due to rounding.
Refer to Appendix D for modeling assumptions and results.

Maximum daily emissions associated with construction of the proposed hotel would exceed SLOAPCD's daily significance threshold for $ROG+NO_X$. Emissions would be largely a result of evaporative emissions anticipated to occur during the application of architectural coatings. Estimated emissions of fugitive and exhaust PM_{10} would not exceed SLOAPCD's significance thresholds. However, if uncontrolled, fugitive dust generated during construction may result in localized pollutant concentrations that could exceed ambient air quality standards and result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions would be considered to have a ***potentially significant*** impact.

Table 10
Quarterly Construction Emissions Without Mitigation

Quarter	Quarterly Emissions (tons)			
		PM_{10}		
	$ROG+NO_X$	Dust	Exhaust	Total
Year 2017 - Quarter 3	0.9	<0.1	<0.1	0.1
Year 2017 - Quarter 4	0.8	<0.1	<0.1	0.1
Year 2018 - Quarter 1	1.0	<0.1	0.1	0.1
Year 2018 - Quarter 2	0.9	<0.1	<0.1	<0.1
Maximum Quarterly Emissions:	1.0	<0.1	0.1	0.1
SLOAPCD Significance Thresholds	2.5	2.5	0.13	None
Exceed SLOAPCD Thresholds?	No	No	No	No

To be conservative, total exhaust PM_{10} emissions were compared to SLOAPCD's DPM threshold. Totals may not sum due to rounding.
Refer to Appendix D for modeling assumptions and results.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Table 11
Summary of Construction Emissions Without Mitigation

Criteria	Project Emissions	SLOAPCD Significance Threshold	Exceed Significance Threshold?
Maximum Daily Emissions of $ROG+NO_X$	**179.8** lbs/day	137 lbs/day	**Yes**
Maximum Daily Emissions of DPM	2.0 lbs/day	7 lbs/day	No
Maximum Quarterly Emissions of $ROG+NO_X$	1.0 tons/qtr	2.5 tons/qtr	No
Maximum Quarterly Emissions of DPM	0.1 tons/qtr	0.13 tons/qtr	No
Maximum Quarterly Emissions of Fugitive PM	<0.1 tons/qtr	2.5 tons/qtr	No

Quarterly thresholds are based on the more conservative Tier 1 thresholds.
Refer to Appendix D for modeling assumptions and results.

Mitigation Measures

Implement Mitigation Measure AQ-1. See Mitigation Monitoring and Reporting Plan, Attachment 6.

Significance After Mitigation

With implementation of Mitigation Measure AQ-1, overall emissions of fugitive dust would be reduced by approximately 56 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With the use of low-VOC content paints, maximum daily construction-generated emissions of $ROG+NO_X$ would total approximately 28 lbs/day. Mitigated emissions of $ROG+NO_X$ would not exceed SLOAPCD's daily significance threshold of 137 lbs/day. With mitigation, this impact would be considered ***less than significant***.

<u>**Long-term Operational Emissions**</u>

Long-term operational emissions associated with the proposed project would be predominantly associated with mobile sources. To a lesser extent, emissions associated with area sources, such as landscape maintenance activities, as well as, use of electricity and natural gas would also contribute to increased operational emissions.

Unmitigated operational emissions associated with operation of the proposed hotel are summarized in Table 12. As depicted, maximum daily operational emissions would total approximately 3.7 lbs/day ROG+NOx, 5.8 lbs/day CO, 1.1 lbs/day of fugitive PM_{10}, and 0.1 lbs/day of exhaust PM_{10}. Maximum annual emissions would total approximately 0.7 tons/year of ROG+NOx and approximately 0.2 tons/year of fugitive PM_{10}. Operational emissions associated with the proposed project would not exceed SLOAPCD significance thresholds. As a result, this impact would be considered ***less than significant***.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Table 12
Operational Emissions Without Mitigation

Operational Period/Source	Emissions						
					PM_{10}		
	ROG	NOx	ROG+NOx	CO	Fugitive	Exhaust	Total
Daily Emissions (lbs/day)							
Summer Conditions	2.2	1.4	3.6	5.7	1.1	0.1	1.2
Winter Conditions	2.2	1.5	3.7	5.8	1.1	0.1	1.2
SLOAPCD Significance Thresholds	--	--	25	550	25	1.25	--
Exceeds SLOAPCD Thresholds?	--	--	No	No	No	No	--
Annual Emissions (tons/year)							
Total Project Emissions	0.4	0.3	0.7	1.0	0.2	0.0	0.2
SLOAPCD Significance Thresholds	--	--	25	--	25	--	--
Exceeds SLOAPCD Thresholds?	--	--	No	--	No	--	--

Based on year 2019 operational conditions. Totals may not sum due to rounding.
Refer to Appendix D for modeling output files and assumptions.

d. Expose sensitive receptors to substantial pollutant concentrations? (Source: 11) ☐ ☒ ☐ ☐

Discussion:

The project site is bound by Black Oaks Drive to the east and Riverside Avenue to the west. Existing commercial development is located adjacent to the northern and southern boundaries of the project site. The nearest sensitive land used consist of residential dwellings located within the northeastern quadrant of the Riverside Avenue/Ysabel Street intersection, approximately 140 feet south of the project site. In addition, the Adelaide Inn is located adjacent to and south of the project site. See Vicinity Map, Attachment 1.

Localized CO Concentrations

Localized concentrations of CO are of primary concern in areas located near congested roadway intersections. Of particular concern are signalized intersections that are projected to operate at unacceptable levels of service (LOS) E or F (Caltrans 1996).

Based on the traffic analysis prepared for this project, signalized intersections in the project area would operate at LOS C, or better (ATE 2017). The proposed project would not result in or contribute to unacceptable levels of service (i.e., LOS E or F) at primarily affected signalized intersections. In addition, the proposed project would not result in emissions of CO in excess of the SLOAPCD's significance threshold of 550 lbs/day. This impact is considered ***less than significant***.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the ARB. In accordance with ARB Air Toxics Control Measure (ATCM), prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request form, along with a copy of the geologic report, must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM.

Based on a review of the SLOAPCD's map depicting potential areas of NOA, the project site is located in or near an area that has been identified as having a potential for NOA (Refer to Appendix B). As a result, this impact is considered ***potentially significant***.

Asbestos-Containing Materials

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition of existing buildings, particularly older structures constructed prior to 1970. Asbestos can also be found in various building products, including (but not limited to) utility pipes/pipelines (transite pipes or insulation on pipes). If a project will involve the disturbance or potential disturbance of ACM, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - Asbestos NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the APCD, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM.

The project site will not require demolition of onsite structures. This impact is considered ***less than significant***.

Lead-Coated Materials

Demolition of structures coated with lead based paint can have potential negative air quality impacts and may adversely affect the health of nearby individuals. Improper demolition can result in the release of lead containing particles from the site. Sandblasting or removal of paint by heating with a heat gun can result in significant emissions of lead. In such instances, proper abatement of lead before demolition of these structures must be performed in order to prevent the release of lead from the site. Depending on removal method, a SLOAPCD permit may be required.

The project site will not require demolition of onsite structures. This impact is considered ***less than significant***.

Localized PM Concentrations

Implementation of the proposed project would result in the generation of fugitive PM emitted during construction. Fugitive PM emissions would be primarily associated with earth-moving, demolition, and material handling activities, as well as, vehicle travel on unpaved and paved surfaces. Onsite off-road equipment and trucks would also result in short-term emissions of diesel-exhaust PM (DPM). If uncontrolled, localized concentrations of PM could exceed air quality standards and may also result in increased nuisance impacts to nearby land uses and receptors. This impact is considered ***potentially significant***.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation Measures

Implement Mitigation Measure AQ-2. See Mitigation Monitoring and Reporting Plan, Attachment 7.

Significance After Mitigation

Mitigation Measure AQ-1includes measures for the control of fugitive dust emitted during project construction. Mitigation Measures AQ-2,b has been included for the control of potential emissions of naturally-occurring asbestos and to ensure compliance with applicable regulatory requirements. Mitigation Measures AQ-2,c through AQ-2,j include additional provisions for reducing emissions of DPM from onsite mobile sources. With implementation of Mitigation Measure AQ-2, this impact would be considered ***less than significant***.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Create objectionable odors affecting a substantial number of people? (Source: 11)	☐	☐	☒	☐

Discussion: The proposed project would not result in the installation of any equipment or processes that would be considered major odor-emission sources. However, construction of the proposed project would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel-exhaust, may be considered objectionable by some people. In addition, pavement coatings and architectural coatings used during project construction would also emit temporary odors. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly within increasing distance from the source. As a result, short-term construction activities would not expose a substantial number of people to frequent odorous emissions. Additionally, there are no residences located in the near vicinity of the project site that could be exposed to objectionable odors. For these reasons, potential exposure of sensitive receptors to odorous emissions would be considered less than significant.

IV. BIOLOGICAL RESOURCES: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: The project is currently vacant and utilized as an overflow parking lot. The site has been developed in the past with commercial and parking lot uses. Thus, it is a completely urbanized, disturbed site. There are no biological resources (i.e. oak trees, special habitats, or wildlife species) located on the site, or within the near vicinity. Therefore, the proposed project could not adversely impact, directly or indirectly, protected species, and will not result in impacts to these resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations regulated by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion: There is no riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations that are regulated by the California Department of Fish and Game or US Fish and Wildlife Service located on or near this property. Therefore, this project could not result in impacts to these resources.

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?	☐	☐	☐	☒

Discussion: As an existing urbanized site, there are no wetlands, waterways or other hydrological features located on the project site, or within the near vicinity that could be affected by the proposed project. Therefore, the project will not result in impacts to hydrological features and/or resources.

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?	☐	☐	☐	☒

Discussion: The project site an urban infill lot, surrounded by existing development and Black Oak Drive. As such, the site is not within a native resident or migratory corridor with fish or wildlife, therefore development of the project could not impact resident or migratory corridors for fish or wildlife.

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

Discussion: See IV b. above. The project would not conflict with any local policies or ordinances established to protect biological resources, as there are no protected biological resources on or near the protect site.

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?	☐	☐	☐	☒

Discussion: There are no Habitat Conservation Plans or other related plans applicable in the City of Paso Robles.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Discussion (a-d): There are no historic resources (as defined), located on the site. There are also no archaeological or paleontological resources known to be present on the site or in the near vicinity. Since the property is not located within proximity to a creek or river or known cultural resource it is unlikely that there are resources located on the site.

There are no known human remains on the project site, however per conditions of approval incorporated into the project, if human remains are found during site disturbance, all grading and/or construction activities shall stop, and the County Coroner shall be contacted to investigate. Therefore, this project will result in less than significant impacts on cultural resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
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. (Sources: 1, 2, & 3)	☐	☐	☒	☐

Discussion: The potential for and mitigation of impacts that may result from fault rupture in the project area are identified and addressed in the General Plan EIR, pg. 4.5-8. There are two known fault zones on either side of the Salinas Rivers valley. The Rinconada Fault system runs on the west side of the valley, and grazes the City on its western boundary. The San Andreas Fault is on the east side of the valley and is situated about 30 miles east of Paso Robles. The City of Paso Robles recognizes these geologic influences in the application of the California Building Code (CBC) to all new development within the City. Review of available information and examinations indicate that neither of these faults is active with respect to ground rupture in Paso Robles. Soils and geotechnical reports and structural engineering in accordance with local seismic influences would be applied in conjunction with any new development proposal. Based on standard conditions of approval, the potential for fault rupture and

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

exposure of persons or property to seismic hazards is not considered significant. There are no Alquist-Priolo Earthquake Fault Zones within City limits.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii. Strong seismic ground shaking? (Sources: 1, 2, & 3)	☐	☐	☒	☐

Discussion: The proposed project will be constructed to current CBC codes. The General Plan EIR identified impacts resulting from ground shaking as less than significant and provided mitigation measures that will be incorporated into the design of this project including adequate structural design and not constructing over active or potentially active faults. Therefore, impacts that may result from seismic ground shaking are considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iii. Seismic-related ground failure, including liquefaction? (Sources: 1, 2 & 3)	☐	☐	☒	☐

Discussion: Per the General Plan EIR, the project site is located in an area with soil conditions that have a low to moderate potential for liquefaction or other type of ground failure due to seismic events and soil conditions. Therefore, impacts related to seismic-related ground failure are determined to be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iv. Landslides?	☐	☐	☒	☐

Discussion: Per the General Plan Safety Element, the project site is in an area that is designated as a low-risk area for landslides. Therefore, potential impacts due to landslides would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Result in substantial soil erosion or the loss of topsoil? (Sources: 1, 2, & 3)	☐	☐	☐	☒

Discussion: Per the General Plan EIR the soil condition is not erosive or otherwise unstable. As such, no significant impacts are anticipated. Therefore, potential impacts due to erosion or loss of topsoil would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

Discussion: This site is not located in an area with an unstable geologic unit that would be subject to on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Be located on expansive soil, as defined in Table 18-1-B of the California Building Code, creating substantial risks to life or property?	☐	☐	☐	☒

Discussion: This site is not located in an area with an unstable geologic unit that would be subject to expansive soil that could create a substantial risk to life or property.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion: The development will be connected to the City's municipal wastewater system. Therefore, there would not be impacts related use of septic tanks.

VII. GREENHOUSE GAS EMISSIONS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

b.

Discussion: A Greenhouse Gas Impact Assessment was prepared by AMBIENT Consultants to evaluate potential Greenhouse Gas (GHG) emissions that may result from the project. (See Attachment 4)

Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 from mobile sources. To a lesser extent, other GHG pollutants, such as CH_4 and N_2O, would also be generated. Short-term and long-term GHG emissions associated with the development of the proposed project are discussed in greater detail, as follows:

Short-term Construction GHG Emissions

Estimated increases in GHG emissions associated with construction of the proposed project are summarized in Table 15. Based on the modeling conducted, annual GHG emissions associated with construction of the proposed project would total approximately 317.4 $MTCO_2e$. Amortized GHG emissions, when averaged over the assumed 25-year life of the project, would total approximately 12.7 $MTCO_2e$/year. There would also be a small amount of GHG emissions from waste generated during construction; however, this amount is speculative. Actual emissions may vary, depending on the final construction schedules, equipment required, and activities conducted.

Table 15
Construction-Generated GHG Emissions Without Mitigation

Construction Year	GHG Emissions ($MTCO_2e$/Year)
2017	176.1
2018	141.3
Construction Total	317.4
Amortized Net Change in Construction Emissions	12.7
Amortized emissions are quantified based on an estimated 25-year project life. Refer to Appendix D for modeling assumptions and results.	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Long-term Operational GHG Emissions

Estimated long-term increases in GHG emissions associated with the proposed project are summarized in Table 16. As depicted, operational GHG emissions for the proposed project would total approximately 456.7 $MTCO_2e$/year during the initial year of full operation. Operational GHG emissions would decrease in future years to approximately 441.4 $MTCO_2e$/year in 2020 and 340.5 $MTCO_2e$/year in 2030. A majority of the operational GHG emissions would be associated with energy use and the operation of motor vehicle use. To a lesser extent, GHG emissions would also be associated with solid waste generation and water use. Net increases of GHG emissions would not exceed SLOAPCD's significance threshold of 1,150 $MTCO_2e$/year. As a result, this impact would be considered ***less than significant***.

Table 16
Operational GHG Emissions (Without Mitigation)

Operational Year/Source	GHG Emissions ($MTCO_2e$/Year)
Buildout Year 2019	
Area Source[1]	0.0
Energy Use[2]	267.1
Motor Vehicles	168.9
Waste Generation	6.6
Water Use and Conveyance	1.7
Amortized Construction	12.4
Total with Amortized Construction Emissions	456.7
SLOAPCD Significance Threshold	1,150
Exceeds Significance Threshold?	No
Year 2020	
Area Source[1]	0.0
Energy Use[2]	256.8
Motor Vehicles	164.0
Waste Generation	6.6
Water Use and Conveyance	1.6
Amortized Construction	12.4
Total with Amortized Construction Emissions	441.4
SLOAPCD Significance Threshold	1,150
Exceeds Significance Threshold?	No
Year 2030	
Area Source[1]	0.0
Energy Use[2]	205.4
Motor Vehicles	118.0
Waste Generation	3.3
Water Use and Conveyance	1.4
Amortized Construction	12.4
Total with Amortized Construction Emissions	340.5
SLOAPCD Significance Threshold	1,150
Exceeds Significance Threshold?	No

1. Area source includes emissions associated with the application of architectural coatings, use of consumer products/agricultural products, and landscape maintenance.
2. Includes adjustment for California Renewable Portfolio Standards requirements.
Refer to Appendix D for modeling assumptions and results.

b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☒	☐	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion:
The *City of Paso Robles CAP* is a long-range plan to reduce GHG emissions from City government operations and community activities within Paso Robles and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (City of Paso Robles, 2013).

The proposed land use would be consistent with current zoning designations and general plan land use designations. However, the proposed project does not include all mandatory GHG-reduction measures identified in the *City of Paso Robles CAP*. If unmitigated, project-generated GHG emissions would conflict with GHG-reduction planning efforts, including the City of Paso Robles CAP. As a result, this impact is considered ***potentially significant***.

Mitigation Measures

Implement Mitigation Measure GHG-1. See Mitigation Monitoring and Reporting Plan, Attachment 7.

Significance After Mitigation

The *City of Paso Robles CAP* includes various "mandatory", as well as, "voluntary" measures to be implemented to reduce GHG emissions attributable to proposed development projects. All applicable "mandatory" measures must be incorporated as binding and enforceable components of the project to be considered consistent with the CAP. If a project cannot meet one or more of the "mandatory" measures, substitutions may be allowed provided equivalent reductions can be achieved. In addition, to demonstrate consistency with the CAP, all required measures must be incorporated as binding and enforceable components of the project.

Mitigation Measure GHG-1 incorporates all applicable "mandatory" measures identified in the City's CAP. It is also important to note that the proposed project would also incorporate additional measures, such as energy-saver systems for guest rooms and installation of energy-efficient (e.g., Energy Star rated) appliances, which would result in additional reductions in GHG emissions. With mitigation, the proposed project would not conflict with GHG-reduction planning efforts, including the *City of Paso Robles CAP*. This impact is considered ***less than significant***.

The *CAP Consistency Worksheet* for the proposed project is included in Appendix C in the Air Quality Study (Attachment 4).

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Discussion: The project would use industry-standard landscape and building maintenance products which would be stored in compliance with all applicable safety requirements. The project does not include use of, transport, storage or disposal of hazardous materials that would create a significant hazard to the public or environment.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Discussion: See VIII a. above.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

Discussion: The proposed hotel project will not emit hazardous materials, and will not impact schools since there are no schools within the vicinity.

d. Be located on a site which 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?	☐	☐	☐	☒

Discussion: The project site is not identified as a hazardous site per Government Code Section 65962.5.

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion: (VIII e & f) The project site is not located within an airport safety zone.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Discussion: The City does not have *adopted* emergency response or evacuation plans. Per the City Emergency Services Department, the proposed location does not pose a risk that would impair City response to emergencies.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: Per the 2003 General Plan Safety Element, and the 2016 Local Hazard Mitigation Plan Update, the project is not in the vicinity of wildland fire hazard areas.

IX. HYDROLOGY AND WATER QUALITY: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

Discussion: The Regional Water Quality Control Board adopted stormwater management requirements for development projects in the Central Coast region. Upon the Board's direction, the City has adopted a Storm Water Ordinance requiring all projects to implement low-impact development, best management practices to mitigate impacts to the quality of storm water run-off, and to limit the increase in the rate and volume of storm water run-off to the maximum extent practical.

These new requirements include on-site retention of stormwater. The applicant has met these requirements with a combination of surface treatment areas, shallow landscaped bio-retention pockets and a retention basins.

The applicant has prepared a storm water control plan (Attachment 6) offering a site assessment of constraints and opportunities and corresponding storm water management strategies to meet stormwater quality treatment and retention requirements in compliance with the regulations. Therefore, water quality standards will be maintained and discharge requirements will be in compliance with State and local regulations, and impacts to water quality, discharge and stormwater management will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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., Would the production rate of pre-existing nearby wells drop to a level which would not support existing land uses or planned uses for which permits have been granted)? Would decreased rainfall infiltration or groundwater recharge reduce stream baseflow? (Source: 7)	☐	☐	☒	☐

Discussion: The project site is within the City limits and it is zoned to allow for commercial development, including, hotels, restaurants, retail and new residential development. The City's municipal water supply is composed of groundwater from the Paso Robles Groundwater Basin, an allocation of the Salinas River underflow, and a surface water allocation from the Nacimiento Lake pipeline project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The project proponent would be required to pay development impact fees for water service expansion and availability to mitigate its proportionate share of related impacts. Additionally, the City assigns "duty" factors that anticipate the amount of water supply necessary to serve various types of land uses. These factors are derived from determining the average water demands for each zoning district in the City. In this circumstance, the water supply necessary for development of commercial land uses permitted in the RSC Zone includes hotels, as well as other uses, and is incorporated into the water demand assumptions of the 2016 UWMP. Therefore, this demonstrates that this project will have adequate water supply available, and will not further deplete or in any way affect, change or increase water demands planned for use in the basin.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 which would result in substantial erosion or siltation on- or off-site? (Source: 10)	☐	☐	☒	☐

Discussion: The drainage pattern on the site would not be substantially altered with development of this project since site development will generally maintain the existing, historic drainage pattern of the property, and new post-construction drainage will be maintained on the site. Additionally, surface flow would be directed to drainage areas for percolation into bioswale and subgrade drainage features on the site. There are no streams, creeks or rivers on or near the project site that could be impacted from this project or result in erosion or siltation on- or off-site. Therefore, impacts to drainage patterns and facilities would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 which would result in flooding on- or off-site? (Source: 10)	☐	☐	☒	☐

Discussion: See IX c. above. Drainage resulting from development of this property will be maintained onsite and will not contribute to flooding on- or off-site. Thus, flooding impacts from the project are considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Source: 10)	☐	☐	☒	☐

Discussion: As noted in IX a. above, per the Stormwater Management Plan prepared for this project, surface drainage will be managed onsite and will not significantly add to offsite drainage facilities. Additionally, onsite LID drainage facilities will be designed to clean pollutants before they enter the groundwater basin. Therefore, drainage impacts that may result from this project would be less than significant.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f.	Otherwise substantially degrade water quality?	☐	☐	☒	☐

Discussion: See answers IX a. – e. This project will result in less than significant impacts to water quality.

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?	☐	☐	☐	☒

Discussion: There is no housing associated with this project nor is there any housing in the near vicinity downstream from the site, and the site is not within or near a flood hazard area. Therefore, this project could not result in flood-related impacts to housing.

h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

Discussion: See IX g. above. The property is not within or near a 100-year flood hazard area.

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?	☐	☐	☐	☒

Discussion: See IX h. above. Additionally, there are no levees or dams in the City.

j.	Inundation by mudflow?	☐	☐	☐	☒

Discussion: In accordance with the Paso Robles General Plan, there are no mudflow hazards located on or near the project site. Therefore, the project could not result in mudflow inundation impacts.

k.	Conflict with any Best Management Practices found within the City's Storm Water Management Plan?	☐	☐	☐	☒

Discussion: The project will implement the City's Storm Water Management Plan - Best Management Practices. Therefore, it would not conflict with these measures.

l.	Substantially decrease or degrade watershed storage of runoff, wetlands, riparian areas, aquatic habitat, or associated buffer zones?	☐	☐	☒	☐

Discussion: The project will incorporate all feasible means to manage water runoff on the project site. There are no wetland or riparian areas in the near vicinity, therefore, the project could not result in impacts to aquatic habitat.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING: Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒

Discussion: The project is surrounded by commercial land uses. There is no established "community" within the project vicinity. Therefore, the project could not physically divide an established community.

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?	☐	☐	☐	☒

Discussion: The proposed hotel project is consistent with the General Plan Land Use Designation of Commercial Service and Riverside Corridor commercial zoning. The project site design is also consistent with the General Plan, Conservation Element, "gateway" designation. There are no other plans that apply to the property. Therefore, the project does not conflict with applicable plans or policies adopted to avoid or mitigate environmental effects.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion: There are no habitat conservation plans or natural community conservation plans established in this area of the City. Therefore, there could be no conflicts with conservation plans.

XI. 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? (Source: 1)	☐	☐	☐	☒

Discussion: There are no known mineral resources at this project site.

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? (Source: 1)	☐	☐	☐	☒

Discussion: There are no known mineral resources at this project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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? (Source: 1)	☐	☐	☒	☐

Discussion: As identified in the General Plan, Noise Element, Figure N-3a, the project site is located within the 65 dBA noise contour for future noise impacts. Figure N-1 indicates that it would be "conditionally" acceptable to allow construction of new hotels provided they incorporate noise reduction construction methods to reduce potential noise impacts. Typical construction methods include closed window and air conditioning systems, etc. The project will be conditioned to identify appropriate methods and incorporate them into the construction design. This would reduce the potential for noise impacts to a less than significant level.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Discussion: The project may result in short-term construction groundborne vibration from machinery, however, the construction noise is not anticipated to be excessive nor operate in evening hours. There are no residences or other sensitive land uses within the near vicinity that may be affected by excessive groundborne vibration or groundborne noise levels. Therefore, impacts from groundborne vibration noise would be considered less than significant.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Discussion: This hotel project will not create significant land use-related noise or traffic generated noise. Therefore, the project would not result in contributing permanent increases in ambient noise levels.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒

Discussion: See XII c. above. The project will not result in temporary or periodic increase in ambient noise levels.

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? (Sources: 1, 4)	☐	☐	☐	☒

Discussion: The project is not located within an airport area subject to an airport land use plan, and will thus not be impacted by airport related noise.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. 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)? (Source: 1)	☐	☐	☐	☒
Discussion (a-c): The proposed hotel project will create jobs that can be absorbed by the local and regional employment market, and will therefore not create the demand for new housing or population growth or displace housing or people.				
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. 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:				
a. Fire protection? (Sources: 1,10)	☐	☐	☒	☐
b. Police protection? (Sources: 1,10)	☐	☐	☒	☐
c. Schools?	☐	☐	☒	☐
d. Parks?	☐	☐	☒	☐
e. Other public facilities? (Sources: 1,10)	☐	☐	☒	☐

Discussion (a-e): The proposed project will not result in a significant demand for additional new services since it is not proposing to include new neighborhoods or a significantly large scale development that cannot be provided services through existing resources, and the incremental impacts to services can be mitigated through payment of standard development impact fees. Therefore, impacts that may result from this project on public services are considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. 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?	☐	☐	☐	☒

Discussion (a&b):

The proposed commercial development project will not encourage new housing demands, therefore it will not result in an increase in demand for recreational facilities or accelerate deterioration of recreational facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

XVI. TRANSPORTATION/TRAFFIC: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures or 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?	☐	☐	☒	☐

Discussion: The project would be consistent with the General Plan Circulation Element, Bike Master Plan and City Street Standards by providing frontage improvements including curb, gutter, sidewalk, street trees and bike lanes. Additionally, the City will seek improvement of the adjacent frontages on Black Oak Drive and Riverside Avenue.

A Traffic Impact Study was prepared by ATE Associates for this project (See Attachment 5). The traffic study evaluates: existing traffic conditions; traffic that would be generated from the project; trip distribution; average daily trips (ADT); and AM & PM peak hour trips. It also evaluates traffic impacts to the surrounding intersection operations of 24th Street/Black Oak Dr., 24th Street/Ysabel Street, 24th Street/Riverside Avenue with the project, plus a short-term cumulative analysis.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Table 9
Short-Term Cumulative + Project Intersection Levels of Service

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	Short-Term	Short-Term + Project	Short-Term	Short-Term + Project
24th Street/Black Oak Drive	8.6 sec./LOS A	15.2 sec./LOS C	11.4 sec./LOS B	17.9 sec./LOS C
24th Street/Ysabel Street	2.5 sec./LOS A	2.6 sec./LOS A	2.9 sec./LOS A	3.1 sec./LOS A
24th Street/Riverside Avenue	14.6 sec./LOS B	14.6 sec./LOS B	14.7 sec./LOS B	14.7 sec./LOS B

LOS based on average delay per vehicle in seconds.

Table 9 shown above, shows the peak hour trips for the project plus other approved projects would operate at an LOS A through C. The analysis evaluated impacts to the same facilities with the project and approved projects in the vicinity. The study concludes that the existing street system works well and has adequate capacity to accommodate project-generated traffic.

The ATE study indicates that the Black Oak Lodge project would add a total of 33 A.M. peak hour trips and 34 P.M. peak hour trips to the US 101 – 24th Street interchange facility. Less than 20 A.M. or P.M. peak hour trips would be added to the US Highway 101.

Additionally, it was determined that the list of approved projects in the study assumptions did not include the Phase II expansion (66 rooms) of the Oaks Hotel project located at the corner of Riverside Avenue and Black Oak Drive. In the cumulative list of project assumptions, when comparing the additional 66 rooms with the information provided for in Table 7 of the Traffic Study, it appears that the 66 room expansion would add approximately 590 ADT to the 14,779 for a total of 15,369 ADT. Of the 590 trips, 44 would be AM peak, and 43 would be PM peak hour trips. Adding the trips generated by the 66-unit Oaks Hotel Phase II, would not increase the level of service delays from what is outlined in Table 9.

Based on the analysis in the traffic study providing that the trips added to the neighboring intersections would operate a level of service from A to C, and that the added trips that would use State Highway 101 would be minimal. Therefore, the project impacts on transportation and traffic will be less than significant. The project will be conditioned to pay traffic impact development fees for the proportionate share of impacts associated with the project to mitigate its impacts to traffic and roadways.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. 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?	☐	☐	☒	☐

Discussion: See XVI a. above. Based on the project not exceeding level of service . Therefore, the project does not conflict with impacts related to congestion management will be mitigated to a less than significant level.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: The project site is not located within an airport land use planning area.

d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

Discussion: There are no hazardous design features associated with this project that could result in safety hazard impacts from this project.

e.	Result in inadequate emergency access?	☐	☐	☐	☒

Discussion: The project will not impede emergency access, and it is designed in compliance with all emergency access safety features, and to City emergency access standards.

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

Discussion: The project incorporates multi-modal transportation facilities and access such as bike lanes, sidewalks, and walkways. It also includes bike racks and bike lockers for guests and employees. The site is served by a Paso Express fixed route stop located on Ysabel Avenue. Therefore, it does not conflict with policies and plans regarding these facilities.

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐

Discussion: The project will comply with all applicable wastewater treatment requirements as required by the City, the Regional Water Quality Control Board, and the State Water Board. Therefore, there will be less than significant impacts resulting from wastewater treatment from this project.

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?	☐	☐	☒	☐

Discussion: Per the City's General Plan EIR, Urban Water Management Plan, Sewer System Management Plan (SSMP), Wastewater Master Plan (WWMP), the City's water and wastewater treatment facilities in the vicinity and at the wastewater and water treatment plants are adequately sized, including planned facility upgrades, to provide water needed for this project and to treat resulting effluent. The applicant will be required to pay for utility connections and associated improvements, as well as development impact fees to offset the projects proportional share of impact to these facilities. Therefore, this project will not result in the need to construct new facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Discussion: All new stormwater resulting from this project will be managed on the project site, and will not enter existing storm water drainage facilities or require expansion of new drainage facilities. Per the Storm Water Control Plan prepared for this project, stormwater will be controlled through several types of facilities. New requirements include on-site retention of stormwater, including a combination of surface treatment areas, shallow landscaped bio-retention pockets and a retention basin. Therefore, the project will not impact the City's storm water drainage facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

Discussion: As noted in section IX on Hydrology, the project can be served with existing water resource allocations available and will not require expansion of new water resource entitlements.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	☐	☐	☒	☐

Discussion: Per the WWMP, the capacity of the City's wastewater treatment plant is 4.9 million gallons per day (MGD). Existing flows to the wastewater treatment plant are approximately 2.9 MGD, so the plant has a remaining capacity of 2 MGD.

Based on data from other existing hotels of similar size, wastewater generation by the proposed project would not exceed 20,000 gallons per day. This would require up to 1% of the remaining capacity of the wastewater treatment plan. Therefore, it can be determined that the City has adequate capacity to accommodate the wastewater estimated to be produced by the proposed project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

Discussion: Per the City's 2010 Landfill Master Plan, the City's landfill has adequate capacity to accommodate construction-related and operational solid waste disposal for this project. Landfill design capacity permitted (as of 2013) is 6,495,000 cubic yards, with a maximum of up to 75,000 tons/year. The City's overall waste stream averages about 45,000 tons/year, inclusive of residential and non-residential hauling rates. Based on General Plan build-out projections, landfill capacity is documented to be sufficient until at least 2051. The 5-year Joint Technical Update (currently in process of being updated) projects capacity until 2071. However, the landfill plan includes numerous zero-waste and renewable energy production programs that are designed to reduce the waste stream and extend the life of the capacity much further.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

An analysis of another hotel project recently completed (Ayres Hotel), it is Hotel estimated that it will result in approximately 10.02 tons of construction and debris (C&D) solid waste (including a 50% diversion rate). Since the proposed project is 27% smaller, it is estimated that it would result in 7.32 tons of C&D solid waste.

Based on capacity information of the City's Landfill capacity, annual waste stream and estimated C&D, it can be determined that the City's landfill has adequate capacity to accommodate the proposed projects solid waste disposal needs.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion: The project proponent will be required to comply with the City's adopted Municipal Code which encompasses the California Green Building Code for C&D waste, as well as landfill permit tonnage limitations (see XVII (f) above). Based on averages of typical hotel waste streams (which are included in the landfill capacity analysis of the 2010 Landfill Master Plan), as well as an estimate of C&D waste, the proposed project will comply with local and state solid waste regulations. Local and State solid waste regulations are in compliance with the federal solid waste regulations of the Environmental Protection Agency. Therefore, the proposed project will comply with all applicable solid waste regulations.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: As noted in the Biological Resources section of this Initial Study, although this site is currently vacant, the site has been previously developed with buildings and parking lots, and there are no biological resources located on or near the project site. There are also no historic resources located on the site. Therefore, this project could not 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.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion: The analyses prepared for this project demonstrate that potentially significant impacts that may result from implementation of this project will not:

- individually; and/or
- in connection with effects of past projects, and/or
- in connection with current projects; and/or
- in connection with probable future projects, result in cumulatively considerable significant impacts.

Based on substantial evidence, potential impacts identified related to air quality and GHG emissions are not cumulatively considerable. With mitigation measures applied to this project it will not result in impacts that are individually limited or cumulatively considerable.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion: With mitigation measures applied as noted in VXIII b. above the project will not cause substantial adverse effects on human beings, either directly or indirectly.

EARLIER ANALYSIS AND BACKGROUND MATERIALS.

Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D).

Earlier Documents Prepared and Utilized in this Analysis and Background / Explanatory Materials

Reference #	Document Title	Available for Review at:
1	City of Paso Robles General Plan	City of Paso Robles Community Development Department 1000 Spring Street Paso Robles, CA 93446
2	City of Paso Robles Zoning Code	Same as above
3	City of Paso Robles Environmental Impact Report for General Plan Update	Same as above
4	2005 Airport Land Use Plan	Same as above
5	City of Paso Robles Municipal Code	Same as above
6	City of Paso Robles Water Master Plan	Same as above
7	City of Paso Robles Urban Water Management Plan 2010	Same as above
8	City of Paso Robles Sewer Master Plan	Same as above
9	City of Paso Robles Housing Element	Same as above
10	City of Paso Robles Standard Conditions of Approval for New Development	Same as above
11	San Luis Obispo County Air Pollution Control District Guidelines for Impact Thresholds	APCD 3433 Roberto Court San Luis Obispo, CA 93401
12	San Luis Obispo County – Land Use Element	San Luis Obispo County Department of Planning County Government Center San Luis Obispo, CA 93408
13	USDA, Soils Conservation Service, Soil Survey of San Luis Obispo County, Paso Robles Area, 1983	Soil Conservation Offices Paso Robles, Ca 93446
14	Gateway Design Standards	Community Development Department
15	Paso Robles Bicycle Master Plan	Same as above

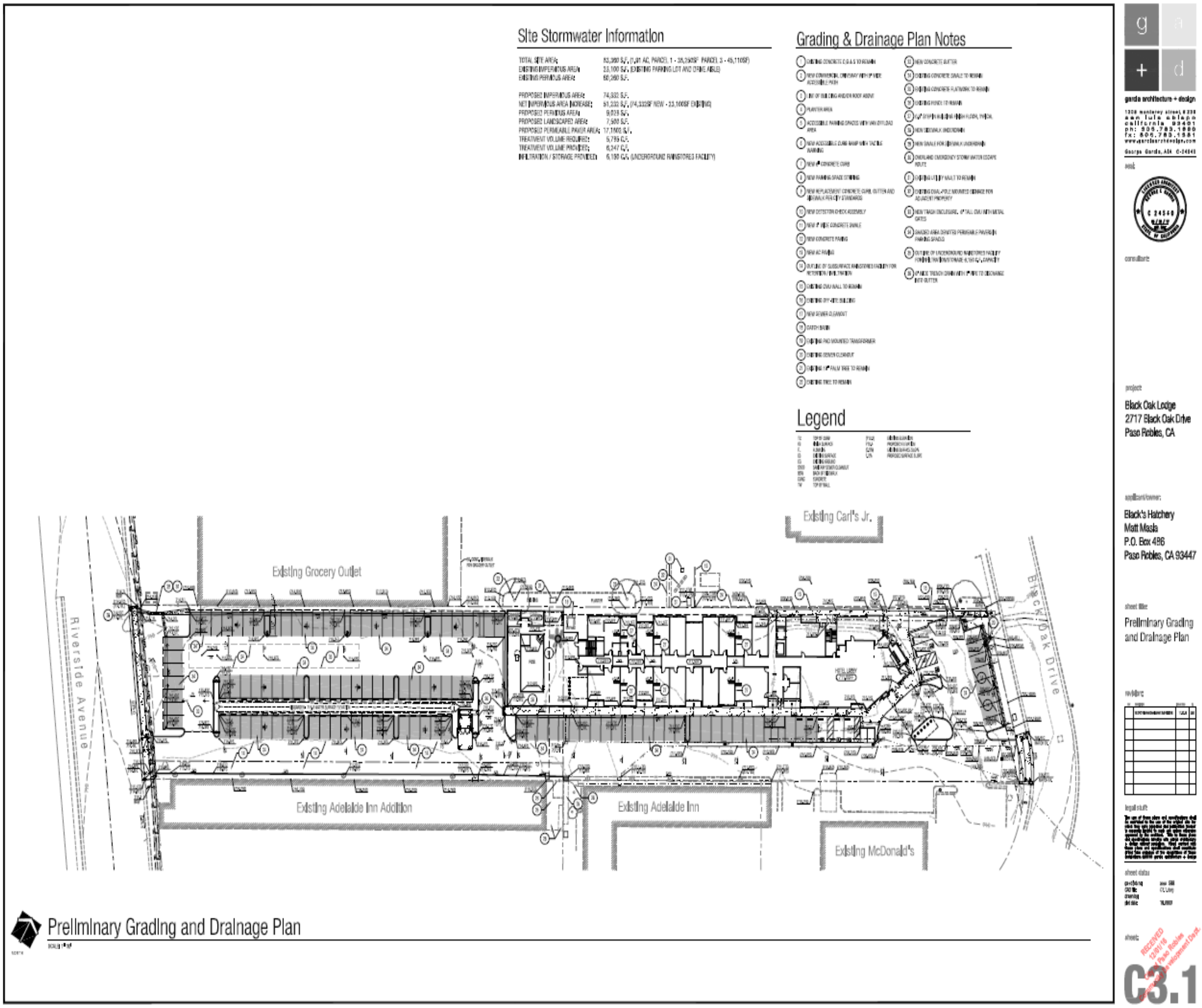
Attachments:

1. Vicinity Map
2. Site Plan
3. Elevations
4. Air Quality and GHG Assessment
5. August 8, 2017 Caltrans Letter
5a. Traffic Study (Dec. 21st Version)
5b. TIS – Technical Appendices
5c. April 5, 2018 Caltrans Letter
6. Stormwater Control Plan & Site LID Plans
7. Mitigation Monitoring and Reporting Program

ATTACHMENT -1
Vicinity Map
Black Oak Lodge

Agenda Item 1

ATTACHMENT - 2
SITE PLAN - GRADING
BLACK OAK LODGE



ATTACHMENT - 3
ELEVATIONS
BLACK OAK LODGE

West Elevation

East Elevation

North Elevation

Material / Object

1. 3-COAT CEMENT PLASTER WITH SMOOTH STEEL TROWEL FINISH
2. CORETEN STEEL PANELS
3. STONE VENEER
4. COMPOSITE WOOD SIDING
5. ALUMINUM WINDOW
6. METAL DOOR
7. STEEL HANDRAIL @ 42" A.F.F. W/ CABLE INFILL
8. STOREFRONT SYSTEM
9. CUSTOM EXPOSED WOOD STRUCTURE
10. PRECAST CONCRETE TRIM
11. METAL PANEL

Color / Finish

A. LIGHT BEIGE : SW 6082
B. NATURAL WEATHERED STEEL
C. NATURAL
D. DARK BRONZE
E. NATURAL CONCRETE

garcia architecture + design

seal:

consultants:

project:
Black Oak Lodge
2717 Black Oak Drive
Paso Robles, CA

applicant/owner:
Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:
Elevations

revisions:

legal stuff

sheet data:

sheet:
A2.2

RECEIVED
12/01/16
City of Paso Robles
Community Development Dept.

Agenda Item 1

ATTACHMENT - 4
BLACK OAK LODGE

AIR QUALITY & GREENHOUSE GAS IMPACT ASSESSMENT

FOR THE PROPOSED

BLACK OAKS LODGE PROJECT

PASO ROBLES, CA

MARCH 2017

PREPARED BY:

AMBIENT
AIR QUALITY & NOISE CONSULTING

612 12TH STREET, SUITE 201
PASO ROBLES, CA 93446
TEL: 805.226.2727

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LIST OF COMMON TERMS & ACRONYMS

AAM	Annual Arithmetic Mean
CAAQS	California Ambient Air Quality Standards
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DPM	Diesel-Exhaust Particulate Matter or Diesel-Exhaust PM
FCAA	Federal Clean Air Act
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutant
LOS	Level of Service
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards or National AAQS
NESHAPs	National Emission Standards for HAPs
NO_x	Oxides of Nitrogen
OAP	Ozone Attainment Plan
O_3	Ozone
Pb	Lead
PM	Particulate Matter
PM_{10}	Particulate Matter (less than 10 µm)
$PM_{2.5}$	Particulate Matter (less than 2.5 µm)
ppb	Parts per Billion
ppm	Parts per Million
ROG	Reactive Organic Gases
SIP	State Implementation Plan
SLOAPCD	San Luis Obispo County Air Pollution Control District
SO_2	Sulfur Dioxide
SCCAB	South Central Coast Air Basin
TAC	Toxic Air Contaminant
$\mu g/m^3$	Micrograms per cubic meter
U.S. EPA	United State Environmental Protection Agency

EXECUTIVE SUMMARY

This report provides an analysis of air quality and greenhouse gas (GHG) impacts associated with the proposed Black Oaks Lodge project. This report also provides a summary of existing conditions in the project area and the applicable regulatory framework pertaining to air quality and climate change.

The proposed project includes the construction of an approximate 59,229 square foot, 4-story hotel. The project site is located at 2717 Black Oak Drive in the City of Paso Robles, California. The proposed hotel would include a total of approximately 96 rooms. Project construction is anticipated to begin in 2017 and would occur over an approximate 10- to 12-month period.

The project site is bound by Black Oaks Drive to the east and Riverside Avenue to the west. Existing commercial development is located adjacent to the northern and southern boundaries of the project site. The nearest sensitive land use includes residential dwellings located within the northeastern quadrant of the Riverside Avenue/Ysabel Street intersection, approximately 140 feet south of the project site. In addition, the Adelaide Inn is located adjacent to and south of the project site.

Construction-generated emissions associated with the proposed project would exceed the San Luis Obispo County Air Pollution Control District (SLOAPCD) recommended daily significance thresholds for ROG+NO_X. In addition, uncontrolled emissions of particulate matter generated during construction may result in localized pollutant concentrations that could adversely impact nearby land uses and sensitive receptors. Mitigation measures have been included to reduce these potentially significant impacts to a less-than-significant level.

Unmitigated operational emissions associated with the proposed project would not exceed SLOAPCD significance thresholds for criteria air pollutants and GHGs. However, without mitigation, increased emissions of GHGs would not be consistent with the *City of Paso Robles Climate Action Plan (CAP)*. Mitigation measures have been included to ensure consistency with the *City of Paso Robles CAP* and to reduce this impact to a less-than-significant level.

INTRODUCTION

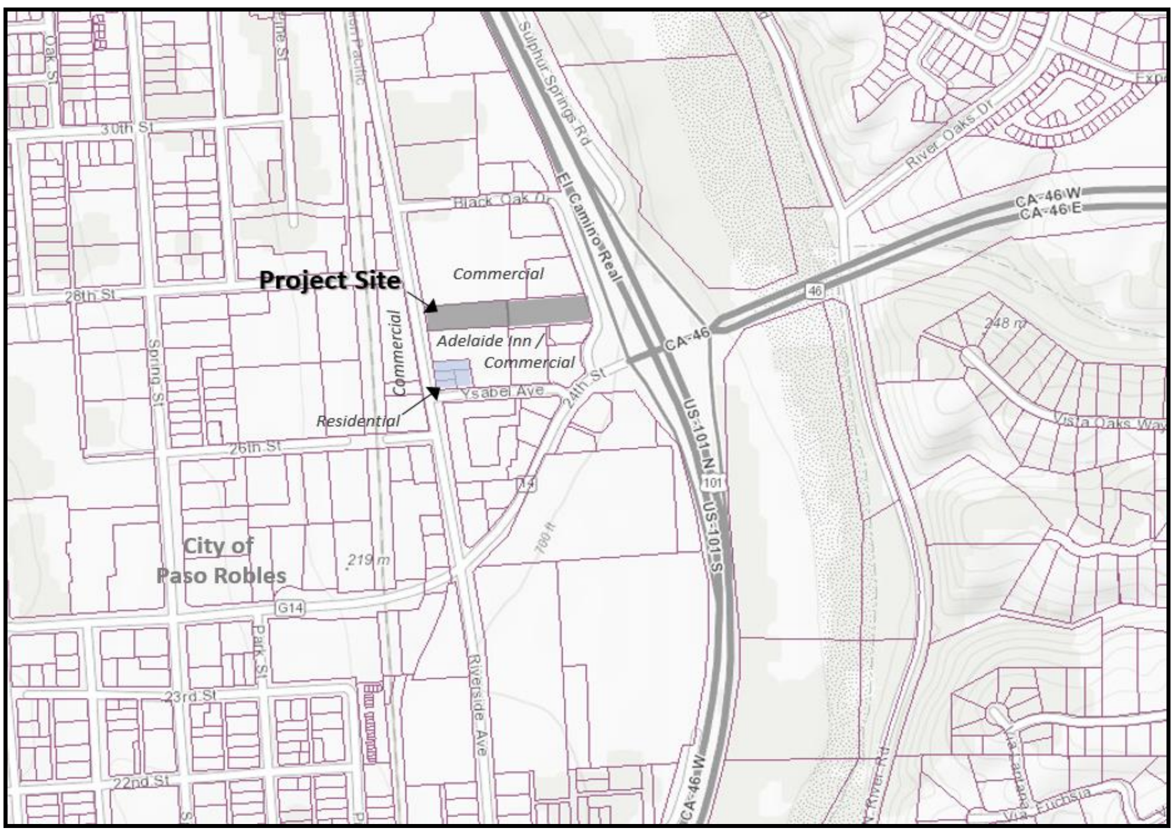
This report provides an analysis of air quality and GHG impacts associated with the proposed Residence Inn project. This report also provides a summary of existing conditions in the project area and the applicable regulatory framework pertaining to air quality and climate change.

PROPOSED PROJECT

The proposed project includes the construction of an approximate 59,229 square foot, 4-story hotel. The project site is located at 2717 Black Oak Drive in the City of Paso Robles, California. The proposed hotel would include a total of approximately 96 rooms. Project construction is anticipated to begin in 2017 and would occur over an approximate 10- to 12-month period. The proposed project location is depicted in Figure 1. The proposed project site plan is depicted in Figure 2.

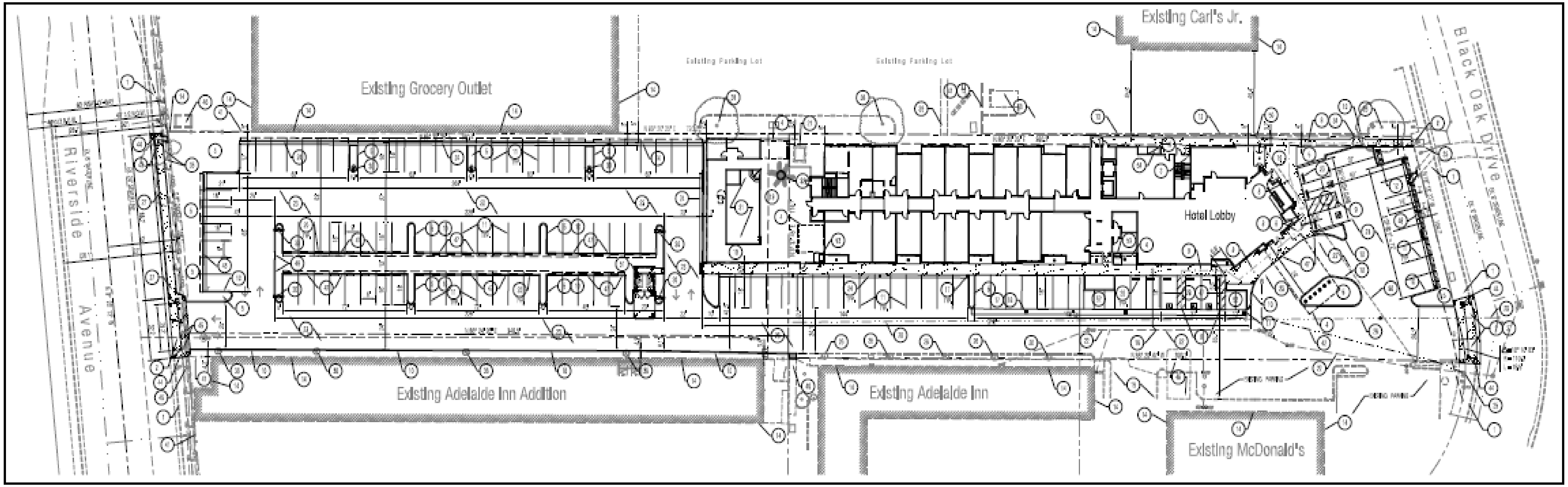
The project site is bound by Black Oaks Drive to the east and Riverside Avenue to the west. Existing commercial development is located adjacent to the northern and southern boundaries of the project site. The nearest sensitive land uses include residential dwellings located within the northeastern quadrant of the Riverside Avenue/Ysabel Street intersection, approximately 140 feet south of the project site. In addition, the Adelaide Inn is located adjacent to and south of the project site (Refer to Figure 1).

Figure 1
Proposed Project Site Plan



Not to Scale. All locations and boundaries are approximate.
Image Source: San Luis Obispo County, 2017

Figure 2
Preliminary Architectural Site Plan



Not to scale.
Image Source: GAD 2017

AIR QUALITY

SETTING

Paso Robles is in San Luis Obispo County, which is part of the South Central Coast Air Basin (SCCAB) and within the jurisdiction of the SLOAPCD. Air quality in the SCCAB is influenced by a variety of factors, including topography, local and regional meteorology. Factors affecting regional and local air quality are discussed below.

TOPOGRAPHY, METEOROLOGY & CLIMATE

Topography

The City of Paso Robles is in the upper Salinas River Valley. The Paso Robles area is bordered on the south and west by the rugged mountainous ridges of the Santa Lucia Coastal Range, to the east by the low hills of the La Panza and Temblor ranges, and to the north by the low hills and flat-topped mesas of the Diablo Range. The highest elevations in the vicinity are in the Santa Lucia Coastal Range, where many peaks are 2,000 to 3,400 feet above mean sea level. Substantial ridgelines are distributed throughout the western, southern, and eastern portions of the City. The effects of the Pacific Ocean are diminished inland and by these major intervening terrain features.

Local and Regional Meteorology

The climate of the county can be generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to distance from the ocean or by major intervening terrain features, such as the coastal mountain ranges. As a result, inland areas are characterized by a considerably wider range of temperature conditions. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Minimum winter temperatures average from the low 30s along the coast to the low 20s inland (SLOAPCD 2001).

Regional meteorology is largely dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause seasonal changes in the weather patterns of the area. The Pacific High remains generally fixed several hundred miles offshore from May through September, enhancing onshore winds and opposing offshore winds. During spring and early summer, as the onshore breezes pass over the cool water of the ocean, fog and low clouds often form in the marine air layer along the coast. Surface heating in the interior valleys dissipates the marine layer as it moves inland (SLOAPCD 2001).

From November through April the Pacific High tends to migrate southward, allowing northern storms to move across the county. About 90 percent of the total annual rainfall is received during this period. Winter conditions are usually mild, with intermittent periods of precipitation followed by mostly clear days. Rainfall amounts can vary considerably among different regions in the county. In the Coastal Plain, annual rainfall averages 16 to 28 inches, while the Upper Salinas River Valley generally receives about 12 to 20 inches of rain. The Carrizo Plain is the driest area of the county with less than 12 inches of rain in a typical year (SLOAPCD 2001).

Airflow around the county plays an important role in the movement and dispersion of pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific High pressure system and other global patterns, by topographical factors, and by circulation patterns resulting from temperature differences between the land and sea. In spring and summer months, when the Pacific High attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze (SLOAPCD 2001).

In the Fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alternation of land-sea breeze circulation, can sometimes produce a "sloshing" effect. Under these conditions, pollutants may accumulate over the ocean for a period of one or more days and are subsequently carried back onshore with the return of the sea breeze. Strong inversions can form at this time, "trapping" pollutants near the surface (SLOAPCD 2001).

This effect is intensified when the Pacific High weakens or moves inland to the east. This may produce a "Santa Ana" condition in which air, often pollutant-laden, is transported into the county from the east and southeast. This can occur over a period of several days until the high-pressure system returns to its normal location, breaking the pattern. The breakup of a Santa Ana condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. Not all occurrences of the "post Santa Ana" condition lead to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of the county (SLOAPCD 2001).

Atmospheric Stability and Dispersion

Air pollutant concentrations are primarily determined by the amount of pollutant emissions in an area and the degree to which these pollutants are dispersed into the atmosphere. The stability of the atmosphere is one of the key factors affecting pollutant dispersion. Atmospheric stability regulates the amount of vertical and horizontal air exchange, or mixing, that can occur within a given air basin. Restricted mixing and low wind speeds are generally associated with a high degree of stability in the atmosphere. These conditions are characteristic of temperature inversions (SLOAPCD 2001).

In the atmosphere, air temperatures normally decrease as altitude increases. At varying distances above the earth's surface, however, a reversal of this gradient can occur. This condition, termed an inversion, is simply a warm layer of air above a layer of cooler air, and it has the effect of limiting the vertical dispersion of pollutants. The height of the inversion determines the size of the mixing volume trapped below. Inversion strength or intensity is measured by the thickness of the layer and the difference in temperature between the base and the top of the inversion. The strength of the inversion determines how easily it can be broken by winds or solar heating (SLOAPCD 2001).

Several types of inversions are common to this area. Weak, surface inversions are caused by radiational cooling of air in contact with the cold surface of the earth at night. In valleys and low lying areas this condition is intensified by the addition of cold air flowing downslope from the hills and pooling on the valley floor. Surface inversions are a common occurrence throughout the county during the winter, particularly on cold mornings when the inversion is strongest. As the morning sun warms the earth and the air near the ground, the inversion lifts, gradually dissipating as the day progresses. During the late spring and early summer months, cool air over the ocean can intrude under the relatively warmer air over land, causing a marine inversion. These inversions can restrict dispersion along the coast, but they are typically shallow and will dissipate with surface heating (SLOAPCD 2001).

In contrast, in the summertime the presence of the Pacific high pressure cell can cause the air mass aloft to sink. As the air descends, compressional heating warms it to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, is common to all of coastal California and can act as a nearly impenetrable lid to the vertical mixing of pollutants. The base of the inversion typically ranges from 1000 to 2500 feet above sea level; however, levels as low as 250 feet, among the lowest anywhere in the state, have been recorded on the coastal plateau in San Luis Obispo county. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the buildup of pollutants. Highest or worst-case ozone levels are often associated with the presence of this type of inversion (SLOAPCD 2001).

CRITERIA AIR POLLUTANTS

For the protection of public health and welfare, the Clean Air Act (CAA) required that the United States Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants because the US EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air without harm to the public’s health. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. The CAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

Human Health & Welfare Effects

Common air pollutants and associated adverse health and welfare effects are summarized in Table 1. Within the SCCAB, the air pollutants of primary concern, with regard to human health, include ozone, particulate matter (PM) and carbon monoxide (CO). As depicted in Table 1, exposure to increased pollutant concentrations of ozone, PM and CO can result in various heart and lung ailments, cardiovascular and nervous system impairment, and death.

Table 1
Common Pollutants & Adverse Effects

Pollutant	Human Health & Welfare Effects
Particulate Matter (PM_{10} & $PM_{2.5}$)	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Ozone (O_3)	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Sulfur Dioxide (SO_2)	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming, and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: ARB 2017b

ODORS

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e. irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SLOAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be applicable to SLOAPCD's Rule 204, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SLOAPCD. The SLOAPCD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine if the Project results in excessive nuisance odors, as defined under the California Code of Regulations, Health & Safety Code Section 41700, air quality public nuisance.

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered "criteria pollutants" under either the

Federal Clean Air Act (FCAA) or the California Clean Air Act (CCAA), and are thus not subject to National or State AAQS. TACs are not considered criteria pollutants in that the federal and California Clean Air Acts do not address them specifically through the setting of National or State AAQS. Instead, the U.S. EPA and ARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national levels, the U.S. EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

At the state level, the ARB has authority for the regulation of emissions from motor vehicles, fuels, and consumer products. Most recently, Diesel-exhaust particulate matter (DPM) was added to the ARB list of TACs. DPM is the primary TACs of concern for mobile sources. Of all controlled TACs, emissions of DPM are estimated to be responsible for about 70 percent of the total ambient TAC risk. The ARB has made the reduction of the public's exposure to DPM one of its highest priorities, with an aggressive plan to require cleaner diesel fuel and cleaner diesel engines and vehicles (ARB 2005).

At the local level, air districts have the authority over stationary or industrial sources. All projects that require air quality permits from the SLOAPCD are evaluated for TAC emissions. The SLOAPCD limits emissions and public exposure to TACs through a number of programs. The SLOAPCD prioritizes TAC-emitting stationary sources, based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. The SLOAPCD requires a comprehensive health risk assessment for facilities that are classified in the significant-risk category, pursuant to AB 2588. No major existing sources of TACs have been identified in the project area.

Land Use Compatibility with TAC Emission Sources

The ARB published an informational guide entitled: *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) in 2005. The purpose of this guide is to provide information to aid local jurisdictions in addressing issues and concerns related to the placement of sensitive land uses near major sources of air pollution. The CARB's Handbook includes recommended separation distances for various land uses that are based on relatively conservative estimations of emissions based on source-specific information. However, these recommendations are not site specific and should not be interpreted as defined "buffer zones". It is also important to note that the recommendations of the Handbook are advisory and need to be balanced with other State and local policies (ARB 2005). Depending on site and project-specific conditions, an assessment of potential increases in exposure to TACs may be warranted for proposed development projects located within the distances identified. CARB-recommended separation distances for various sources of emissions are summarized in Table 2.

ASBESTOS

Asbestos is the common name for a group of naturally-occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Naturally-occurring asbestos, which was identified as a TAC in 1986 by CARB, is located in many parts of California and is commonly associated with ultramafic rock. The project site is not located near areas that are likely to contain ultramafic rock.

Asbestos-containing material (ACM) may also be present in existing structures. The demolition or renovation of existing structures may be subject to regulatory requirements for the control of ACM.

Table 2
Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	• Avoid siting new sensitive land uses within 300 feet of any dry-cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Recommendations are advisory, are not site specific, and may not fully account for future reductions in emissions, including those resulting from compliance with existing/future regulatory requirements.
Source: ARB 2005

REGULATORY FRAMEWORK

Air quality within the SCCAB is regulated by several jurisdictions including the U.S. EPA, CARB, and the SLOAPCD. Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

FEDERAL

U.S. Environmental Protection Agency

At the federal level, the U.S. EPA has been charged with implementing national air quality programs. The U.S. EPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

Federal Clean Air Act

The FCAA required the US EPA to establish National Ambient Air Quality Standards (NAAQS or National AAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in Table 3.

Table 3
Summary of Ambient Air Quality Standards & Attainment Designations

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary[a]	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm	Non-Attainment	–	Non-Attainment Eastern SLO County -Attainment Western SLO County
	8-hour	0.070 ppm		0.075 ppm	
Particulate Matter (PM_{10})	AAM	20 µg/m3	Non-Attainment	–	Unclassified/ Attainment
	24-hour	50 µg/m3		150 µg/m3	
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 µg/m3	Attainment	12 µg/m3	Unclassified/ Attainment
	24-hour	No Standard		35 µg/m3	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment	35 ppm	Attainment/ Maintenance
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO_2)	AAM	0.030 ppm	Attainment	0.053 ppm	Unclassified
	1-hour	0.18 ppm		100 ppm	
Sulfur Dioxide (SO_2)	AAM	–	Attainment	0.03 ppm	Unclassified
	24-hour	0.04 ppm		0.14 ppm	
	3-hour	–		0.5 ppm (1300 µg/m3)**	
	1-hour	0.25 ppm		75 ppb	
Lead	30-day Average	1.5 µg/m3	Attainment	–	No Attainment Information
	Calendar Quarter	–		1.5 µg/m3	
	Rolling 3-Month Average	–		0.15 µg/m3	
Sulfates	24-hour	25 µg/m3	Attainment	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m3)	Attainment		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m3)	No Information Available		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/kilometer-visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	Attainment		

** For more information on standards visit :http//ww.arb.ca.gov.research/aaqs/aaqs2.pdf*
*** Secondary Standard*
Source: SLOAPCD 2017; ARB 2017a

STATE

California Air Resources Board

The ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. Other ARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts, establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The CAAQS are summarized in Table 3. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used.

California Clean Air Act

The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for Ozone, CO, SO_2, and NO_2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

Assembly Bills 1807 & 2588 - Toxic Air Contaminants

Within California, TACs are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, the Air Resources Board (ARB) adopted a regulation to reduce diesel particulate matter (PM) and oxides of nitrogen (NOx) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. The regulation applies to self-propelled diesel-fueled vehicles that cannot be registered and licensed to drive on-road, as well as two-engine vehicles that drive on road, with the limited exception of two-engine sweepers. Examples include loaders, crawler tractors, skid steers, backhoes, forklifts, airport ground support equipment, water well drilling rigs, and two-engine cranes. Such vehicles are used in construction, mining, and industrial operations. The regulation does not apply to stationary equipment or portable equipment such as generators. The off-road vehicle regulation, establishes emissions performance requirements, establishes reporting, disclosure, and labeling requirements for off-road vehicles, and limits unnecessary idling.

LOCAL

County of San Luis Obispo Air Pollution Control District

The SLOAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions within the region are maintained. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

IMPACT ANALYSIS

Air quality impacts attributable to the proposed project are summarized in Table 4.

Table 4
Summary of Project-Related Air Quality Impacts

Air Quality Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Would the project conflict with or obstruct implementation of the applicable air quality plan?	☐	■	☐	☐
B) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	■	☐	☐
C) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	■	☐	☐
D) Would the project expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐
E) Would the project create objectionable odors affecting a substantial number of people?	☐	☐	■	☐

METHODOLOGY

Short-term Impacts

Emissions associated with construction of proposed project were calculated using the CalEEMod, version 2016.3.1, computer program. Project construction is anticipated to occur over an approximate 10- to 12-month period beginning approximately July 2017. According to the project engineers, approximately 500 cubic yards (cyds) of material would be exported and approximately 250 cyds of material would be imported. Additional construction information, such as equipment use, construction activity schedules, and worker vehicle trips were not available at the time of this analysis. Construction activity schedules, equipment use, vehicle trips, equipment load factors and emission factors were, therefore, based on default parameters contained in the model. Modeling assumptions and output files are included in Appendix D of this report.

Long-term Impacts

Long-term operational emissions of criteria air pollutants associated with the proposed project were calculated using the CalEEMod, version 2016.3.1, computer program. The CalEEMod program includes quantification of emissions from various emission sources, including energy use, area sources, and motor vehicle trips. Non-transportation source emissions were quantified based largely on the default parameters contained in the model. The use of off-road equipment would not be required for project operations and was not included in the emissions modeling.

The vehicle trip-generation rates contained in the model were amended to reflect project-specific conditions, based on rates obtained from the traffic analysis prepared for this project. Vehicle trip lengths for hotel guests were quantified based on hotel guest survey data obtained from a similar hotel located in Pismo Beach for the year 2012 (refer to Table 5). Vehicle trip distances for in-County destinations, including coastal communities and attractions, such as Hearst Castle, Cambria, and Morro Bay, were also included in the calculation. The average vehicle travel length for hotel guests was 10 miles. The vehicle fleet mix for the proposed hotel, by vehicle type, were based on survey data obtained from area hotels. The percent of light-duty vehicles was equitably partitioned between the first four CalEEMod/Emfac vehicle classifications for light-duty vehicles, including light-duty automobiles (LDA), Light-duty trucks (LDT-1 and LDT-2), and medium-duty vehicles (MDV). Vehicle fleet mix assumptions for the proposed project are summarized in Table 6. Modeling assumptions and output files are included in Appendix D of this report.

Table 5
Hotel Guest Survey Information

Guest Originations & Destinations (Out of County Regions)	Percent on Annual Guests (Year 2012)
Sacramento Valley & Northern San Joaquin Valley	24.2%
Southern San Joaquin Valley (Kern County)	8.8%
Northern & Central California Regions	12.7%
Southern California	45.4%
San Luis Obispo County	9%

Based on guest survey data obtained from a similar hotel located in Pismo Beach for the year 2012.
Refer to Appendix D for additional information regarding estimated vehicle trip distances.

Table 6
Vehicle Fleet Mix for the Proposed Hotel Land Use

Vehicle Type (Emfac Classification)	Percent of Average-Daily Trips
Light-Duty Automobiles (LDA)	59.4%
Light-Duty Trucks (LDT1, LDT2)	25.2%
Medium-Duty Vehiles (MDV)	14.3%
Medium Heavy-Duty Trucks (MHDT)	0.2%
Motorcycle (MC)	0.3%
School Bus (SBus)	0.3%
Motor Home (MH)	0.3%

Based on hotel survey data for similar hotels located in the City of Paso Robles.
Refer to Appendix D for additional information regarding estimated vehicle fleet mix.

THRESHOLDS OF SIGNIFICANCE

To assist in the evaluation of air quality impacts, the SLOAPCD has developed recommended significance thresholds, which are contained in the SLOAPCD's *CEQA Air Quality Handbook* (2012). For the purposes of this analysis, project emissions are considered potentially significant impacts if any of the following SLOAPCD thresholds are exceeded:

Construction Impacts

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for a project's short-term construction emissions are presented in Table 7 and discussed, as follows (SLOAPCD 2012):

ROG and NOx Emissions

- Daily: For construction projects expected to be completed in less than one quarter (90 days), exceedance of the 137 lb/day threshold requires Standard Mitigation Measures;
- Quarterly – Tier 1: For construction projects lasting more than one quarter, exceedance of the 2.5 ton/qtr threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the project below the threshold, off-site mitigation may be necessary; and,
- Quarterly – Tier 2: For construction projects lasting more than one quarter, exceedance of the 6.3 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

Table 7
SLOAPCD Thresholds of Significance for Construction Impacts

Pollutant	Threshold (1)		
	Daily (lbs/day)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)
Ozone Precursors (ROG + NO_X)(2)	137	2.5	6.3
Diesel Particulate Matter (DPM)(2)	7	0.13	0.32
Fugitive Particulate Matter (PM_{10}), Dust	None	2.5	None

1. Daily and quarterly emissions thresholds are based on the California Health & Safety Code and the ARB Carl Moyer Guidelines.
2. Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5 tons PM_{10} quarterly threshold.

Diesel Particulate Matter (DPM) Emissions

- Daily: For construction projects expected to be completed in less than one quarter, exceedance of the 7 lb/day threshold requires Standard Mitigation Measures;
- Quarterly - Tier 1: For construction projects lasting more than one quarter, exceedance of the 0.13 tons/quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and,
- Quarterly - Tier 2: For construction projects lasting more than one quarter, exceedance of the 0.32 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

Fugitive Particulate Matter (PM_{10}), Dust Emissions

- Quarterly: Exceedance of the 2.5 ton/qtr threshold requires Fugitive PM_{10} Mitigation Measures and may require the implementation of a CAMP.

Operational Impacts

Criteria Air Pollutants

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for long-term operational emissions from a project are presented in Table 8.

Table 8
SLOAPCD Thresholds of Significance for Operational Impacts

Pollutant	Threshold (1)	
	Daily (lbs/day)	Annual (tons/year)
Ozone Precursors (ROG + NO_X)(2)	25	25
Diesel Particulate Matter (DPM)(2)	1.25	None
Fugitive Particulate Matter (PM_{10}), Dust	25	25
CO	550	None

1. Daily and annual emissions thresholds are based on the California Health & Safety Code Division 26, Part 3, Chapter 10, Section 40918 and the ARB Carl Moyer Guidelines for DPM.
2. CalEEMod – use winter operational emission data to compare to operational thresholds.

Toxic Air Contaminants

If a project has the potential to emit toxic or hazardous air pollutants, or is located in close proximity to sensitive receptors, impacts may be considered significant due to increased cancer risk for the affected population, even at a very low level of emissions. For the evaluation of such projects, the SLOAPCD recommends the use of the following thresholds:

- Type A Projects: new proposed land use projects that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants) that impact sensitive receptors. Air districts across California are uniform in their recommendation to use the significance thresholds that have been established under each district's "Hot Spots" and permitting programs. The SLOAPCD has defined the excess cancer risk significance threshold at 10 in a million for Type A projects in SLO County; and,

- Type B Projects: new land use projects that will place sensitive receptors (e.g., residential units) in close proximity to existing toxics sources (e.g., freeway). The SLOAPCD has established a CEQA health risk threshold of 89 in-a-million for the analysis of projects proposed in close proximity to toxic sources. This value represents the population weighted average health risk caused by ambient background concentrations of toxic air contaminants in San Luis Obispo County. The SLOAPCD recommends Health Risk screening and, if necessary, Health Risk Assessment (HRA) for any residential or sensitive receptor development proposed in proximity to toxic sources.

Localized CO Concentrations

Localized CO concentrations associated with the proposed project would be considered less-than-significant impact if: (1) Traffic generated by the proposed project would not result in deterioration of intersection level of service (LOS) to LOS E or F; or (2) the project would not contribute additional traffic to an intersection that already operates at LOS of E or F (Caltrans 1996).

Odors

Screening of potential odor impacts is typically recommended for the following two situations:

- Projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate; and
- Residential or other sensitive receptor projects or other projects that may attract people locating near existing odor sources.

If the proposed project would locate receptors and known odor sources within one mile of each other, a full analysis of odor impacts is recommended. Known odor sources of primary concern, as identified by the SLOAPCD, include: landfills, transfer stations, asphalt batch plants, rendering plants, petroleum refineries, and painting/coating operations, as well as, composting, food processing, wastewater treatment, chemical manufacturing, and feedlot/dairy facilities.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact AQ-A. Would the project conflict with or obstruct implementation of the applicable air quality plan?

SLOAPCD Clean Air Plan

As part of the CCAA, the SLOAPCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practicable date. The SLOAPCD's 2001 Clean Air Plan (CAP) addresses the attainment and maintenance of state and federal ambient air quality standards. The CAP was adopted by SLOAPCD's on March 26, 2002.

The CAP outlines the District's strategies to reduce ozone-precursor pollutants (i.e., ROG and NO_X) from a wide variety of sources. The CAP includes a stationary-source control program, which includes control measures for permitted stationary sources; as well as, transportation and land use management strategies to reduce motor vehicle emissions and use. The stationary-source control program is administered by SLOAPCD. Transportation and land use control measures are implemented at the local or regional level, by promoting and facilitating the use of alternative transportation options, increased pedestrian access and accessibility to community services and local destinations, reductions in vehicle miles traveled, and promotion of congestion management efforts. In addition, local jurisdictions also prepare population forecasts, which are used by SLOAPCD to forecast population-related emissions and air quality attainment, including those contained in the CAP.

According to the SLOAPCD's *CEQA Air Quality Handbook* (2012), a consistency analysis with the Clean Air Plan is required for a program-level environmental review, and may be necessary for a larger project-level environmental review, depending on the project being considered. Project-Level environmental reviews which may require consistency analysis with the CAP include: large residential developments and large commercial/industrial developments. For such projects, evaluation of consistency is based on a comparison of the proposed project with the land use and transportation control measures and strategies outlined in the CAP. If the project is consistent with these measures, the project is considered consistent with the CAP.

The proposed project is not considered a large development project that would have the potential to result in a substantial increase in population, or employment. In addition, the proposed project is also consistent with existing zoning designations and would not result in the installation of any major stationary sources of emissions. However, as noted in Impact AQ-C, short-term emissions associated with the project would exceed SLOAPCD's recommended significance thresholds. Projects that exceed SLOAPCD's recommended significance thresholds would also be considered to potentially conflict with regional air quality planning efforts. This impact is considered ***potentially significant.***

Particulate Matter Report – Implementation of SB 656 Requirements

In July 2005, SLOAPCD adopted the *Particulate Matter Report* (PM Report). The PM Report identifies various measures and strategies to reduce public exposure to PM emitted from a wide variety of sources, including emissions from permitted stationary sources and fugitive sources, such as construction activities. As discussed in Impact AQ-C, uncontrolled fugitive dust generated during construction may result in localized pollutant concentrations that may result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions of fugitive dust would be considered to have a ***potentially significant*** impact.

Mitigation Measures

Implement Mitigation Measure AQ-1 and AQ-2.

Significance After Mitigation

Implementation of Mitigation Measure AQ-1 would include measures to reduce construction-generated emissions of fugitive dust, as well as, mobile-source emissions associated with construction vehicle and equipment operations and evaporative emissions from architectural coatings. With mitigation, overall emissions of fugitive dust would be reduced by approximately 56 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact is considered ***less than significant***. Refer to *Impact AQ-C* and *Impact AQ-D* for additional discussion of air quality impacts and proposed mitigation measures.

Impact AQ-B. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

As noted in Impact AQ-C and AQ-D, below, short-term construction activities may result in localized concentrations of pollutants that could adversely affect nearby land uses. As a result, this impact is considered ***potentially significant***. Refer to *Impact AQ-C* and *Impact AQ-D* for additional discussion of air quality impacts and proposed mitigation measures.

Mitigation Measures

Implement Mitigation Measure AQ-1 and AQ-2.

Significance After Mitigation

Implementation of Mitigation Measure AQ-1 would include measures to reduce construction-generated emissions of fugitive dust, as well as, mobile-source emissions associated with construction vehicle and equipment operations and evaporative emissions from architectural coatings. With mitigation, overall emissions of fugitive dust would be reduced by approximately 56 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact is considered ***less than significant***. Refer to *Impact AQ-C* and *Impact AQ-D* for additional discussion of air quality impacts and proposed mitigation measures.

Impact AQ-C. ***Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?***

Short-term Construction Emissions

Construction-generated emissions are of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. The construction of the proposed project would result in the temporary generation of emissions associated with site grading and excavation, paving, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces. Short-term construction emissions would result in increased emissions of ozone-precursor pollutants (i.e., ROG and NO_X) and emissions of PM. Emissions of ozone-precursors would result from the operation of on- and off-road motorized vehicles and equipment. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities and can result in increased concentrations of PM that can adversely affect nearby sensitive land uses.

Estimated daily and quarterly emissions associated with initial construction of the proposed hotel are presented in Table 9 and Table 10, respectively. Construction-generated emissions in comparison to SLOAPCD significance thresholds are summarized in Table 11. As depicted, maximum daily emissions associated with construction of the proposed hotel would total approximately 179.8 lbs/day of ROG+NO_X and approximately 2.0 lbs/day of exhaust PM_{10}. Maximum quarterly construction-generated emissions would total approximately 1.0 tons of ROG+NO_X, less than 0.1 tons of Fugitive PM_{10}, and 0.1 tons of DPM.

Table 9
Daily Construction Emissions Without Mitigation

Construction Activity	Daily Emissions (lbs)	
	ROG+NO_X	**Exhaust PM_{10}**
Site Preparation	43.7	1.3
Grading/Excavation	20.1	0.9
Building Construction	25.5	1.2
Paving	12.1	0.6
Architectural Coating	142.2	0.2
Maximum Daily Emissions	**179.8**	2.0
SLOAPCD Significance Thresholds	137	7
Exceed SLOAPCD Thresholds?	**Yes**	No

<u>Maximum Daily Emissions</u>: Assumes that facility construction, paving, and application of architectural coatings could potentially occur simultaneously on any given day. Totals may not sum due to rounding.
Refer to Appendix D for modeling assumptions and results.

Maximum daily emissions associated with construction of the proposed hotel would exceed SLOAPCD's daily significance threshold for ROG+NO_X. Emissions would be largely a result of evaporative emissions anticipated to occur during the application of architectural coatings. Estimated emissions of fugitive and exhaust PM_{10} would not exceed SLOAPCD's significance thresholds. However, if uncontrolled, fugitive dust generated during construction may result in localized pollutant concentrations that could exceed ambient air quality standards and result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions would be considered to have a ***potentially significant*** impact.

Table 10
Quarterly Construction Emissions Without Mitigation

Quarter	Quarterly Emissions (tons)			
		PM_{10}		
	$ROG+NO_X$	Dust	Exhaust	Total
Year 2017 - Quarter 3	0.9	<0.1	<0.1	0.1
Year 2017 - Quarter 4	0.8	<0.1	<0.1	0.1
Year 2018 - Quarter 1	1.0	<0.1	0.1	0.1
Year 2018 - Quarter 2	0.9	<0.1	<0.1	<0.1
Maximum Quarterly Emissions:	1.0	<0.1	0.1	0.1
SLOAPCD Significance Thresholds	2.5	2.5	0.13	None
Exceed SLOAPCD Thresholds?	No	No	No	No

To be conservative, total exhaust PM_{10} emissions were compared to SLOAPCD's DPM threshold. Totals may not sum due to rounding. Refer to Appendix D for modeling assumptions and results.

Table 11
Summary of Construction Emissions Without Mitigation

Criteria	Project Emissions	SLOAPCD Significance Threshold	Exceed Significance Threshold?
Maximum Daily Emissions of $ROG+NO_X$	**179.8** lbs/day	137 lbs/day	**Yes**
Maximum Daily Emissions of DPM	2.0 lbs/day	7 lbs/day	No
Maximum Quarterly Emissions of $ROG+NO_X$	1.0 tons/qtr	2.5 tons/qtr	No
Maximum Quarterly Emissions of DPM	0.1 tons/qtr	0.13 tons/qtr	No
Maximum Quarterly Emissions of Fugitive PM	<0.1 tons/qtr	2.5 tons/qtr	No

Quarterly thresholds are based on the more conservative Tier 1 thresholds.
Refer to Appendix D for modeling assumptions and results.

Mitigation Measures

AQ-1: The following measures shall be implemented to minimize construction-generated emissions. These measures shall be shown on grading and building plans:

a. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter.
b. Reduce the amount of the disturbed area where possible.
c. Use water trucks, APCD approved dust suppressants (see Section 4.3 in the CEQA Air Quality Handbook), or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the District's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. For a list of suppressants, see Section 4.3 of the CEQA Air Quality Handbook.
d. All dirt stock pile areas should be sprayed daily as needed.
e. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;

f. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.

g. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.

h. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

i. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

j. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.

k. Install wheel washers at the construction site entrance, wash off the tires or tracks of all trucks and equipment leaving the site, or implement other SLOAPCD-approved methods sufficient to minimize the track-out of soil onto paved roadways.

l. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.

m. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.

n. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant). For more information, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.

o. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.

Significance After Mitigation

With implementation of Mitigation Measure AQ-1, overall emissions of fugitive dust would be reduced by approximately 56 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With the use of low-VOC content paints, maximum daily construction-generated emissions of $ROG+NO_X$ would total approximately 28 lbs/day. Mitigated emissions of $ROG+NO_X$ would not exceed SLOAPCD's daily significance threshold of 137 lbs/day. With mitigation, this impact would be considered ***less than significant***.

Long-term Operational Emissions

Long-term operational emissions associated with the proposed project would be predominantly associated with mobile sources. To a lesser extent, emissions associated with area sources, such as landscape maintenance activities, as well as, use of electricity and natural gas would also contribute to increased operational emissions.

Unmitigated operational emissions associated with operation of the proposed hotel are summarized in Table 12. As depicted, maximum daily operational emissions would total approximately 3.7 lbs/day ROG+NOx, 5.8 lbs/day CO, 1.1 lbs/day of fugitive PM_{10}, and 0.1 lbs/day of exhaust PM_{10}. Maximum annual emissions would total approximately 0.7 tons/year of ROG+NOx and approximately 0.2 tons/year of fugitive PM_{10}. Operational emissions associated with the proposed project would not exceed SLOAPCD significance thresholds. As a result, this impact would be considered ***less than significant***.

Table 12
Operational Emissions Without Mitigation

Operational Period/Source	Emissions						
					PM_{10}		
	ROG	NO_X	ROG+NO_X	CO	Fugitive	Exhaust	Total
Daily Emissions (lbs/day)							
Summer Conditions	2.2	1.4	3.6	5.7	1.1	0.1	1.2
Winter Conditions	2.2	1.5	3.7	5.8	1.1	0.1	1.2
SLOAPCD Significance Thresholds	--	--	25	550	25	1.25	--
Exceeds SLOAPCD Thresholds?	--	--	No	No	No	No	--
Annual Emissions (tons/year)							
Total Project Emissions	0.4	0.3	0.7	1.0	0.2	0.0	0.2
SLOAPCD Significance Thresholds	--	--	25	--	25	--	--
Exceeds SLOAPCD Thresholds?	--	--	No	--	No	--	--

Based on year 2019 operational conditions. Totals may not sum due to rounding.
Refer to Appendix D for modeling output files and assumptions.

Impact AQ-D. Would the project expose sensitive receptors to substantial pollutant concentrations?

The project site is bound by Black Oaks Drive to the east and Riverside Avenue to the west. Existing commercial development is located adjacent to the northern and southern boundaries of the project site. The nearest sensitive land used consist of residential dwellings located within the northeastern quadrant of the Riverside Avenue/Ysabel Street intersection, approximately 140 feet south of the project site. In addition, the Adelaide Inn is located adjacent to and south of the project site. (Refer to Figure 1).

Localized CO Concentrations

Localized concentrations of CO are of primary concern in areas located near congested roadway intersections. Of particular concern are signalized intersections that are projected to operate at unacceptable levels of service (LOS) E or F (Caltrans 1996).

Based on the traffic analysis prepared for this project, signalized intersections in the project area would operate at LOS C, or better (ATE 2017). The proposed project would not result in or contribute to unacceptable levels of service (i.e., LOS E or F) at primarily affected signalized intersections. In addition, the proposed project would not result in emissions of CO in excess of the SLOAPCD's significance threshold of 550 lbs/day. This impact is considered ***less than significant***.

Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the ARB. In accordance with ARB Air Toxics Control Measure (ATCM), prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request form, along with a copy of the geologic report, must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM.

Based on a review of the SLOAPCD's map depicting potential areas of NOA, the project site is located in or near an area that has been identified as having a potential for NOA (Refer to Appendix B). As a result, this impact is considered ***potentially significant***.

Asbestos-Containing Materials

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition of existing buildings, particularly older structures constructed prior to 1970. Asbestos can also be found in various building products, including (but not limited to) utility pipes/pipelines (transite pipes or insulation on pipes). If a project will involve the disturbance or potential disturbance of ACM, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - Asbestos NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the APCD, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM.

The project site will not require demolition of onsite structures. This impact is considered ***less than significant***.

Lead-Coated Materials

Demolition of structures coated with lead based paint can have potential negative air quality impacts and may adversely affect the health of nearby individuals. Improper demolition can result in the release of lead containing particles from the site. Sandblasting or removal of paint by heating with a heat gun can result in significant emissions of lead. In such instances, proper abatement of lead before demolition of these structures must be performed in order to prevent the release of lead from the site. Depending on removal method, a SLOAPCD permit may be required.

The project site will not require demolition of onsite structures. This impact is considered ***less than significant***.

Localized PM Concentrations

Implementation of the proposed project would result in the generation of fugitive PM emitted during construction. Fugitive PM emissions would be primarily associated with earth-moving, demolition, and material handling activities, as well as, vehicle travel on unpaved and paved surfaces. Onsite off-road equipment and trucks would also result in short-term emissions of diesel-exhaust PM (DPM). If uncontrolled, localized concentrations of PM could exceed air quality standards and may also result in increased nuisance impacts to nearby land uses and receptors. This impact is considered ***potentially significant***.

Mitigation Measures

AQ-2: The following measures shall be implemented to reduce expose of sensitive receptors to substantial pollutant concentrations. These measures shall be shown on grading and building plans:

a. Implement Mitigation Measure AQ-1, as identified in "Impact AQ-C", above.

b. Prior to any grading activities a geologic evaluation shall be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. These requirements may include but are not limited to:

1. Development of an Asbestos Dust Mitigation Plan which must be approved by the SLOAPCD before operations begin, and,
2. Development and approval of an Asbestos Health and Safety Program (required for some projects).

If NOA is not present, an exemption request must be filed with the SLOAPCD. More information on NOA can be found at http://www.slocleanair.org/rules-regulations/asbestos/noa.php.

c. On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:

   1) Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,

   2) Shall not operate a diesel-fueled auxiliary power system to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation.

d. Maintain all construction equipment in proper tune according to manufacturer's specifications;

e. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);

f. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;

g. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation.

h. Electrify equipment when possible;

i. Substitute gasoline-powered in place of diesel-powered equipment, when available; and,

j. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Significance After Mitigation

Mitigation Measure AQ-1includes measures for the control of fugitive dust emitted during project construction. Mitigation Measures AQ-2,b has been included for the control of potential emissions of naturally-occurring asbestos and to ensure compliance with applicable regulatory requirements. Mitigation Measures AQ-2,c through AQ-2,j include additional provisions for reducing emissions of DPM from onsite mobile sources. With implementation of Mitigation Measure AQ-2, this impact would be considered ***less than significant***.

Impact AQ-E. Would the project create objectionable odors affecting a substantial number of people?

The occurrence and severity of odor impacts depends on numerous factors, including: the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

The proposed project would not result in the installation of any equipment or processes that would be considered major odor-emission sources. However, construction of the proposed project would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel-exhaust, may be considered objectionable by some people. In addition, pavement coatings and architectural coatings used during project construction would also emit temporary odors. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly with increasing distance from the source. As a result, short-term construction activities would not expose a substantial number of people to frequent odorous emissions. For these reasons, potential exposure of sensitive receptors to odorous emissions would be considered ***less than significant***.

GREENHOUSE GASES AND CLIMATE CHANGE

SETTING

To fully understand global climate change, it is important to recognize the naturally occurring "greenhouse effect" and to define the GHGs that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Primary GHGs attributed to global climate change, are discussed, as follows:

- **Carbon Dioxide**. Carbon dioxide (CO_2) is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere (U.S. EPA 2016).

- **Methane**. Methane (CH_4) is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years (U.S. EPA 2016).

- **Nitrous Oxide**. Nitrous oxide (N_2O) is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years (U.S. EPA 2016).

- **Fluorinated Gases.** Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (U.S. EPA 2016).

- **Black Carbon**. Black carbon has been recently identified as a major contributor to climate change. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming potentials. The main sources of black carbon in California are wildfires, diesel-fueled on-road and off-road vehicles, fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands). California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (ARB 2015a).

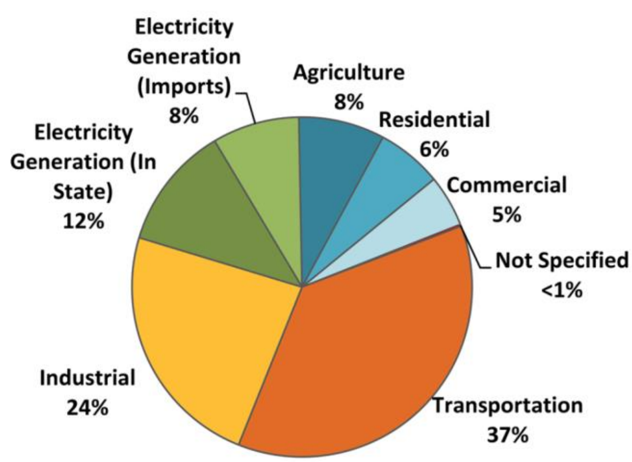
Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Gases with high global warming potential, such as HFCs, PFCs, and SF_6, are the most heat-absorbent. Over a 100-year timeframe, CH_4 traps over 28 times more heat per molecule than CO_2, and N_2O absorbs approximately 265 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted (EPA 2016).

SOURCES OF GHG EMISSIONS

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing; industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. World-wide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions (U.S. EPA 2015).

In 2014, GHG emissions within California totaled 441.5 million metric tons of carbon dioxide equivalents ($MMTCO_2e$). Within California, the transportation sector is the largest contributor, accounting for roughly 37 percent of the total state-wide GHG emissions. Emissions associated with the industrial sector are the second largest contributor, totaling approximately 24 percent. Emissions from in-state electricity generation, imported electricity, agriculture, residential, and commercial uses constitute the remaining major sources on GHG emissions. In comparison to the year 2013 emissions inventory, overall GHG emissions in California decreased by 2.8 $MMTCO_2e$. On a per capita basis, GHG emissions in California have decreased by approximately 18 percent since 2001. The State of California GHG emissions inventory for year 2014, by main economic sector, is depicted in Figure 3.

Figure 3
State of California Greenhouse Gases Emissions Inventory by Main Economic Sector



Emissions inventory is categorized based on main economic sector, which differ slightly from the categories identified in the state's Climate Change Scoping Plan. "Not Specified" includes sources that could not be attributed to an individual sector, such as evaporative losses and emissions from use of ozone-depleting substances. Source: ARB 2017d

EFFECTS OF GLOBAL CLIMATE CHANGE

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the state. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snow pack is a principal supply of water for the state, providing roughly 50 percent of state's annual runoff. If this trend continues, some areas of the state may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt would also impact the State's energy resources. Currently, approximately 20 percent of California's electricity comes from hydropower. An early exhaustion of the Sierra snowpack, may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, resultant changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

REGULATORY FRAMEWORK

FEDERAL

Executive Order 13514 (October 5, 2009): This order is focused on reducing GHGs internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and U.S. EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions. U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010.

The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons (MMT) and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards this program is projected to save approximately four billion barrels of oil and two billion metric tons of GHG emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut GHG emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish GHG emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO_2 emissions by about 270 MMT and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles.

STATE

Assembly Bill 1493

AB 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the ARB to develop and adopt the nation's first GHG emission standards for automobiles. These standards are also known as Pavley I. The California Legislature declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. It cites several risks that California faces from climate change, including a reduction in the state's water supply, an increase in air pollution caused by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the Clean Air Act, to allow the State to require reduced tailpipe emissions of CO_2. In late 2007, the U.S. EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against the U.S. EPA related to this denial.

In January 2009, President Obama instructed the U.S. EPA to reconsider the Bush Administration's denial of California's and 13 other states' requests to implement global warming pollution standards for cars and trucks. In June 2009, the U.S. EPA granted California's waiver request, enabling the State to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

Also in 2009, President Obama announced a national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the US. The new standards would cover model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon by 2016. When the national program takes effect, California has committed to allowing automakers who show compliance with the national program to also be deemed in compliance with state requirements. California is committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from the 2020 model year vehicles.

Executive Order No. S-3-05

Executive Order S-3-05 (State of California) proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The secretary will also submit biannual reports to the governor and state legislature describing (1) progress made toward reaching the emission targets, (2) impacts of global warming on California's resources, and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the secretary of CalEPA created a Climate Action Team made up of members from various state agencies and commissions. The Climate Action Team released its first report in March 2006 and continues to release periodic reports on progress. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases that are regulated by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

Climate Change Scoping Plan

In October 2008, ARB published its *Climate Change Proposed Scoping Plan*, which is the State's plan to achieve GHG reductions in California required by AB 32. This initial Scoping Plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The Scoping Plan included ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementation of the Low Carbon Fuel Standard program, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems, and a renewable portfolio standard for electricity production.

A key component of the Scoping Plan is the Renewable Portfolio Standard, which is intended to increase the percentage of renewables in California's electricity mix to 33 percent by year 2020, resulting in a reduction of 21.3 $MMTCO_2e$. Sources of renewable energy include, but are not limited to, biomass, wind, solar, geothermal, hydroelectric, and anaerobic digestion. Increasing the use of renewables will decrease California's reliance on fossil fuels, thus reducing GHG emissions.

The Scoping Plan states that land use planning and urban growth decisions will play important roles in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. With regard to land use planning, the Scoping Plan expects approximately 5.0 $MMTCO_2e$ will be achieved associated with implementation of Senate Bill 375, which is discussed further below.

The initial Scoping Plan was first approved by ARB on December 11, 2008 and is updated every five years. The first update of the Scoping Plan was approved by the ARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target established in SB 32 and EO B-30-15.

Senate Bill 1368

Senate Bill (SB) 1368 (codified at Public Utilities Code Chapter 3) is the companion bill of AB 32. SB 1368 required the California Public Utilities Commission (CPUC) to establish a GHG emissions performance standard for baseload generation from investor-owned utilities by February 1, 2007. The bill also required the California Energy Commission (CEC) to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural-gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and the CEC.

Senate Bill 1078 and Governor's Order S-14-08 (California Renewables Portfolio Standards)

Senate Bill 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This Senate Bill will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. Executive Order S-14-08 was later superseded by Executive Order S-21-09 on September 15, 2009. Executive Order S-21-09 directed the ARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. This Executive Order was superseded by statute SB X1-2 in 2011, which obligates all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33 percent of their energy from renewable electrical generation facilities by 2020, with interim targets of 20 percent by 2013 and 25 percent by 2016.

ARB is required by current law, AB 32 of 2006, to regulate sources of GHGs to meet a state goal of reducing greenhouse gas emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050. The CEC and CPUC serve in advisory roles to help ARB develop the regulations to administer the 33 percent by 2020 requirement. ARB is also authorized to increase the target and accelerate and expand the time frame.

Mandatory Reporting of Greenhouse Gas Emissions

Reporting of greenhouse gases by major sources is required by the California Global Warming Solutions Act (AB 32, 2006). Revisions to the existing ARB mandatory GHG reporting regulation were considered at the board hearing on December 16, 2010. The revised regulation was approved by the California Office of Administrative Law and became effective on January 1, 2012. The revised regulation affects industrial facilities, suppliers of transportation fuels, natural gas, natural gas liquids, liquefied petroleum gas, and carbon dioxide, operators of petroleum and natural gas systems, and electricity retail providers and marketers.

Cap-and-Trade Regulation

The cap-and-trade regulation is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85 percent of California's greenhouse gas emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013 and apply to large electric power plants and large industrial plants. In 2015, they will extend to fuel distributors (including distributors of heating and transportation fuels). At that stage, the program will encompass around 360 businesses throughout California and nearly 85 percent of the state's total greenhouse gas emissions.

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions, and are free to buy and sell allowances on the open market. California held its first auction of greenhouse gas allowances on November 14, 2012. California's GHG cap-and-trade system will reduce GHG emissions from regulated entities by approximately 16 percent, or more, by 2020.

California Building Code

The California Building Code contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Code is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

Green Building Standards

In essence, green buildings standards are indistinguishable from any other building standards. Both are contained in the California Building Code and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction in greenhouse gas emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, ARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, ARB estimated that green building standards would reduce GHG emissions by approximately 26 million metric tons of CO_2e ($MMTCO_2e$) by 2020.

The green buildings standards, commonly referred to as CalGreen standards, were most recently updated in 2013. The 2013 building energy efficiency standards are 25 percent more efficient than previous standards for residential construction and 30 percent more efficient for non-residential construction (CEC 2015).

Senate Bill 32

SB 32 was signed by Governor Brown on September 8, 2016. SB 32 effectively extends California's GHG emission-reduction goals from year 2020 to year 2030. This new emission-reduction target of 40 percent below 1990 levels by 2030 is intended to promote further GHG-reductions in support of the State's ultimate goal of reducing GHG emissions by 80 percent below 1990 levels by 2050. SB 32 also directs the ARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

SB 375 supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of developing more sustainable communities. Under SB 375, ARB sets regional targets for GHG emissions reductions associated with passenger vehicle use. Each of California's metropolitan planning organizations must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the identified GHG-reduction strategies.

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT

The SLOAPCD is a local public agency with the primary mission of realizing and preserving clean air for all county residents and businesses. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by federal and state regulatory requirements.

GHG Significance Thresholds

The SLOAPCD has adopted recommended GHG significance thresholds. These thresholds are based on AB 32 GHG emission reduction goals, which take into consideration the emission reduction strategies outlined in ARB's Scoping Plan. The GHG significance thresholds include one qualitative threshold and two quantitative thresholds options for evaluation of operational GHG emissions. The qualitative threshold option is based on a consistency analysis in comparison to a Qualified Greenhouse Gas Reduction Strategy, or equitably similar adopted policies, ordinances and programs. If a project complies with a Qualified Greenhouse Gas Reduction Strategy that is specifically applicable to the project, then the project would be considered to have a less-than-significant impact. The two quantitative threshold options include: 1) a bright-line threshold of 1,150 $MTCO_2e$/year; and 2) an efficiency threshold of 4.9 $MTCO_2e$/service population (residents+employees)/year. An additional GHG significance threshold of 10,000 $MTCO_2e$/year is proposed for industrial stationary sources. The applicable GHG significance threshold to be used would depend on the type of project being proposed. Projects with GHG emissions that do not exceed the selected threshold would be considered to have a less-than-significant impact and would not conflict with applicable GHG-reduction plans, policies, or regulations. The SLOAPCD's GHG emission thresholds are summarized in Table 13.

Table 13
SLOAPCD Greenhouse Gas Thresholds of Significance

Project	Draft Threshold
Projects other than Stationary Sources	1. Compliance with Qualified GHG Reduction Strategy; or 2. 1,150 MT CO_2e/year; or 3. 4.9 MT CO_2e/SP/year (residents+employees)
Stationary Sources (Industrial)	10,000 MT CO_2e/year
Construction	Amortized over the project life and added to operation GHG emissions
Source: SLOAPCD 2012	

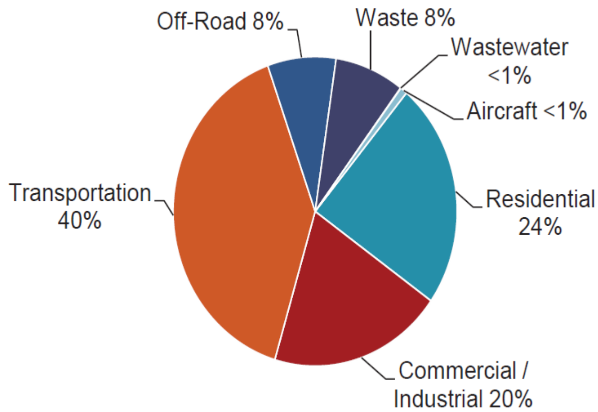
CITY OF PASO ROBLES CLIMATE ACTION PLAN

The City of Paso Robles Climate Action Plan (CAP) was adopted by the City Council on November 18th, 2013. The CAP is a long-range plan to reduce greenhouse gas (GHG) emissions from City government operations and community activities within Paso Robles and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (City of Paso Robles, 2013).

According to the GHG emissions inventory identified in the CAP, in 2005, the Paso Robles community emitted approximately 169,557 metric tons of carbon dioxide equivalent GHG emissions ($MTCO_2e$), as a result of activities that took place within the transportation, residential energy use, commercial and industrial energy use, off-road vehicles and equipment, solid waste, aircraft and wastewater sectors. As shown in Figure 4, the largest contributors of GHG emissions were the transportation (40 percent), residential energy use (24 percent) and commercial/industrial energy use (20 percent) sectors. The remainder of emissions resulted from the solid waste (eight percent), off-road vehicles and equipment (8 percent), aircraft (less than one percent), and wastewater (less than one percent) sectors (City of Paso Robles, 2013).

In accordance with SLOAPCD-recommended significance thresholds, as discussed above, projects that are determined to be consistent with the GHG-reduction plan, or in this case the CAP, would be considered to have a less-than-significant impact. To assist with this determination, the CAP includes a worksheet that identifies various "mandatory", as well as, "voluntary" measures. All "mandatory" actions must be incorporated as binding and enforceable components of the project to be considered consistent with the CAP. If a project cannot meet one or more of the "mandatory" actions, substitutions may be allowed provided equivalent reductions can be achieved. In addition, to demonstrate consistency with the CAP, all required measures must be incorporated as binding and enforceable components of the project.

Figure 4
City of Paso Robles
Community-wide GHG Emissions by Sector (2005)



City of Paso Robles, 2013

IMPACT ANALYSIS

GHG impacts attributable to the proposed project are summarized in Table 14.

Table 14
Summary of Project-Related Greenhouse Gas Emissions Impacts

GHG Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
B) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	■	☐	☐

METHODOLOGY

The methodologies used for quantification of GHG emissions are consistent with those discussed earlier in this report for the quantification of criteria air pollutants. Modeling assumptions and output files are included in Appendix D of this report.

THRESHOLDS OF SIGNIFICANCE

In accordance with SLOAPCD recommended significance thresholds, the proposed project would be considered to have a potentially significant impact on the environment if project-generated emissions would exceed 1,150 $MTCO_2e$/year, or if the project would result in increased GHG emissions that would be inconsistent with the City of Paso Robles CAP. The City of Paso Robles CAP includes a “Consistency Worksheet”, which identifies various mandatory and voluntary actions designed to reduce GHG emissions. The *CAP Consistency Worksheet* can be used to demonstrate project-level compliance with the CAP. Consistency with the City of Paso Robles CAP would be considered potentially significant if the proposed project does not incorporate, at a minimum, the mandatory project-level GHG-reduction measures, as identified in the *CAP Consistency Worksheet*.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact GHG-A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 from mobile sources. To a lesser extent, other GHG pollutants, such as CH_4 and N_2O, would also be generated. Short-term and long-term GHG emissions associated with the development of the proposed project are discussed in greater detail, as follows:

Short-term Construction GHG Emissions

Estimated increases in GHG emissions associated with construction of the proposed project are summarized in Table 15. Based on the modeling conducted, annual GHG emissions associated with construction of the proposed project would total approximately 317.4 $MTCO_2e$. Amortized GHG emissions, when averaged over the assumed 25-year life of the project, would total approximately 12.7 $MTCO_2e$/year. There would also be a small amount of GHG emissions from waste generated during construction; however, this amount is speculative. Actual emissions may vary, depending on the final construction schedules, equipment required, and activities conducted.

Table 15
Construction-Generated GHG Emissions Without Mitigation

Construction Year	GHG Emissions ($MTCO_2e$/Year)
2017	176.1
2018	141.3
Construction Total	317.4
Amortized Net Change in Construction Emissions	12.7

Amortized emissions are quantified based on an estimated 25-year project life.
Refer to Appendix D for modeling assumptions and results.

Long-term Operational GHG Emissions

Estimated long-term increases in GHG emissions associated with the proposed project are summarized in Table 16. As depicted, operational GHG emissions for the proposed project would total approximately 456.7 $MTCO_2e$/year during the initial year of full operation. Operational GHG emissions would decrease in future years to approximately 441.4 $MTCO_2e$/year in 2020 and 340.5 $MTCO_2e$/year in 2030. A majority of the operational GHG emissions would be associated with energy use and the operation of motor vehicle use. To a lesser extent, GHG emissions would also be associated with solid waste generation and water use. Net increases of GHG emissions would not exceed SLOAPCD's significance threshold of 1,150 $MTCO_2e$/year. As a result, this impact would be considered ***less than significant***.

Table 16
Operational GHG Emissions (Without Mitigation)

Operational Year/Source	GHG Emissions ($MTCO_2e$/Year)
Buildout Year 2019	
Area Source[1]	0.0
Energy Use[2]	267.1
Motor Vehicles	168.9
Waste Generation	6.6
Water Use and Conveyance	1.7
Amortized Construction	12.4
Total with Amortized Construction Emissions	456.7
SLOAPCD Significance Threshold	1,150
Exceeds Significance Threshold?	No
Year 2020	
Area Source[1]	0.0
Energy Use[2]	256.8
Motor Vehicles	164.0
Waste Generation	6.6
Water Use and Conveyance	1.6
Amortized Construction	12.4
Total with Amortized Construction Emissions	441.4
SLOAPCD Significance Threshold	1,150
Exceeds Significance Threshold?	No
Year 2030	
Area Source[1]	0.0
Energy Use[2]	205.4
Motor Vehicles	118.0
Waste Generation	3.3
Water Use and Conveyance	1.4
Amortized Construction	12.4
Total with Amortized Construction Emissions	340.5
SLOAPCD Significance Threshold	1,150
Exceeds Significance Threshold?	No

1. *Area source includes emissions associated with the application of architectural coatings, use of consumer products/agricultural products, and landscape maintenance.*
2. *Includes adjustment for California Renewable Portfolio Standards requirements.*

Refer to Appendix D *for modeling assumptions and results.*

Impact GHG-B. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed earlier in this report, the *City of Paso Robles CAP* is a long-range plan to reduce GHG emissions from City government operations and community activities within Paso Robles and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (City of Paso Robles, 2013).

The proposed land use would be consistent with current zoning designations and general plan land use designations. However, the proposed project does not include all mandatory GHG-reduction measures identified in the *City of Paso Robles CAP*. If unmitigated, project-generated GHG emissions would conflict with GHG-reduction planning efforts, including the City of Paso Robles CAP. As a result, this impact is considered ***potentially significant***.

Mitigation Measures

GHG-1: The proposed project shall implement, at a minimum, the following GHG-reduction measures:

a. Utilize high-efficiency lighting in parking lots and other public areas (i.e., sodium, light-emitting diode [LED]).
b. Utilize built-in energy efficient appliances (i.e., Energy Star rated).
c. Install energy-saving systems in guest rooms that reduce energy usage when rooms are not occupied.
d. Provide on-site bicycle parking beyond those required by California Green Building Standards Code and related facilities to support long-term use (lockers, or a locked room with standard racks and access limited to bicyclists only).
e. Provide a pedestrian access network that internally links all uses and connects all existing or planned external streets, pedestrian facilities, and public transit stops contiguous with the project site
f. The project site shall be designed to minimize barriers to pedestrian access and interconnectivity.
g. Implement traffic calming improvements as appropriate (e.g., marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, median islands, mini-circles, tight corner radii, etc.)
h. Comply with CALGreen Tier 1 or Tier 2 standards for water efficiency and conservation.
i. Divert, at a minimum, 65 percent of non-hazardous construction or demolition debris.
j. Include the planting of native and drought tolerant trees beyond those required as mitigation for tree removal.

Significance After Mitigation

The *City of Paso Robles CAP* includes various “mandatory”, as well as, “voluntary” measures to be implemented to reduce GHG emissions attributable to proposed development projects. All applicable “mandatory” measures must be incorporated as binding and enforceable components of the project to be considered consistent with the CAP. If a project cannot meet one or more of the “mandatory” measures, substitutions may be allowed provided equivalent reductions can be achieved. In addition, to demonstrate consistency with the CAP, all required measures must be incorporated as binding and enforceable components of the project.

Mitigation Measure GHG-1 incorporates all applicable “mandatory” measures identified in the City’s CAP. It is also important to note that the proposed project would also incorporate additional measures, such as energy-saver systems for guest rooms and installation of energy-efficient (e.g., Energy Star rated) appliances, which would result in additional reductions in GHG emissions. With mitigation, the proposed project would not conflict with GHG-reduction planning efforts, including the *City of Paso Robles CAP.* This impact is considered ***less than significant***.
The *CAP Consistency Worksheet* for the proposed project is included in Appendix C.

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APPENDIX A

SLOAPCD ASBESTOS DEMOLITION/ RENOVATION NOTIFICATION FORM

Agenda Item 1

SLO COUNTY apcd | Air Pollution Control District
San Luis Obispo County

3433 Roberto Court, San Luis Obispo, CA 93401
805-781-5912 – FAX: 805-781-1002

Naturally Occurring Asbestos Construction and Grading Project Form

Applicant Information/Property Owner		**Project Name**	
Address		**Project Address**	
City, State, Zip		**City, State, Zip**	
Email for Contact Person		**Project Site Latitude, Longitude**	**Assessors Parcel Number**
Phone Number	**Date Submitted**	**Agent**	**Phone Number**

Check Applicable	**DESCRIPTION (attach applicable required information)**	**APCD REQUIREMENT 1**	**APCD REQUIREMENT 2**
	Project is subject to ATCM regulation but exempt (See Website Map) http://www.slocleanair.org/business/pdf/serpentine-	Geological Evaluation	Exemption Request Form
	Project is subject to ATCM regulation and project is disturbing more than one acre	Geological Evaluation	Dust Control Measure Plan
	Project is subject to ATCM regulation and project is disturbing less than one acre	Geological Evaluation	Mini Dust Control Measure Plan

Please note that the applicant will be invoiced for any associated fees.

REQUIRED APPLICANT SIGNATURE:

Legal Declaration/Authorized Signature

Date

APCD OFFICE USE ONLY					
Geological Evaluation	**Exemption Request Form**	**Dust Control Measure Plan**		**Monitoring, Health and Safety Plan**	
Approved Yes ☐ No ☐	Approved: Yes ☐ No ☐	Approved: Yes ☐ No ☐		Approved: Yes ☐ No ☐	
Comments:	Comments:	Comments:			
APCD Staff:	Date Received:	Date Reviewed	OIS Site #		OIS Project #
Invoice No.	Basic Fee	Additional Fees	Billable Hrs		Total Fees

SLO COUNTY apcd | Air Pollution Control District San Luis Obispo County

3433 Roberto Court, San Luis Obispo, CA 93401
805-781-5912 – FAX: 805-781-1002

Naturally Occurring Asbestos Construction & Grading Project Exemption Request Form

Applicant Information/ Property Owner		**Project Name**	
Address		**Project Address**	
City, State, Zip		**City, State, Zip**	
Email Address		**Project Site Latitude, Longitude**	**Assessors Parcel Number**
Phone Number	**Date Submitted**	**Agent**	**Phone Number**

The District may provide an exemption from Section 93105 of the California Code of Regulations - Asbestos Airborne Toxic Control Measure For Construction, Grading, Quarrying, And Surface Mining Operations for any property that has any portion of the area to be disturbed located in a geographic ultramafic rock unit; if a registered geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the District for consideration. The District will approve or deny the exemption within 90 days. An outline of the required geological evaluation is provided in the District handout **"ASBESTOS AIRBORNE TOXIC CONTROL MEASURES FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS – Geological Evaluation Requirements." See the APCD Website map: http://www.slocleanair.org/business/asbestos.php**

NOTE: A basic exemption evaluation fee of $172.00 will be charged.

APPLICANT MUST SIGN BELOW:

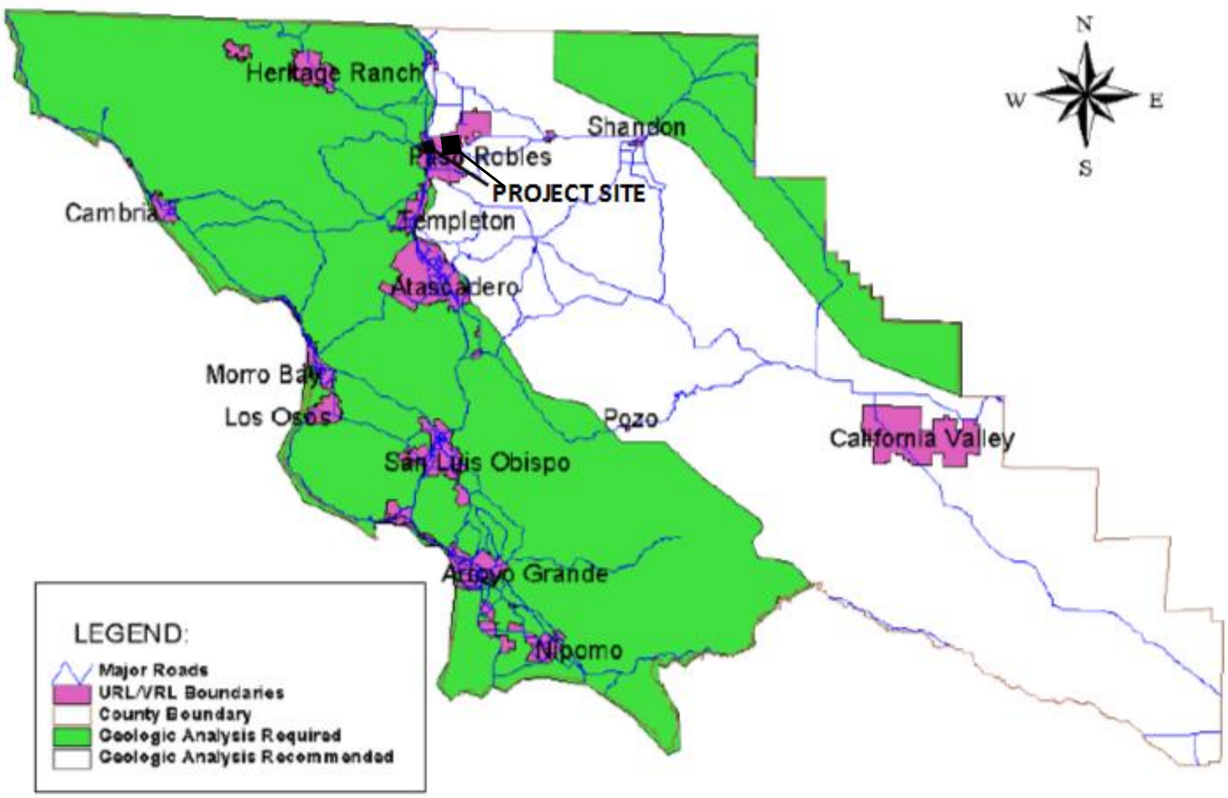
I request the San Luis Obispo County Air Pollution Control District grant this project exemption from the requirements of the ATCM based on the attached geological evaluation.

Legal Declaration/Authorized Signature ______________________ Date: __________

OFFICE USE ONLY - APCD Required Element – Geological Evaluation			
Date Received:	Date Reviewed:	OIS Site #:	OIS Project #:
	APCD Staff:	Approved	Not Approved
Comments:			

APPENDIX B

NATURALLY OCCURRING ASBESTOS ZONES



APPENDIX C

CONSISTENCY WITH CITY OF PASO ROBLES CLIMATE ACTION PLAN

CITY OF PASO ROBLES CLIMATE ACTION PLAN CONSISTENCY WORKSHEET

A. Project Information

Please complete cells highlighted in light grey. Attach additional/supportive information, as needed, to support consistency conclusions.

Date:	3/30/2017			
Project Name:	Black Oaks Lodge			
Project Address:	2717 Black Oak Drive			
Project Type:	Hotel			
Project Size:	59,229 square feet (96 rooms)			
Existing General Plan Land Use Designation(s):	Commercial/Service			
Proposed General Plan Land Use Designation(s):	Commercial/Service	Is Proposed Land Use Designation Consistent with Existing GP Land Use Designation(s)?:	Yes ☑	No ☐
Existing Zoning Designations(s):	Commercial/Service			
Proposed Zoning Designations(s):	Commercial/Service	Is Proposed Zoning Designation Consistent with Existing Zoning Designation(s)?:	Yes ☑	No ☐
Project Service Population (Residents + Employees):				
Brief Project Description:	The proposed project project includes the construction of an approximate 59,229 square foot, 4-story hotel. The project site is located at 2717 Black Oak Drive in the City of Paso Robles, California. The proposed hotel would include a total of approximately 96 rooms.			
Compliance Checklist Prepared By:				

**Existing General Plan Land Use Designations can be found at website url: http://www.prcity.com/government/departments/commdev/planning/land-use-maps.asp*

**Existing Zoning Designations can be found at website url: http://www.prcity.com/Government/departments/commdev/planning/zoning.asp*

CITY OF PASO ROBLES CLIMATE ACTION PLAN CONSISTENCY WORKSHEET

B. CAP Measure Compliance Worksheet

Date: 3/30/2017

Project Name: Black Oaks Lodge

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
Energy				
Measure E-4: Incentives for Exceeding Title 24 Energy Efficiency Building Standards	Does the project exceed 2013 Title 24 Building Energy Efficiency Standards?	Voluntary	Yes ☐ No ☐ N/A ☐	
Measure E-5: Energy Efficient Public Realm Lighting Requirements	Does the project utilize high efficiency lights in parking lots, streets, and other public areas?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Mitigation has been included to require the installation of high-efficiency lighting in parking lots, streets, and other public areas.
Measure E-6: Small-Scale On-Site Solar PV Incentive Program	Does the project include installation of small-scale on-site solar PV systems and/or solar hot water heaters? If so, what type and how much renewable energy would be generated?	Voluntary	Yes ☐ No ☐ N/A ☐	
Measure E-7: Income-Qualified Solar PV Program	Does the project include installation of small-scale on-site solar PV systems and/or solar hot water heaters on income-qualified housing units? If so, what type and how much renewable energy would be generated?	Voluntary	Yes ☐ No ☐ N/A ☐	
Transportation and Land Use				
Measure TL-1: BicycleNetwork	For subdivisions and large developments, does the project incorporate bicycle lanes, routes, and/or shared-use paths into street systems to provide a continuous network of routes, facilitated with markings, signage, and bicycle parking?	**Mandatory**	Yes ☐ No ☐ N/A ☑	The proposed project is not a subdivision or large development.
	For non-residential development, does the project comply with mandatory California Green Building Standards Code bicycle parking standards?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Mitigation has been included to require the installation of bicycle parking in accordance with California Green Building standards.
	Does the project incorporate bicycle facilities and/or amenities beyond those required?	Voluntary	Yes ☐ No ☐ N/A ☐	

CITY OF PASO ROBLES CLIMATE ACTION PLAN CONSISTENCY WORKSHEET

B. CAP Measure Compliance Worksheet (Continued)

Date: 42824
Project Name: Black Oaks Lodge

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
Transportation and Land Use (Continued)				
Measure TL-2: Pedestrian Network	Does the project provide a pedestrian access network that internally links all uses and connects all existing or planned external streets and pedestrian facilities contiguous with the project site?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Mitigation has been included to require the installation of sidewalks and/or pedestrian walkways that link the project site to existing and planned external streets, pedestrian facilities, and transit stops that are located contiguous with the project site. Sidewalks and/or pedestrian walkways shall be designed to minimize barriers to pedestrian access and interconnectivity.
	Does project minimize barriers to pedestrian access and interconnectivity?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Refer to above measure.
	Does the project implement traffic calming improvements as appropriate (e.g., marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, median islands, mini-circles, tight corner radii, etc.)?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Mitigation has been included to require the installation of traffic calming measures, where necessary, to provide safe onsite pedestrian linkages to existing and planned external streets and pedestrian facilities contiguous with the project site
	Does the project incorporate pedestrian facilities and/or amenities beyond those required?	Voluntary	Yes ☐ No ☐ N/A ☐	
Measure TL-3: Expand Transit Network	Does the project provide safe and convenient access to public transit within and/or contiguous to the project area?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Refer to Measure TL-2.
Measure TL-6: Parking Supply Management	Does the project include a reduced number of parking spaces or utilize shared parking?	Voluntary	Yes ☐ No ☐ N/A ☐	
Measure TL-7: Electric Vehicle Network and Alternative Fueling Stations	Does the project include the installation of electric or other alternative fueling stations?	Voluntary	Yes ☐ No ☐ N/A ☐	
Measure TL-8: Infill Development	Is the project consistent with the City's land use and zoning code?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. The project is consistent with current zoning and land use designations.
	Does the project include any "smart growth" techniques, such as mixed use, higher density, and/or infill development near existing or planned transit routes, in existing community centers/downtowns, and/or in other designated areas?	Voluntary	Yes ☐ No ☐ N/A ☐	

CITY OF PASO ROBLES CLIMATE ACTION PLAN CONSISTENCY WORKSHEET

B. CAP Measure Compliance Worksheet (Continued)

Date: 42824

Project Name: Black Oaks Lodge

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
Off-Road				
Measure O-1: Equipment Upgrades, Retrofits, and Replacements	If the project involves construction or demolition, does equipment utilize low- or zero-emissions vehicles or equipment?	Voluntary	Yes ☐ No ☐ N/A ☐	
Water				
Measure W-1: Exceed SB X7-7 (Water Conservation Act of 2009), Water Conservation Target	Does the project meet CALGreen Tier 1 or Tier 2 standards for water efficiency and conservation?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Mitigation has been included to ensure consistency with building standards related to water efficiency and conservation.
	Does the project incorporate grey Voluntary water or recycled water infrastructure?	Voluntary	Yes ☐ No ☐ N/A ☐	
Solid Waste				
Measure S-1: Solid Waste Diversion Rate	If the project involves construction or demolition, will the contractor divert 65 percent of non-hazardous construction or demolition debris?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. Mitigation has been included to require, at a minimum, diversion of 65 percent of construction waste.
	Does the project provide receptacles for the collection of organic waste?	Voluntary	Yes ☐ No ☐ N/A ☐	
	Does the project include composting facilities?	Voluntary	Yes ☐ No ☐ N/A ☐	
Tree Planting				
Measure T-1: Tree Planting Program	Does the project include the planting of native and drought tolerant trees beyond those required as mitigation for tree removal? If so, how many?	**Mandatory**	Yes ☑ No ☐ N/A ☐	Yes. The project will include the planting of three native and drought tolerant trees.

**Please attach additional pages as needed to complete the description and provide project details.*

APPENDIX D

EMISSIONS MODELING

CONSTRUCTION SCHEDULE

CONSTRUCTION ACTIVITY	#DAYS	2017 Q3	2017 Q4	2018 Q1	2018 Q2
		DAYS/QTR			
SITE PREPARATION	2	2			
GRADING	4	4			
BUILDING CONST-2017	125	60	65		
BUILDING CONST-2018	75			65	10
PAVING	10				10
ARCHITECTURAL COATING	10				10

ANNUAL UNMITIGATED CONSTRUCTION-GENERATED EMISSIONS

	ROG	NOX	ROG+NOX	PM10 FUG	PM10 EXH	PM10 TOT
SITE PREPARATION	0.003	0.033	0.036	0.009	0.002	0.020
	0.001	0.029	0.030	0.001	0.000	0.001
	0.004	0.062	0.066	0.010	0.002	0.021
GRADING	0.005	0.055	0.060	0.015	0.003	0.020
	0.000	0.000	0.000	0.000	0.000	0.000
	0.005	0.055	0.060	0.015	0.003	0.020
BUILDING CONSTRUCTION-2017	0.179	1.164	1.343	0.000	0.075	0.192
	0.027	0.172	0.199	0.036	0.002	0.038
	0.206	1.336	1.542	0.036	0.076	0.229
TOTAL YR 2017:	0.215	1.453	1.668	0.061	0.081	0.291
BUILDING CONSTRUCTION-2018	0.128	0.863	0.991	0.000	0.052	0.017
	0.019	0.132	0.151	0.029	0.001	0.030
	0.147	0.995	1.142	0.029	0.054	0.047
PAVING-2018	0.007	0.052	0.059	0.000	0.003	0.020
	0.000	0.000	0.001	0.001	0.000	0.001
	0.007	0.053	0.060	0.001	0.003	0.021
ARCHITECTURAL COATING-2018	0.701	0.010	0.711	0.000	0.001	0.001
	0.000	0.000	0.001	0.000	0.000	0.000
	0.702	0.010	0.712	0.000	0.001	0.001
TOTAL YR 2018:	0.856	1.058	1.914	0.030	0.057	0.069

QUARTERLY UNMITIGATED CONSTRUCTION-GENERATED EMISSIONS

	ROG	NOX	ROG+NOX	PM10 FUG	PM10 EXH	PM10 TOT
EMISSIONS - 2017 Q3						
SITE PREPARATION	0.00	0.06	0.07	0.01	0.00	0.01
GRADING	0.00	0.06	0.06	0.01	0.00	0.02
BUILDING CONSTRUCTION	0.10	0.64	0.74	0.02	0.04	0.05
TOTAL	0.11	0.76	0.87	0.04	0.04	0.08
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	
EMISSIONS - 2017 Q4						
BUILDING CONSTRUCTION	0.11	0.69	0.80	0.02	0.04	0.06
TOTAL	0.11	0.69	0.80	0.02	0.04	0.06
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	
EMISSIONS - 2018 Q1						
BUILDING CONSTRUCTION	0.13	0.86	0.99	0.03	0.05	0.07
TOTAL	0.13	0.86	0.99	0.03	0.05	0.07
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	
EMISSIONS - 2018 Q2						
BUILDING CONSTRUCTION	0.02	0.13	0.15	0.00	0.01	0.01
PAVING	0.01	0.05	0.06	0.00	0.00	0.00
ARCHITECTURAL COATING	0.70	0.01	0.71	0.00	0.00	0.00
TOTAL	0.73	0.20	0.92	0.00	0.01	0.02
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	

Totals may not sum due to rounding.

EMISSIONS MODELING ASSUMPTIONS - AVERAGE VEHICLE TRIP LENGTH

TRIP-GENERATION RATE

TOTAL NUMBER OF ROOMS	96	
TRIP-GENERATION RATE	9.11	
TOTAL DAILY TRIPS-FULL BOOKING	875	
INCOMING-DEPARTURE DAILY TRIPS (MAX 50% DEPARTURE, 50% ARRIVAL)	96	**11.0%**
IN-COUNTY DAILY GUEST TRIPS (TOTAL DAILY - INCOMING/DEPARTURE)	779	**89.0%**

DIRECTIONAL DISTRIBUTION OF GUEST TRIPS & DISTANCES

INCOMING/DEPARTURE TRIPS - AVERAGE DISTANCE OF TRAVEL

IN/OUT BOUND DIRECTION	CITY/AREA	PERCENT OF TOTAL GUESTS	INCOMING HIGHWAY	PERCENT DISTRIBUTION BY INCOMING HWY	AVG. TRIP LENGTH (MILES)
EAST	FRESNO/NORTH CENTRAL VALLEY	24.15%	SR41/SR46	24.15%	33
EAST	BAKERSFIELD/SOUTH CENTRAL VALLEY	8.82%	SR46	31.50%	33
NORTH	MONTEREY/SF BAY AREA	12.67%	US101 N	12.67%	15
SOUTH	LOS ANGELES/SOCAL	45.36%	US101 S	22.68%	57.5
LOCAL	PASO ROBLES	9.00%	LOCAL	9.00%	13.5
				AVERAGE INCOMING/DEPARTURE TRIP LENGTH:	**30**
				AVERAGE DAILY INCOMING/DEPARTURE VMT (30 miles x 96 incoming/departure trips):	**2,918**

**Based on survey data obtained from the Pismo Beach Oxford Hotel (Jan-Dec, 2012). Local trips assumes a 13-mile trip length, based on the rural setting default obtained from CalEEMod. LA/SoCal trips were divided equally between South Central Valley and South County, assuming 50% traveling I-5, 50% traveling US101.*

IN-COUNTY TRIPS - AVERAGE DISTANCE OF TRAVEL

In-County trips lengths were quantified based on a sampling of trip lengths from the project site to local and regional destinations, per SLOAPCD recommendations. The weighted average trip length for hotel patrons includes in-coming and out-going vehicle trip lengths, as noted above.

LOCAL DESTINATIONS			DISTANCE (MILES)
1	PASO ROBLES	HWY46/24TH STREET (GAS/EATERIES)	0.1
2	PASO ROBLES	DOWNTOWN PASO ROBLES	1.3
3	PASO ROBLES	PASO ROBLES EVENT CENTER	0.3
4	PASO ROBLES	RIVER OAKS GOLF COURSE	1.6
5	PASO ROBLES	HUNTER RANCH GOLF COURSE	3.5
6	PASO ROBLES	THE LINKS GOLF COURSE	6.5
7	PASO ROBLES	RAVINE WATER PARK	2.6
8	PASO ROBLES	TARGET SHOPPING CENTER	4.4
9	PASO ROBLES	WALMART SHOPPING CENTER	2.3
10	PASO ROBLES	CUESTA COLLEGE NORTH COUNTY CAMPUS	1.2
11	PASO ROBLES	ESTRELLA WARBIRD MUSEUM	5
12	CENTRAL COAST	CAMBRIA	28
13	CENTRAL COAST	HEARST CASTLE	40
14	CENTRAL COAST	SAN SIMEON	40
15	CENTRAL COAST	HARMONY	28
16	CENTRAL COAST	CAYUCOS	34
17	CENTRAL COAST	MORRO BAY	32
18	WINERIES-46 EAST	UNION ROAD TASTING ROOMS	2.2
19	WINERIES-46 EAST	TREANA WINERY	6.3
20	WINERIES-46 EAST	PARRISH FAMILY VINEYARDS	1.3
21	WINERIES-46 EAST	PASO ROBLES WINERIES	1.2
22	WINERIES-46 EAST	D ANDINO VINEYARDS	1.6
23	WINERIES-46 EAST	DERVY WINES	1.9
24	WINERIES-46 EAST	J LOHR VINEYARDS	5.7
25	WINERIES-46 EAST	UNCORKED TOURS	1.7
26	WINERIES-46 EAST	GRIZLEY REPUBLIC	1.2
27	WINERIES-46 EAST	BREAKAWAY TOURS	1.5
28	WINERIES-46 EAST	PIANETTA	1.3
29	WINERIES-46 EAST	EBERLY WINERY	3.5
30	WINERIES-46 EAST	VINA ROBLES	3.3
31	WINERIES-46 EAST	ROBERT HALL	3.1
32	WINERIES-46 EAST	TOBIN JAMES	9.1
33	WINERIES-46 EAST		0
34	WINERIES-46 EAST	GREY WOLF	8.4
35	WINERIES-46 EAST	FIVE RIVERS	8.5
36	WINERIES-46 EAST	EOS	2.6
37	WINERIES-46 EAST	BIANCHI	6.5
38	WINERIES-46 EAST	ARCIERO	5
39	WINERIES-46 EAST	PAUL J ROSILEZ	5.3
40	WINERIES-46 EAST		
41	WINERIES-46 EAST	FALCON NEST	5.4
42	WINERIES-46 EAST	SAN ANTONIO	0.9
43	WINERIES-46 EAST	SEXTANT	6.7
44	WINERIES-46 EAST	STEINBECK	5.8
45	WINERIES-46 EAST	PEAR VALLEY	4.9
46	WINERIES-46 EAST	RIO SECO	4.4
47	WINERIES-46 EAST	PENMAN SPRINGS	4.9
48	WINERIES-46 EAST	CLAUTIERE	5.3
49	WINERIES-46 EAST	DERBY	1.6

50	WINERIES-46 EAST	NORMAN	4.3
51	WINERIES-46 EAST	GRAVEYARD	8.5
52	WINERIES-46 EAST	J&J	10.8
53	WINERIES-WEST/NORTH	TREANA	6.3
54	WINERIES-WEST/NORTH	STACKED STONE	3
55	WINERIES-WEST/NORTH	ECLUSE	4.2
56	WINERIES-WEST/NORTH	TERRY HOAGE	4.9
57	WINERIES-WEST/NORTH	LE CUVIER	3.6
58	WINERIES-WEST/NORTH	VILLICANA	3.6
59	WINERIES-WEST/NORTH	CARINA	5.3
60	WINERIES-WEST/NORTH	ADELAIDA	8.1
61	WINERIES-WEST/NORTH	VILLA CREEK	10.2
62	WINERIES-WEST/NORTH	RABBIT RIDGE	9.5
63	WINERIES-WEST/NORTH	TABLAS	11.7
64	WINERIES-WEST/NORTH	OPOLO	13
65	WINERIES-WEST/NORTH	CALCAREOUS	6.2
66	WINERIES-WEST/NORTH	ALMOND HILL	4.1
67	WINERIES-WEST/NORTH	DENNER	11.2
68	WINERIES-WEST/NORTH	CHRONIC	4.2
69	WINERIES-WEST/NORTH	CAPARONE	8.4
70	WINERIES-WEST/NORTH	FOUR VINES	6.3
71	WINERIES-WEST/NORTH	LAWRENCE ANDREW	5.9
72	WINERIES-WEST/NORTH	PRWS	4.4
73	WINERIES-WEST/NORTH	LE VIGNE	3.6
74	WINERIES-WEST/NORTH	CASTORO CELLARS	5.8
75	WINERIES-WEST/NORTH	FIRST CRUSH WINES	9.2
76	WINERIES-WEST/NORTH	FIRESTONE WALKER BREWERY	4.7
77	WINERIES-WEST/NORTH	DUSI WINES	5.3
78	WINERIES-46 WEST	PEACHY CANYON	5.6
79	WINERIES-46 WEST	SUMMERWOOD	5.2
80	WINERIES-46 WEST	AUSTIN HOPE	6
81	WINERIES-46 WEST	QUAIL CREEK	5.2
82	WINERIES-46 WEST	DOCE ROBLES	5
83	WINERIES-46 WEST	ZENAIDA	5.5
84	WINERIES-46 WEST	CASTORO CELLARS	5.8
85	WINERIES-46 WEST	BOOKER	7
86	WINERIES-46 WEST	GREY WOLF	6.6
87	WINERIES-46 WEST	CALIZA	7.2
88	WINERIES-46 WEST	LONE MADRONE	7.5
89	WINERIES-46 WEST	HUNT CELLARS	7.4
90	WINERIES-46 WEST	ROTTA	8.4
91	WINERIES-46 WEST	TURLEY	8.6
92	WINERIES-46 WEST	DOVER CANYON	9.9
93	WINERIES-46 WEST	HEARTHSTONE	10.4
94	WINERIES-46 WEST	LINNE	8.8
95	WINERIES-46 WEST	CYPHER	8.5
96	WINERIES-46 WEST	DONATI	8.7
97	WINERIES-46 WEST	NINER	7
98	WINERIES-46 WEST	MIDNIGHT CELLARS	6.7
99	WINERIES-46 WEST	DARK STAR	6.6
100	WINERIES-46 WEST	FRATELLI PERATA	5.6
101	WINERIES-46 WEST	KENETH VOLK	6.9
102	WINERIES-46 WEST	WINDWARD	5.6
103	WINERIES-46 WEST	SHALE OAK	7.7
104	WINERIES-46 WEST	CROAD	8.8
105	WINERIES-46 WEST	ZINALLEY	8.4
106	WINERIES-46 WEST	LINNE COLADO	8.8
107	WINERIES-46 WEST	JACK CREEK	10.1
108	WINERIES-46 WEST	STEPHENS CELLAR	10.2
109	WINERIES-46 WEST	EPOCH ESTATE	12.8
110	WINERIES-46 WEST	LAGO GUISEPPE CELLARS	13.4
111	WINERIES-46 WEST	ROCKY CREEK	13.7
112	WINERIES-46 WEST	KALEIDOS	9.8
113	WINERIES-46 WEST	ORCHID HILL	9.4
		AVERAGE IN-COUNTY TRIP LENGTH:	**7.3**
		AVERAGE DAILY IN-COUNTY VMT:	**5,698**

CALCULATED WEIGHTED AVERAGE TRIP DISTANCE

TOTAL VMT (INCOMING, DEPARTURE & IN-COUNTY):	**8,616**
TOTAL TRIPS (INCOMING, DEPARTURE & IN-COUNTY):	**875**
AVERAGE TRIP DISTANCE (WEIGHTED ALL TRIPS):	**9.9**
MODELED TRIP DISTANCE (WEIGHTED ALL TRIPS):	**10**

HOTEL PARKING LOT VEHICLE SURVEYS

	DAILY AVERAGE								
	LDV	MDV	MHD	HHD	RV	MC	BUS (OTHER/SCH)	TOTAL	
Hampton Inn/La Bellasera Hotel	72	0	0	0	0	0	0	72	
Courtyard Marriott	67	0	0	0	0	0		67	
Best Western Black Oaks	69	0	0	0	0	0	0	69	
The Oaks Hotel	38	0	0	0	0	0	0	38	
La Quinta	45	0	0	0	0	0	0	45	
Adelaide Inn	54	0	0	0	0	0	0	54	
Total Parking Lot Vehicle Surveys:	345	0	0	0	0	0	0	345	
Number of hotel sites evaluated:	7								
Adjustments (see notes below):	0		0	0	1	1	1		
TOTAL VEHICLES WITH ADJUSTMENTS	**345**	**0**	**0.00**		**1**	**1**	**1**	**348**	**TOTAL**
PERCENT CONTRIBUTION:	**99.14%**	**0.00%**	**0.00%**	**0.00%**	**0.29%**	**0.29%**	**0.29%**	**100.00%**	**PERCENT**

Parking lot vehicle survey data based on aerial photo interpretation.
Adjustments are based on information received from Hampton Inn & Suites and Courtyard by Marriott (based on interviews with hotel management staff by Ambient Air Quality & Noise Consulting during the week of March 20, 2017. Medium-heavy duty (MHD) trucks typically average 10-15/week, including deliveries and material pickup. Deliveries typically do not involve heavy-heavy duty (HHD) trucks. Higher delivery estimates (e.g., 15 MHD/week) typically occur during the peak season (which is worst case trip rate of 2.14 trips/day). Most vehicles are light duty autos and trucks (LDA/T), which were equitably partitioned between the first four CalEEMod/Emfac vehicle classes (LDA, LDT1, LDT2, MDV) as defined by SB375. Motor homes, school buses and motorcycles are rare with an average of 1 per week.

PROJECT INFO/FLEET MIX

PROJECT:	Black Oaks Lodge, Paso Robles	
Total Number of Hotel Rooms	96	
Trip-generation rate	9.11	*(Associated Transportation Engineers. March 2017. Black Oaks Lodge Traffic and Circulation Study.)*
Average-daily guest & employee trips	875	
Average-daily delivery trips (MHD)	2.14	*(Based on a maximum of 15 MDT delivery trips per week.)*
Average-Daily Trips (Excluding MDT)	872	

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
CalEEMod Default Fleet Mix:	0.549382	0.034064	0.198767	0.13236	0.033447	0.007872	0.013134	0.018943	0.002404	0.00132	0.00563	0.000825	0.001852
LDV Adjustment Factors:	0.6006978	0.0372458	0.2173331	0.1447233									
Average-Daily Hotel Trips:	**520**	**32**	**188**	**125**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**3**	**3**
Hotel Fleet Mix:	**0.594**	**0.037**	**0.215**	**0.143**	**0.000**	**0.000**	**0.002**	**0.000**	**0.000**	**0.000**	**0.003**	**0.003**	**0.003**

**Total percent LDV identified for hotel uses were equitably partitioned between the first four CalEEMod/Emfac vehicle classes (LDA, LDT1, LDT2, MDV) as defined by SB375. LDVs were distributed based on the percentage contribution identified in CalEEMod. The CalEEMod default fleet mix percentages are based on the 2017-2018 San Luis Obispo County average fleet mix.*

Black Oaks Lodge

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.50	Acre	1.50	65,340.00	0
Hotel	24.00	Room	0.42	59,229.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	532.02	**CH4 Intensity (lb/MWhr)**	0.024	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Energy intensity factors adjusted to account for increases use of renewables.

Land Use - 1.92 acres total. 0.42 acre footprint/59,229 bldg sqft total, 1.5 acres paved.

Construction Phase - Project construction information not available. Based on model default construction assumptions.

Off-road Equipment -

Off-road Equipment - Construction equipment based on model defaults

Trips and VMT - Construction vehicle trips based on model defaults.

Demolition - No demo required.

Grading - 500 cy exported. 250 cy imported.

Architectural Coating - Architectural coating assumptions based on model defaults

Vehicle Trips - Weekday trip rate derived from traffic analysis (9.11/room). Weekend rates based on model defaults. Customer trip length increased to 10 miles (refer to separate worksheet).

Energy Use - Energy intensity factors include RPS adjustment.

Construction Off-road Equipment Mitigation - Includes 61%CE for watering exposed surfaces, onsite speeds limited to 15 mph, T3 off-road equipment

Energy Mitigation - Assumes a minimum overall reduction in energy use of 15% associated with guest room energy-saver systems. Actual reductions reported to approach/exceed 20% depending on the system installed (Ayres Hotel Project 2012).

Water Mitigation - Installation of low-flow fixtures and water-efficient irrigation systems required per building code requirements.

Waste Mitigation - Includes minimum 50% reduction achieved, per current minimum statewide solid-waste diversion rate.

Fleet Mix - Hotel adjusted based on survey data. Refer to separate worksheet.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.04	0.00
tblFleetMix	LHD2	8.4270e-003	0.00
tblFleetMix	MCY	5.8600e-003	3.0000e-003
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	2.0180e-003	3.0000e-003
tblFleetMix	MHD	0.01	2.0000e-003

tblFleetMix	OBUS	2.4270e-003	0.00
tblFleetMix	SBUS	8.3900e-004	3.0000e-003
tblFleetMix	UBUS	1.3580e-003	0.00
tblGrading	MaterialExported	0.00	500.00
tblGrading	MaterialImported	0.00	250.00
tblLandUse	BuildingSpaceSquareFeet	34,848.00	59,229.00
tblLandUse	LandUseSquareFeet	34,848.00	59,229.00
tblLandUse	LotAcreage	0.80	0.42
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.024
tblProjectCharacteristics	CO2IntensityFactor	641.35	532.02
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleEF	HHD	0.46	0.47
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	0.20	0.16
tblVehicleEF	HHD	3.11	2.95
tblVehicleEF	HHD	1.40	1.28
tblVehicleEF	HHD	7.02	5.85
tblVehicleEF	HHD	3,901.28	3,979.77
tblVehicleEF	HHD	1,752.25	1,731.55
tblVehicleEF	HHD	18.52	15.75
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	22.99	22.28
tblVehicleEF	HHD	6.34	5.86
tblVehicleEF	HHD	19.11	19.21
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	4.6500e-004	2.5100e-004
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	4.3700e-004	2.3300e-004
tblVehicleEF	HHD	2.6600e-004	1.9500e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.86	0.81
tblVehicleEF	HHD	1.6700e-004	1.2700e-004
tblVehicleEF	HHD	0.21	0.18
tblVehicleEF	HHD	2.0520e-003	1.4240e-003
tblVehicleEF	HHD	0.30	0.23
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.0500e-004	2.5700e-004
tblVehicleEF	HHD	2.6600e-004	1.9500e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.99	0.93
tblVehicleEF	HHD	1.6700e-004	1.2700e-004
tblVehicleEF	HHD	0.30	0.27
tblVehicleEF	HHD	2.0520e-003	1.4240e-003
tblVehicleEF	HHD	0.33	0.25
tblVehicleEF	HHD	0.43	0.45
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	0.19	0.16

tblVehicleEF	HHD	2.29	2.16
tblVehicleEF	HHD	1.41	1.29
tblVehicleEF	HHD	6.56	5.46
tblVehicleEF	HHD	4,126.42	4,210.63
tblVehicleEF	HHD	1,752.25	1,731.55
tblVehicleEF	HHD	18.52	15.75
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	23.71	22.98
tblVehicleEF	HHD	6.14	5.67
tblVehicleEF	HHD	19.08	19.18
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	4.6500e-004	2.5100e-004
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	4.3700e-004	2.3300e-004
tblVehicleEF	HHD	5.0200e-004	3.6300e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.82	0.76
tblVehicleEF	HHD	3.0700e-004	2.2900e-004
tblVehicleEF	HHD	0.21	0.18
tblVehicleEF	HHD	1.9980e-003	1.3790e-003
tblVehicleEF	HHD	0.28	0.22

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.9700e-004	2.5000e-004
tblVehicleEF	HHD	5.0200e-004	3.6300e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.94	0.88
tblVehicleEF	HHD	3.0700e-004	2.2900e-004
tblVehicleEF	HHD	0.30	0.27
tblVehicleEF	HHD	1.9980e-003	1.3790e-003
tblVehicleEF	HHD	0.31	0.24
tblVehicleEF	HHD	0.49	0.51
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	0.21	0.17
tblVehicleEF	HHD	4.24	4.03
tblVehicleEF	HHD	1.40	1.28
tblVehicleEF	HHD	7.30	6.08
tblVehicleEF	HHD	3,590.36	3,660.97
tblVehicleEF	HHD	1,752.25	1,731.55
tblVehicleEF	HHD	18.52	15.75
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	22.00	21.32
tblVehicleEF	HHD	6.29	5.81
tblVehicleEF	HHD	19.13	19.23
tblVehicleEF	HHD	0.09	0.08
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.06	0.04

tblVehicleEF	HHD	4.6500e-004	2.5100e-004
tblVehicleEF	HHD	0.08	0.07
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	4.3700e-004	2.3300e-004
tblVehicleEF	HHD	1.8800e-004	1.4000e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.92	0.87
tblVehicleEF	HHD	1.2800e-004	9.8000e-005
tblVehicleEF	HHD	0.21	0.18
tblVehicleEF	HHD	2.2180e-003	1.5480e-003
tblVehicleEF	HHD	0.31	0.24
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	3.1000e-004	2.6000e-004
tblVehicleEF	HHD	1.8800e-004	1.4000e-004
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	1.06	1.00
tblVehicleEF	HHD	1.2800e-004	9.8000e-005
tblVehicleEF	HHD	0.30	0.27
tblVehicleEF	HHD	2.2180e-003	1.5480e-003
tblVehicleEF	HHD	0.34	0.26
tblVehicleEF	LDA	7.0230e-003	6.1340e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.78	0.69
tblVehicleEF	LDA	2.38	2.07

tblVehicleEF	LDA	279.10	269.33
tblVehicleEF	LDA	65.30	63.40
tblVehicleEF	LDA	0.54	0.55
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	1.8280e-003	1.8100e-003
tblVehicleEF	LDA	2.5040e-003	2.4420e-003
tblVehicleEF	LDA	1.6910e-003	1.6730e-003
tblVehicleEF	LDA	2.3050e-003	2.2460e-003
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.15	0.14
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.18	0.15
tblVehicleEF	LDA	2.7970e-003	2.6980e-003
tblVehicleEF	LDA	6.9500e-004	6.7000e-004
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.15	0.14
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.20	0.16
tblVehicleEF	LDA	7.4090e-003	6.4820e-003
tblVehicleEF	LDA	0.01	9.5800e-003
tblVehicleEF	LDA	0.85	0.75
tblVehicleEF	LDA	1.98	1.72

tblVehicleEF	LDA	290.91	280.73
tblVehicleEF	LDA	65.30	63.40
tblVehicleEF	LDA	0.54	0.55
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.16	0.13
tblVehicleEF	LDA	1.8280e-003	1.8100e-003
tblVehicleEF	LDA	2.5040e-003	2.4420e-003
tblVehicleEF	LDA	1.6910e-003	1.6730e-003
tblVehicleEF	LDA	2.3050e-003	2.2460e-003
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	2.9160e-003	2.8130e-003
tblVehicleEF	LDA	6.8800e-004	6.6400e-004
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.17	0.14
tblVehicleEF	LDA	6.9310e-003	6.0490e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.77	0.68
tblVehicleEF	LDA	2.57	2.24

tblVehicleEF	LDA	276.74	267.06
tblVehicleEF	LDA	65.30	63.40
tblVehicleEF	LDA	0.54	0.55
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.18	0.15
tblVehicleEF	LDA	1.8280e-003	1.8100e-003
tblVehicleEF	LDA	2.5040e-003	2.4420e-003
tblVehicleEF	LDA	1.6910e-003	1.6730e-003
tblVehicleEF	LDA	2.3050e-003	2.2460e-003
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.19	0.16
tblVehicleEF	LDA	2.7740e-003	2.6750e-003
tblVehicleEF	LDA	6.9800e-004	6.7300e-004
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.21	0.17
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	2.05	1.75
tblVehicleEF	LDT1	4.91	4.43

tblVehicleEF	LDT1	335.56	326.93
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.23	0.20
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.10	0.09
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.36	0.31
tblVehicleEF	LDT1	3.3840e-003	3.2920e-003
tblVehicleEF	LDT1	8.7400e-004	8.4600e-004
tblVehicleEF	LDT1	0.10	0.09
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.40	0.34
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.15	1.84
tblVehicleEF	LDT1	4.06	3.64

tblVehicleEF	LDT1	348.99	340.09
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.26	0.24
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.31	0.27
tblVehicleEF	LDT1	3.5190e-003	3.4250e-003
tblVehicleEF	LDT1	8.5900e-004	8.3300e-004
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.34	0.29
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	2.05	1.74
tblVehicleEF	LDT1	5.32	4.80

tblVehicleEF	LDT1	332.88	324.31
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.23	0.20
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.33	0.30
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.22	0.21
tblVehicleEF	LDT1	0.39	0.34
tblVehicleEF	LDT1	3.3570e-003	3.2660e-003
tblVehicleEF	LDT1	8.8100e-004	8.5300e-004
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.33	0.30
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.22	0.21
tblVehicleEF	LDT1	0.42	0.37
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.50	1.34
tblVehicleEF	LDT2	4.23	3.80

tblVehicleEF	LDT2	390.62	380.93
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.23	0.20
tblVehicleEF	LDT2	0.42	0.37
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.23	0.22
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	0.32	0.28
tblVehicleEF	LDT2	3.9240e-003	3.8240e-003
tblVehicleEF	LDT2	9.9000e-004	9.6300e-004
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.23	0.22
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	0.35	0.31
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.60	1.44
tblVehicleEF	LDT2	3.52	3.15

tblVehicleEF	LDT2	406.52	396.46
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.21	0.18
tblVehicleEF	LDT2	0.38	0.34
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.24	0.23
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.28	0.24
tblVehicleEF	LDT2	4.0840e-003	3.9810e-003
tblVehicleEF	LDT2	9.7800e-004	9.5200e-004
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.24	0.23
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.30	0.27
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	1.48	1.32
tblVehicleEF	LDT2	4.58	4.11

tblVehicleEF	LDT2	387.45	377.84
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.23	0.21
tblVehicleEF	LDT2	0.44	0.39
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.25	0.24
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.34	0.30
tblVehicleEF	LDT2	3.8920e-003	3.7930e-003
tblVehicleEF	LDT2	9.9600e-004	9.6900e-004
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.25	0.24
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.37	0.33
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14

tblVehicleEF	LHD1	1.79	1.70
tblVehicleEF	LHD1	3.06	2.92
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	3.11	3.01
tblVehicleEF	LHD1	0.95	0.95
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004
tblVehicleEF	LHD1	2.3790e-003	2.3810e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2200e-003	1.2440e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.35	0.36
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.8660e-003	6.8410e-003
tblVehicleEF	LHD1	3.3000e-004	3.2600e-004
tblVehicleEF	LHD1	2.3790e-003	2.3810e-003

tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2200e-003	1.2440e-003
tblVehicleEF	LHD1	0.24	0.24
tblVehicleEF	LHD1	0.35	0.36
tblVehicleEF	LHD1	0.33	0.32
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.82	1.73
tblVehicleEF	LHD1	2.86	2.73
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	3.00	2.90
tblVehicleEF	LHD1	0.89	0.89
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004

tblVehicleEF	LHD1	4.2260e-003	4.2110e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.0740e-003	2.1030e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.33	0.35
tblVehicleEF	LHD1	0.29	0.28
tblVehicleEF	LHD1	6.8660e-003	6.8410e-003
tblVehicleEF	LHD1	3.2600e-004	3.2200e-004
tblVehicleEF	LHD1	4.2260e-003	4.2110e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.0740e-003	2.1030e-003
tblVehicleEF	LHD1	0.25	0.24
tblVehicleEF	LHD1	0.33	0.35
tblVehicleEF	LHD1	0.32	0.31
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.78	1.69
tblVehicleEF	LHD1	3.16	3.02
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11

tblVehicleEF	LHD1	3.08	2.99
tblVehicleEF	LHD1	0.98	0.98
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004
tblVehicleEF	LHD1	1.7420e-003	1.7470e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.5800e-004	9.7800e-004
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.38	0.40
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.8650e-003	6.8400e-003
tblVehicleEF	LHD1	3.3200e-004	3.2800e-004
tblVehicleEF	LHD1	1.7420e-003	1.7470e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.5800e-004	9.7800e-004
tblVehicleEF	LHD1	0.24	0.24
tblVehicleEF	LHD1	0.38	0.40
tblVehicleEF	LHD1	0.34	0.33
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9930e-003	9.3080e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.02	0.97
tblVehicleEF	LHD2	1.29	1.20
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70
tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.72	2.53
tblVehicleEF	LHD2	0.49	0.47
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	8.8400e-004	8.3900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.8300e-004	4.7200e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004

tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1300e-004	2.1000e-004
tblVehicleEF	LHD2	8.8400e-004	8.3900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8300e-004	4.7200e-004
tblVehicleEF	LHD2	0.20	0.19
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.5060e-003	8.8580e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.03	0.97
tblVehicleEF	LHD2	1.21	1.13
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70
tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.63	2.44
tblVehicleEF	LHD2	0.46	0.45
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003

tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	1.5580e-003	1.4710e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.1600e-004	7.9200e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004
tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1100e-004	2.0900e-004
tblVehicleEF	LHD2	1.5580e-003	1.4710e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.1600e-004	7.9200e-004
tblVehicleEF	LHD2	0.20	0.19
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	9.5530e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.02	0.96
tblVehicleEF	LHD2	1.33	1.24
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70

tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.70	2.51
tblVehicleEF	LHD2	0.50	0.49
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	6.5100e-004	6.1900e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8000e-004	3.7100e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004
tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1300e-004	2.1100e-004
tblVehicleEF	LHD2	6.5100e-004	6.1900e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.8000e-004	3.7100e-004
tblVehicleEF	LHD2	0.20	0.19

tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	MCY	0.39	0.39
tblVehicleEF	MCY	0.18	0.18
tblVehicleEF	MCY	23.95	23.31
tblVehicleEF	MCY	10.07	10.09
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.23	1.22
tblVehicleEF	MCY	0.32	0.32
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	0.95	0.96
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.53	0.54
tblVehicleEF	MCY	2.47	2.43
tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	2.47	2.45
tblVehicleEF	MCY	2.0600e-003	2.0570e-003
tblVehicleEF	MCY	7.4100e-004	7.3700e-004
tblVehicleEF	MCY	0.95	0.96
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.53	0.54
tblVehicleEF	MCY	2.94	2.91

tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	2.68	2.66
tblVehicleEF	MCY	0.37	0.38
tblVehicleEF	MCY	0.15	0.15
tblVehicleEF	MCY	22.30	21.74
tblVehicleEF	MCY	9.05	9.05
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.11	1.10
tblVehicleEF	MCY	0.30	0.30
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	1.83	1.84
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	1.05	1.06
tblVehicleEF	MCY	2.34	2.31
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	2.09	2.08
tblVehicleEF	MCY	2.0290e-003	2.0280e-003
tblVehicleEF	MCY	7.1300e-004	7.0900e-004
tblVehicleEF	MCY	1.83	1.84
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	1.05	1.06
tblVehicleEF	MCY	2.79	2.76

tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	2.27	2.26
tblVehicleEF	MCY	0.40	0.40
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	25.08	24.39
tblVehicleEF	MCY	10.63	10.65
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	0.71	0.72
tblVehicleEF	MCY	1.32	1.32
tblVehicleEF	MCY	0.38	0.38
tblVehicleEF	MCY	2.55	2.50
tblVehicleEF	MCY	1.40	1.40
tblVehicleEF	MCY	2.66	2.64
tblVehicleEF	MCY	2.0800e-003	2.0770e-003
tblVehicleEF	MCY	7.5600e-004	7.5200e-004
tblVehicleEF	MCY	0.71	0.72
tblVehicleEF	MCY	1.32	1.32
tblVehicleEF	MCY	0.38	0.38
tblVehicleEF	MCY	3.03	2.99

tblVehicleEF	MCY	1.40	1.40
tblVehicleEF	MCY	2.89	2.87
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.10	1.96
tblVehicleEF	MDV	5.67	5.31
tblVehicleEF	MDV	513.88	504.13
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	0.60	0.56
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.47	0.43
tblVehicleEF	MDV	5.1620e-003	5.0620e-003
tblVehicleEF	MDV	1.2860e-003	1.2620e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.52	0.48
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.21	2.07
tblVehicleEF	MDV	4.74	4.44
tblVehicleEF	MDV	534.42	524.27
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.29	0.27
tblVehicleEF	MDV	0.55	0.51
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.24	0.24
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.41	0.38
tblVehicleEF	MDV	5.3690e-003	5.2650e-003
tblVehicleEF	MDV	1.2690e-003	1.2460e-003
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.24	0.24
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.45	0.41
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	2.09	1.95
tblVehicleEF	MDV	6.12	5.73
tblVehicleEF	MDV	509.79	500.12
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.33	0.31
tblVehicleEF	MDV	0.63	0.58
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.50	0.46
tblVehicleEF	MDV	5.1210e-003	5.0220e-003
tblVehicleEF	MDV	1.2940e-003	1.2700e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.55	0.50
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.14	5.60
tblVehicleEF	MH	9.22	8.75
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.39	2.32
tblVehicleEF	MH	1.09	1.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	1.22	1.18
tblVehicleEF	MH	0.11	0.10
tblVehicleEF	MH	0.46	0.46
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.58	0.54
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.0700e-004	7.8500e-004
tblVehicleEF	MH	1.22	1.18
tblVehicleEF	MH	0.11	0.10

tblVehicleEF	MH	0.46	0.46
tblVehicleEF	MH	0.33	0.31
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.64	0.59
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.17	5.66
tblVehicleEF	MH	8.53	8.08
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
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tblVehicleEF	MH	1.02	0.99
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	2.15	2.08
tblVehicleEF	MH	0.10	0.10
tblVehicleEF	MH	0.77	0.75
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.55	0.51
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	7.9500e-004	7.7300e-004

tblVehicleEF	MH	2.15	2.08
tblVehicleEF	MH	0.10	0.10
tblVehicleEF	MH	0.77	0.75
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.60	0.56
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.15	5.59
tblVehicleEF	MH	9.55	9.05
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.38	2.32
tblVehicleEF	MH	1.13	1.10
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	0.91	0.89
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.38	0.37
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.60	0.56

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1300e-004	7.9000e-004
tblVehicleEF	MH	0.91	0.89
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.38	0.37
tblVehicleEF	MH	0.33	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.66	0.61
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.60	0.57
tblVehicleEF	MHD	1.36	1.15
tblVehicleEF	MHD	11.96	10.72
tblVehicleEF	MHD	142.58	144.61
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.39	1.31
tblVehicleEF	MHD	4.34	3.88
tblVehicleEF	MHD	10.90	11.01
tblVehicleEF	MHD	8.2220e-003	7.3310e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	7.8670e-003	7.0140e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003

tblVehicleEF	MHD	1.8210e-003	1.6040e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	9.4500e-004	8.4400e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	0.73	0.64
tblVehicleEF	MHD	1.3730e-003	1.3920e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.6500e-004	8.1200e-004
tblVehicleEF	MHD	1.8210e-003	1.6040e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	9.4500e-004	8.4400e-004
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	0.79	0.70
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.41	0.39
tblVehicleEF	MHD	1.37	1.16
tblVehicleEF	MHD	11.15	9.99
tblVehicleEF	MHD	151.37	153.52
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	1.43	1.35
tblVehicleEF	MHD	4.18	3.74
tblVehicleEF	MHD	10.81	10.92
tblVehicleEF	MHD	6.9320e-003	6.1800e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	6.6320e-003	5.9130e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003
tblVehicleEF	MHD	3.3460e-003	2.9280e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	1.6820e-003	1.4900e-003
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.69	0.60
tblVehicleEF	MHD	1.4560e-003	1.4760e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.5100e-004	7.9900e-004
tblVehicleEF	MHD	3.3460e-003	2.9280e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	1.6820e-003	1.4900e-003
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.75	0.66
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.77	0.73
tblVehicleEF	MHD	1.35	1.14
tblVehicleEF	MHD	12.41	11.11
tblVehicleEF	MHD	131.22	133.08
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.32	1.25
tblVehicleEF	MHD	4.30	3.84
tblVehicleEF	MHD	10.95	11.05
tblVehicleEF	MHD	0.01	8.9210e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	9.5720e-003	8.5350e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003
tblVehicleEF	MHD	1.3020e-003	1.1520e-003
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	7.3400e-004	6.5700e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.75	0.65
tblVehicleEF	MHD	1.2660e-003	1.2830e-003
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	8.7300e-004	8.1800e-004
tblVehicleEF	MHD	1.3020e-003	1.1520e-003
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	7.3400e-004	6.5700e-004
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.82	0.72
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.28	0.28
tblVehicleEF	OBUS	1.36	1.21
tblVehicleEF	OBUS	8.89	8.45
tblVehicleEF	OBUS	95.08	99.47
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003
tblVehicleEF	OBUS	0.62	0.63
tblVehicleEF	OBUS	2.82	2.74
tblVehicleEF	OBUS	3.21	3.25
tblVehicleEF	OBUS	3.6900e-004	3.4800e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	3.5300e-004	3.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004

tblVehicleEF	OBUS	1.5570e-003	1.5700e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	7.5500e-004	7.7200e-004
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.56	0.53
tblVehicleEF	OBUS	9.1900e-004	9.6100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.6600e-004	8.5000e-004
tblVehicleEF	OBUS	1.5570e-003	1.5700e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	7.5500e-004	7.7200e-004
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.61	0.58
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.26	0.26
tblVehicleEF	OBUS	1.39	1.23
tblVehicleEF	OBUS	8.26	7.85
tblVehicleEF	OBUS	99.72	104.37
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003

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tblVehicleEF	OBUS	0.64	0.65
tblVehicleEF	OBUS	2.71	2.63
tblVehicleEF	OBUS	3.12	3.17
tblVehicleEF	OBUS	3.1100e-004	2.9300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	2.9800e-004	2.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004
tblVehicleEF	OBUS	2.7250e-003	2.7390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	1.2570e-003	1.2770e-003
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.53	0.50
tblVehicleEF	OBUS	9.6400e-004	1.0080e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.5500e-004	8.4000e-004
tblVehicleEF	OBUS	2.7250e-003	2.7390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	1.2570e-003	1.2770e-003
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.58	0.55
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.30	0.30
tblVehicleEF	OBUS	1.35	1.20
tblVehicleEF	OBUS	9.18	8.72
tblVehicleEF	OBUS	88.68	92.69
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003
tblVehicleEF	OBUS	0.59	0.60
tblVehicleEF	OBUS	2.80	2.72
tblVehicleEF	OBUS	3.25	3.29
tblVehicleEF	OBUS	4.4900e-004	4.2300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	4.3000e-004	4.0500e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004
tblVehicleEF	OBUS	1.1750e-003	1.1840e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	6.0300e-004	6.1700e-004
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.57	0.55
tblVehicleEF	OBUS	8.5800e-004	8.9600e-004
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	8.7100e-004	8.5500e-004
tblVehicleEF	OBUS	1.1750e-003	1.1840e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	6.0300e-004	6.1700e-004
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.63	0.60
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.19	0.18
tblVehicleEF	SBUS	7.35	7.28
tblVehicleEF	SBUS	3.18	2.96
tblVehicleEF	SBUS	21.72	20.68
tblVehicleEF	SBUS	1,180.91	1,181.71
tblVehicleEF	SBUS	1,103.99	1,103.28
tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	12.02	11.62
tblVehicleEF	SBUS	6.23	5.90
tblVehicleEF	SBUS	14.11	14.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003

tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	8.4070e-003	7.7650e-003
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.88	0.87
tblVehicleEF	SBUS	3.1540e-003	3.0130e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	1.02	0.97
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.7900e-004	8.5600e-004
tblVehicleEF	SBUS	8.4070e-003	7.7650e-003
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	1.26	1.25
tblVehicleEF	SBUS	3.1540e-003	3.0130e-003
tblVehicleEF	SBUS	0.29	0.27
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	1.12	1.06
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	0.17	0.16
tblVehicleEF	SBUS	7.20	7.13
tblVehicleEF	SBUS	3.26	3.04
tblVehicleEF	SBUS	17.53	16.69
tblVehicleEF	SBUS	1,236.25	1,237.25
tblVehicleEF	SBUS	1,103.99	1,103.28

tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	12.40	12.00
tblVehicleEF	SBUS	5.99	5.67
tblVehicleEF	SBUS	14.02	13.99
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.87	0.87
tblVehicleEF	SBUS	5.3280e-003	5.0560e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.91	0.86
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.1000e-004	7.9000e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	1.26	1.24
tblVehicleEF	SBUS	5.3280e-003	5.0560e-003

tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.99	0.94
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.20	0.19
tblVehicleEF	SBUS	7.56	7.48
tblVehicleEF	SBUS	3.14	2.93
tblVehicleEF	SBUS	23.35	22.23
tblVehicleEF	SBUS	1,104.48	1,105.02
tblVehicleEF	SBUS	1,103.99	1,103.28
tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	11.49	11.11
tblVehicleEF	SBUS	6.19	5.86
tblVehicleEF	SBUS	14.15	14.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	6.4570e-003	5.9700e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.88	0.87

tblVehicleEF	SBUS	2.5060e-003	2.3930e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.07	0.07
tblVehicleEF	SBUS	1.07	1.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.0600e-004	8.8200e-004
tblVehicleEF	SBUS	6.4570e-003	5.9700e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	1.27	1.25
tblVehicleEF	SBUS	2.5060e-003	2.3930e-003
tblVehicleEF	SBUS	0.29	0.27
tblVehicleEF	SBUS	0.07	0.07
tblVehicleEF	SBUS	1.17	1.11
tblVehicleEF	UBUS	0.11	0.10
tblVehicleEF	UBUS	0.05	0.06
tblVehicleEF	UBUS	4.92	4.65
tblVehicleEF	UBUS	9.83	9.86
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.43	9.61
tblVehicleEF	UBUS	14.50	14.24
tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19
tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25

tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	2.8790e-003	2.9670e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	1.6910e-003	1.7880e-003
tblVehicleEF	UBUS	0.69	0.64
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.74	0.76
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.3050e-003	1.3430e-003
tblVehicleEF	UBUS	2.8790e-003	2.9670e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	1.6910e-003	1.7880e-003
tblVehicleEF	UBUS	0.85	0.79
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.81	0.83
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	4.97	4.70
tblVehicleEF	UBUS	8.16	8.19
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.08	9.28
tblVehicleEF	UBUS	14.43	14.17
tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19

tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25
tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	5.0420e-003	5.1790e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	2.7260e-003	2.8660e-003
tblVehicleEF	UBUS	0.69	0.64
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.66	0.67
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.2760e-003	1.3140e-003
tblVehicleEF	UBUS	5.0420e-003	5.1790e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	2.7260e-003	2.8660e-003
tblVehicleEF	UBUS	0.86	0.80
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.72	0.74
tblVehicleEF	UBUS	0.11	0.10
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	4.90	4.63
tblVehicleEF	UBUS	10.63	10.66
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.34	9.52
tblVehicleEF	UBUS	14.53	14.27

tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19
tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25
tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	2.3210e-003	2.3840e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	1.3360e-003	1.4150e-003
tblVehicleEF	UBUS	0.68	0.63
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.3190e-003	1.3570e-003
tblVehicleEF	UBUS	2.3210e-003	2.3840e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	1.3360e-003	1.4150e-003
tblVehicleEF	UBUS	0.84	0.78
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.85	0.87
tblVehicleTrips	CC_TL	5.00	10.00
tblVehicleTrips	WD_TR	8.17	9.11

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2150	1.4531	1.1286	2.0100e-003	0.0606	0.0809	0.1414	0.0220	0.0778	0.0998	0.0000	175.4154	175.4154	0.0288	0.0000	176.1345
2018	0.8565	1.0576	0.9012	1.6300e-003	0.0304	0.0575	0.0878	8.1800e-003	0.0554	0.0635	0.0000	140.7297	140.7297	0.0226	0.0000	141.2938
Maximum	**0.8565**	**1.4531**	**1.1286**	**2.0100e-003**	**0.0606**	**0.0809**	**0.1414**	**0.0220**	**0.0778**	**0.0998**	**0.0000**	**175.4154**	**175.4154**	**0.0288**	**0.0000**	**176.1345**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0684	0.9651	1.0808	2.0100e-003	0.0462	0.0479	0.0941	0.0147	0.0478	0.0625	0.0000	175.4152	175.4152	0.0288	0.0000	176.1343
2018	0.7552	0.7704	0.8857	1.6300e-003	0.0304	0.0399	0.0703	8.1800e-003	0.0398	0.0480	0.0000	140.7296	140.7296	0.0226	0.0000	141.2937
Maximum	**0.7552**	**0.9651**	**1.0808**	**2.0100e-003**	**0.0462**	**0.0479**	**0.0941**	**0.0147**	**0.0478**	**0.0625**	**0.0000**	**175.4152**	**175.4152**	**0.0288**	**0.0000**	**176.1343**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**23.14**	**30.88**	**3.12**	**0.00**	**15.79**	**36.51**	**28.29**	**24.31**	**34.15**	**32.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-3-2017**	**10-2-2017**	0.8392	0.5123
2	**10-3-2017**	**1-2-2018**	0.8361	0.5261
3	**1-3-2018**	**4-2-2018**	0.7418	0.5071
4	**4-3-2018**	**7-2-2018**	1.1417	0.9974
		Highest	1.1417	0.9974

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3056	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Energy	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	265.7586	265.7586	8.3400e-003	3.7500e-003	267.0859
Mobile	0.0686	0.1236	0.8661	1.8700e-003	0.1806	1.4500e-003	0.1821	0.0482	1.3500e-003	0.0495	0.0000	168.6807	168.6807	7.0100e-003	0.0000	168.8559
Waste						0.0000	0.0000		0.0000	0.0000	2.6673	0.0000	2.6673	0.1576	0.0000	6.6081
Water						0.0000	0.0000		0.0000	0.0000	0.1931	0.8521	1.0452	0.0199	4.8000e-004	1.6841
Total	**0.3884**	**0.2528**	**0.9751**	**2.6500e-003**	**0.1806**	**0.0113**	**0.1919**	**0.0482**	**0.0112**	**0.0594**	**2.8604**	**435.2922**	**438.1526**	**0.1929**	**4.2300e-003**	**444.2349**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3056	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Energy	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	242.2987	242.2987	7.7700e-003	3.3700e-003	243.4959
Mobile	0.0686	0.1236	0.8661	1.8700e-003	0.1806	1.4500e-003	0.1821	0.0482	1.3500e-003	0.0495	0.0000	168.6807	168.6807	7.0100e-003	0.0000	168.8559
Waste						0.0000	0.0000		0.0000	0.0000	1.3337	0.0000	1.3337	0.0788	0.0000	3.3041
Water						0.0000	0.0000		0.0000	0.0000	0.1931	0.8521	1.0452	0.0199	4.8000e-004	1.6841
Total	**0.3865**	**0.2355**	**0.9606**	**2.5400e-003**	**0.1806**	**9.9600e-003**	**0.1906**	**0.0482**	**9.8600e-003**	**0.0581**	**1.5268**	**411.8323**	**413.3591**	**0.1135**	**3.8500e-003**	**417.3409**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.49**	**6.85**	**1.49**	**4.15**	**0.00**	**11.62**	**0.68**	**0.00**	**11.73**	**2.21**	**46.62**	**5.39**	**5.66**	**41.16**	**8.98**	**6.05**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/3/2017	7/5/2017	5	2	
2	Grading	Grading	7/6/2017	7/13/2017	5	4	
3	Building Construction	Building Construction	7/14/2017	5/17/2018	5	200	
4	Paving	Paving	5/18/2018	5/31/2018	5	10	
5	Architectural Coating	Architectural Coating	6/1/2018	6/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 88,844; Non-Residential Outdoor: 29,615; Striped Parking Area: 3,920 (Architectural Coating – sqft)

OffRoad Equipment

Black Oaks Lodge - San Luis Obispo County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	94.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	52.00	20.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.8000e-003	0.0000	8.8000e-003	4.4500e-003	0.0000	4.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8900e-003	0.0333	0.0126	3.0000e-005		1.5700e-003	1.5700e-003		1.4400e-003	1.4400e-003	0.0000	2.4007	2.4007	7.4000e-004	0.0000	2.4191
Total	**2.8900e-003**	**0.0333**	**0.0126**	**3.0000e-005**	**8.8000e-003**	**1.5700e-003**	**0.0104**	**4.4500e-003**	**1.4400e-003**	**5.8900e-003**	**0.0000**	**2.4007**	**2.4007**	**7.4000e-004**	**0.0000**	**2.4191**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0100e-003	0.0287	6.6500e-003	6.0000e-005	9.0000e-004	2.7000e-004	1.1700e-003	2.6000e-004	2.6000e-004	5.2000e-004	0.0000	5.5576	5.5576	3.1000e-004	0.0000	5.5654
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	7.0000e-005	6.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1056	0.1056	0.0000	0.0000	0.1057
Total	**1.0800e-003**	**0.0287**	**7.2700e-003**	**6.0000e-005**	**1.0200e-003**	**2.7000e-004**	**1.2900e-003**	**2.9000e-004**	**2.6000e-004**	**5.5000e-004**	**0.0000**	**5.6632**	**5.6632**	**3.1000e-004**	**0.0000**	**5.6712**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4300e-003	0.0000	3.4300e-003	1.7300e-003	0.0000	1.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3000e-004	0.0126	0.0147	3.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	2.4007	2.4007	7.4000e-004	0.0000	2.4191
Total	**6.3000e-004**	**0.0126**	**0.0147**	**3.0000e-005**	**3.4300e-003**	**5.6000e-004**	**3.9900e-003**	**1.7300e-003**	**5.6000e-004**	**2.2900e-003**	**0.0000**	**2.4007**	**2.4007**	**7.4000e-004**	**0.0000**	**2.4191**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0100e-003	0.0287	6.6500e-003	6.0000e-005	9.0000e-004	2.7000e-004	1.1700e-003	2.6000e-004	2.6000e-004	5.2000e-004	0.0000	5.5576	5.5576	3.1000e-004	0.0000	5.5654
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	7.0000e-005	6.2000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1056	0.1056	0.0000	0.0000	0.1057
Total	**1.0800e-003**	**0.0287**	**7.2700e-003**	**6.0000e-005**	**1.0200e-003**	**2.7000e-004**	**1.2900e-003**	**2.9000e-004**	**2.6000e-004**	**5.5000e-004**	**0.0000**	**5.6632**	**5.6632**	**3.1000e-004**	**0.0000**	**5.6712**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0147	0.0000	0.0147	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8100e-003	0.0549	0.0211	4.0000e-005		2.6200e-003	2.6200e-003		2.4100e-003	2.4100e-003	0.0000	3.9324	3.9324	1.2000e-003	0.0000	3.9625
Total	**4.8100e-003**	**0.0549**	**0.0211**	**4.0000e-005**	**0.0147**	**2.6200e-003**	**0.0174**	**7.5800e-003**	**2.4100e-003**	**9.9900e-003**	**0.0000**	**3.9324**	**3.9324**	**1.2000e-003**	**0.0000**	**3.9625**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.4000e-004	1.2400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2112	0.2112	1.0000e-005	0.0000	0.2115
Total	**1.5000e-004**	**1.4000e-004**	**1.2400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2112**	**0.2112**	**1.0000e-005**	**0.0000**	**0.2115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.7500e-003	0.0000	5.7500e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0300e-003	0.0207	0.0243	4.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	3.9324	3.9324	1.2000e-003	0.0000	3.9625
Total	**1.0300e-003**	**0.0207**	**0.0243**	**4.0000e-005**	**5.7500e-003**	**9.3000e-004**	**6.6800e-003**	**2.9500e-003**	**9.3000e-004**	**3.8800e-003**	**0.0000**	**3.9324**	**3.9324**	**1.2000e-003**	**0.0000**	**3.9625**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.4000e-004	1.2400e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2112	0.2112	1.0000e-005	0.0000	0.2115
Total	**1.5000e-004**	**1.4000e-004**	**1.2400e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2112**	**0.2112**	**1.0000e-005**	**0.0000**	**0.2115**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1794	1.1638	0.8686	1.3300e-003		0.0745	0.0745		0.0719	0.0719	0.0000	112.1768	112.1768	0.0236	0.0000	112.7665
Total	**0.1794**	**1.1638**	**0.8686**	**1.3300e-003**		**0.0745**	**0.0745**		**0.0719**	**0.0719**	**0.0000**	**112.1768**	**112.1768**	**0.0236**	**0.0000**	**112.7665**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4800e-003	0.1535	0.0548	2.4000e-004	5.4900e-003	1.6600e-003	7.1600e-003	1.5900e-003	1.5900e-003	3.1800e-003	0.0000	23.3418	23.3418	1.6300e-003	0.0000	23.3825
Worker	0.0192	0.0187	0.1630	3.1000e-004	0.0303	2.2000e-004	0.0305	8.0500e-003	2.1000e-004	8.2600e-003	0.0000	27.6892	27.6892	1.2800e-003	0.0000	27.7212
Total	**0.0267**	**0.1722**	**0.2178**	**5.5000e-004**	**0.0358**	**1.8800e-003**	**0.0377**	**9.6400e-003**	**1.8000e-003**	**0.0114**	**0.0000**	**51.0310**	**51.0310**	**2.9100e-003**	**0.0000**	**51.1037**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0388	0.7306	0.8155	1.3300e-003		0.0443	0.0443		0.0443	0.0443	0.0000	112.1767	112.1767	0.0236	0.0000	112.7664
Total	**0.0388**	**0.7306**	**0.8155**	**1.3300e-003**		**0.0443**	**0.0443**		**0.0443**	**0.0443**	**0.0000**	**112.1767**	**112.1767**	**0.0236**	**0.0000**	**112.7664**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4800e-003	0.1535	0.0548	2.4000e-004	5.4900e-003	1.6600e-003	7.1600e-003	1.5900e-003	1.5900e-003	3.1800e-003	0.0000	23.3418	23.3418	1.6300e-003	0.0000	23.3825
Worker	0.0192	0.0187	0.1630	3.1000e-004	0.0303	2.2000e-004	0.0305	8.0500e-003	2.1000e-004	8.2600e-003	0.0000	27.6892	27.6892	1.2800e-003	0.0000	27.7212
Total	**0.0267**	**0.1722**	**0.2178**	**5.5000e-004**	**0.0358**	**1.8800e-003**	**0.0377**	**9.6400e-003**	**1.8000e-003**	**0.0114**	**0.0000**	**51.0310**	**51.0310**	**2.9100e-003**	**0.0000**	**51.1037**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1283	0.8627	0.6869	1.0900e-003		0.0524	0.0524		0.0506	0.0506	0.0000	91.1961	91.1961	0.0184	0.0000	91.6551
Total	**0.1283**	**0.8627**	**0.6869**	**1.0900e-003**		**0.0524**	**0.0524**		**0.0506**	**0.0506**	**0.0000**	**91.1961**	**91.1961**	**0.0184**	**0.0000**	**91.6551**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3300e-003	0.1188	0.0401	2.0000e-004	4.5000e-003	1.1000e-003	5.6000e-003	1.3000e-003	1.0500e-003	2.3500e-003	0.0000	19.1238	19.1238	1.2700e-003	0.0000	19.1555
Worker	0.0138	0.0133	0.1148	2.4000e-004	0.0248	1.7000e-004	0.0250	6.5900e-003	1.6000e-004	6.7500e-003	0.0000	22.0411	22.0411	9.1000e-004	0.0000	22.0638
Total	**0.0191**	**0.1321**	**0.1549**	**4.4000e-004**	**0.0293**	**1.2700e-003**	**0.0306**	**7.8900e-003**	**1.2100e-003**	**9.1000e-003**	**0.0000**	**41.1649**	**41.1649**	**2.1800e-003**	**0.0000**	**41.2193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.5978	0.6672	1.0900e-003		0.0362	0.0362		0.0362	0.0362	0.0000	91.1960	91.1960	0.0184	0.0000	91.6550
Total	**0.0317**	**0.5978**	**0.6672**	**1.0900e-003**		**0.0362**	**0.0362**		**0.0362**	**0.0362**	**0.0000**	**91.1960**	**91.1960**	**0.0184**	**0.0000**	**91.6550**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3300e-003	0.1188	0.0401	2.0000e-004	4.5000e-003	1.1000e-003	5.6000e-003	1.3000e-003	1.0500e-003	2.3500e-003	0.0000	19.1238	19.1238	1.2700e-003	0.0000	19.1555
Worker	0.0138	0.0133	0.1148	2.4000e-004	0.0248	1.7000e-004	0.0250	6.5900e-003	1.6000e-004	6.7500e-003	0.0000	22.0411	22.0411	9.1000e-004	0.0000	22.0638
Total	**0.0191**	**0.1321**	**0.1549**	**4.4000e-004**	**0.0293**	**1.2700e-003**	**0.0306**	**7.8900e-003**	**1.2100e-003**	**9.1000e-003**	**0.0000**	**41.1649**	**41.1649**	**2.1800e-003**	**0.0000**	**41.2193**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0900e-003	0.0523	0.0450	7.0000e-005		3.0500e-003	3.0500e-003		2.8100e-003	2.8100e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.0600e-003**	**0.0523**	**0.0450**	**7.0000e-005**		**3.0500e-003**	**3.0500e-003**		**2.8100e-003**	**2.8100e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6000e-003	0.0332	0.0493	7.0000e-005		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	6.1073	6.1073	1.8700e-003	0.0000	6.1540
Paving	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.5700e-003**	**0.0332**	**0.0493**	**7.0000e-005**		**1.9300e-003**	**1.9300e-003**		**1.9300e-003**	**1.9300e-003**	**0.0000**	**6.1073**	**6.1073**	**1.8700e-003**	**0.0000**	**6.1540**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	3.4000e-004	2.9000e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5566	0.5566	2.0000e-005	0.0000	0.5572
Total	**3.5000e-004**	**3.4000e-004**	**2.9000e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5566**	**0.5566**	**2.0000e-005**	**0.0000**	**0.5572**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4900e-003	0.0100	9.2700e-003	1.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.7014**	**0.0100**	**9.2700e-003**	**1.0000e-005**		**7.5000e-004**	**7.5000e-004**		**7.5000e-004**	**7.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.6000e-004	2.2300e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286
Total	**2.7000e-004**	**2.6000e-004**	**2.2300e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4282**	**0.4282**	**2.0000e-005**	**0.0000**	**0.4286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	6.7800e-003	9.1600e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	1.2766	1.2766	1.2000e-004	0.0000	1.2797
Total	**0.7003**	**6.7800e-003**	**9.1600e-003**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.2000e-004**	**0.0000**	**1.2797**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.6000e-004	2.2300e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286
Total	**2.7000e-004**	**2.6000e-004**	**2.2300e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4282**	**0.4282**	**2.0000e-005**	**0.0000**	**0.4286**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0686	0.1236	0.8661	1.8700e-003	0.1806	1.4500e-003	0.1821	0.0482	1.3500e-003	0.0495	0.0000	168.6807	168.6807	7.0100e-003	0.0000	168.8559
Unmitigated	0.0686	0.1236	0.8661	1.8700e-003	0.1806	1.4500e-003	0.1821	0.0482	1.3500e-003	0.0495	0.0000	168.6807	168.6807	7.0100e-003	0.0000	168.8559

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	218.64	196.56	142.80	484,622	484,622
Parking Lot	0.00	0.00	0.00		
Total	218.64	196.56	142.80	484,622	484,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	13.00	10.00	5.00	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.538734	0.036174	0.198999	0.136972	0.036255	0.008427	0.013246	0.018689	0.002427	0.001358	0.005860	0.000839	0.002018
Hotel	0.594000	0.037000	0.215000	0.143000	0.000000	0.000000	0.002000	0.000000	0.000000	0.000000	0.003000	0.003000	0.003000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	120.4669	120.4669	5.4300e-003	1.1300e-003	120.9402
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	125.0765	125.0765	5.6400e-003	1.1800e-003	125.5678
NaturalGas Mitigated	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.8318	121.8318	2.3400e-003	2.2300e-003	122.5558
NaturalGas Unmitigated	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6821	140.6821	2.7000e-003	2.5800e-003	141.5181

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.63628e+006	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6821	140.6821	2.7000e-003	2.5800e-003	141.5181
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0142**	**0.1292**	**0.1086**	**7.8000e-004**		**9.8200e-003**	**9.8200e-003**		**9.8200e-003**	**9.8200e-003**	**0.0000**	**140.6821**	**140.6821**	**2.7000e-003**	**2.5800e-003**	**141.5181**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.28304e+006	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.8318	121.8318	2.3400e-003	2.2300e-003	122.5558
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0123**	**0.1119**	**0.0940**	**6.7000e-004**		**8.5100e-003**	**8.5100e-003**		**8.5100e-003**	**8.5100e-003**	**0.0000**	**121.8318**	**121.8318**	**2.3400e-003**	**2.2300e-003**	**122.5558**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	460802	111.2007	5.0200e-003	1.0500e-003	111.6376
Parking Lot	57499.2	13.8757	6.3000e-004	1.3000e-004	13.9302
Total		**125.0765**	**5.6500e-003**	**1.1800e-003**	**125.5678**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	441700	106.5912	4.8100e-003	1.0000e-003	107.0099
Parking Lot	57499.2	13.8757	6.3000e-004	1.3000e-004	13.9302
Total		**120.4669**	**5.4400e-003**	**1.1300e-003**	**120.9402**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3056	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Unmitigated	0.3056	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0700					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Total	**0.3056**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**8.9000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0700					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Total	**0.3056**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**8.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.0452	0.0199	4.8000e-004	1.6841
Unmitigated	1.0452	0.0199	4.8000e-004	1.6841

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.608802 / 0.0676447	1.0452	0.0199	4.8000e-004	1.6841
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.0452**	**0.0199**	**4.8000e-004**	**1.6841**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.608802 / 0.0676447	1.0452	0.0199	4.8000e-004	1.6841
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.0452**	**0.0199**	**4.8000e-004**	**1.6841**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.3337	0.0788	0.0000	3.3041
Unmitigated	2.6673	0.1576	0.0000	6.6081

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	13.14	2.6673	0.1576	0.0000	6.6081
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.6673**	**0.1576**	**0.0000**	**6.6081**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	6.57	1.3337	0.0788	0.0000	3.3041
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.3337**	**0.0788**	**0.0000**	**3.3041**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Black Oaks Lodge

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.50	Acre	1.50	65,340.00	0
Hotel	24.00	Room	0.42	59,229.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 3.2 **Precipitation Freq (Days)** 44

Climate Zone 4 **Operational Year** 2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 532.02 **CH4 Intensity (lb/MWhr)** 0.024 **N2O Intensity (lb/MWhr)** 0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Energy intensity factors adjusted to account for increases use of renewables.

Land Use - 1.92 acres total. 0.42 acre footprint/59,229 bldg sqft total, 1.5 acres paved.

Construction Phase - Project construction information not available. Based on model default construction assumptions.

Off-road Equipment -

Off-road Equipment - Construction equipment based on model defaults

Trips and VMT - Construction vehicle trips based on model defaults.

Demolition - No demo required.

Grading - 500 cy exported. 250 cy imported.

Architectural Coating - Architectural coating assumptions based on model defaults

Vehicle Trips - Weekday trip rate derived from traffic analysis (9.11/room). Weekend rates based on model defaults. Customer trip length increased to 10 miles (refer to separate worksheet).

Energy Use - Energy intensity factors include RPS adjustment.

Construction Off-road Equipment Mitigation - Includes 61%CE for watering exposed surfaces, onsite speeds limited to 15 mph, T3 off-road equipment

Energy Mitigation - Assumes a minimum overall reduction in energy use of 15% associated with guest room energy-saver systems. Actual reductions reported to approach/exceed 20% depending on the system installed (Ayres Hotel Project 2012).

Water Mitigation - Installation of low-flow fixtures and water-efficient irrigation systems required per building code requirements.

Waste Mitigation - Includes minimum 50% reduction achieved, per current minimum statewide solid-waste diversion rate.

Fleet Mix - Hotel adjusted based on survey data. Refer to separate worksheet.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.04	0.00
tblFleetMix	LHD2	8.4270e-003	0.00
tblFleetMix	MCY	5.8600e-003	3.0000e-003
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	2.0180e-003	3.0000e-003
tblFleetMix	MHD	0.01	2.0000e-003

tblFleetMix	OBUS	2.4270e-003	0.00
tblFleetMix	SBUS	8.3900e-004	3.0000e-003
tblFleetMix	UBUS	1.3580e-003	0.00
tblGrading	MaterialExported	0.00	500.00
tblGrading	MaterialImported	0.00	250.00
tblLandUse	BuildingSpaceSquareFeet	34,848.00	59,229.00
tblLandUse	LandUseSquareFeet	34,848.00	59,229.00
tblLandUse	LotAcreage	0.80	0.42
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.024
tblProjectCharacteristics	CO2IntensityFactor	641.35	532.02
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleEF	HHD	0.46	0.47
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tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	0.06	0.04
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tblVehicleEF	HHD	0.03	0.03
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tblVehicleEF	HHD	2.0520e-003	1.4240e-003
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tblVehicleEF	HHD	1.6700e-004	1.2700e-004
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tblVehicleEF	HHD	0.06	0.04
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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
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tblVehicleEF	HHD	0.06	0.04

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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
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tblVehicleEF	LDA	0.04	0.03
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tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.15	0.13
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tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.04	0.04
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tblVehicleEF	LDA	0.17	0.15
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tblVehicleEF	LDA	0.02	0.02
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tblVehicleEF	LDA	0.03	0.02
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tblVehicleEF	LDT1	0.03	0.02
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tblVehicleEF	LDT1	0.29	0.26
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tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.36	0.31
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tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.40	0.34
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.15	1.84
tblVehicleEF	LDT1	4.06	3.64

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tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.26	0.24
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tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
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tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.31	0.27
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tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.34	0.29
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	2.05	1.74
tblVehicleEF	LDT1	5.32	4.80

tblVehicleEF	LDT1	332.88	324.31
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.23	0.20
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.33	0.30
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.22	0.21
tblVehicleEF	LDT1	0.39	0.34
tblVehicleEF	LDT1	3.3570e-003	3.2660e-003
tblVehicleEF	LDT1	8.8100e-004	8.5300e-004
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.33	0.30
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.22	0.21
tblVehicleEF	LDT1	0.42	0.37
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.50	1.34
tblVehicleEF	LDT2	4.23	3.80

tblVehicleEF	LDT2	390.62	380.93
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.23	0.20
tblVehicleEF	LDT2	0.42	0.37
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.23	0.22
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	0.32	0.28
tblVehicleEF	LDT2	3.9240e-003	3.8240e-003
tblVehicleEF	LDT2	9.9000e-004	9.6300e-004
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.23	0.22
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	0.35	0.31
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.60	1.44
tblVehicleEF	LDT2	3.52	3.15

tblVehicleEF	LDT2	406.52	396.46
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.21	0.18
tblVehicleEF	LDT2	0.38	0.34
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.24	0.23
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.28	0.24
tblVehicleEF	LDT2	4.0840e-003	3.9810e-003
tblVehicleEF	LDT2	9.7800e-004	9.5200e-004
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.24	0.23
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.30	0.27
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	1.48	1.32
tblVehicleEF	LDT2	4.58	4.11

tblVehicleEF	LDT2	387.45	377.84
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.23	0.21
tblVehicleEF	LDT2	0.44	0.39
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.25	0.24
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.34	0.30
tblVehicleEF	LDT2	3.8920e-003	3.7930e-003
tblVehicleEF	LDT2	9.9600e-004	9.6900e-004
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.25	0.24
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.37	0.33
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14

tblVehicleEF	LHD1	1.79	1.70
tblVehicleEF	LHD1	3.06	2.92
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	3.11	3.01
tblVehicleEF	LHD1	0.95	0.95
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004
tblVehicleEF	LHD1	2.3790e-003	2.3810e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2200e-003	1.2440e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.35	0.36
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.8660e-003	6.8410e-003
tblVehicleEF	LHD1	3.3000e-004	3.2600e-004
tblVehicleEF	LHD1	2.3790e-003	2.3810e-003

tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2200e-003	1.2440e-003
tblVehicleEF	LHD1	0.24	0.24
tblVehicleEF	LHD1	0.35	0.36
tblVehicleEF	LHD1	0.33	0.32
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.82	1.73
tblVehicleEF	LHD1	2.86	2.73
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	3.00	2.90
tblVehicleEF	LHD1	0.89	0.89
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004

tblVehicleEF	LHD1	4.2260e-003	4.2110e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.0740e-003	2.1030e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.33	0.35
tblVehicleEF	LHD1	0.29	0.28
tblVehicleEF	LHD1	6.8660e-003	6.8410e-003
tblVehicleEF	LHD1	3.2600e-004	3.2200e-004
tblVehicleEF	LHD1	4.2260e-003	4.2110e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.0740e-003	2.1030e-003
tblVehicleEF	LHD1	0.25	0.24
tblVehicleEF	LHD1	0.33	0.35
tblVehicleEF	LHD1	0.32	0.31
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.78	1.69
tblVehicleEF	LHD1	3.16	3.02
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11

tblVehicleEF	LHD1	3.08	2.99
tblVehicleEF	LHD1	0.98	0.98
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004
tblVehicleEF	LHD1	1.7420e-003	1.7470e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.5800e-004	9.7800e-004
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.38	0.40
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.8650e-003	6.8400e-003
tblVehicleEF	LHD1	3.3200e-004	3.2800e-004
tblVehicleEF	LHD1	1.7420e-003	1.7470e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.5800e-004	9.7800e-004
tblVehicleEF	LHD1	0.24	0.24
tblVehicleEF	LHD1	0.38	0.40
tblVehicleEF	LHD1	0.34	0.33
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9930e-003	9.3080e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.02	0.97
tblVehicleEF	LHD2	1.29	1.20
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70
tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.72	2.53
tblVehicleEF	LHD2	0.49	0.47
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	8.8400e-004	8.3900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.8300e-004	4.7200e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004

tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1300e-004	2.1000e-004
tblVehicleEF	LHD2	8.8400e-004	8.3900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8300e-004	4.7200e-004
tblVehicleEF	LHD2	0.20	0.19
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.5060e-003	8.8580e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.03	0.97
tblVehicleEF	LHD2	1.21	1.13
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70
tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.63	2.44
tblVehicleEF	LHD2	0.46	0.45
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003

tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	1.5580e-003	1.4710e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.1600e-004	7.9200e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004
tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1100e-004	2.0900e-004
tblVehicleEF	LHD2	1.5580e-003	1.4710e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.1600e-004	7.9200e-004
tblVehicleEF	LHD2	0.20	0.19
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	9.5530e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.02	0.96
tblVehicleEF	LHD2	1.33	1.24
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70

tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.70	2.51
tblVehicleEF	LHD2	0.50	0.49
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	6.5100e-004	6.1900e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8000e-004	3.7100e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004
tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1300e-004	2.1100e-004
tblVehicleEF	LHD2	6.5100e-004	6.1900e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.8000e-004	3.7100e-004
tblVehicleEF	LHD2	0.20	0.19

tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	MCY	0.39	0.39
tblVehicleEF	MCY	0.18	0.18
tblVehicleEF	MCY	23.95	23.31
tblVehicleEF	MCY	10.07	10.09
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.23	1.22
tblVehicleEF	MCY	0.32	0.32
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	0.95	0.96
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.53	0.54
tblVehicleEF	MCY	2.47	2.43
tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	2.47	2.45
tblVehicleEF	MCY	2.0600e-003	2.0570e-003
tblVehicleEF	MCY	7.4100e-004	7.3700e-004
tblVehicleEF	MCY	0.95	0.96
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.53	0.54
tblVehicleEF	MCY	2.94	2.91

tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	2.68	2.66
tblVehicleEF	MCY	0.37	0.38
tblVehicleEF	MCY	0.15	0.15
tblVehicleEF	MCY	22.30	21.74
tblVehicleEF	MCY	9.05	9.05
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.11	1.10
tblVehicleEF	MCY	0.30	0.30
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	1.83	1.84
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	1.05	1.06
tblVehicleEF	MCY	2.34	2.31
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	2.09	2.08
tblVehicleEF	MCY	2.0290e-003	2.0280e-003
tblVehicleEF	MCY	7.1300e-004	7.0900e-004
tblVehicleEF	MCY	1.83	1.84
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	1.05	1.06
tblVehicleEF	MCY	2.79	2.76

tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	2.27	2.26
tblVehicleEF	MCY	0.40	0.40
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	25.08	24.39
tblVehicleEF	MCY	10.63	10.65
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	0.71	0.72
tblVehicleEF	MCY	1.32	1.32
tblVehicleEF	MCY	0.38	0.38
tblVehicleEF	MCY	2.55	2.50
tblVehicleEF	MCY	1.40	1.40
tblVehicleEF	MCY	2.66	2.64
tblVehicleEF	MCY	2.0800e-003	2.0770e-003
tblVehicleEF	MCY	7.5600e-004	7.5200e-004
tblVehicleEF	MCY	0.71	0.72
tblVehicleEF	MCY	1.32	1.32
tblVehicleEF	MCY	0.38	0.38
tblVehicleEF	MCY	3.03	2.99

tblVehicleEF	MCY	1.40	1.40
tblVehicleEF	MCY	2.89	2.87
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.10	1.96
tblVehicleEF	MDV	5.67	5.31
tblVehicleEF	MDV	513.88	504.13
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	0.60	0.56
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.47	0.43
tblVehicleEF	MDV	5.1620e-003	5.0620e-003
tblVehicleEF	MDV	1.2860e-003	1.2620e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.52	0.48
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.21	2.07
tblVehicleEF	MDV	4.74	4.44
tblVehicleEF	MDV	534.42	524.27
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.29	0.27
tblVehicleEF	MDV	0.55	0.51
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.24	0.24
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.41	0.38
tblVehicleEF	MDV	5.3690e-003	5.2650e-003
tblVehicleEF	MDV	1.2690e-003	1.2460e-003
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.24	0.24
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.45	0.41
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	2.09	1.95
tblVehicleEF	MDV	6.12	5.73
tblVehicleEF	MDV	509.79	500.12
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.33	0.31
tblVehicleEF	MDV	0.63	0.58
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.50	0.46
tblVehicleEF	MDV	5.1210e-003	5.0220e-003
tblVehicleEF	MDV	1.2940e-003	1.2700e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.55	0.50
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.14	5.60
tblVehicleEF	MH	9.22	8.75
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.39	2.32
tblVehicleEF	MH	1.09	1.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	1.22	1.18
tblVehicleEF	MH	0.11	0.10
tblVehicleEF	MH	0.46	0.46
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.58	0.54
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.0700e-004	7.8500e-004
tblVehicleEF	MH	1.22	1.18
tblVehicleEF	MH	0.11	0.10

tblVehicleEF	MH	0.46	0.46
tblVehicleEF	MH	0.33	0.31
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.64	0.59
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.17	5.66
tblVehicleEF	MH	8.53	8.08
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.26	2.20
tblVehicleEF	MH	1.02	0.99
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	2.15	2.08
tblVehicleEF	MH	0.10	0.10
tblVehicleEF	MH	0.77	0.75
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.55	0.51
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	7.9500e-004	7.7300e-004

tblVehicleEF	MH	2.15	2.08
tblVehicleEF	MH	0.10	0.10
tblVehicleEF	MH	0.77	0.75
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.60	0.56
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.15	5.59
tblVehicleEF	MH	9.55	9.05
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.38	2.32
tblVehicleEF	MH	1.13	1.10
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	0.91	0.89
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.38	0.37
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.60	0.56

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1300e-004	7.9000e-004
tblVehicleEF	MH	0.91	0.89
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.38	0.37
tblVehicleEF	MH	0.33	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.66	0.61
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.60	0.57
tblVehicleEF	MHD	1.36	1.15
tblVehicleEF	MHD	11.96	10.72
tblVehicleEF	MHD	142.58	144.61
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.39	1.31
tblVehicleEF	MHD	4.34	3.88
tblVehicleEF	MHD	10.90	11.01
tblVehicleEF	MHD	8.2220e-003	7.3310e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	7.8670e-003	7.0140e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003

tblVehicleEF	MHD	1.8210e-003	1.6040e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	9.4500e-004	8.4400e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	0.73	0.64
tblVehicleEF	MHD	1.3730e-003	1.3920e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.6500e-004	8.1200e-004
tblVehicleEF	MHD	1.8210e-003	1.6040e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	9.4500e-004	8.4400e-004
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	0.79	0.70
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.41	0.39
tblVehicleEF	MHD	1.37	1.16
tblVehicleEF	MHD	11.15	9.99
tblVehicleEF	MHD	151.37	153.52
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	1.43	1.35
tblVehicleEF	MHD	4.18	3.74
tblVehicleEF	MHD	10.81	10.92
tblVehicleEF	MHD	6.9320e-003	6.1800e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	6.6320e-003	5.9130e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003
tblVehicleEF	MHD	3.3460e-003	2.9280e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	1.6820e-003	1.4900e-003
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.69	0.60
tblVehicleEF	MHD	1.4560e-003	1.4760e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.5100e-004	7.9900e-004
tblVehicleEF	MHD	3.3460e-003	2.9280e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	1.6820e-003	1.4900e-003
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.75	0.66
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.77	0.73
tblVehicleEF	MHD	1.35	1.14
tblVehicleEF	MHD	12.41	11.11
tblVehicleEF	MHD	131.22	133.08
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.32	1.25
tblVehicleEF	MHD	4.30	3.84
tblVehicleEF	MHD	10.95	11.05
tblVehicleEF	MHD	0.01	8.9210e-003
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tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	9.5720e-003	8.5350e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003
tblVehicleEF	MHD	1.3020e-003	1.1520e-003
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	7.3400e-004	6.5700e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.75	0.65
tblVehicleEF	MHD	1.2660e-003	1.2830e-003
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	8.7300e-004	8.1800e-004
tblVehicleEF	MHD	1.3020e-003	1.1520e-003
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	7.3400e-004	6.5700e-004
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.82	0.72
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.28	0.28
tblVehicleEF	OBUS	1.36	1.21
tblVehicleEF	OBUS	8.89	8.45
tblVehicleEF	OBUS	95.08	99.47
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003
tblVehicleEF	OBUS	0.62	0.63
tblVehicleEF	OBUS	2.82	2.74
tblVehicleEF	OBUS	3.21	3.25
tblVehicleEF	OBUS	3.6900e-004	3.4800e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	3.5300e-004	3.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004

tblVehicleEF	OBUS	1.5570e-003	1.5700e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	7.5500e-004	7.7200e-004
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.56	0.53
tblVehicleEF	OBUS	9.1900e-004	9.6100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.6600e-004	8.5000e-004
tblVehicleEF	OBUS	1.5570e-003	1.5700e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	7.5500e-004	7.7200e-004
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.61	0.58
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.26	0.26
tblVehicleEF	OBUS	1.39	1.23
tblVehicleEF	OBUS	8.26	7.85
tblVehicleEF	OBUS	99.72	104.37
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003

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tblVehicleEF	OBUS	3.12	3.17
tblVehicleEF	OBUS	3.1100e-004	2.9300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	2.9800e-004	2.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004
tblVehicleEF	OBUS	2.7250e-003	2.7390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	1.2570e-003	1.2770e-003
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.53	0.50
tblVehicleEF	OBUS	9.6400e-004	1.0080e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.5500e-004	8.4000e-004
tblVehicleEF	OBUS	2.7250e-003	2.7390e-003
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tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	1.2570e-003	1.2770e-003
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.58	0.55
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.30	0.30
tblVehicleEF	OBUS	1.35	1.20
tblVehicleEF	OBUS	9.18	8.72
tblVehicleEF	OBUS	88.68	92.69
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003
tblVehicleEF	OBUS	0.59	0.60
tblVehicleEF	OBUS	2.80	2.72
tblVehicleEF	OBUS	3.25	3.29
tblVehicleEF	OBUS	4.4900e-004	4.2300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	4.3000e-004	4.0500e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004
tblVehicleEF	OBUS	1.1750e-003	1.1840e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	6.0300e-004	6.1700e-004
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.57	0.55
tblVehicleEF	OBUS	8.5800e-004	8.9600e-004
tblVehicleEF	OBUS	0.01	0.01

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tblVehicleEF	OBUS	8.7100e-004	8.5500e-004
tblVehicleEF	OBUS	1.1750e-003	1.1840e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	6.0300e-004	6.1700e-004
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.63	0.60
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.19	0.18
tblVehicleEF	SBUS	7.35	7.28
tblVehicleEF	SBUS	3.18	2.96
tblVehicleEF	SBUS	21.72	20.68
tblVehicleEF	SBUS	1,180.91	1,181.71
tblVehicleEF	SBUS	1,103.99	1,103.28
tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	12.02	11.62
tblVehicleEF	SBUS	6.23	5.90
tblVehicleEF	SBUS	14.11	14.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003

tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	8.4070e-003	7.7650e-003
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.88	0.87
tblVehicleEF	SBUS	3.1540e-003	3.0130e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	1.02	0.97
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.7900e-004	8.5600e-004
tblVehicleEF	SBUS	8.4070e-003	7.7650e-003
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	1.26	1.25
tblVehicleEF	SBUS	3.1540e-003	3.0130e-003
tblVehicleEF	SBUS	0.29	0.27
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	1.12	1.06
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	0.17	0.16
tblVehicleEF	SBUS	7.20	7.13
tblVehicleEF	SBUS	3.26	3.04
tblVehicleEF	SBUS	17.53	16.69
tblVehicleEF	SBUS	1,236.25	1,237.25
tblVehicleEF	SBUS	1,103.99	1,103.28

tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	12.40	12.00
tblVehicleEF	SBUS	5.99	5.67
tblVehicleEF	SBUS	14.02	13.99
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.87	0.87
tblVehicleEF	SBUS	5.3280e-003	5.0560e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.91	0.86
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.1000e-004	7.9000e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	1.26	1.24
tblVehicleEF	SBUS	5.3280e-003	5.0560e-003

tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.99	0.94
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.20	0.19
tblVehicleEF	SBUS	7.56	7.48
tblVehicleEF	SBUS	3.14	2.93
tblVehicleEF	SBUS	23.35	22.23
tblVehicleEF	SBUS	1,104.48	1,105.02
tblVehicleEF	SBUS	1,103.99	1,103.28
tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	11.49	11.11
tblVehicleEF	SBUS	6.19	5.86
tblVehicleEF	SBUS	14.15	14.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	6.4570e-003	5.9700e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.88	0.87

tblVehicleEF	SBUS	2.5060e-003	2.3930e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.07	0.07
tblVehicleEF	SBUS	1.07	1.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.0600e-004	8.8200e-004
tblVehicleEF	SBUS	6.4570e-003	5.9700e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	1.27	1.25
tblVehicleEF	SBUS	2.5060e-003	2.3930e-003
tblVehicleEF	SBUS	0.29	0.27
tblVehicleEF	SBUS	0.07	0.07
tblVehicleEF	SBUS	1.17	1.11
tblVehicleEF	UBUS	0.11	0.10
tblVehicleEF	UBUS	0.05	0.06
tblVehicleEF	UBUS	4.92	4.65
tblVehicleEF	UBUS	9.83	9.86
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.43	9.61
tblVehicleEF	UBUS	14.50	14.24
tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19
tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25

tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	2.8790e-003	2.9670e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	1.6910e-003	1.7880e-003
tblVehicleEF	UBUS	0.69	0.64
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.74	0.76
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.3050e-003	1.3430e-003
tblVehicleEF	UBUS	2.8790e-003	2.9670e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	1.6910e-003	1.7880e-003
tblVehicleEF	UBUS	0.85	0.79
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.81	0.83
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	4.97	4.70
tblVehicleEF	UBUS	8.16	8.19
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.08	9.28
tblVehicleEF	UBUS	14.43	14.17
tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19

tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25
tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	5.0420e-003	5.1790e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	2.7260e-003	2.8660e-003
tblVehicleEF	UBUS	0.69	0.64
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.66	0.67
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.2760e-003	1.3140e-003
tblVehicleEF	UBUS	5.0420e-003	5.1790e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	2.7260e-003	2.8660e-003
tblVehicleEF	UBUS	0.86	0.80
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.72	0.74
tblVehicleEF	UBUS	0.11	0.10
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	4.90	4.63
tblVehicleEF	UBUS	10.63	10.66
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.34	9.52
tblVehicleEF	UBUS	14.53	14.27

tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19
tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25
tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	2.3210e-003	2.3840e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	1.3360e-003	1.4150e-003
tblVehicleEF	UBUS	0.68	0.63
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.3190e-003	1.3570e-003
tblVehicleEF	UBUS	2.3210e-003	2.3840e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	1.3360e-003	1.4150e-003
tblVehicleEF	UBUS	0.84	0.78
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.85	0.87
tblVehicleTrips	CC_TL	5.00	10.00
tblVehicleTrips	WD_TR	8.17	9.11

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.3965	40.9516	17.9552	0.0564	6.5597	1.2623	7.7856	3.1586	1.2170	4.2930	0.0000	5,951.335 7	5,951.335 7	0.7709	0.0000	5,970.609 3
2018	140.3407	20.0421	17.0141	0.0312	0.6069	1.0836	1.6904	0.1631	1.0459	1.2090	0.0000	2,972.581 2	2,972.581 2	0.4569	0.0000	2,984.002 7
Maximum	**140.3407**	**40.9516**	**17.9552**	**0.0564**	**6.5597**	**1.2623**	**7.7856**	**3.1586**	**1.2170**	**4.2930**	**0.0000**	**5,951.335 7**	**5,951.335 7**	**0.7709**	**0.0000**	**5,970.609 3**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.1325	27.1499	17.0771	0.0564	2.9799	0.7625	3.5354	1.3505	0.7610	1.8981	0.0000	5,951.335 7	5,951.335 7	0.7709	0.0000	5,970.609 3
2018	140.1015	14.6908	16.6160	0.0312	0.6069	0.7570	1.3639	0.1631	0.7558	0.9189	0.0000	2,972.581 2	2,972.581 2	0.4569	0.0000	2,984.002 7
Maximum	**140.1015**	**27.1499**	**17.0771**	**0.0564**	**2.9799**	**0.7625**	**3.5354**	**1.3505**	**0.7610**	**1.8981**	**0.0000**	**5,951.335 7**	**5,951.335 7**	**0.7709**	**0.0000**	**5,970.609 3**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.74**	**31.40**	**3.65**	**0.00**	**49.95**	**35.23**	**48.30**	**54.43**	**32.97**	**48.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Energy	0.0779	0.7081	0.5948	4.2500e-003		0.0538	0.0538		0.0538	0.0538		849.7285	849.7285	0.0163	0.0156	854.7781
Mobile	0.4278	0.6649	5.0631	0.0114	1.0886	8.5100e-003	1.0971	0.2899	7.9000e-003	0.2978		1,135.1366	1,135.1366	0.0457		1,136.2789
Total	**2.1801**	**1.3730**	**5.6605**	**0.0157**	**1.0886**	**0.0623**	**1.1509**	**0.2899**	**0.0617**	**0.3516**		**1,984.8707**	**1,984.8707**	**0.0620**	**0.0156**	**1,991.0630**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Energy	0.0675	0.6132	0.5151	3.6800e-003		0.0466	0.0466		0.0466	0.0466		735.8714	735.8714	0.0141	0.0135	740.2443
Mobile	0.4278	0.6649	5.0631	0.0114	1.0886	8.5100e-003	1.0971	0.2899	7.9000e-003	0.2978		1,135.1366	1,135.1366	0.0457		1,136.2789
Total	**2.1697**	**1.2782**	**5.5808**	**0.0151**	**1.0886**	**0.0551**	**1.1437**	**0.2899**	**0.0545**	**0.3444**		**1,871.0136**	**1,871.0136**	**0.0598**	**0.0135**	**1,876.5292**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.48	6.91	1.41	3.64	0.00	11.57	0.63	0.00	11.68	2.05	0.00	5.74	5.74	3.53	13.41	5.75

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/3/2017	7/5/2017	5	2	
2	Grading	Grading	7/6/2017	7/13/2017	5	4	
3	Building Construction	Building Construction	7/14/2017	5/17/2018	5	200	
4	Paving	Paving	5/18/2018	5/31/2018	5	10	
5	Architectural Coating	Architectural Coating	6/1/2018	6/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 88,844; Non-Residential Outdoor: 29,615; Striped Parking Area: 3,920 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	94.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	52.00	20.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8686	0.0000	5.8686	2.9642	0.0000	2.9642			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615		1,764.238 1	1,764.238 1	0.5406		1,777.752 1
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.8686**	**1.0451**	**6.9137**	**2.9642**	**0.9615**	**3.9256**		**1,764.238 1**	**1,764.238 1**	**0.5406**		**1,777.752 1**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6635	18.6982	4.3102	0.0383	0.6120	0.1802	0.7923	0.1735	0.1724	0.3459		4,106.3463	4,106.3463	0.2267		4,112.0146
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0428	0.4223	8.1000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		80.7513	80.7513	3.6500e-003		80.8426
Total	**0.7113**	**18.7410**	**4.7325**	**0.0391**	**0.6911**	**0.1808**	**0.8719**	**0.1945**	**0.1730**	**0.3674**		**4,187.0976**	**4,187.0976**	**0.2304**		**4,192.8572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2888	0.0000	2.2888	1.1560	0.0000	1.1560			0.0000			0.0000
Off-Road	0.4212	8.4089	9.8221	0.0172		0.3747	0.3747		0.3747	0.3747	0.0000	1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**0.4212**	**8.4089**	**9.8221**	**0.0172**	**2.2888**	**0.3747**	**2.6635**	**1.1560**	**0.3747**	**1.5307**	**0.0000**	**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6635	18.6982	4.3102	0.0383	0.6120	0.1802	0.7923	0.1735	0.1724	0.3459		4,106.346 3	4,106.346 3	0.2267		4,112.0146
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0428	0.4223	8.1000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		80.7513	80.7513	3.6500e-003		80.8426
Total	**0.7113**	**18.7410**	**4.7325**	**0.0391**	**0.6911**	**0.1808**	**0.8719**	**0.1945**	**0.1730**	**0.3674**		**4,187.097 6**	**4,187.097 6**	**0.2304**		**4,192.857 2**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.6023	18.2915	7.0342	0.0141		0.8738	0.8738		0.8039	0.8039		1,444.895 8	1,444.895 8	0.4427		1,455.963 6
Total	**1.6023**	**18.2915**	**7.0342**	**0.0141**	**4.9143**	**0.8738**	**5.7880**	**2.5256**	**0.8039**	**3.3295**		**1,444.895 8**	**1,444.895 8**	**0.4427**		**1,455.963 6**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0428	0.4223	8.1000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		80.7513	80.7513	3.6500e-003		80.8426
Total	**0.0477**	**0.0428**	**0.4223**	**8.1000e-004**	**0.0791**	**5.7000e-004**	**0.0797**	**0.0210**	**5.3000e-004**	**0.0215**		**80.7513**	**80.7513**	**3.6500e-003**		**80.8426**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3450	6.9025	8.0841	0.0141		0.3106	0.3106		0.3106	0.3106	0.0000	1,444.8958	1,444.8958	0.4427		1,455.9636
Total	**0.3450**	**6.9025**	**8.0841**	**0.0141**	**1.9166**	**0.3106**	**2.2272**	**0.9850**	**0.3106**	**1.2956**	**0.0000**	**1,444.8958**	**1,444.8958**	**0.4427**		**1,455.9636**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0428	0.4223	8.1000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		80.7513	80.7513	3.6500e-003		80.8426
Total	**0.0477**	**0.0428**	**0.4223**	**8.1000e-004**	**0.0791**	**5.7000e-004**	**0.0797**	**0.0210**	**5.3000e-004**	**0.0215**		**80.7513**	**80.7513**	**3.6500e-003**		**80.8426**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.8641	2,043.8641	0.4298		2,054.6085
Total	**2.9653**	**19.2365**	**14.3568**	**0.0220**		**1.2313**	**1.2313**		**1.1875**	**1.1875**		**2,043.8641**	**2,043.8641**	**0.4298**		**2,054.6085**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1209	2.5068	0.8539	4.0600e-003	0.0928	0.0272	0.1200	0.0267	0.0261	0.0528		430.2078	430.2078	0.0287		430.9258
Worker	0.3102	0.2780	2.7446	5.2800e-003	0.5141	3.7000e-003	0.5178	0.1363	3.4300e-003	0.1398		524.8834	524.8834	0.0238		525.4770
Total	**0.4311**	**2.7848**	**3.5985**	**9.3400e-003**	**0.6069**	**0.0309**	**0.6378**	**0.1631**	**0.0295**	**0.1926**		**955.0912**	**955.0912**	**0.0525**		**956.4028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Off-Road	0.6407	12.0767	13.4786	0.0220		0.7315	0.7315		0.7315	0.7315	0.0000	2,043.864 1	2,043.864 1	0.4298		2,054.608 5
Total	**0.6407**	**12.0767**	**13.4786**	**0.0220**		**0.7315**	**0.7315**		**0.7315**	**0.7315**	**0.0000**	**2,043.864 1**	**2,043.864 1**	**0.4298**		**2,054.608 5**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1209	2.5068	0.8539	4.0600e-003	0.0928	0.0272	0.1200	0.0267	0.0261	0.0528		430.2078	430.2078	0.0287		430.9258
Worker	0.3102	0.2780	2.7446	5.2800e-003	0.5141	3.7000e-003	0.5178	0.1363	3.4300e-003	0.1398		524.8834	524.8834	0.0238		525.4770
Total	**0.4311**	**2.7848**	**3.5985**	**9.3400e-003**	**0.6069**	**0.0309**	**0.6378**	**0.1631**	**0.0295**	**0.1926**		**955.0912**	**955.0912**	**0.0525**		**956.4028**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.838 9	0.4088		2,041.059 6
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.838 9**	**2,030.838 9**	**0.4088**		**2,041.059 6**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1052	2.3734	0.7631	4.0600e-003	0.0928	0.0220	0.1148	0.0267	0.0211	0.0478		431.0226	431.0226	0.0274		431.7064
Worker	0.2721	0.2407	2.3744	5.1400e-003	0.5141	3.5200e-003	0.5176	0.1363	3.2500e-003	0.1396		510.7198	510.7198	0.0207		511.2367
Total	**0.3773**	**2.6141**	**3.1375**	**9.2000e-003**	**0.6069**	**0.0256**	**0.6324**	**0.1631**	**0.0243**	**0.1874**		**941.7424**	**941.7424**	**0.0480**		**942.9431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6407	12.0767	13.4786	0.0220		0.7315	0.7315		0.7315	0.7315	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**0.6407**	**12.0767**	**13.4786**	**0.0220**		**0.7315**	**0.7315**		**0.7315**	**0.7315**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1052	2.3734	0.7631	4.0600e-003	0.0928	0.0220	0.1148	0.0267	0.0211	0.0478		431.0226	431.0226	0.0274		431.7064
Worker	0.2721	0.2407	2.3744	5.1400e-003	0.5141	3.5200e-003	0.5176	0.1363	3.2500e-003	0.1396		510.7198	510.7198	0.0207		511.2367
Total	**0.3773**	**2.6141**	**3.1375**	**9.2000e-003**	**0.6069**	**0.0256**	**0.6324**	**0.1631**	**0.0243**	**0.1874**		**941.7424**	**941.7424**	**0.0480**		**942.9431**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4112**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3195	6.6399	9.8512	0.0135		0.3864	0.3864		0.3864	0.3864	0.0000	1,346.436 0	1,346.436 0	0.4113		1,356.718 6
Paving	0.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7125**	**6.6399**	**9.8512**	**0.0135**		**0.3864**	**0.3864**		**0.3864**	**0.3864**	**0.0000**	**1,346.436 0**	**1,346.436 0**	**0.4113**		**1,356.718 6**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0602	0.5936	1.2800e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		127.6799	127.6799	5.1700e-003		127.8092
Total	**0.0680**	**0.0602**	**0.5936**	**1.2800e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**127.6799**	**127.6799**	**5.1700e-003**		**127.8092**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	139.9898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**140.2884**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0463	0.4566	9.9000e-004	0.0989	6.8000e-004	0.0995	0.0262	6.2000e-004	0.0268		98.2153	98.2153	3.9800e-003		98.3148
Total	**0.0523**	**0.0463**	**0.4566**	**9.9000e-004**	**0.0989**	**6.8000e-004**	**0.0995**	**0.0262**	**6.2000e-004**	**0.0268**		**98.2153**	**98.2153**	**3.9800e-003**		**98.3148**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	139.9898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**140.0492**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0523	0.0463	0.4566	9.9000e-004	0.0989	6.8000e-004	0.0995	0.0262	6.2000e-004	0.0268		98.2153	98.2153	3.9800e-003		98.3148
Total	**0.0523**	**0.0463**	**0.4566**	**9.9000e-004**	**0.0989**	**6.8000e-004**	**0.0995**	**0.0262**	**6.2000e-004**	**0.0268**		**98.2153**	**98.2153**	**3.9800e-003**		**98.3148**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4278	0.6649	5.0631	0.0114	1.0886	8.5100e-003	1.0971	0.2899	7.9000e-003	0.2978		1,135.1366	1,135.1366	0.0457		1,136.2789
Unmitigated	0.4278	0.6649	5.0631	0.0114	1.0886	8.5100e-003	1.0971	0.2899	7.9000e-003	0.2978		1,135.1366	1,135.1366	0.0457		1,136.2789

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	218.64	196.56	142.80	484,622	484,622
Parking Lot	0.00	0.00	0.00		
Total	218.64	196.56	142.80	484,622	484,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	13.00	10.00	5.00	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.538734	0.036174	0.198999	0.136972	0.036255	0.008427	0.013246	0.018689	0.002427	0.001358	0.005860	0.000839	0.002018
Hotel	0.594000	0.037000	0.215000	0.143000	0.000000	0.000000	0.002000	0.000000	0.000000	0.000000	0.003000	0.003000	0.003000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0675	0.6132	0.5151	3.6800e-003		0.0466	0.0466		0.0466	0.0466		735.8714	735.8714	0.0141	0.0135	740.2443
NaturalGas Unmitigated	0.0779	0.7081	0.5948	4.2500e-003		0.0538	0.0538		0.0538	0.0538		849.7285	849.7285	0.0163	0.0156	854.7781

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	7222.69	0.0779	0.7081	0.5948	4.2500e-003		0.0538	0.0538		0.0538	0.0538		849.7285	849.7285	0.0163	0.0156	854.7781
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0779**	**0.7081**	**0.5948**	**4.2500e-003**		**0.0538**	**0.0538**		**0.0538**	**0.0538**		**849.7285**	**849.7285**	**0.0163**	**0.0156**	**854.7781**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	6.25491	0.0675	0.6132	0.5151	3.6800e-003		0.0466	0.0466		0.0466	0.0466		735.8714	735.8714	0.0141	0.0135	740.2443
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0675**	**0.6132**	**0.5151**	**3.6800e-003**		**0.0466**	**0.0466**		**0.0466**	**0.0466**		**735.8714**	**735.8714**	**0.0141**	**0.0135**	**740.2443**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Unmitigated	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Architectural Coating	0.3835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Total	**1.6744**	**2.0000e-005**	**2.6400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.5800e-003**	**5.5800e-003**	**2.0000e-005**		**5.9600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Total	**1.6744**	**2.0000e-005**	**2.6400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.5800e-003**	**5.5800e-003**	**2.0000e-005**		**5.9600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Black Oaks Lodge

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.50	Acre	1.50	65,340.00	0
Hotel	24.00	Room	0.42	59,229.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 3.2 **Precipitation Freq (Days)** 44

Climate Zone 4 **Operational Year** 2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 532.02 **CH4 Intensity (lb/MWhr)** 0.024 **N2O Intensity (lb/MWhr)** 0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Energy intensity factors adjusted to account for increases use of renewables.

Land Use - 1.92 acres total. 0.42 acre footprint/59,229 bldg sqft total, 1.5 acres paved.

Construction Phase - Project construction information not available. Based on model default construction assumptions.

Off-road Equipment -

Off-road Equipment - Construction equipment based on model defaults

Trips and VMT - Construction vehicle trips based on model defaults.

Demolition - No demo required.

Grading - 500 cy exported. 250 cy imported.

Architectural Coating - Architectural coating assumptions based on model defaults

Vehicle Trips - Weekday trip rate derived from traffic analysis (9.11/room). Weekend rates based on model defaults. Customer trip length increased to 10 miles (refer to separate worksheet).

Energy Use - Energy intensity factors include RPS adjustment.

Construction Off-road Equipment Mitigation - Includes 61%CE for watering exposed surfaces, onsite speeds limited to 15 mph, T3 off-road equipment

Energy Mitigation - Assumes a minimum overall reduction in energy use of 15% associated with guest room energy-saver systems. Actual reductions reported to approach/exceed 20% depending on the system installed (Ayres Hotel Project 2012).

Water Mitigation - Installation of low-flow fixtures and water-efficient irrigation systems required per building code requirements.

Waste Mitigation - Includes minimum 50% reduction achieved, per current minimum statewide solid-waste diversion rate.

Fleet Mix - Hotel adjusted based on survey data. Refer to separate worksheet.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblFleetMix	LDA	0.54	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.04	0.00
tblFleetMix	LHD2	8.4270e-003	0.00
tblFleetMix	MCY	5.8600e-003	3.0000e-003
tblFleetMix	MDV	0.14	0.14
tblFleetMix	MH	2.0180e-003	3.0000e-003
tblFleetMix	MHD	0.01	2.0000e-003

tblFleetMix	OBUS	2.4270e-003	0.00
tblFleetMix	SBUS	8.3900e-004	3.0000e-003
tblFleetMix	UBUS	1.3580e-003	0.00
tblGrading	MaterialExported	0.00	500.00
tblGrading	MaterialImported	0.00	250.00
tblLandUse	BuildingSpaceSquareFeet	34,848.00	59,229.00
tblLandUse	LandUseSquareFeet	34,848.00	59,229.00
tblLandUse	LotAcreage	0.80	0.42
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.024
tblProjectCharacteristics	CO2IntensityFactor	641.35	532.02
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.06	0.04

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tblVehicleEF	HHD	0.08	0.07
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7260e-003	8.7420e-003
tblVehicleEF	HHD	0.06	0.04
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tblVehicleEF	HHD	1.06	1.00
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tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.04
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tblVehicleEF	LDA	0.03	0.02
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tblVehicleEF	LDA	0.54	0.55
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.16	0.13
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tblVehicleEF	LDA	2.3050e-003	2.2460e-003
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.04
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tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.06
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tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.18	0.15
tblVehicleEF	LDA	1.8280e-003	1.8100e-003
tblVehicleEF	LDA	2.5040e-003	2.4420e-003
tblVehicleEF	LDA	1.6910e-003	1.6730e-003
tblVehicleEF	LDA	2.3050e-003	2.2460e-003
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.19	0.16
tblVehicleEF	LDA	2.7740e-003	2.6750e-003
tblVehicleEF	LDA	6.9800e-004	6.7300e-004
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.17	0.15
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.21	0.17
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	2.05	1.75
tblVehicleEF	LDT1	4.91	4.43

tblVehicleEF	LDT1	335.56	326.93
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.23	0.20
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.10	0.09
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.36	0.31
tblVehicleEF	LDT1	3.3840e-003	3.2920e-003
tblVehicleEF	LDT1	8.7400e-004	8.4600e-004
tblVehicleEF	LDT1	0.10	0.09
tblVehicleEF	LDT1	0.29	0.27
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.40	0.34
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.15	1.84
tblVehicleEF	LDT1	4.06	3.64

tblVehicleEF	LDT1	348.99	340.09
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.26	0.24
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.31	0.27
tblVehicleEF	LDT1	3.5190e-003	3.4250e-003
tblVehicleEF	LDT1	8.5900e-004	8.3300e-004
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT1	0.13	0.12
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.34	0.29
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	2.05	1.74
tblVehicleEF	LDT1	5.32	4.80

tblVehicleEF	LDT1	332.88	324.31
tblVehicleEF	LDT1	78.67	76.79
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.23	0.20
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	2.8940e-003	2.7030e-003
tblVehicleEF	LDT1	3.8670e-003	3.5510e-003
tblVehicleEF	LDT1	2.6820e-003	2.5010e-003
tblVehicleEF	LDT1	3.5700e-003	3.2710e-003
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.33	0.30
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.22	0.21
tblVehicleEF	LDT1	0.39	0.34
tblVehicleEF	LDT1	3.3570e-003	3.2660e-003
tblVehicleEF	LDT1	8.8100e-004	8.5300e-004
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.33	0.30
tblVehicleEF	LDT1	0.06	0.05
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.22	0.21
tblVehicleEF	LDT1	0.42	0.37
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.50	1.34
tblVehicleEF	LDT2	4.23	3.80

tblVehicleEF	LDT2	390.62	380.93
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.23	0.20
tblVehicleEF	LDT2	0.42	0.37
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.23	0.22
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	0.32	0.28
tblVehicleEF	LDT2	3.9240e-003	3.8240e-003
tblVehicleEF	LDT2	9.9000e-004	9.6300e-004
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.23	0.22
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	0.35	0.31
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.60	1.44
tblVehicleEF	LDT2	3.52	3.15

tblVehicleEF	LDT2	406.52	396.46
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.21	0.18
tblVehicleEF	LDT2	0.38	0.34
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.24	0.23
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.28	0.24
tblVehicleEF	LDT2	4.0840e-003	3.9810e-003
tblVehicleEF	LDT2	9.7800e-004	9.5200e-004
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.24	0.23
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.30	0.27
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	1.48	1.32
tblVehicleEF	LDT2	4.58	4.11

tblVehicleEF	LDT2	387.45	377.84
tblVehicleEF	LDT2	91.49	89.61
tblVehicleEF	LDT2	0.20	0.20
tblVehicleEF	LDT2	0.23	0.21
tblVehicleEF	LDT2	0.44	0.39
tblVehicleEF	LDT2	1.9170e-003	1.8760e-003
tblVehicleEF	LDT2	2.8550e-003	2.7590e-003
tblVehicleEF	LDT2	1.7640e-003	1.7260e-003
tblVehicleEF	LDT2	2.6280e-003	2.5370e-003
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.25	0.24
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.34	0.30
tblVehicleEF	LDT2	3.8920e-003	3.7930e-003
tblVehicleEF	LDT2	9.9600e-004	9.6900e-004
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.25	0.24
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.37	0.33
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14

tblVehicleEF	LHD1	1.79	1.70
tblVehicleEF	LHD1	3.06	2.92
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	3.11	3.01
tblVehicleEF	LHD1	0.95	0.95
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004
tblVehicleEF	LHD1	2.3790e-003	2.3810e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2200e-003	1.2440e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.35	0.36
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.8660e-003	6.8410e-003
tblVehicleEF	LHD1	3.3000e-004	3.2600e-004
tblVehicleEF	LHD1	2.3790e-003	2.3810e-003

tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2200e-003	1.2440e-003
tblVehicleEF	LHD1	0.24	0.24
tblVehicleEF	LHD1	0.35	0.36
tblVehicleEF	LHD1	0.33	0.32
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.82	1.73
tblVehicleEF	LHD1	2.86	2.73
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	3.00	2.90
tblVehicleEF	LHD1	0.89	0.89
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004

tblVehicleEF	LHD1	4.2260e-003	4.2110e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.0740e-003	2.1030e-003
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.33	0.35
tblVehicleEF	LHD1	0.29	0.28
tblVehicleEF	LHD1	6.8660e-003	6.8410e-003
tblVehicleEF	LHD1	3.2600e-004	3.2200e-004
tblVehicleEF	LHD1	4.2260e-003	4.2110e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.0740e-003	2.1030e-003
tblVehicleEF	LHD1	0.25	0.24
tblVehicleEF	LHD1	0.33	0.35
tblVehicleEF	LHD1	0.32	0.31
tblVehicleEF	LHD1	5.0480e-003	4.9930e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.78	1.69
tblVehicleEF	LHD1	3.16	3.02
tblVehicleEF	LHD1	9.57	9.56
tblVehicleEF	LHD1	700.66	698.32
tblVehicleEF	LHD1	27.24	27.05
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.11	0.11

tblVehicleEF	LHD1	3.08	2.99
tblVehicleEF	LHD1	0.98	0.98
tblVehicleEF	LHD1	1.1550e-003	1.1520e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1480e-003	1.0830e-003
tblVehicleEF	LHD1	1.1050e-003	1.1020e-003
tblVehicleEF	LHD1	2.5780e-003	2.5800e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.0570e-003	9.9600e-004
tblVehicleEF	LHD1	1.7420e-003	1.7470e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.5800e-004	9.7800e-004
tblVehicleEF	LHD1	0.20	0.19
tblVehicleEF	LHD1	0.38	0.40
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.8650e-003	6.8400e-003
tblVehicleEF	LHD1	3.3200e-004	3.2800e-004
tblVehicleEF	LHD1	1.7420e-003	1.7470e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.5800e-004	9.7800e-004
tblVehicleEF	LHD1	0.24	0.24
tblVehicleEF	LHD1	0.38	0.40
tblVehicleEF	LHD1	0.34	0.33
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9930e-003	9.3080e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.02	0.97
tblVehicleEF	LHD2	1.29	1.20
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70
tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.72	2.53
tblVehicleEF	LHD2	0.49	0.47
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	8.8400e-004	8.3900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.8300e-004	4.7200e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004

tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1300e-004	2.1000e-004
tblVehicleEF	LHD2	8.8400e-004	8.3900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8300e-004	4.7200e-004
tblVehicleEF	LHD2	0.20	0.19
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.5060e-003	8.8580e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.03	0.97
tblVehicleEF	LHD2	1.21	1.13
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70
tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.63	2.44
tblVehicleEF	LHD2	0.46	0.45
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003

tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	1.5580e-003	1.4710e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.1600e-004	7.9200e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004
tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1100e-004	2.0900e-004
tblVehicleEF	LHD2	1.5580e-003	1.4710e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	8.1600e-004	7.9200e-004
tblVehicleEF	LHD2	0.20	0.19
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	3.1970e-003	3.1390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	9.5530e-003
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	1.02	0.96
tblVehicleEF	LHD2	1.33	1.24
tblVehicleEF	LHD2	15.42	15.39
tblVehicleEF	LHD2	729.14	724.70

tblVehicleEF	LHD2	18.83	18.73
tblVehicleEF	LHD2	8.4270e-003	7.8720e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	2.70	2.51
tblVehicleEF	LHD2	0.50	0.49
tblVehicleEF	LHD2	1.5540e-003	1.5450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.6300e-004	4.3200e-004
tblVehicleEF	LHD2	1.4860e-003	1.4780e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	4.2600e-004	3.9700e-004
tblVehicleEF	LHD2	6.5100e-004	6.1900e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8000e-004	3.7100e-004
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.14	0.13
tblVehicleEF	LHD2	1.5000e-004	1.4900e-004
tblVehicleEF	LHD2	7.0670e-003	7.0240e-003
tblVehicleEF	LHD2	2.1300e-004	2.1100e-004
tblVehicleEF	LHD2	6.5100e-004	6.1900e-004
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.8000e-004	3.7100e-004
tblVehicleEF	LHD2	0.20	0.19

tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	MCY	0.39	0.39
tblVehicleEF	MCY	0.18	0.18
tblVehicleEF	MCY	23.95	23.31
tblVehicleEF	MCY	10.07	10.09
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.23	1.22
tblVehicleEF	MCY	0.32	0.32
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	0.95	0.96
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.53	0.54
tblVehicleEF	MCY	2.47	2.43
tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	2.47	2.45
tblVehicleEF	MCY	2.0600e-003	2.0570e-003
tblVehicleEF	MCY	7.4100e-004	7.3700e-004
tblVehicleEF	MCY	0.95	0.96
tblVehicleEF	MCY	1.03	1.03
tblVehicleEF	MCY	0.53	0.54
tblVehicleEF	MCY	2.94	2.91

tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	2.68	2.66
tblVehicleEF	MCY	0.37	0.38
tblVehicleEF	MCY	0.15	0.15
tblVehicleEF	MCY	22.30	21.74
tblVehicleEF	MCY	9.05	9.05
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.11	1.10
tblVehicleEF	MCY	0.30	0.30
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	1.83	1.84
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	1.05	1.06
tblVehicleEF	MCY	2.34	2.31
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	2.09	2.08
tblVehicleEF	MCY	2.0290e-003	2.0280e-003
tblVehicleEF	MCY	7.1300e-004	7.0900e-004
tblVehicleEF	MCY	1.83	1.84
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	1.05	1.06
tblVehicleEF	MCY	2.79	2.76

tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	2.27	2.26
tblVehicleEF	MCY	0.40	0.40
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	25.08	24.39
tblVehicleEF	MCY	10.63	10.65
tblVehicleEF	MCY	160.04	160.89
tblVehicleEF	MCY	50.28	49.96
tblVehicleEF	MCY	5.8600e-003	5.6300e-003
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	0.34	0.34
tblVehicleEF	MCY	2.0270e-003	2.0320e-003
tblVehicleEF	MCY	5.9880e-003	5.7600e-003
tblVehicleEF	MCY	1.9140e-003	1.9170e-003
tblVehicleEF	MCY	5.6910e-003	5.4720e-003
tblVehicleEF	MCY	0.71	0.72
tblVehicleEF	MCY	1.32	1.32
tblVehicleEF	MCY	0.38	0.38
tblVehicleEF	MCY	2.55	2.50
tblVehicleEF	MCY	1.40	1.40
tblVehicleEF	MCY	2.66	2.64
tblVehicleEF	MCY	2.0800e-003	2.0770e-003
tblVehicleEF	MCY	7.5600e-004	7.5200e-004
tblVehicleEF	MCY	0.71	0.72
tblVehicleEF	MCY	1.32	1.32
tblVehicleEF	MCY	0.38	0.38
tblVehicleEF	MCY	3.03	2.99

tblVehicleEF	MCY	1.40	1.40
tblVehicleEF	MCY	2.89	2.87
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.10	1.96
tblVehicleEF	MDV	5.67	5.31
tblVehicleEF	MDV	513.88	504.13
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	0.60	0.56
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.47	0.43
tblVehicleEF	MDV	5.1620e-003	5.0620e-003
tblVehicleEF	MDV	1.2860e-003	1.2620e-003
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.23	0.23
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.52	0.48
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.21	2.07
tblVehicleEF	MDV	4.74	4.44
tblVehicleEF	MDV	534.42	524.27
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.29	0.27
tblVehicleEF	MDV	0.55	0.51
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.24	0.24
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.41	0.38
tblVehicleEF	MDV	5.3690e-003	5.2650e-003
tblVehicleEF	MDV	1.2690e-003	1.2460e-003
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.24	0.24
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.45	0.41
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	2.09	1.95
tblVehicleEF	MDV	6.12	5.73
tblVehicleEF	MDV	509.79	500.12
tblVehicleEF	MDV	118.36	116.66
tblVehicleEF	MDV	0.14	0.13
tblVehicleEF	MDV	0.33	0.31
tblVehicleEF	MDV	0.63	0.58
tblVehicleEF	MDV	1.9340e-003	1.9220e-003
tblVehicleEF	MDV	2.9750e-003	2.8990e-003
tblVehicleEF	MDV	1.7880e-003	1.7760e-003
tblVehicleEF	MDV	2.7430e-003	2.6720e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.50	0.46
tblVehicleEF	MDV	5.1210e-003	5.0220e-003
tblVehicleEF	MDV	1.2940e-003	1.2700e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.25	0.25
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.17	0.17
tblVehicleEF	MDV	0.55	0.50
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.14	5.60
tblVehicleEF	MH	9.22	8.75
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.39	2.32
tblVehicleEF	MH	1.09	1.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	1.22	1.18
tblVehicleEF	MH	0.11	0.10
tblVehicleEF	MH	0.46	0.46
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.58	0.54
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.0700e-004	7.8500e-004
tblVehicleEF	MH	1.22	1.18
tblVehicleEF	MH	0.11	0.10

tblVehicleEF	MH	0.46	0.46
tblVehicleEF	MH	0.33	0.31
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.64	0.59
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.17	5.66
tblVehicleEF	MH	8.53	8.08
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.26	2.20
tblVehicleEF	MH	1.02	0.99
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	2.15	2.08
tblVehicleEF	MH	0.10	0.10
tblVehicleEF	MH	0.77	0.75
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.55	0.51
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	7.9500e-004	7.7300e-004

tblVehicleEF	MH	2.15	2.08
tblVehicleEF	MH	0.10	0.10
tblVehicleEF	MH	0.77	0.75
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.60	0.56
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	6.15	5.59
tblVehicleEF	MH	9.55	9.05
tblVehicleEF	MH	1,249.92	1,247.14
tblVehicleEF	MH	64.46	63.06
tblVehicleEF	MH	2.0180e-003	1.8520e-003
tblVehicleEF	MH	2.38	2.32
tblVehicleEF	MH	1.13	1.10
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.1790e-003	1.9760e-003
tblVehicleEF	MH	3.2380e-003	3.2410e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0300e-003	1.8370e-003
tblVehicleEF	MH	0.91	0.89
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.38	0.37
tblVehicleEF	MH	0.25	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.60	0.56

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.1300e-004	7.9000e-004
tblVehicleEF	MH	0.91	0.89
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.38	0.37
tblVehicleEF	MH	0.33	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.66	0.61
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.60	0.57
tblVehicleEF	MHD	1.36	1.15
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tblVehicleEF	MHD	142.58	144.61
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
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tblVehicleEF	MHD	1.39	1.31
tblVehicleEF	MHD	4.34	3.88
tblVehicleEF	MHD	10.90	11.01
tblVehicleEF	MHD	8.2220e-003	7.3310e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	7.8670e-003	7.0140e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003

tblVehicleEF	MHD	1.8210e-003	1.6040e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	9.4500e-004	8.4400e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	0.73	0.64
tblVehicleEF	MHD	1.3730e-003	1.3920e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.6500e-004	8.1200e-004
tblVehicleEF	MHD	1.8210e-003	1.6040e-003
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	9.4500e-004	8.4400e-004
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	0.79	0.70
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.41	0.39
tblVehicleEF	MHD	1.37	1.16
tblVehicleEF	MHD	11.15	9.99
tblVehicleEF	MHD	151.37	153.52
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	1.43	1.35
tblVehicleEF	MHD	4.18	3.74
tblVehicleEF	MHD	10.81	10.92
tblVehicleEF	MHD	6.9320e-003	6.1800e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	6.6320e-003	5.9130e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003
tblVehicleEF	MHD	3.3460e-003	2.9280e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	MHD	1.6820e-003	1.4900e-003
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.69	0.60
tblVehicleEF	MHD	1.4560e-003	1.4760e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.5100e-004	7.9900e-004
tblVehicleEF	MHD	3.3460e-003	2.9280e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	1.6820e-003	1.4900e-003
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	0.75	0.66
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.77	0.73
tblVehicleEF	MHD	1.35	1.14
tblVehicleEF	MHD	12.41	11.11
tblVehicleEF	MHD	131.22	133.08
tblVehicleEF	MHD	1,226.01	1,221.93
tblVehicleEF	MHD	65.44	62.36
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	1.32	1.25
tblVehicleEF	MHD	4.30	3.84
tblVehicleEF	MHD	10.95	11.05
tblVehicleEF	MHD	0.01	8.9210e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.7990e-003	1.4390e-003
tblVehicleEF	MHD	9.5720e-003	8.5350e-003
tblVehicleEF	MHD	0.12	0.10
tblVehicleEF	MHD	1.6660e-003	1.3260e-003
tblVehicleEF	MHD	1.3020e-003	1.1520e-003
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	7.3400e-004	6.5700e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.75	0.65
tblVehicleEF	MHD	1.2660e-003	1.2830e-003
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	8.7300e-004	8.1800e-004
tblVehicleEF	MHD	1.3020e-003	1.1520e-003
tblVehicleEF	MHD	0.10	0.08
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	7.3400e-004	6.5700e-004
tblVehicleEF	MHD	0.35	0.30
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.82	0.72
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.28	0.28
tblVehicleEF	OBUS	1.36	1.21
tblVehicleEF	OBUS	8.89	8.45
tblVehicleEF	OBUS	95.08	99.47
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003
tblVehicleEF	OBUS	0.62	0.63
tblVehicleEF	OBUS	2.82	2.74
tblVehicleEF	OBUS	3.21	3.25
tblVehicleEF	OBUS	3.6900e-004	3.4800e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	3.5300e-004	3.3300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004

tblVehicleEF	OBUS	1.5570e-003	1.5700e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	7.5500e-004	7.7200e-004
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.56	0.53
tblVehicleEF	OBUS	9.1900e-004	9.6100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.6600e-004	8.5000e-004
tblVehicleEF	OBUS	1.5570e-003	1.5700e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	7.5500e-004	7.7200e-004
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.61	0.58
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.26	0.26
tblVehicleEF	OBUS	1.39	1.23
tblVehicleEF	OBUS	8.26	7.85
tblVehicleEF	OBUS	99.72	104.37
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003

tblVehicleEF	OBUS	0.64	0.65
tblVehicleEF	OBUS	2.71	2.63
tblVehicleEF	OBUS	3.12	3.17
tblVehicleEF	OBUS	3.1100e-004	2.9300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	2.9800e-004	2.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004
tblVehicleEF	OBUS	2.7250e-003	2.7390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	1.2570e-003	1.2770e-003
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.53	0.50
tblVehicleEF	OBUS	9.6400e-004	1.0080e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.5500e-004	8.4000e-004
tblVehicleEF	OBUS	2.7250e-003	2.7390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	1.2570e-003	1.2770e-003
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.58	0.55
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.30	0.30
tblVehicleEF	OBUS	1.35	1.20
tblVehicleEF	OBUS	9.18	8.72
tblVehicleEF	OBUS	88.68	92.69
tblVehicleEF	OBUS	1,343.57	1,338.57
tblVehicleEF	OBUS	70.88	70.10
tblVehicleEF	OBUS	2.4270e-003	2.4040e-003
tblVehicleEF	OBUS	0.59	0.60
tblVehicleEF	OBUS	2.80	2.72
tblVehicleEF	OBUS	3.25	3.29
tblVehicleEF	OBUS	4.4900e-004	4.2300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.1600e-004	9.0300e-004
tblVehicleEF	OBUS	4.3000e-004	4.0500e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.4900e-004	8.3600e-004
tblVehicleEF	OBUS	1.1750e-003	1.1840e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	6.0300e-004	6.1700e-004
tblVehicleEF	OBUS	0.12	0.11
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.57	0.55
tblVehicleEF	OBUS	8.5800e-004	8.9600e-004
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	8.7100e-004	8.5500e-004
tblVehicleEF	OBUS	1.1750e-003	1.1840e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	6.0300e-004	6.1700e-004
tblVehicleEF	OBUS	0.15	0.14
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	0.63	0.60
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.19	0.18
tblVehicleEF	SBUS	7.35	7.28
tblVehicleEF	SBUS	3.18	2.96
tblVehicleEF	SBUS	21.72	20.68
tblVehicleEF	SBUS	1,180.91	1,181.71
tblVehicleEF	SBUS	1,103.99	1,103.28
tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	12.02	11.62
tblVehicleEF	SBUS	6.23	5.90
tblVehicleEF	SBUS	14.11	14.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003

tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	8.4070e-003	7.7650e-003
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.88	0.87
tblVehicleEF	SBUS	3.1540e-003	3.0130e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	1.02	0.97
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.7900e-004	8.5600e-004
tblVehicleEF	SBUS	8.4070e-003	7.7650e-003
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	1.26	1.25
tblVehicleEF	SBUS	3.1540e-003	3.0130e-003
tblVehicleEF	SBUS	0.29	0.27
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	1.12	1.06
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.06	0.05
tblVehicleEF	SBUS	0.17	0.16
tblVehicleEF	SBUS	7.20	7.13
tblVehicleEF	SBUS	3.26	3.04
tblVehicleEF	SBUS	17.53	16.69
tblVehicleEF	SBUS	1,236.25	1,237.25
tblVehicleEF	SBUS	1,103.99	1,103.28

tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	12.40	12.00
tblVehicleEF	SBUS	5.99	5.67
tblVehicleEF	SBUS	14.02	13.99
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.87	0.87
tblVehicleEF	SBUS	5.3280e-003	5.0560e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.91	0.86
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.1000e-004	7.9000e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	1.26	1.24
tblVehicleEF	SBUS	5.3280e-003	5.0560e-003

tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.99	0.94
tblVehicleEF	SBUS	0.83	0.83
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.20	0.19
tblVehicleEF	SBUS	7.56	7.48
tblVehicleEF	SBUS	3.14	2.93
tblVehicleEF	SBUS	23.35	22.23
tblVehicleEF	SBUS	1,104.48	1,105.02
tblVehicleEF	SBUS	1,103.99	1,103.28
tblVehicleEF	SBUS	50.56	50.06
tblVehicleEF	SBUS	8.3900e-004	8.2500e-004
tblVehicleEF	SBUS	11.49	11.11
tblVehicleEF	SBUS	6.19	5.86
tblVehicleEF	SBUS	14.15	14.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.4660e-003	1.3600e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	2.6810e-003	2.6850e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.3480e-003	1.2510e-003
tblVehicleEF	SBUS	6.4570e-003	5.9700e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.88	0.87

tblVehicleEF	SBUS	2.5060e-003	2.3930e-003
tblVehicleEF	SBUS	0.22	0.21
tblVehicleEF	SBUS	0.07	0.07
tblVehicleEF	SBUS	1.07	1.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.0600e-004	8.8200e-004
tblVehicleEF	SBUS	6.4570e-003	5.9700e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	1.27	1.25
tblVehicleEF	SBUS	2.5060e-003	2.3930e-003
tblVehicleEF	SBUS	0.29	0.27
tblVehicleEF	SBUS	0.07	0.07
tblVehicleEF	SBUS	1.17	1.11
tblVehicleEF	UBUS	0.11	0.10
tblVehicleEF	UBUS	0.05	0.06
tblVehicleEF	UBUS	4.92	4.65
tblVehicleEF	UBUS	9.83	9.86
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.43	9.61
tblVehicleEF	UBUS	14.50	14.24
tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19
tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25

tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	2.8790e-003	2.9670e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	1.6910e-003	1.7880e-003
tblVehicleEF	UBUS	0.69	0.64
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.74	0.76
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.3050e-003	1.3430e-003
tblVehicleEF	UBUS	2.8790e-003	2.9670e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	1.6910e-003	1.7880e-003
tblVehicleEF	UBUS	0.85	0.79
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.81	0.83
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	4.97	4.70
tblVehicleEF	UBUS	8.16	8.19
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.08	9.28
tblVehicleEF	UBUS	14.43	14.17
tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19

tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25
tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	5.0420e-003	5.1790e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	2.7260e-003	2.8660e-003
tblVehicleEF	UBUS	0.69	0.64
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.66	0.67
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.2760e-003	1.3140e-003
tblVehicleEF	UBUS	5.0420e-003	5.1790e-003
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	2.7260e-003	2.8660e-003
tblVehicleEF	UBUS	0.86	0.80
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.72	0.74
tblVehicleEF	UBUS	0.11	0.10
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	4.90	4.63
tblVehicleEF	UBUS	10.63	10.66
tblVehicleEF	UBUS	2,132.88	2,112.24
tblVehicleEF	UBUS	112.84	116.53
tblVehicleEF	UBUS	1.3580e-003	1.3200e-003
tblVehicleEF	UBUS	10.34	9.52
tblVehicleEF	UBUS	14.53	14.27

tblVehicleEF	UBUS	0.58	0.57
tblVehicleEF	UBUS	0.21	0.19
tblVehicleEF	UBUS	8.8100e-004	9.4000e-004
tblVehicleEF	UBUS	0.25	0.25
tblVehicleEF	UBUS	0.20	0.18
tblVehicleEF	UBUS	8.1100e-004	8.6500e-004
tblVehicleEF	UBUS	2.3210e-003	2.3840e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	1.3360e-003	1.4150e-003
tblVehicleEF	UBUS	0.68	0.63
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.3190e-003	1.3570e-003
tblVehicleEF	UBUS	2.3210e-003	2.3840e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	1.3360e-003	1.4150e-003
tblVehicleEF	UBUS	0.84	0.78
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.85	0.87
tblVehicleTrips	CC_TL	5.00	10.00
tblVehicleTrips	WD_TR	8.17	9.11

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.4449	41.1361	18.0328	0.0558	6.5597	1.2629	7.7882	3.1586	1.2176	4.2956	0.0000	5,894.6538	5,894.6538	0.7789	0.0000	5,914.1249
2018	140.3478	20.0686	17.0684	0.0309	0.6069	1.0841	1.6910	0.1631	1.0464	1.2095	0.0000	2,936.4708	2,936.4708	0.4583	0.0000	2,947.9278
Maximum	**140.3478**	**41.1361**	**18.0328**	**0.0558**	**6.5597**	**1.2629**	**7.7882**	**3.1586**	**1.2176**	**4.2956**	**0.0000**	**5,894.6538**	**5,894.6538**	**0.7789**	**0.0000**	**5,914.1249**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.1547	27.3344	17.1546	0.0558	2.9799	0.7631	3.5380	1.3505	0.7616	1.9007	0.0000	5,894.6538	5,894.6538	0.7789	0.0000	5,914.1249
2018	140.1086	14.7173	16.6704	0.0309	0.6069	0.7576	1.3645	0.1631	0.7564	0.9194	0.0000	2,936.4708	2,936.4708	0.4583	0.0000	2,947.9278
Maximum	**140.1086**	**27.3344**	**17.1546**	**0.0558**	**2.9799**	**0.7631**	**3.5380**	**1.3505**	**0.7616**	**1.9007**	**0.0000**	**5,894.6538**	**5,894.6538**	**0.7789**	**0.0000**	**5,914.1249**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.76**	**31.29**	**3.64**	**0.00**	**49.95**	**35.21**	**48.28**	**54.43**	**32.95**	**48.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Energy	0.0779	0.7081	0.5948	4.2500e-003		0.0538	0.0538		0.0538	0.0538		849.7285	849.7285	0.0163	0.0156	854.7781
Mobile	0.4122	0.7374	5.1853	0.0109	1.0886	8.5200e-003	1.0971	0.2899	7.9100e-003	0.2978		1,084.2339	1,084.2339	0.0456		1,085.3747
Total	**2.1645**	**1.4455**	**5.7827**	**0.0152**	**1.0886**	**0.0624**	**1.1509**	**0.2899**	**0.0617**	**0.3516**		**1,933.9681**	**1,933.9681**	**0.0619**	**0.0156**	**1,940.1587**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Energy	0.0675	0.6132	0.5151	3.6800e-003		0.0466	0.0466		0.0466	0.0466		735.8714	735.8714	0.0141	0.0135	740.2443
Mobile	0.4122	0.7374	5.1853	0.0109	1.0886	8.5200e-003	1.0971	0.2899	7.9100e-003	0.2978		1,084.2339	1,084.2339	0.0456		1,085.3747
Total	**2.1541**	**1.3506**	**5.7030**	**0.0146**	**1.0886**	**0.0551**	**1.1437**	**0.2899**	**0.0545**	**0.3444**		**1,820.1109**	**1,820.1109**	**0.0598**	**0.0135**	**1,825.6250**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.48	6.56	1.38	3.76	0.00	11.56	0.63	0.00	11.68	2.05	0.00	5.89	5.89	3.54	13.41	5.90

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/3/2017	7/5/2017	5	2	
2	Grading	Grading	7/6/2017	7/13/2017	5	4	
3	Building Construction	Building Construction	7/14/2017	5/17/2018	5	200	
4	Paving	Paving	5/18/2018	5/31/2018	5	10	
5	Architectural Coating	Architectural Coating	6/1/2018	6/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 88,844; Non-Residential Outdoor: 29,615; Striped Parking Area: 3,920 (Architectural Coating – sqft)

OffRoad Equipment

Black Oaks Lodge - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	94.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	52.00	20.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8686	0.0000	5.8686	2.9642	0.0000	2.9642			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615		1,764.238 1	1,764.238 1	0.5406		1,777.752 1
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.8686**	**1.0451**	**6.9137**	**2.9642**	**0.9615**	**3.9256**		**1,764.238 1**	**1,764.238 1**	**0.5406**		**1,777.752 1**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6792	18.8770	4.5807	0.0378	0.6120	0.1829	0.7949	0.1735	0.1750	0.3485		4,053.4250	4,053.4250	0.2347		4,059.2924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0542	0.0485	0.4189	7.8000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		76.9907	76.9907	3.5900e-003		77.0804
Total	**0.7335**	**18.9255**	**4.9996**	**0.0386**	**0.6911**	**0.1834**	**0.8746**	**0.1945**	**0.1755**	**0.3700**		**4,130.4157**	**4,130.4157**	**0.2383**		**4,136.3728**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2888	0.0000	2.2888	1.1560	0.0000	1.1560			0.0000			0.0000
Off-Road	0.4212	8.4089	9.8221	0.0172		0.3747	0.3747		0.3747	0.3747	0.0000	1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**0.4212**	**8.4089**	**9.8221**	**0.0172**	**2.2888**	**0.3747**	**2.6635**	**1.1560**	**0.3747**	**1.5307**	**0.0000**	**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6792	18.8770	4.5807	0.0378	0.6120	0.1829	0.7949	0.1735	0.1750	0.3485		4,053.425 0	4,053.425 0	0.2347		4,059.292 4
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0542	0.0485	0.4189	7.8000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		76.9907	76.9907	3.5900e-003		77.0804
Total	**0.7335**	**18.9255**	**4.9996**	**0.0386**	**0.6911**	**0.1834**	**0.8746**	**0.1945**	**0.1755**	**0.3700**		**4,130.415 7**	**4,130.415 7**	**0.2383**		**4,136.372 8**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.6023	18.2915	7.0342	0.0141		0.8738	0.8738		0.8039	0.8039		1,444.895 8	1,444.895 8	0.4427		1,455.963 6
Total	**1.6023**	**18.2915**	**7.0342**	**0.0141**	**4.9143**	**0.8738**	**5.7880**	**2.5256**	**0.8039**	**3.3295**		**1,444.895 8**	**1,444.895 8**	**0.4427**		**1,455.963 6**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0542	0.0485	0.4189	7.8000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		76.9907	76.9907	3.5900e-003		77.0804
Total	**0.0542**	**0.0485**	**0.4189**	**7.8000e-004**	**0.0791**	**5.7000e-004**	**0.0797**	**0.0210**	**5.3000e-004**	**0.0215**		**76.9907**	**76.9907**	**3.5900e-003**		**77.0804**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3450	6.9025	8.0841	0.0141		0.3106	0.3106		0.3106	0.3106	0.0000	1,444.8958	1,444.8958	0.4427		1,455.9636
Total	**0.3450**	**6.9025**	**8.0841**	**0.0141**	**1.9166**	**0.3106**	**2.2272**	**0.9850**	**0.3106**	**1.2956**	**0.0000**	**1,444.8958**	**1,444.8958**	**0.4427**		**1,455.9636**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0542	0.0485	0.4189	7.8000e-004	0.0791	5.7000e-004	0.0797	0.0210	5.3000e-004	0.0215		76.9907	76.9907	3.5900e-003		77.0804
Total	**0.0542**	**0.0485**	**0.4189**	**7.8000e-004**	**0.0791**	**5.7000e-004**	**0.0797**	**0.0210**	**5.3000e-004**	**0.0215**		**76.9907**	**76.9907**	**3.5900e-003**		**77.0804**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9653	19.2365	14.3568	0.0220		1.2313	1.2313		1.1875	1.1875		2,043.8641	2,043.8641	0.4298		2,054.6085
Total	**2.9653**	**19.2365**	**14.3568**	**0.0220**		**1.2313**	**1.2313**		**1.1875**	**1.1875**		**2,043.8641**	**2,043.8641**	**0.4298**		**2,054.6085**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1271	2.5037	0.9532	3.9500e-003	0.0928	0.0279	0.1207	0.0267	0.0267	0.0534		418.5114	418.5114	0.0307		419.2785
Worker	0.3525	0.3153	2.7229	5.0400e-003	0.5141	3.7000e-003	0.5178	0.1363	3.4300e-003	0.1398		500.4396	500.4396	0.0233		501.0225
Total	**0.4796**	**2.8190**	**3.6760**	**8.9900e-003**	**0.6069**	**0.0316**	**0.6385**	**0.1631**	**0.0301**	**0.1932**		**918.9510**	**918.9510**	**0.0540**		**920.3009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6407	12.0767	13.4786	0.0220		0.7315	0.7315		0.7315	0.7315	0.0000	2,043.864 1	2,043.864 1	0.4298		2,054.608 5
Total	**0.6407**	**12.0767**	**13.4786**	**0.0220**		**0.7315**	**0.7315**		**0.7315**	**0.7315**	**0.0000**	**2,043.864 1**	**2,043.864 1**	**0.4298**		**2,054.608 5**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1271	2.5037	0.9532	3.9500e-003	0.0928	0.0279	0.1207	0.0267	0.0267	0.0534		418.5114	418.5114	0.0307		419.2785
Worker	0.3525	0.3153	2.7229	5.0400e-003	0.5141	3.7000e-003	0.5178	0.1363	3.4300e-003	0.1398		500.4396	500.4396	0.0233		501.0225
Total	**0.4796**	**2.8190**	**3.6760**	**8.9900e-003**	**0.6069**	**0.0316**	**0.6385**	**0.1631**	**0.0301**	**0.1932**		**918.9510**	**918.9510**	**0.0540**		**920.3009**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.838 9	2,030.838 9	0.4088		2,041.059 6
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.838 9**	**2,030.838 9**	**0.4088**		**2,041.059 6**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1107	2.3674	0.8546	3.9500e-003	0.0928	0.0226	0.1154	0.0267	0.0216	0.0483		418.7604	418.7604	0.0292		419.4915
Worker	0.3091	0.2732	2.3373	4.9000e-003	0.5141	3.5200e-003	0.5176	0.1363	3.2500e-003	0.1396		486.8715	486.8715	0.0202		487.3768
Total	**0.4197**	**2.6406**	**3.1918**	**8.8500e-003**	**0.6069**	**0.0261**	**0.6330**	**0.1631**	**0.0249**	**0.1879**		**905.6319**	**905.6319**	**0.0495**		**906.8682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6407	12.0767	13.4786	0.0220		0.7315	0.7315		0.7315	0.7315	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**0.6407**	**12.0767**	**13.4786**	**0.0220**		**0.7315**	**0.7315**		**0.7315**	**0.7315**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1107	2.3674	0.8546	3.9500e-003	0.0928	0.0226	0.1154	0.0267	0.0216	0.0483		418.7604	418.7604	0.0292		419.4915
Worker	0.3091	0.2732	2.3373	4.9000e-003	0.5141	3.5200e-003	0.5176	0.1363	3.2500e-003	0.1396		486.8715	486.8715	0.0202		487.3768
Total	**0.4197**	**2.6406**	**3.1918**	**8.8500e-003**	**0.6069**	**0.0261**	**0.6330**	**0.1631**	**0.0249**	**0.1879**		**905.6319**	**905.6319**	**0.0495**		**906.8682**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0182	10.4525	8.9926	0.0135		0.6097	0.6097		0.5618	0.5618		1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4112**	**10.4525**	**8.9926**	**0.0135**		**0.6097**	**0.6097**		**0.5618**	**0.5618**		**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3195	6.6399	9.8512	0.0135		0.3864	0.3864		0.3864	0.3864	0.0000	1,346.4360	1,346.4360	0.4113		1,356.7186
Paving	0.3930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7125**	**6.6399**	**9.8512**	**0.0135**		**0.3864**	**0.3864**		**0.3864**	**0.3864**	**0.0000**	**1,346.4360**	**1,346.4360**	**0.4113**		**1,356.7186**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0773	0.0683	0.5843	1.2200e-003	0.1285	8.8000e-004	0.1294	0.0341	8.1000e-004	0.0349		121.7179	121.7179	5.0500e-003		121.8442
Total	**0.0773**	**0.0683**	**0.5843**	**1.2200e-003**	**0.1285**	**8.8000e-004**	**0.1294**	**0.0341**	**8.1000e-004**	**0.0349**		**121.7179**	**121.7179**	**5.0500e-003**		**121.8442**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	139.9898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**140.2884**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0594	0.0525	0.4495	9.4000e-004	0.0989	6.8000e-004	0.0995	0.0262	6.2000e-004	0.0268		93.6291	93.6291	3.8900e-003		93.7263
Total	**0.0594**	**0.0525**	**0.4495**	**9.4000e-004**	**0.0989**	**6.8000e-004**	**0.0995**	**0.0262**	**6.2000e-004**	**0.0268**		**93.6291**	**93.6291**	**3.8900e-003**		**93.7263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	139.9898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**140.0492**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0594	0.0525	0.4495	9.4000e-004	0.0989	6.8000e-004	0.0995	0.0262	6.2000e-004	0.0268		93.6291	93.6291	3.8900e-003		93.7263
Total	**0.0594**	**0.0525**	**0.4495**	**9.4000e-004**	**0.0989**	**6.8000e-004**	**0.0995**	**0.0262**	**6.2000e-004**	**0.0268**		**93.6291**	**93.6291**	**3.8900e-003**		**93.7263**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4122	0.7374	5.1853	0.0109	1.0886	8.5200e-003	1.0971	0.2899	7.9100e-003	0.2978		1,084.2339	1,084.2339	0.0456		1,085.3747
Unmitigated	0.4122	0.7374	5.1853	0.0109	1.0886	8.5200e-003	1.0971	0.2899	7.9100e-003	0.2978		1,084.2339	1,084.2339	0.0456		1,085.3747

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	218.64	196.56	142.80	484,622	484,622
Parking Lot	0.00	0.00	0.00		
Total	218.64	196.56	142.80	484,622	484,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	13.00	10.00	5.00	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.538734	0.036174	0.198999	0.136972	0.036255	0.008427	0.013246	0.018689	0.002427	0.001358	0.005860	0.000839	0.002018
Hotel	0.594000	0.037000	0.215000	0.143000	0.000000	0.000000	0.002000	0.000000	0.000000	0.000000	0.003000	0.003000	0.003000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0675	0.6132	0.5151	3.6800e-003		0.0466	0.0466		0.0466	0.0466		735.8714	735.8714	0.0141	0.0135	740.2443
NaturalGas Unmitigated	0.0779	0.7081	0.5948	4.2500e-003		0.0538	0.0538		0.0538	0.0538		849.7285	849.7285	0.0163	0.0156	854.7781

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	7222.69	0.0779	0.7081	0.5948	4.2500e-003		0.0538	0.0538		0.0538	0.0538		849.7285	849.7285	0.0163	0.0156	854.7781
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0779**	**0.7081**	**0.5948**	**4.2500e-003**		**0.0538**	**0.0538**		**0.0538**	**0.0538**		**849.7285**	**849.7285**	**0.0163**	**0.0156**	**854.7781**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	6.25491	0.0675	0.6132	0.5151	3.6800e-003		0.0466	0.0466		0.0466	0.0466		735.8714	735.8714	0.0141	0.0135	740.2443
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0675**	**0.6132**	**0.5151**	**3.6800e-003**		**0.0466**	**0.0466**		**0.0466**	**0.0466**		**735.8714**	**735.8714**	**0.0141**	**0.0135**	**740.2443**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Unmitigated	1.6744	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Total	**1.6744**	**2.0000e-005**	**2.6400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.5800e-003**	**5.5800e-003**	**2.0000e-005**		**5.9600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3835					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2906					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.5800e-003	5.5800e-003	2.0000e-005		5.9600e-003
Total	**1.6744**	**2.0000e-005**	**2.6400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.5800e-003**	**5.5800e-003**	**2.0000e-005**		**5.9600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Black Oaks Lodge - Year 2020
San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.50	Acre	1.50	65,340.00	0
Hotel	24.00	Room	0.42	59,229.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	488.3	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Energy intensity factors adjusted to account for increases use of renewables. Construction emissions not included in this model run.

Land Use - 1.92 acres total. 0.42 acre footprint/59,229 bldg sqft total, 1.5 acres paved.

Construction Phase - .

Off-road Equipment -

Trips and VMT - .

Demolition - .

Grading - .

Architectural Coating - .

Vehicle Trips - Weekday trip rate derived from traffic analysis (9.11/room). Weekend rates based on model defaults. Customer trip length increased to 10 miles (refer to separate worksheet).

Energy Use - Energy intensity factors include RPS adjustment.

Construction Off-road Equipment Mitigation - .

Energy Mitigation - Assumes a minimum overall reduction in energy use of 15% associated with guest room energy-saver systems. Actual reductions reported to approach/exceed 20% depending on the system installed (Ayres Hotel Project 2012).

Water Mitigation - Installation of low-flow fixtures and water-efficient irrigation systems required per building code requirements.

Waste Mitigation - Includes minimum 50% reduction achieved, per current minimum statewide solid-waste diversion rate.

Fleet Mix - Hotel adjusted based on survey data. Refer to separate worksheet.

Black Oaks Lodge - Year 2020 - San Luis Obispo County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	5/14/2018	4/30/2018
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.56	0.59
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.3620e-003	0.00
tblFleetMix	MCY	5.4210e-003	3.0000e-003
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MH	1.6950e-003	3.0000e-003
tblFleetMix	MHD	0.01	2.0000e-003
tblFleetMix	OBUS	2.3850e-003	0.00
tblFleetMix	SBUS	8.1100e-004	3.0000e-003
tblFleetMix	UBUS	1.2670e-003	0.00
tblLandUse	BuildingSpaceSquareFeet	34,848.00	59,229.00
tblLandUse	LandUseSquareFeet	34,848.00	59,229.00
tblLandUse	LotAcreage	0.80	0.42
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	641.35	488.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblVehicleTrips	CC_TL	5.00	10.00
tblVehicleTrips	WD_TR	8.17	9.11

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Energy	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003						256.7957
Mobile	0.0627	0.1117	0.7876	1.8100e-003	0.1806	1.3800e-003	0.1820	0.0482	1.2800e-003	0.0495						163.9448
Waste						0.0000	0.0000		0.0000	0.0000						6.6081
Water						0.0000	0.0000		0.0000	0.0000						1.6140
Total	**0.3825**	**0.2410**	**0.8966**	**2.5900e-003**	**0.1806**	**0.0112**	**0.1918**	**0.0482**	**0.0111**	**0.0593**						**428.9635**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Energy	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003						233.5849
Mobile	0.0627	0.1117	0.7876	1.8100e-003	0.1806	1.3800e-003	0.1820	0.0482	1.2800e-003	0.0495						163.9448
Waste						0.0000	0.0000		0.0000	0.0000						3.3041
Water						0.0000	0.0000		0.0000	0.0000						1.6140
Total	**0.3806**	**0.2236**	**0.8820**	**2.4800e-003**	**0.1806**	**9.8900e-003**	**0.1905**	**0.0482**	**9.7900e-003**	**0.0580**						**402.4487**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.50**	**7.19**	**1.62**	**4.25**	**0.00**	**11.70**	**0.68**	**0.00**	**11.80**	**2.21**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.18**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	5/1/2018	4/30/2018	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 88,844; Non-Residential Outdoor: 29,615; Striped Parking Area: 3,920 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0627	0.1117	0.7876	1.8100e-003	0.1806	1.3800e-003	0.1820	0.0482	1.2800e-003	0.0495						163.9448
Unmitigated	0.0627	0.1117	0.7876	1.8100e-003	0.1806	1.3800e-003	0.1820	0.0482	1.2800e-003	0.0495						163.9448

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	218.64	196.56	142.80	484,622	484,622
Parking Lot	0.00	0.00	0.00		
Total	218.64	196.56	142.80	484,622	484,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	13.00	10.00	5.00	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695
Hotel	0.594000	0.037000	0.215000	0.143000	0.000000	0.000000	0.002000	0.000000	0.000000	0.000000	0.003000	0.003000	0.003000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						111.0292
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						115.2776
NaturalGas Mitigated	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003						122.5558
NaturalGas Unmitigated	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003						141.5181

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.63628e+006	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003						141.5181
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		**0.0142**	**0.1292**	**0.1086**	**7.8000e-004**		**9.8200e-003**	**9.8200e-003**		**9.8200e-003**	**9.8200e-003**						**141.5181**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.28304e+006	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003						122.5558
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		**0.0123**	**0.1119**	**0.0940**	**6.7000e-004**		**8.5100e-003**	**8.5100e-003**		**8.5100e-003**	**8.5100e-003**						**122.5558**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	460802				102.4890
Parking Lot	57499.2				12.7887
Total					**115.2776**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	441700				98.2405
Parking Lot	57499.2				12.7887
Total					**111.0292**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Unmitigated	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0700					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.2355					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Total	**0.3056**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**8.9000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0700					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.2355					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Total	**0.3056**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**8.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				1.6140
Unmitigated				1.6140

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.608802 / 0.0676447				1.6140
Parking Lot	0 / 0				0.0000
Total					**1.6140**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.608802 / 0.0676447				1.6140
Parking Lot	0 / 0				0.0000
Total					**1.6140**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				3.3041
Unmitigated				6.6081

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	13.14				6.6081
Parking Lot	0				0.0000
Total					**6.6081**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	6.57				3.3041
Parking Lot	0				0.0000
Total					**3.3041**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Black Oaks Lodge - Year 2030

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.50	Acre	1.50	65,340.00	0
Hotel	24.00	Room	0.42	59,229.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	364.4	**CH4 Intensity (lb/MWhr)**	0.016	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Black Oaks Lodge - Year 2030 - San Luis Obispo County, Annual

Project Characteristics - Energy intensity factors adjusted to account for increases use of renewables. Construction emissions not included in this model run.

Land Use - 1.92 acres total. 0.42 acre footprint/59,229 bldg sqft total, 1.5 acres paved.

Construction Phase - .

Off-road Equipment -

Trips and VMT - .

Demolition - .

Grading - .

Architectural Coating - .

Vehicle Trips - Weekday trip rate derived from traffic analysis (9.11/room). Weekend rates based on model defaults. Customer trip length increased to 10 miles (refer to separate worksheet).

Energy Use - Energy intensity factors include RPS adjustment.

Construction Off-road Equipment Mitigation - .

Energy Mitigation - Assumes a minimum overall reduction in energy use of 15% associated with guest room energy-saver systems. Actual reductions reported to approach/exceed 20% depending on the system installed (Ayres Hotel Project 2012).

Water Mitigation - Installation of low-flow fixtures and water-efficient irrigation systems required per building code requirements.

Waste Mitigation - Includes minimum 50% reduction achieved, per current minimum statewide solid-waste diversion rate.

Fleet Mix - Hotel adjusted based on survey data. Refer to separate worksheet.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	5/14/2018	4/30/2018
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.20	0.22
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	4.4400e-003	0.00
tblFleetMix	MCY	4.2480e-003	3.0000e-003
tblFleetMix	MDV	0.10	0.14
tblFleetMix	MH	7.5900e-004	3.0000e-003
tblFleetMix	MHD	0.01	2.0000e-003
tblFleetMix	OBUS	2.2470e-003	0.00
tblFleetMix	SBUS	7.0800e-004	3.0000e-003
tblFleetMix	UBUS	1.0590e-003	0.00
tblLandUse	BuildingSpaceSquareFeet	34,848.00	59,229.00
tblLandUse	LandUseSquareFeet	34,848.00	59,229.00
tblLandUse	LotAcreage	0.80	0.42
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.016
tblProjectCharacteristics	CO2IntensityFactor	641.35	364.4
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	OperationalYear	2018	2030
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblVehicleTrips	CC_TL	5.00	10.00
tblVehicleTrips	WD_TR	8.17	9.11

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Energy	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003						227.5618
Mobile	0.0328	0.0493	0.3792	1.3000e-003	0.1806	8.9000e-004	0.1815	0.0482	8.2000e-004	0.0490						117.9571
Waste						0.0000	0.0000		0.0000	0.0000						6.6081
Water						0.0000	0.0000		0.0000	0.0000						1.4149
Total	**0.3526**	**0.1785**	**0.4881**	**2.0800e-003**	**0.1806**	**0.0107**	**0.1913**	**0.0482**	**0.0106**	**0.0588**						**353.5428**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Energy	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003						205.4284
Mobile	0.0328	0.0493	0.3792	1.3000e-003	0.1806	8.9000e-004	0.1815	0.0482	8.2000e-004	0.0490						117.9571
Waste						0.0000	0.0000		0.0000	0.0000						3.3041
Water						0.0000	0.0000		0.0000	0.0000						1.4149
Total	**0.3507**	**0.1612**	**0.4736**	**1.9700e-003**	**0.1806**	**9.4000e-003**	**0.1900**	**0.0482**	**9.3300e-003**	**0.0575**						**328.1053**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.54**	**9.70**	**2.98**	**5.29**	**0.00**	**12.23**	**0.68**	**0.00**	**12.31**	**2.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.20**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	5/1/2018	4/30/2018	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 88,844; Non-Residential Outdoor: 29,615; Striped Parking Area: 3,920 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

<u>Trips and VMT</u>

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0328	0.0493	0.3792	1.3000e-003	0.1806	8.9000e-004	0.1815	0.0482	8.2000e-004	0.0490						117.9571
Unmitigated	0.0328	0.0493	0.3792	1.3000e-003	0.1806	8.9000e-004	0.1815	0.0482	8.2000e-004	0.0490						117.9571

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	218.64	196.56	142.80	484,622	484,622
Parking Lot	0.00	0.00	0.00		
Total	218.64	196.56	142.80	484,622	484,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	13.00	10.00	5.00	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.610645	0.025081	0.199254	0.104456	0.014638	0.004440	0.012550	0.019914	0.002247	0.001059	0.004248	0.000708	0.000759
Hotel	0.594000	0.037000	0.215000	0.143000	0.000000	0.000000	0.002000	0.000000	0.000000	0.000000	0.003000	0.003000	0.003000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						82.8727
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						86.0437
NaturalGas Mitigated	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003						122.5558
NaturalGas Unmitigated	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003						141.5181

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.63628e+006	0.0142	0.1292	0.1086	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003						141.5181
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		**0.0142**	**0.1292**	**0.1086**	**7.8000e-004**		**9.8200e-003**	**9.8200e-003**		**9.8200e-003**	**9.8200e-003**						**141.5181**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.28304e+006	0.0123	0.1119	0.0940	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003						122.5558
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Total		**0.0123**	**0.1119**	**0.0940**	**6.7000e-004**		**8.5100e-003**	**8.5100e-003**		**8.5100e-003**	**8.5100e-003**						**122.5558**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	460802				76.4982
Parking Lot	57499.2				9.5455
Total					**86.0437**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	441700				73.3272
Parking Lot	57499.2				9.5455
Total					**82.8727**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Unmitigated	0.3056	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0700					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.2355					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Total	**0.3056**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**8.9000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0700					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.2355					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						8.9000e-004
Total	**0.3056**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**						**8.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				1.4149
Unmitigated				1.4149

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.608802 / 0.0676447				1.4149
Parking Lot	0 / 0				0.0000
Total					**1.4149**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.608802 / 0.0676447				1.4149
Parking Lot	0 / 0				0.0000
Total					**1.4149**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				3.3041
Unmitigated				6.6081

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	13.14				6.6081
Parking Lot	0				0.0000
Total					**6.6081**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	6.57				3.3041
Parking Lot	0				0.0000
Total					**3.3041**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3111

Serious drought.
Help save water!

August 8, 2017

SLO 46 PM 29.77
SCH# 2017071017

Darren Nash
Planning and Building
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

RE: COMMENTS TO DRAFT IS/MND FOR PD 16-007, BLACK OAK LODGE – 2717 BLACK OAK DR

Dear Mr. Nash:

The California Department of Transportation (Caltrans) appreciates the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) for the Black Oak Lodge project. The proposed project consists of the construction and operation of a 4-story, 96-room hotel located at 2717 Black Oak Drive. Caltrans notes that this project is located within 200 feet of the US 101 and State Route (SR) 46 East interchange with access from Black Oak Drive and Riverside Avenue. As noted in the project's *Traffic and Circulation Study* (April 3, 2017) conducted by Associated Transportation Engineers (ATE), the proposed project is highway serving land use and as such much of the traffic is expected to be regional in nature (i.e., primarily arriving from SR 46 and US 101).

Initial Traffic Study Review
On June 27, 2017, Caltrans received and reviewed the above-noted *Traffic and Circulation Study*, and subsequently provided the following comments in an email to the City of Paso Robles:

> Caltrans is concerned that no analysis or discussion was provided regarding potential impacts to the nearby (200 feet away) junction of SR 46 East and US 101. The traffic analysis should include a comprehensive analysis of potential impacts (project specific and cumulative) to the state highway system with regard to the following:
>
> 1. State Route 46 East and U.S. 101 Interchange. Please utilize the most intensive Peak Hour Volume for the area, which occurs on Friday afternoons, in order to disclose the full scope of potential impacts to the interchange and highway access ramps.
>
> 2. Percentage of Heavy Vehicles (HV). Please indicate the HV percentage assumed for the affected intersections and interchanges.
>
> 3. LOS Calculation Worksheets. The Technical Appendix for the traffic study was not provided for our review.

Project IS/MND
Following our comments, on July 13, 2007, Caltrans received the IS/MND prepared for the proposed project which contained and referenced the *Traffic and Circulation Study*. Caltrans recognizes that the IS/MND provided additional information regarding cumulative project assumptions that was not included in the *Traffic and Circulation Study*, but concluded that the additional project-generated trips utilizing US 101 would be

minimal. This conclusion is inconsistent with the typical hotel traffic at a major freeway interchange. Even more problematic is that the circulated *Traffic and Circulation Study* did not analyze potential impacts to US 101 or SR 46 East (the primary access points). Therefore, Caltrans is not able to concur with the determination of the environmental document since no evidence was provided to substantiate the finding. In response to the IS/MND circulated for public review, Caltrans continues to have the same concerns originally discussed in the previously noted email.

Revised *Traffic and Circulation Study* (July 26, 2017)
On July 31, 2017, Caltrans received a copy of a revised *Traffic and Circulation Study* conducted by ATE. The revised study included an analysis of traffic operations and potential impacts to the nearby State highway system (SHS), which had not previously been provided with the IS/MND. We are not aware if this additional study was circulated at large for review, but based upon our evaluation of the current document, we offer the following comments:

1. The revised analysis reveals the following:

    - Overall, the Northbound US 101 ramp at SR 46 is currently operating at LOS D during the PM Peak Hour, with some lane groups at LOS E. Cumulative is LOS F.
    - Even though the Southbound US 101 ramp at SR 46 is currently functioning at LOS C as a whole, the Eastbound SR 46 and Southbound US 101 lane groups are operating deficiently at LOS D. Cumulative is LOS D.

    Caltrans endeavors to maintain a target Level of Service (LOS) at the transition between LOS C and LOS D on all State transportation facilities. In cases where the SHS is already operating at an unacceptable LOS, any additional trips should be considered a significant traffic impact, and should be mitigated accordingly.

2. The Peak Hour Factor (PHF) is used to convert the hourly traffic volume into the flow rate that represents the busiest 15 minutes of the rush hour. Research indicates that PHF has a strong impact on traffic analysis results. The study utilized unusually high Peak Hour Factors (PHF) of 0.97 and 0.99 in the SHS interchange analysis. This resulted in a better-than-actual-characterization of the interchange function. The Highway Capacity Manual (HCM) 2010 recommends a PHF of 0.92 for urban areas, and postulates 0.95 as the typical PHF for congested roadways.

    Common practice is to use a default value recommended by national or local guideline or to use limited field observations. The *Traffic and Circulation Study* did not provide any evidence of field observation that would justify the PHF that were used. Typically, Caltrans would expect a lower PHF range if field observations for PHF had been conducted. Absent of field observation calculations, Caltrans recommends using a lower PHF that corresponds to HCM 2010 recommendations for urban areas.

3. Inconsistencies exist in the traffic impact analysis conducted for the US 101 and SR 46 interchange. Caltrans expects a logical increase in lane deficiencies with the additional 874 daily trips from the project. However, the study assumed an overall increase in the capacity (vehicles/hour) of the interchange under the "existing+project" conditions over the "existing" conditions. This incorrect assumption led to a drop in delay even though trips were added to the interchange. There are currently no proposed projects that would change capacity along this segment. Therefore, the "existing+project" conditions should assume the same interchange capacity as analyzed in the "existing" conditions. To ensure an accurate evaluation for all "existing" and "existing+project" condition scenarios, please utilize the signal timings currently established by Caltrans for each interchange approach.

4. Further inconsistency is found in Section XVI (Transportation/Traffic) of the project's Initial Study/MND. The document indicates in the checkbox that the project impacts regarding LOS are "Less Than Significant" (Impact Item a); therefore, no mitigation was proposed. However, the discussion concludes that the project "will be conditioned to pay traffic impact development fees for the proportionate share of impacts associated with the project to mitigate its impacts to traffic and roadways." Caltrans notes that the statement is consistent with the determination of the *Traffic and Circulation Study* that the project "will be required to pay traffic mitigation fees to the City to offset its cumulative effect to the U.S. Highway 101/ State Route interchange and the State Route 46E corridor.

   Caltrans is supportive of "fair share" contributions from development projects to offset impacts. However, an approximate fair share dollar amount should be calculated and allocated to specific projects that would improve LOS to an acceptable level. Any contribution amounts allocated for each specific project selected to improve LOS operation should be identified in mitigation measures proposed within the appropriate environmental document and allocated to an established development fee program. Caltrans would support the incorporation of mitigation that requires payment of development fees toward projects at this location. Please be aware that the San Luis Obispo County *2014 Regional Transportation Plan/Sustainable Communities Strategy* has identified a project in Figure 4-37 (Constrained High Priority Projects) to improve the US 101 Northbound off-ramp at SR 46. Possibilities to implement other changes on the local road system to alleviate LOS concerns at the interchange could be also investigated.

   Not withstanding that, there is currently no established development fee program for the project area. Additionally, no projects that would reduce cumulative impacts to less than significant have been identified with the City's adopted Capital Improvement Plan. Caltrans recognizes that the City is currently updating the Circulation Element of its General Plan, but this process has not been completed. Completion of these items would possibly allow for the processing of a project MND with adequate mitigation to reduce cumulative traffic impacts to less than significant. Without the benefit of any recommendations to mitigate the impacts, Caltrans recommends the preparation and adoption of an Environmental Impact Reports with the associated Statement of Overriding Concerns and Findings of Consideration.

City Engineer's Memorandum Regarding PD 16-007 (July 27, 2017)
In addition to this revised study, the City of Paso Robles also submitted a memo from David Athey, City Engineer, regarding potential project-related impacts. The memo claims that "percentage increases do not represent a significant impact during the Friday Peak Hour or result in a decrease in LOS. Therefore, no additional traffic impact mitigations are warranted for this project." Caltrans notes that this concept is referred to as "ratio theory" and is not supported by Caltrans or the courts. The following California Environmental Quality Act (CEQA) court cases validate our position:

- *Kings County Farm Bureau v. City of Hanford* (5th District, 1990);
- *Los Angeles Unified School District v. City of Los Angeles* (2nd District, 1997); and
- *Communities for a Better Environment v. California Resources Agency* (3rd District, 2002).

These court rulings invalidate the use of "ratio theory" (also known as "comparative approach") criterion because it improperly measures a proposed project's incremental impact relative to the existing cumulative effect rather than focus on the combined effects of the project and other relevant past, present, and future projects.

In the case of *Los Angeles Unified School District v. City of Los Angeles* the courts ruled that a Lead Agency cannot compare the relative severity of the cumulative problem to the incremental impact in order to find the increment is less than "considerable." Rather, the Lead Agency must answer and analyze the question posed by CEQA Section 21083(b), whether "the incremental effects of an individual 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." The courts also determined that a Lead Agency cannot automatically conclude that a project's incremental contribution is not "considerable" just because background impact levels already exceed significant thresholds.

In summary, direct project-related impacts have not been fully disclosed due to inaccuracies in the traffic analysis. Further, cumulative traffic impacts requiring mitigation exist and have not been addressed through development impact fees as recommended by the project's traffic study. Therefore, Caltrans is not able to concur with study findings and the determinations of the IS/MND regarding potential traffic impacts.

We look forward to working with you to resolve these concerns. If you have any questions regarding the items discussed above, please contact me at (805) 549-3131, or Michael.Hollier@DOT.ca.gov.

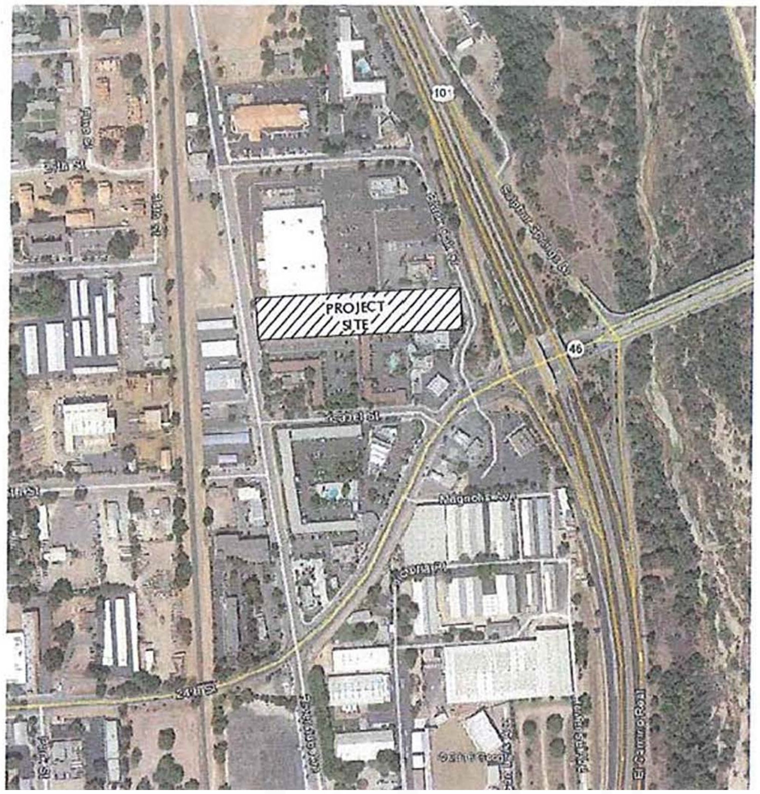
Sincerely,

MICHAEL D. HOLLIER
LD-IGR Coordinator
Planning District 5, South Branch

cc: John Dinunzio (SLOCOG)

BLACK OAK LODGE
CITY OF PASO ROBLES, CALIFORNIA

TRAFFIC AND CIRCULATION STUDY



December 21, 2017

ATE Project 17008

Prepared For:

Garcia Architecture & Design
1308 Monterey Street, Suite #230
San Luis Obispo, CA 93401

ASSOCIATED TRANSPORTATION ENGINEERS

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December 21, 2017 17008R02

Mr. George Garcia
Garcia Architecture & Design
1308 Monterey Street, Suite #230
San Luis Obispo, CA 93401

TRAFFIC AND CIRCULATION STUDY FOR THE BLACK OAK LODGE PROJECT - CITY OF PASO ROBLES, CALIFORNIA

Associated Transportation Engineers is pleased to submit the following revised traffic and circulation study for the Black Oak Lodge Project, located on Black Oak Drive north of State Route 46 in the City of Paso Robles, California. The revised the traffic and circulation study addresses comments provided by Caltrans on the July 26th, 2017 traffic and circulation study prepared by ATE. The revised the traffic and circulation study will be used by the City in processing the development application.

We appreciate the opportunity to assist you with this project.

Associated Transportation Engineers

By: Scott Schell, AICP, PTP
Principal Transportation Planner

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INTRODUCTION

Associated Transportation Engineers (ATE) has prepared the following traffic and circulation study for the Black Oak Lodge Project (the "Project") proposed in the City of Paso Robles. The scope of work for the study was developed by ATE in consultation with City staff and input provided by Caltrans staff. The study reviews Existing, Existing + Project, Cumulative and Cumulative + Project traffic conditions in the vicinity of the site.

PROJECT DESCRIPTION

The Black Oak Lodge Project is proposing to develop a 96-room motel on two undeveloped parcels totaling approximately 2 acres. The Project site is located at 2717 Black Oak Drive, as shown in Figure 1. The subject property is zoned C-3, and the proposed motel development is consistent with the zoning. Figure 2 illustrates the project site plan. Access to the motel is provided via a shared driveway with an existing McDonald's on Black Oak Drive and a driveway connection to Riverside Avenue.

STUDY AREA

The roadways and intersections analyzed in this study include 24th Street, Black Oak Drive, Riverside Avenue, Ysabel Street and U.S. Highway 101. The facilities analyzed are summarized on Table 1.

Table 1
Study-Area Transportation Facilities

Roadways	Intersections
24th Street	24th Street/Black Oak Drive
Black Oak Drive	24th Street/Ysabel Street
Riverside Avenue	24th Street/Riverside Avenue
Ysabel Street	U.S. Highway 101 Southbound Ramps/24th Street
	U.S. Highway 101 Northbound Ramps/State Route 46 (East)

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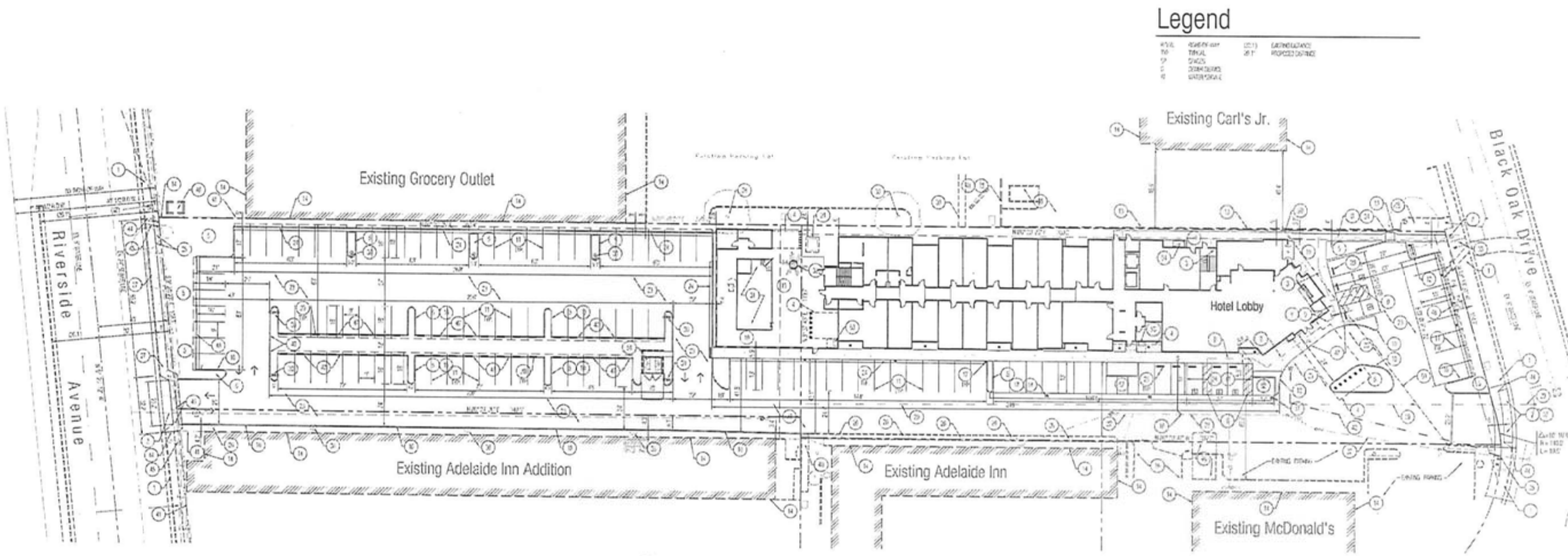
EXISTING STREET NETWORK AND PROJECT SITE LOCATION

FIGURE 1

EKM - ATE#17008

Agenda Item 1



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NOT TO SCALE

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PROJECT SITE PLAN

FIGURE 2

EKM - ATE#17008

EXISTING CONDITIONS

Street Network

The project site is served by a network of major highways, arterial streets and collector streets, as illustrated in Figure 1. The following text provides a brief discussion of major components of the study-area street network.

U.S. Highway 101, located east of the project site is the principal inter-city route along the Pacific Coast and is a 4-lane divided highway which serves as one of the major north-south links in San Luis Obispo County. Signals control the U.S. Highway 101/State Route 46 (East) interchange.

State Route 46E, located south of the project site, is an east-west state highway. Within the Paso Robles area, State Route 46E extends as a 4-lane divided expressway west of Union Road and a 4-lane divided highway east of Union Road.

24th Street, located south of the project site, is a 2- to 4-lane undivided east-west roadway. 24th Street extends west from U.S. Highway 101 becoming Nacimiento Lake Drive. Within the study-area, 24th Street serves primarily commercial and motel uses.

Black Oak Drive, located directly east of the project site is a 2-lane north-south roadway. Black Oak Drive extends north from 24th Street to Riverside Avenue. Black Oak Drive serves commercial and motel uses north of 24th Street. Black Oak Drive will provide access to the project site via a shared driveway connection. Black Oak Drive is STOP–Sign controlled at the 24th Street intersection.

Riverside Avenue, located west of the project site, extends north from the U.S. Highway 101 southbound on-ramps to the northern portion of the City. Riverside Avenue is a 2-lane roadway that provides access to residential and commercial uses within the City. In the study-area Riverside Avenue is signalized at 24th Street. Riverside Avenue will provide access to the project site via a driveway connection.

Ysabel Street, located south of the project site is an east-west roadway that extends from Riverside Avenue to 24th Street. Ysabel Street is a 2-lane roadway that provides access to motel and commercial uses. Ysabel Street is STOP–Sign controlled at the 24th Street intersection.

Intersection Operation

Figure 3 illustrates the existing lane geometry and traffic controls at the study-area intersections. Existing A.M. and P.M. peak hour traffic volumes for the study-area intersections were counted by ATE in February and July of 2017 and are show on Figure 4. Caltrans requested an analysis of the State highway interchange ramps on a Friday during the P.M. peak hour.

Levels of service were calculated for the study-area intersections using the methodology outlined in the Highway Capacity Manual. The computer program "Synchro" was used to analyze the operation of the study-area intersections. The level of service calculation worksheets, along with a brief discussion of the calculation procedures used, are contained in the Technical Appendix. Table 2 presents the results of the level of service analysis.

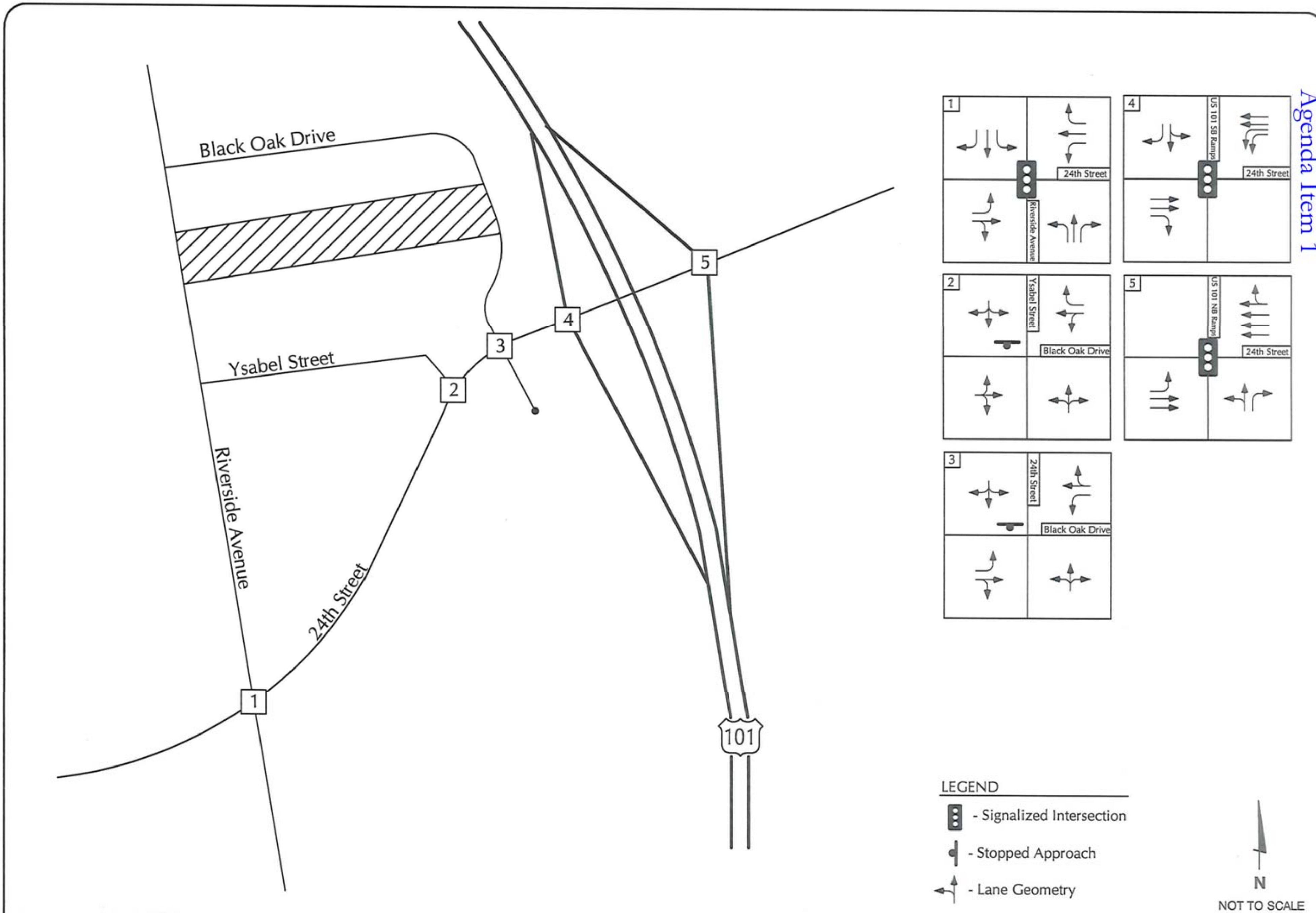
Table 2
Existing Intersection Levels of Service

Intersection	Jurisdiction	Traffic Control	A.M. Peak Hour	P.M. Peak Hour
24th Street/Black Oak Drive	Paso Robles	STOP-Sign	5.1 sec./LOS A	5.9 sec./LOS A
24th Street/Ysabel Street	Paso Robles	STOP-Sign	2.3 sec./LOS A	2.4 sec./LOS A
24th Street/Riverside Avenue	Paso Robles	Signal	14.2 sec./LOS B	14.2 sec./LOS B
U.S. Highway 101 SB Ramps/24th Street	Caltrans	Signal	-	18.5 sec./LOS B
U.S. Highway 101 NB Ramps/State Route 46(E)	Caltrans	Signal	-	51.5 sec./LOS D

LOS based on average delay per vehicle in seconds.

The data presented in Table 2 show that generally the study-area intersections currently operate in the LOS A - B range during the A.M. and P.M. peak hour periods. The Caltrans U.S. Highway 101 northbound ramps/State Route 46 (East) intersection currently operates at LOS D. The intersection analysis show that the existing City street system works well and has reserve capacity available.

Agenda Item 1



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EXISTING LANE GEOMETRIES AND TRAFFIC CONTROLS

FIGURE 3

EKM - ATE#17008

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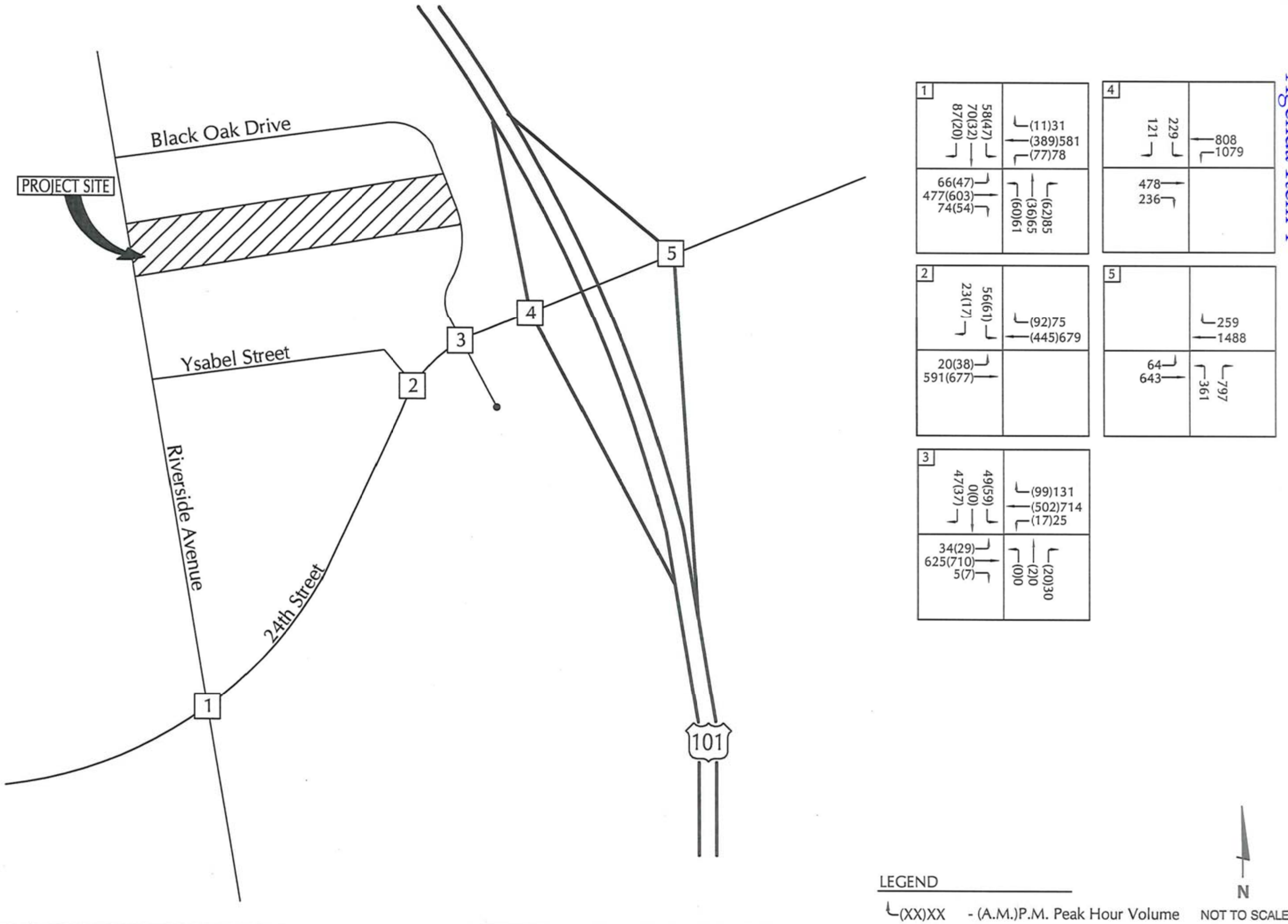

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EXISTING TRAFFIC VOLUMES

FIGURE 4

EKM - ATE#17008

IMPACT THRESHOLDS

City of Paso Robles. Analysis of intersection operations is focused on specific operational impacts such as queuing and safety.

Caltrans. Caltrans endeavors to maintain a target LOS at the transition between LOS C and D on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS D. If an existing State highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness (MOE) should be maintained. The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility.

2. Generates 50 to 100 peak hour trips assigned to a State highway facility - and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS C or D)

3. Generates 1 to 49 peak hour trips assigned to a State Highway facility - the follwing are examples that may require a full TIS or some lesser analysis;

   a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions

   b. The potential risk for traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.

   c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, nonstandard highway geometric design, etc.

PROJECT GENERATED TRAFFIC VOLUMES

Project Trip Generation

Trip generation estimates were calculated for the Black Oak Lodge Project based on the rates published in the Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition for Motels (Land-Use Code #320).[1] Table 3 presents the average daily, A.M. and P.M. peak hour trip generation estimates for the Project.

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[1] Trip Generation, Institute of Transportation Engineers, 9th Edition, 2013.

Table 3
Project Trip Generation Estimates

Land Use	Size	ADT		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Motel	96 Rooms	9.11	874	0.64	61 (22/39)	0.58	56 (30/26)

The data presented in Table 3 show that the proposed hotel would generate 874 average daily trips, 61 A.M. peak hour trips and 56 P.M. peak hour trips.

Trip Distribution and Assignment

Trip distribution percentages were developed for the Project based on existing traffic patterns and consideration of the recreational and visitor serving uses in the Paso Robles area. The hotel is a highway serving land use and as such much of the traffic is expected to be regional in nature (using State Route 46 E and U.S. 101). Employee and service trips will be made in the Paso Robles area. The trip distribution pattern is presented in Table 4, and Figure 5 shows the distribution and assignment of project-generated traffic on the study-area street network. It should be noted that the project adds less than 50 peak hour trips to the Caltrans State highway facilities.

Table 4
Project Trip Distribution

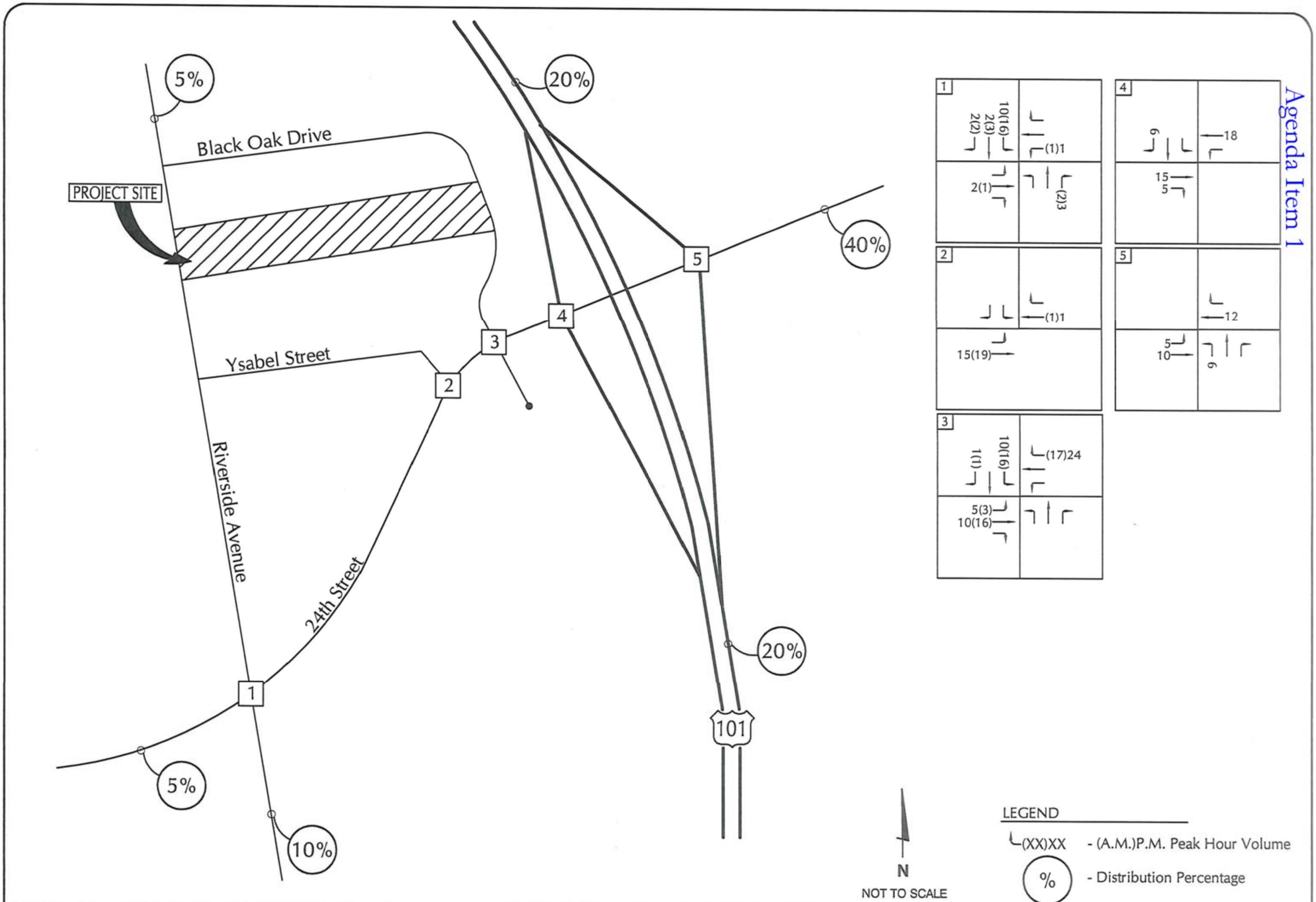
Route	Origin/Destination	Percent
U.S. Highway 101 North of State Route 46E	North	20%
U.S. Highway 101 South of State Route 46E	South	20%
State Route 46E East of U.S. Highway 101	East	40%
24th Street West of Riverside Avenue	West	5%
Riverside Avenue North of 24th Street	North	5%
Riverside Avenue South of 24th Street	South	10%
	Total:	**100%**

PROJECT-SPECIFIC IMPACTS

Intersection Operations

Figure 6 shows the Existing + Project peak hour traffic volumes for the study-area intersections. Existing and Existing + Project levels of service are compared in Table 5.

Agenda Item 1



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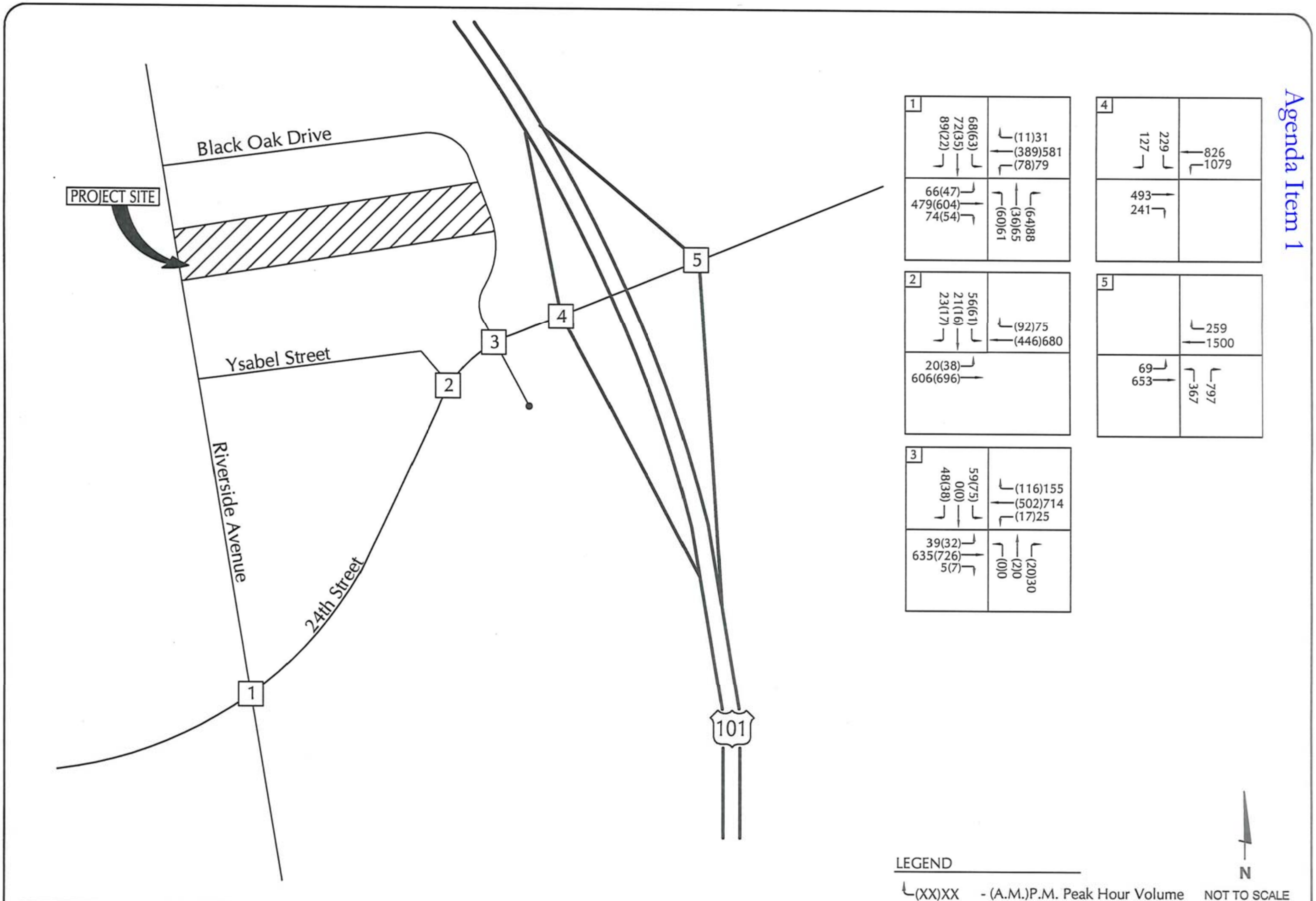
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

EKM - ATE#17008

Agenda Item 1



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EXISTING + PROJECT TRAFFIC VOLUMES

FIGURE 6

EKM - ATE#17008

Table 5
Existing + Project Intersection Levels of Service

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	Existing	Existing + Project	Existing	Existing + Project
24th Street/Black Oak Drive	5.1 sec./LOS A	9.2 sec./LOS A	5.9 sec./LOS A	9.2 sec./LOS A
24th Street/Ysabel Street	2.3 sec./LOS A	2.3 sec./LOS A	2.4 sec./LOS A	2.5 sec./LOS A
24th Street/Riverside Avenue	14.2 sec./LOS B	14.2 sec./LOS B	14.2 sec./LOS B	14.3 sec./LOS B
U.S. Highway 101 SB Ramps/24th Street	-	-	18.5 sec./LOS B	19.6 sec./LOS B
U.S. Highway 101 NB Ramps/S.R. 46(E)	-	-	51.5 sec./LOS D	51.0 sec./LOS D

LOS based on average delay per vehicle in seconds.

The data presented in Table 5 show that the study-area intersections would continue to operate in the LOS A-D range with the addition of Project traffic. The intersection analyses show that the Project would not result in a project-specific impact. The Caltrans State highway facilities will continue to operate at the same LOS with and without the Project.

ATE utilized the Synchro software to evaluate the left-turn queues at of the 24th Street/Riverside Avenue intersection assuming the Existing + Project volumes. Synchro implements the Highway Capacity Manual operations methodology and predicts both "50th Percentile" queues and "95th Percentile" queues. The 50th Percentile queue represents the average queue during the peak hour period. The 95th Percentile queue represents the queue during the peak 15-minute period and is recommended for design purposes. Table 6 shows the 95th percentile queue lengths for the left-turn movements at the intersection with the existing + project peak hour volumes.

Table 6
24th Street/Riverside Avenue Intersection Queue Forecasts
Existing + Project Peak Hour Traffic Volumes

Movement	Existing Storage Length	95% Queue Length	
		A.M. Peak Hour	P.M. Peak Hour
Northbound Left-Turn	100 feet	41 feet	43 feet
Southbound Left-Turn	90 feet	42 feet	47 feet
Eastbound Left-Turn	50 feet	24 feet	41 feet
Westbound Left-Turn	90 feet	82 feet	47 feet

The data presented in Table 6 shows that the 95th percentile queue lengths would not exceed the left-turn storage lengths with the Existing + Project peak hour volumes.

SITE ACCESS AND CIRCULATION

Access to the site will be provided by an existing driveway on Black Oak Drive and a new relocated driveway on Riverside Avenue. The Black Oak Drive driveway would be shared with the existing McDonald's restaurant located south of the site and would provide full access to the motel site. Black Oak Drive is straight and level such that adequate sight distance is provided at the driveway.

The hotel lobby and registration desk are located adjacent to the Black Oak Drive driveway. The project would add 37 (20 inbound and 17 outbound) A.M. peak hour trips and 40 (29 inbound and 11 outbound) P.M. peak hour trips to the Black Oak Drive driveway. Hotel guest would enter the site via Black Oak Drive or Riverside Avenue proceed to the parking area in front of the hotel near the lobby, park and then walk in to the registration desk. Since the hotel check-out time is typically Noon and check-in time is 3 P.M., project trips and McDonald's customer trips would potentially conflict during the A.M. peak hour period and the Noon hour when the drive though is most active. During the remainder of the day hotel trips and McDonald's customer trips would be at lower levels and less potential for conflict.

A queuing study was conducted at the McDonald's dual drive-through lane facility during the peak lunch period to determine if the drive-through queues could potentially interfere with the shared driveway operations. The queuing data (contained in the Technical Appendix) showed that the maximum queue behind the order board for each drive-through lane was 2 vehicles. These queues would not interfere with access to the proposed motel at the shared driveway.

The new Riverside Avenue driveway will replace an existing driveway and provide full access. Riverside Avenue is straight and level such that adequate sight distance is provided at the driveway.

Pedestrian and Bicycle Facilities

There are existing pedestrian sidewalks along Black Oak Drive and Riverside Avenue in the study-area. There are no existing bicycle facilities in the study-area. The project the project will construct sidewalk along the its Riverside Avenue frontage completing the sidewalk on the east side of Riverside Avenue from Black Oak Drive to the project site. Pedestrian deficiencies would occur if the project fails to provide safe and accessible pedestrian connections between the project buildings and adjacent street, trails and transit facilities. Since the project would provide an internal pathway system for pedestrians connecting to pedestrian facilities on Black Oak Drive and Riverside Avenue, no pedestrian deficiencies are noted.

Transit Service

The San Luis Obispo Regional Transit Authority (RTA) provides regional fixed-route and Dial-A-Ride service to San Luis Obispo County. RTA also operates a summer beach shuttle connecting the North County to Cayucos. The Paso Express provides fixed route and Dial-A-Ride service in the City of Paso Robles. The fixed route service is provided Monday through Friday from 6:45 A.M. to 7:05 P.M. Saturday service is provided from 7:45 A.M. to 6:05 P.M. The Dial-A-Ride service provides curb-to-curb service weekdays from 7:00 A.M. to 1:00 P.M. The site is served by a Paso Express fixed-route stop on Ysabel Street.

Transit deficiencies would occur if the project would disrupt existing or planned transit facilities or service; conflicts with City plan, guidelines or standards; or if the project adds trips to a line already operating at peak hour load capacity. The project is not expected to alter change or disrupt any of the transit facilities or lines, thus no transit deficiencies are identified.

SHORT-TERM CUMULATIVE ANALYSIS

The following analysis discusses short-term cumulative (5-10 year period) conditions using information and data contained in traffic studies and environmental documents completed for other development projects in this area of Paso Robles.

Short-Term Cumulative Projects

The short-term cumulative traffic projections for the study-area intersections were developed based on data presented in the traffic study prepared for the Destino Paso Resort Hotel (Central Coast Transportation Consulting, 2016) and the traffic study prepared for the Cabernet Links & RV Resort (Associated Transportation Engineers, 2016). The following list of approved and pending project was developed based on the information contained in those studies.

- Paso Robles Union Road Residence Inn - 120 hotel rooms and related amenities located on the Union Road south of State Route 46(East).
- Destino Resort Hotel - 291 hotel rooms and related amenities located at 3340 Airport Road.
- Buena Vista Apartments - 142 apartments located 802 Experimental Station Road.
- San Antonio Winery Development - Tasting room, restaurant, 4 residences, and retail in addition to existing facilities at 2610 Buena Vista Drive.
- San Antonio Wine Processing - 126,000 square foot wine processing facility at 2261 Wisteria Lane.
- River Oaks (next Generation) - 144 active adult homes, 127 single family lots, community center, and fitness/wellness center located north of River Oaks Drive and east of River Road.
- Vina Robles Hotel - 98 hotel rooms , south of the Vina Robles Amphitheater on Mill Road.
- Golden Hill RV Park - 332 RV lots located at the north end of Golden Hill Road.
- Wine Storage - 66,000 square foot wine storage building located at 2261 Wisteria Lane.
- Hilton Garden Inn - 166 hotel rooms located on the southeast corner of State Route 46(East)/Golden Hill Road.
- Discovery Gardens (La Entrada) - East of Airport Road on State Route 46(East) Phases 1 and 1a assumed to be in place.
- Gran Cielo Cluster Development - 42 single family homes in the County south of Union Road and State Route 46 (East).
- Cabernet Links & RV Resort - 290 space RV Park, 60,000 square feet of winery/brewery space, 18 hole golf course and 33.84 acres of vineyard area located on the northwest corner of Jardine Road and Beacon Drive.
- Homewood Suites - 105 hotel rooms located on the northwest corner of 3340 Golden Hill Road and Dallons Drive.
- The Oaks Hotel - 66 additional hotel rooms located at 3000 Riverside Avenue.

Table 7 presents the trip geneartion estimates developed for the approved and pending projects located in the Project study area.

Table 7
Approved/Pending Projects Trip Generation Estimates

Project	Land Use	Size/Units	ADT	A.M. Peak Hour	P.M. Peak Hour
Union Road Resi dence Inn[a]	Hotel	120 Rooms	980	64	72
Vina Robles Hotel	Hotel	98 Rooms	874	66	69
Buena Vista Apartments	Apartments	142 Units	944	72	88
River Oaks[a]	Senior Housing	144 Units 127 Units 5,000 S.F.	654 1,309 165	54 99 7	59 130 18
San Antonio Winery	Single Family Tasting Room Restaurant Commercial Retail	4 Units 4,212 S.F. 6,168 S.F. 2,887 S.F.	38 40 555 128	3 0 5 4	4 4 46 8
San Antonio Winery	Wine Processing	126,000 S.F.	878	116	122
Golden Hill R.V. Resort[b]	R.V. Park	380 Spaces	1,406	76	141
Wine Storage	Light Industrial	66,000 S.F.	460	61	64
Hilton Garden Inn[b]	Hotel	166 Rooms	925(a)	73(a)	88(a)
Gran Cielo Development	Single Family	42 Units	400	32	42
Cabernet Links [b]	R.V. Resort Wine Tasting/Brewery Golf Course Vineyard	290 Spaces 6 Sites 18 Holes 33.84 Acres	720 360 643 68	61 14 12 2	78 41 53 7
Discovery Gardens[b]	Theme Gardens	11,120 attendees 91 employees	920	22	110
Destino[a]	Hotel	291 Rooms	1,657	90	122
Homewood Suites[b]	Hotel	105 Rooms	655	50	58
Oaks Hotel	Hotel Expansion	66 Rooms	589	44	46
		Total:	15,368	1,027	1,470

Note: (a) prepared by Central Coast Transportation Consulting; (b) Prepared by Associated Transportation Engineers.

The data presented in Table 7 indicate that the approved/pending developments will generate 15,368 average daily trips, 1,027 A.M. peak hour trips and 1,470 P.M. peak hour trips. The traffic volumes generated by the approved/pending developments were assigned to the study-area intersections according to trip distribution percentages contained in the traffic studies prepared for each project. The resulting short-term cumulative traffic volumes are illustrated on Figure 7.

Short-Term Cumulative Intersection Operation

The Short-term Cumulative levels of service for the study-area intersection are shown in Table 8 (LOS calculation worksheets contained in the Technical Appendix).

Table 8
Short-Term Cumulative Intersection Levels of Service

Intersection	Traffic Control	A.M. Peak Hour	P.M. Peak Hour
24th Street/Black Oak Drive	STOP-Sign	13.3 sec./LOS B	16.4 sec./LOS C
24th Street/Ysabel Street	STOP-Sign	2.5 sec./LOS A	2.9 sec./LOS A
24th Street/Riverside Avenue	Signal	14.6 sec./LOS B	14.6 sec./LOS B
U.S. Highway 101 SB Ramps/24th Street	Signal	-	42.0 sec./LOS D
U.S. Highway 101 NB Ramps/S.R. 46 (East)	Signal	-	>80.0 sec./LOS F

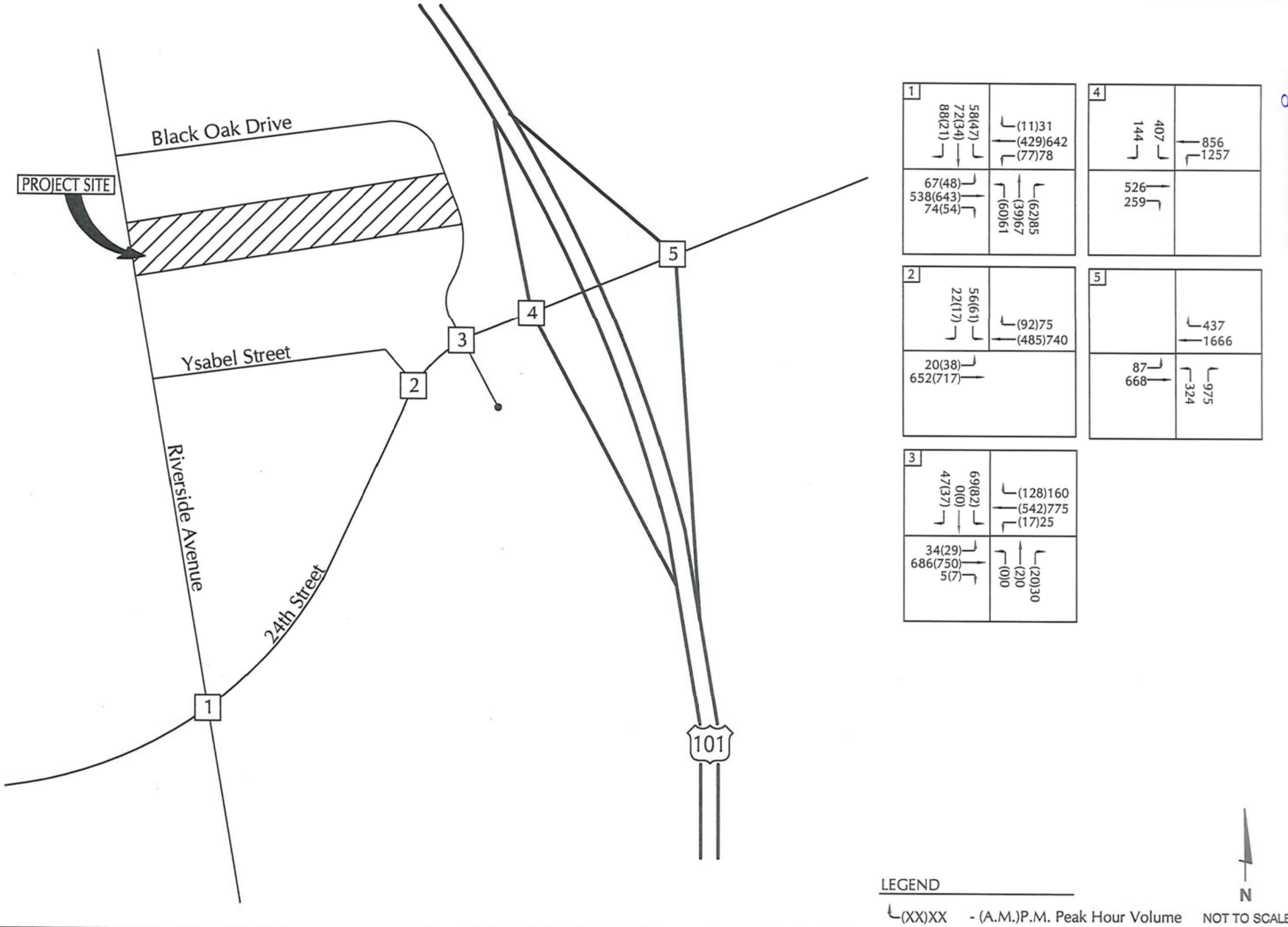
LOS based on average delay per vehicle in seconds.

The data presented in Table 8 indicate that generally the City intersections are forecast to operate in the LOS A-C range with Short-term Cumulative traffic volumes during the A.M. and P.M. peak hour periods. The Caltrans U.S. Highway 101 northbound ramps/State Route 46 (East) intersection is forecast to operate at LOS F. The intersection analysis show that the existing City street system works well and has reserve capacity available.

Short-Term Cumulative + Project Intersection Operation

The Short-term Cumulative + Project levels of service for the study-area intersection are shown in Table 9 (LOS calculation worksheets are contained in the Technical Appendix). The Short-term Cumulative + Project traffic volumes are illustrated on Figure 8.

Agenda Item 1



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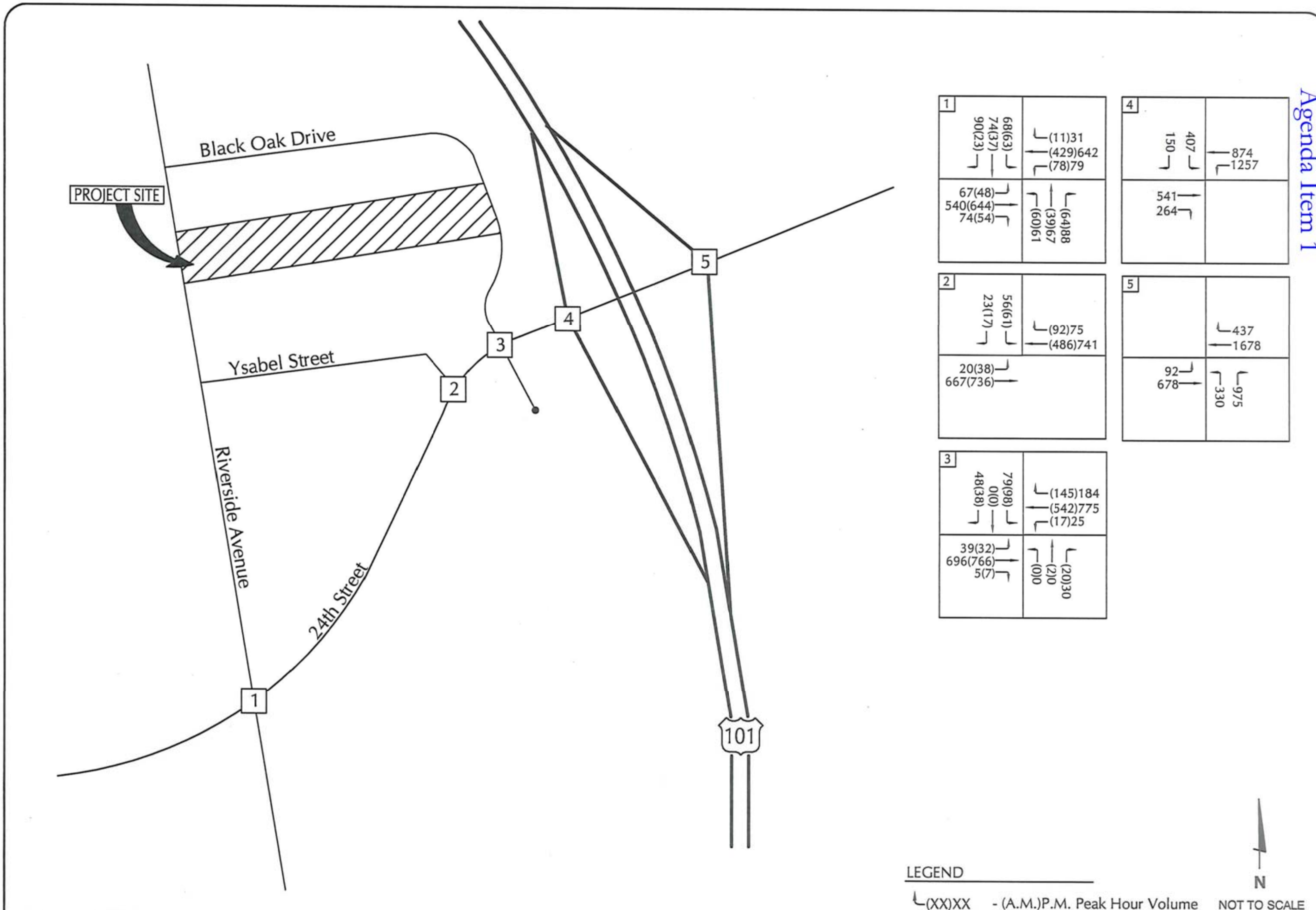
CUMULATIVE TRAFFIC VOLUMES

FIGURE 7

EKM - ATE#17008

Agenda Item 1



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CUMULATIVE + PROJECT TRAFFIC VOLUMES

FIGURE 8

EKM - ATE#17008

Table 9
Short-Term Cumulative + Project Intersection Levels of Service

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	Short-Term	Short-Term + Project	Short-Term	Short-Term + Project
24th Street/Black Oak Drive	13.3 sec./LOS B	22.9 sec./LOS C	16.4 sec./LOS C	24.6 sec./LOS C
24th Street/Ysabel Street	2.5 sec./LOS A	2.6 sec./LOS A	2.9 sec./LOS A	3.1 sec./LOS A
24th Street/Riverside Avenue	14.6 sec./LOS B	14.6 sec./LOS B	14.6 sec./LOS B	14.7 sec./LOS B
U.S. Highway 101 SB Ramps/24th Street	-	-	42.0 sec./LOS D	46.0 sec./LOS D
U.S. Highway 101 NB Ramps/S.R. 46 (East)	-	-	>80.0 sec./LOS F	>80.0 sec./LOS F

LOS based on average delay per vehicle in seconds.

The data presented in Table 9 indicate that the City intersections are forecast to operate in the LOS A-C range with Short-term Cumulative and Short-term Cumulative + Project volumes during the A.M. and P.M. peak hour periods as shown in Table 9. The Caltrans State highway intersections would continue to operate in the LOS D-F range with the addition of Project traffic. The intersection analysis show that the existing City street system works well and has reserve capacity available. The State Route 46 (East) Deficiency Plan discusses improvements to offset traffic impacts to the State highway facilities.

The left-turn queue forecasts were reevaluated 24th Street/Riverside Drive intersection assuming the Short-term Cumulative + Project volumes. Table 10 shows the 95th percentile queue lengths for the left-turn movements at the intersection with cumulative traffic.

Table 10
24th Street/Riverside Avenue Intersection Queue Forecasts
Short-Term Cumulative + Project Peak Hour Traffic Volumes

Movement	Existing Storage Length	95% Queue Length	
		A.M. Peak Hour	P.M. Peak Hour
Northbound Left-Turn	100 feet	41 feet	43 feet
Southbound Left-Turn	90 feet	42 feet	47 feet
Eastbound Left-Turn	50 feet	25 feet	48 feet
Westbound Left-Turn	90 feet	88 feet	54 feet

Table 10 shows that the 95th percentile queue lengths will not exceed the left-turn storage length with Short-term Cumulative + Project traffic. The left-turn vehicle queues can be accommodated by the existing left-turn storage lengths.

MITIGATION MEASURES

State Route 46E Deficiency Plan

The segment of State Route 46E between U.S. Highway 101 and Airport Road is forecast to operate above 100 percent of capacity under General Plan Buildout. The 2008 Comprehensive Corridor Study (CCS) prepared by Caltrans established that widening of State Route 46E to accommodate General Plan Buildout traffic would be ineffective without capacity and operational enhancements to U.S. Highway 101 and the U.S. Highway 101/State Route 46E interchange. The CCS also recognizes that capacity improvements to State Route 46E such as adding more lanes are in conflict with the City's small town character, convenience for non-auto modes of transportation, safety and cost/benefit goals. To mitigate impacts to State Route 46E, the CCS endorsed the development of a parallel route system of local roads north and south of State Route 46E between Jardine Road and River Road that would reduce the demand for travel on the highway.

Parallel routes are identified by the City of Paso Robles in the 2008 State Route 46E Parallel Route Study. The alignment of the route(s) will be studied by the City, and constructed with development of the land uses along State Route 46E. The Parallel Route Study developed the following recommendations.

- A connection between Airport Road and Golden Hill Road via the Wisteria and Tractor Road corridors, including a bridge over Huerhuero Creek. This concept was endorsed by the Paso Robles City Council at their September 22, 2017 meeting.

- Improvements to the intersection of State Route 46E and Union Road. The City shall monitor and plan for a grade separated interchange and interim improvements as needed. The improvement of this intersection will require that the north leg be extended to connect to Airport Road so that access to uses in the Airport area would be provided via the new intersection at State Route 46E/Union Road. The City is working with Caltrans on the Project PAED. Once a project alternative is chosen, the City will move into the PSE Phase. The SLOCOG Board has designated an $800,0000 match for the chosen design.

- Improvement to facilities serving non-auto modes of travel will also reduce the auto demand along this corridor. The proposed Airport Road and Golden Hill Road connection will include class I pathways to accommodate bicycle and pedestrians in the area.

The project will add 41 A.M. and 44 P.M. peak hour trips to the U.S. Highway 101/State Route 46E interchange under the cumulative scenario. The project will be required to pay traffic mitigation fees to the City to offset its cumulative effect to the U.S. Highway 101/State Route 46E interchange and the State Route 46E corridor. These fees will go toward the parallel route roadway and Union Road interchange improvements.

In addition to paying traffic impact fees for future improvements, the City is recommending that the project's Black Oak Drive driveway be restricted to inbound only traffic. The outbound traffic would be via the Riverside Avenue driveway. Signage on Riverside Avenue would direct southbound project traffic to the U.S. Highway 101/17th Street southbound on-ramp away from the U.S. Highway 101/State Route 46E interchange. Northbound traffic would be directed to the Spring Street on-ramp at the North end of the City.

■ ■ ■

STUDY PARTICIPANTS AND REFERENCES

Associated Transportation Engineers

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Darryl F. Nelson, PTP, Senior Transportation Planner
Erica K. Monson, Traffic Technician I

Persons Contacted

John Falkenstein, City of Paso Robles
Darren Nash, City of Paso Robles
Michael Hollier, Caltrans, District 5
Jenna Schudson, Caltrans, District 5

References

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Highway Capacity Manual, National Research 2010.

Destino Paso Resort Hotel Transportation Impact Analysis, Central Coast Transportation Consulting, November 2016.

Paso Robles Union Road Residence Inn Transportation Impact Analysis, Central Coast Transportation Consulting, May 2016.

Cabernet Links & RV Resort Traffic Study, Associated Transportation Engineers, October 2016.

TECHNICAL APPENDIX

CONTENTS

ATE TRAFFIC COUNT DATA

ITM Peak Hour Summary

Prepared by:

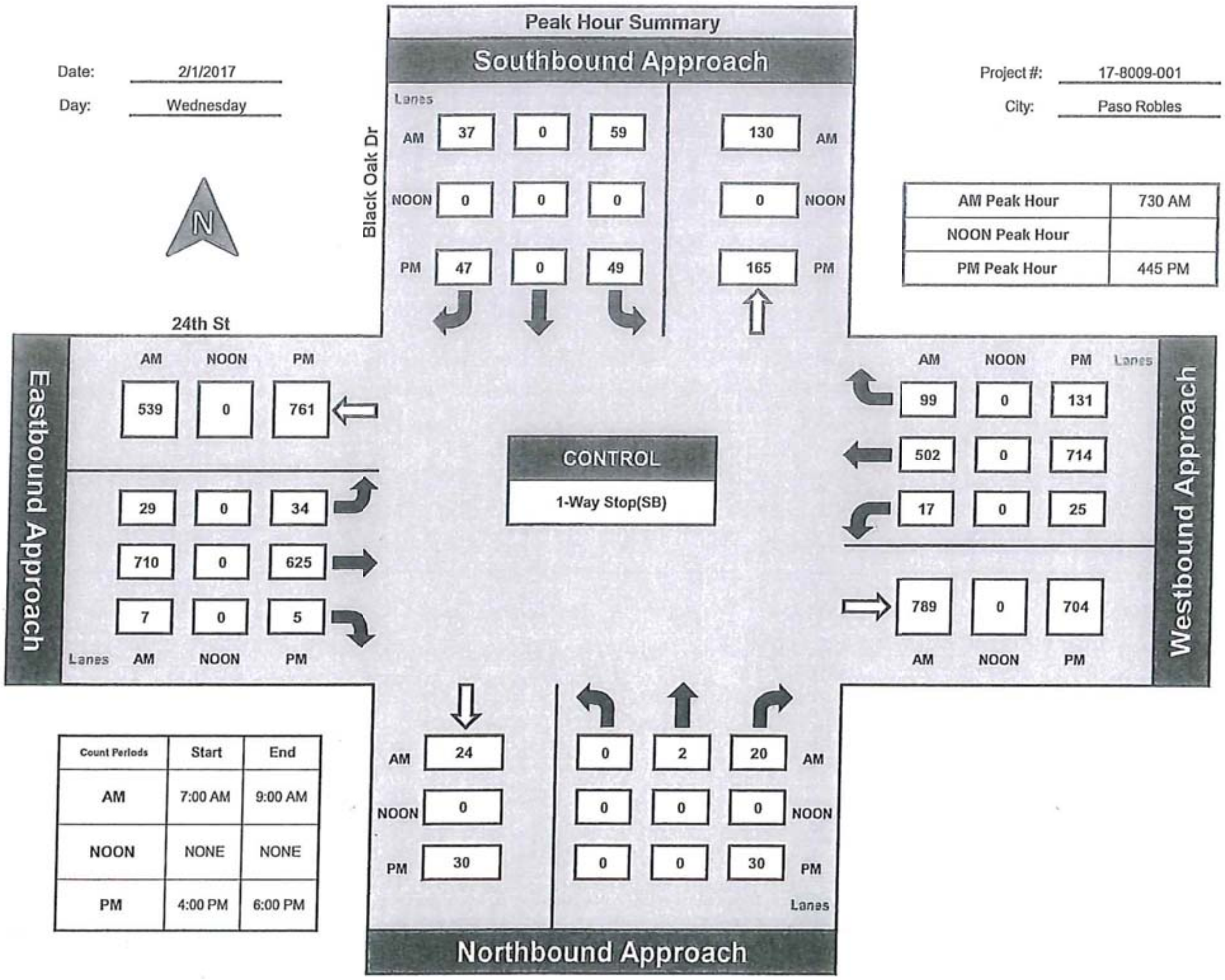
National Data & Surveying Services

Black Oak Dr and 24th St , Paso Robles

Date:	2/1/2017
Day:	Wednesday

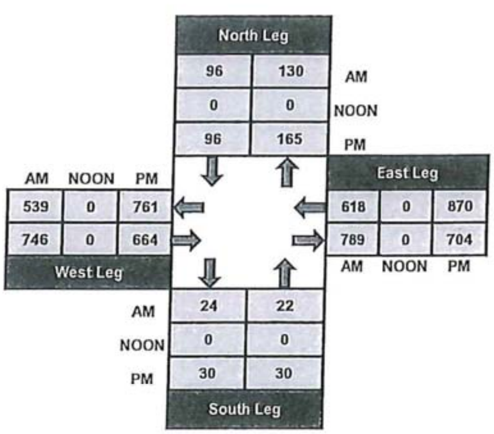
Project #:	17-8009-001
City:	Paso Robles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

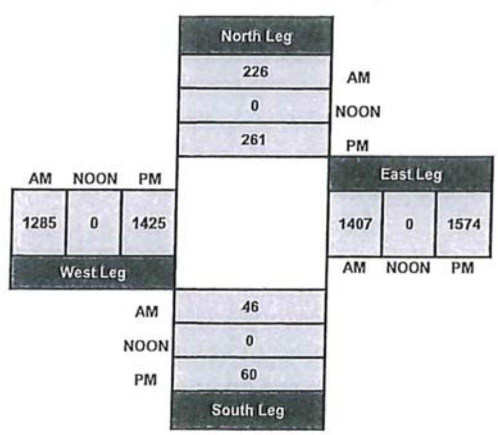


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Agenda Item 1

ITM Peak Hour Summary

Prepared by:

NDS

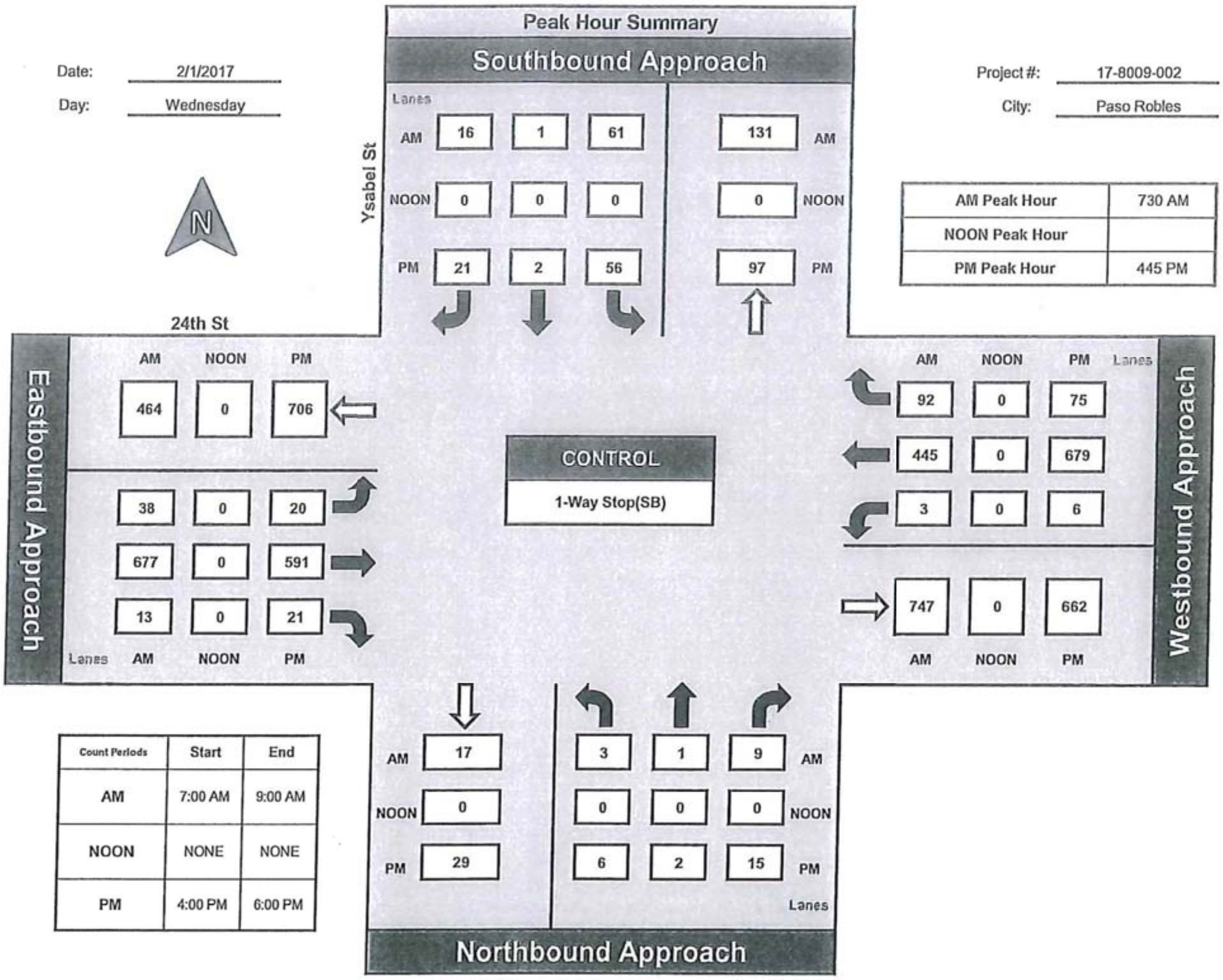
National Data & Surveying Services

Ysabel St and 24th St , Paso Robles

Date:	2/1/2017
Day:	Wednesday

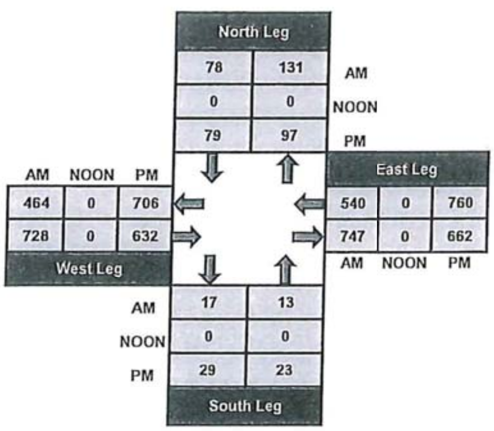
Project #:	17-8009-002
City:	Paso Robles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

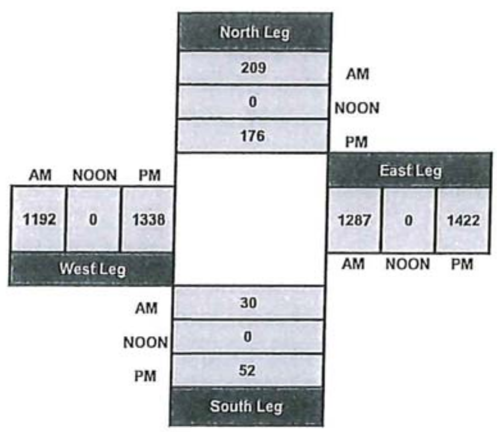


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Agenda Item 1

ITM Peak Hour Summary

Prepared by:

NDS

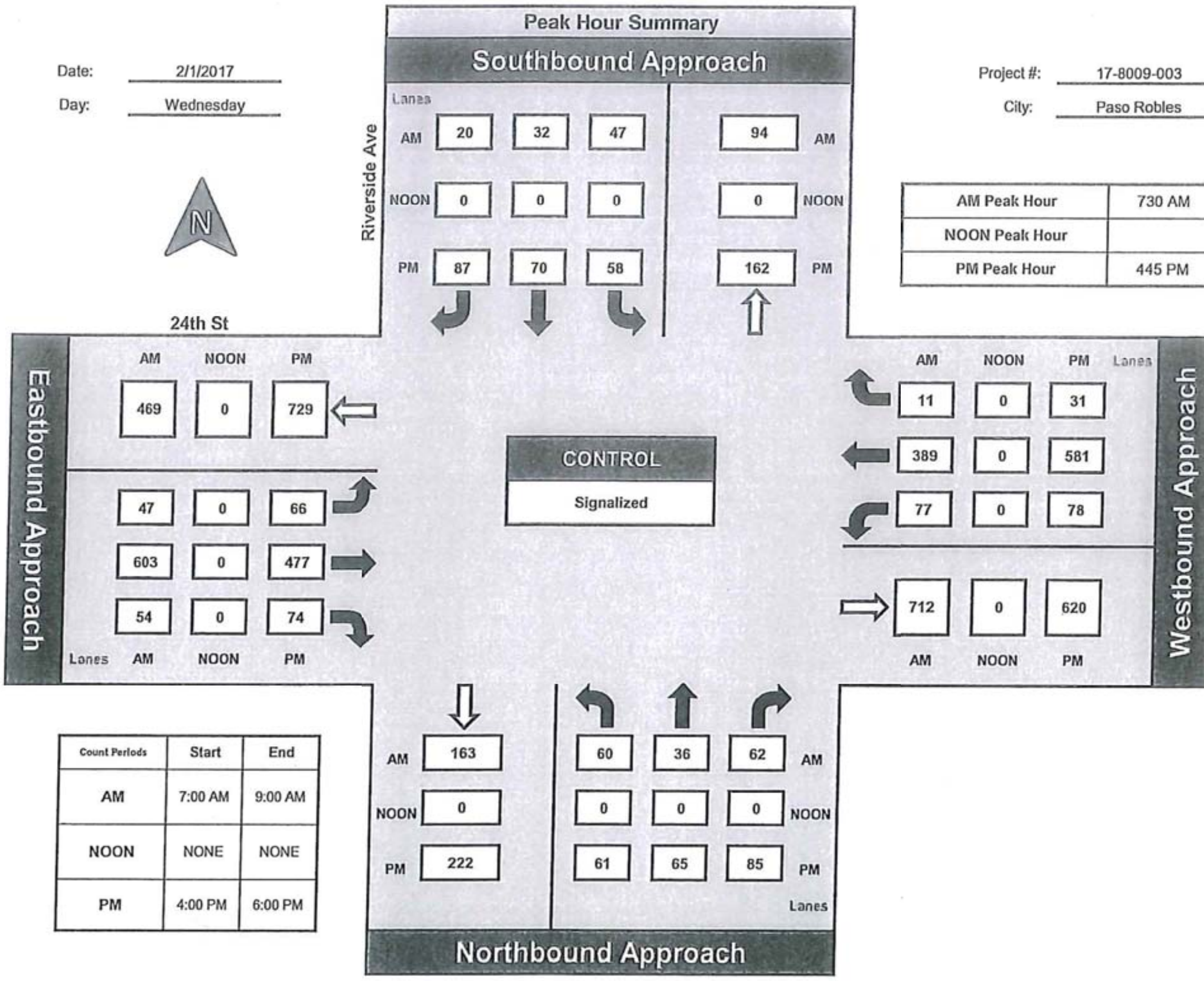
National Data & Surveying Services

Riverside Ave and 24th St , Paso Robles

Date:	2/1/2017
Day:	Wednesday

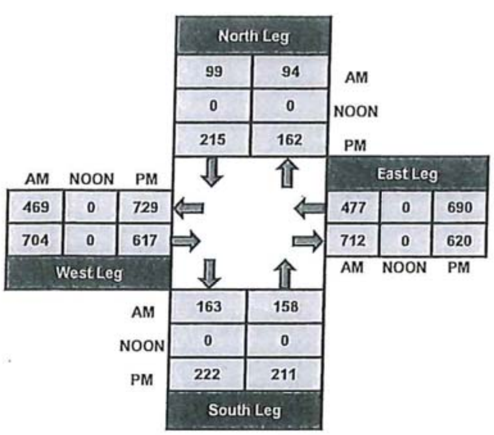
Project #:	17-8009-003
City:	Paso Robles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

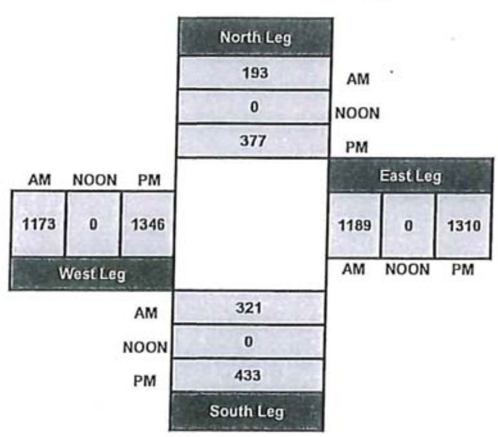


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



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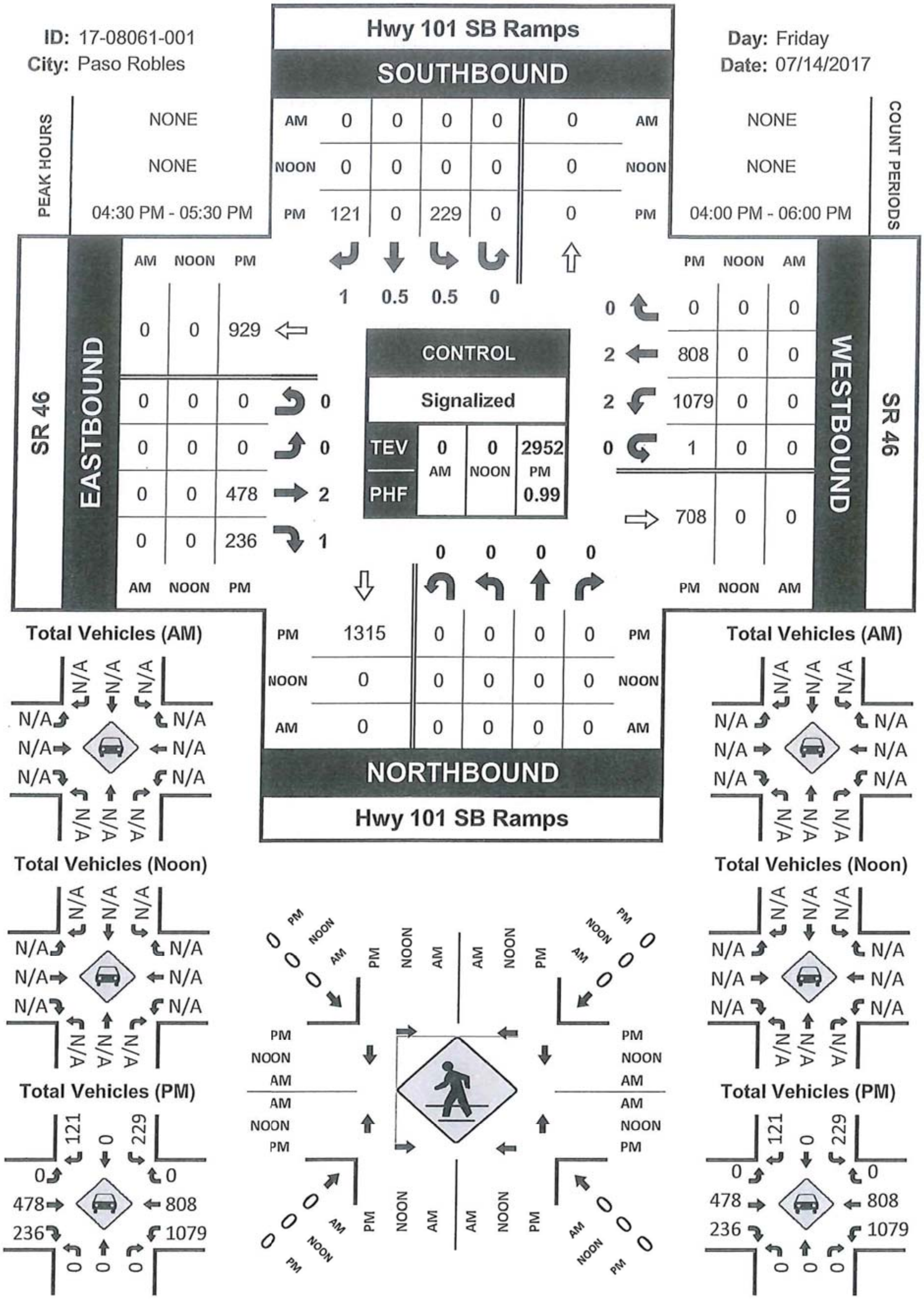
Agenda Item 1

Prepared by National Data & Surveying Services

Hwy 101 SB Ramps & SR 46

Peak Hour Turning Movement Count

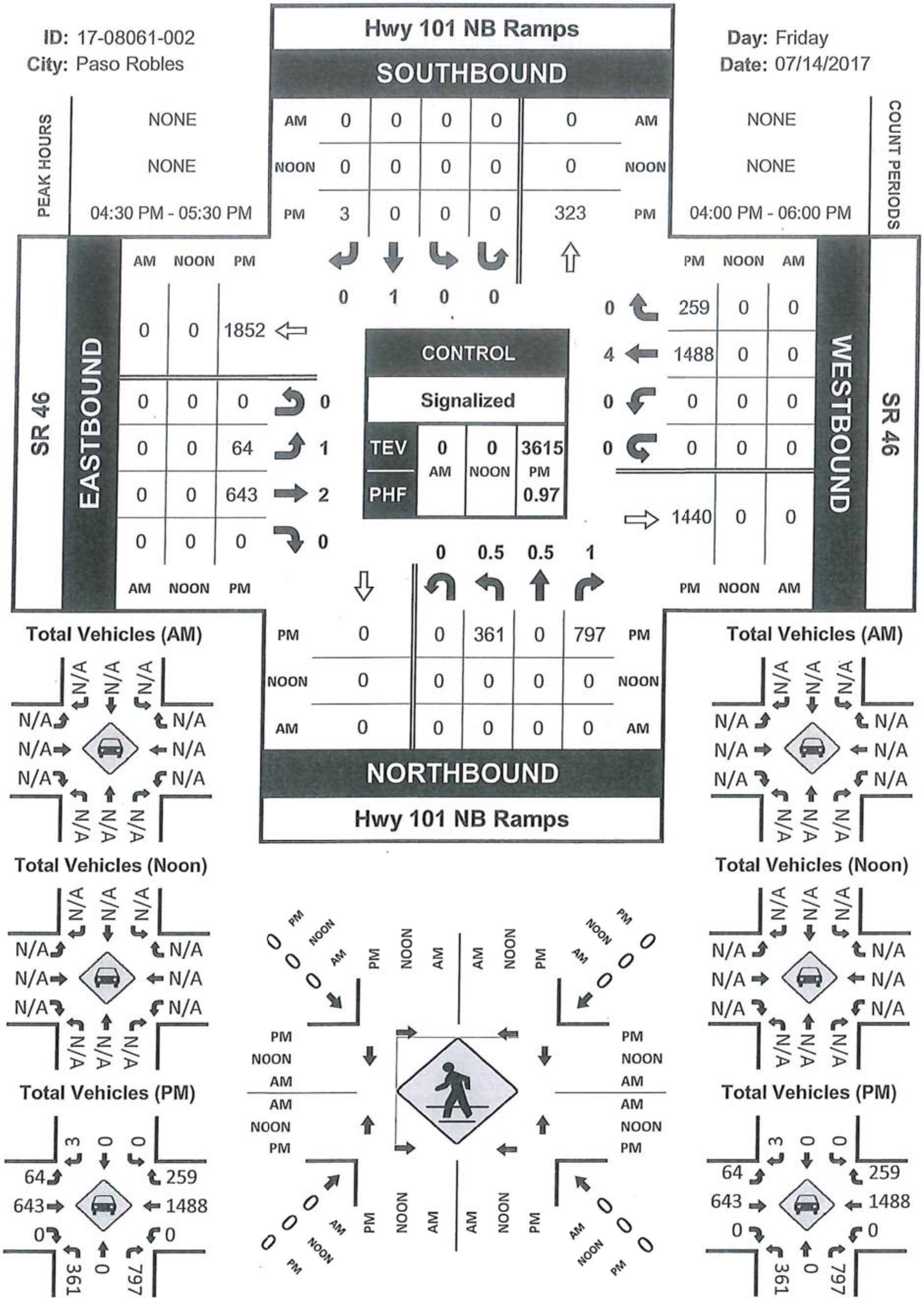


Agenda Item 1

Prepared by National Data & Surveying Services

Hwy 101 NB Ramps & SR 46

Peak Hour Turning Movement Count



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LEVEL OF SERVICE DEFINITION

LEVEL OF SERVICE DEFINITIONS

"Levels of Service" (LOS) A through F are used to rate roadway and intersection operating conditions, with LOS A indicating very good operations and LOS F indicating poor operations. More complete level of service definitions are:

LOS	Definition
A	Low volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within traffic stream. Drivers can maintain their desired speeds with little or no delay.
B	Stable flow with potential for some restriction of operating speeds due to traffic conditions. Maneuvering is only slightly restricted. Stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	Stable operations, however the ability to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail but adverse signal coordination or longer queues cause delays.
D	Approaching unstable traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in their ability to maneuver and their selection of travel speeds. Comfort and convenience are low but tolerable.
E	Operations characterized by significant approach delays and average travel speeds of one-half to one-third of free flow speed. Flow is unstable and potential for stoppages of brief duration. High signal density, extensive queuing, or signal progression/timing are the typical causes of delays.
F	Forced flow operations with high approach delays at critical signalized intersections. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion.

Signalized Intersection Level of Service Definitions

LOS	Delay[a]	V/C Ratio	Definition
A	< 10.0	< 0.60	Progression is extremely favorable. Most vehicles arrive during the green phase. Many vehicles do not stop at all.
B	10.1 - 20.0	0.61 - 0.70	Good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20.1 - 35.0	0.71 - 0.80	Only fair progression, longer cycle lengths, or both, result in higher cycle lengths. Cycle lengths may fail to serve queued vehicles, and overflow occurs. Number of vehicles stopped is significant, though many still pass through intersection without stopping.
D	35.1 - 55.0	0.81 - 0.90	Congestion becomes more noticeable. Unfavorable progression, long cycle lengths and high v/c ratios result in longer delays. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1 - 80.0	0.91 - 1.00	High delay values indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent
F	> 80.0	> 1.00	Considered unacceptable for most drivers, this level occurs when arrival flow rates exceed the capacity of lane groups, resulting in many individual cycle failures. Poor progression and long cycle lengths may also contribute to high delay levels.

[a] Average control delay per vehicle in seconds.

Unsignalized Intersection Level of Service Definitions

The HCM[1] uses *control delay* to determine the level of service at unsignalized intersections. Control delay is the difference between the travel time actually experienced at the control device and the travel time that would occur in the absence of the traffic control device. Control delay includes deceleration from free flow speed, queue move-up time, stopped delay and acceleration back to free flow speed.

LOS	Control Delay Seconds per Vehicle
A	< 10.0
B	10.1 - 15.0
C	15.1 - 25.0
D	25.1 - 35.0
E	35.1 - 50.0
F	> 50.0

1 Highway Capacity Manual, National Research Board, 2000

INTERSECTION LEVEL SERVICE CALCULATION WORKSHEETS

Reference 1 - 24th Street/Riverside Avenue
Reference 2 - 24th Street/Ysabel Street
Reference 3 - 24th Street/Black Oak Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	603	54	77	389	11	60	36	62	47	32	20
Future Volume (veh/h)	47	603	54	77	389	11	60	36	62	47	32	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	655	59	84	423	12	65	39	67	51	35	22
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	459	847	76	257	937	796	569	647	550	547	647	550
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	950	1684	152	733	1863	1583	1341	1863	1583	1283	1863	1583
Grp Volume(v), veh/h	51	0	714	84	423	12	65	39	67	51	35	22
Grp Sat Flow(s),veh/h/ln	950	0	1836	733	1863	1583	1341	1863	1583	1283	1863	1583
Q Serve(g_s), s	2.2	0.0	19.0	6.3	8.8	0.2	2.0	0.8	1.7	1.7	0.8	0.6
Cycle Q Clear(g_c), s	11.0	0.0	19.0	25.3	8.8	0.2	2.8	0.8	1.7	2.5	0.8	0.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	459	0	923	257	937	796	569	647	550	547	647	550
V/C Ratio(X)	0.11	0.00	0.77	0.33	0.45	0.02	0.11	0.06	0.12	0.09	0.05	0.04
Avail Cap(c_a), veh/h	480	0	964	273	978	831	569	647	550	547	647	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	12.1	22.4	9.6	7.5	14.0	13.1	13.4	13.9	13.0	13.0
Incr Delay (d2), s/veh	0.1	0.0	3.8	0.7	0.3	0.0	0.4	0.2	0.5	0.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	10.5	1.3	4.6	0.1	0.8	0.5	0.8	0.6	0.4	0.3
LnGrp Delay(d),s/veh	13.2	0.0	15.9	23.2	9.9	7.5	14.4	13.2	13.8	14.2	13.2	13.1
LnGrp LOS	B		B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		765			519			171			108	
Approach Delay, s/veh		15.8			12.0			13.9			13.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.3		34.7		25.3		34.7
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5
Max Q Clear Time (g_c+I1), s		4.8		21.0		4.5		27.3
Green Ext Time (p_c), s		0.9		6.0		0.9		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	66	477	74	78	581	31	61	65	85	58	70	87
Future Volume (veh/h)	66	477	74	78	581	31	61	65	85	58	70	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	72	518	80	85	632	34	66	71	92	63	76	95
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	760	117	307	898	764	532	685	582	537	685	582
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	767	1576	243	817	1863	1583	1209	1863	1583	1218	1863	1583
Grp Volume(v), veh/h	72	0	598	85	632	34	66	71	92	63	76	95
Grp Sat Flow(s),veh/h/ln	767	0	1820	817	1863	1583	1209	1863	1583	1218	1863	1583
Q Serve(g_s), s	4.9	0.0	15.2	5.4	16.0	0.7	2.3	1.5	2.3	2.2	1.6	2.4
Cycle Q Clear(g_c), s	20.8	0.0	15.2	20.6	16.0	0.7	3.9	1.5	2.3	3.7	1.6	2.4
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	0	878	307	898	764	532	685	582	537	685	582
V/C Ratio(X)	0.25	0.00	0.68	0.28	0.70	0.04	0.12	0.10	0.16	0.12	0.11	0.16
Avail Cap(c_a), veh/h	332	0	986	355	1009	858	532	685	582	537	685	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	12.0	19.9	12.2	8.2	13.8	12.5	12.7	13.7	12.5	12.8
Incr Delay (d2), s/veh	0.5	0.0	1.7	0.5	1.9	0.0	0.5	0.3	0.6	0.4	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	7.9	1.2	8.6	0.3	0.8	0.8	1.1	0.8	0.9	1.2
LnGrp Delay(d),s/veh	20.8	0.0	13.6	20.4	14.1	8.2	14.3	12.8	13.3	14.1	12.8	13.4
LnGrp LOS	C		B	C	B	A	B	B	B	B	B	B
Approach Vol, veh/h		670			751			229			234	
Approach Delay, s/veh		14.4			14.6			13.4			13.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.6		33.4		26.6		33.4
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5
Max Q Clear Time (g_c+I1), s		5.9		22.8		5.7		22.6
Green Ext Time (p_c), s		1.6		6.1		1.6		6.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	604	54	78	389	11	60	36	64	63	35	22
Future Volume (veh/h)	47	604	54	78	389	11	60	36	64	63	35	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	51	657	59	85	423	12	65	39	70	68	38	24
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	849	76	257	939	798	564	645	548	545	645	548
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	950	1685	151	732	1863	1583	1335	1863	1583	1279	1863	1583
Grp Volume(v), veh/h	51	0	716	85	423	12	65	39	70	68	38	24
Grp Sat Flow(s),veh/h/ln	950	0	1836	732	1863	1583	1335	1863	1583	1279	1863	1583
Q Serve(g_s), s	2.2	0.0	19.0	6.4	8.7	0.2	2.1	0.8	1.8	2.2	0.8	0.6
Cycle Q Clear(g_c), s	10.9	0.0	19.0	25.4	8.7	0.2	2.9	0.8	1.8	3.1	0.8	0.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	460	0	925	257	939	798	564	645	548	545	645	548
V/C Ratio(X)	0.11	0.00	0.77	0.33	0.45	0.02	0.12	0.06	0.13	0.12	0.06	0.04
Avail Cap(c_a), veh/h	480	0	964	272	978	831	564	645	548	545	645	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	12.1	22.4	9.6	7.4	14.1	13.1	13.4	14.1	13.1	13.0
Incr Delay (d2), s/veh	0.1	0.0	3.8	0.7	0.3	0.0	0.4	0.2	0.5	0.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	10.5	1.4	4.6	0.1	0.8	0.5	0.9	0.9	0.5	0.3
LnGrp Delay(d),s/veh	13.2	0.0	15.9	23.2	9.9	7.4	14.5	13.3	13.9	14.6	13.3	13.2
LnGrp LOS	B		B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		767			520			174			130	
Approach Delay, s/veh		15.7			12.0			14.0			13.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.3		34.7		25.3		34.7
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5
Max Q Clear Time (g_c+I1), s		4.9		21.0		5.1		27.4
Green Ext Time (p_c), s		1.0		6.0		0.9		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	479	74	79	581	31	61	65	88	68	72	89
Future Volume (veh/h)	66	479	74	79	581	31	61	65	88	68	72	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	72	521	80	86	632	34	66	71	96	74	78	97
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	761	117	305	899	764	529	685	582	536	685	582
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	767	1578	242	815	1863	1583	1205	1863	1583	1214	1863	1583
Grp Volume(v), veh/h	72	0	601	86	632	34	66	71	96	74	78	97
Grp Sat Flow(s),veh/h/ln	767	0	1820	815	1863	1583	1205	1863	1583	1214	1863	1583
Q Serve(g_s), s	4.9	0.0	15.3	5.5	15.9	0.7	2.3	1.5	2.4	2.6	1.7	2.5
Cycle Q Clear(g_c), s	20.8	0.0	15.3	20.8	15.9	0.7	4.0	1.5	2.4	4.1	1.7	2.5
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	0	878	305	899	764	529	685	582	536	685	582
V/C Ratio(X)	0.25	0.00	0.68	0.28	0.70	0.04	0.12	0.10	0.16	0.14	0.11	0.17
Avail Cap(c_a), veh/h	332	0	986	353	1009	858	529	685	582	536	685	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	12.0	20.0	12.2	8.2	13.8	12.5	12.8	13.8	12.5	12.8
Incr Delay (d2), s/veh	0.5	0.0	1.7	0.5	1.9	0.0	0.5	0.3	0.6	0.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	7.9	1.3	8.6	0.3	0.8	0.8	1.2	0.9	0.9	1.2
LnGrp Delay(d),s/veh	20.8	0.0	13.7	20.5	14.1	8.2	14.3	12.8	13.4	14.4	12.9	13.4
LnGrp LOS	C		B	C	B	A	B	B	B	B	B	B
Approach Vol, veh/h		673			752			233			249	
Approach Delay, s/veh		14.5			14.6			13.5			13.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.6		33.4		26.6		33.4
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5
Max Q Clear Time (g_c+I1), s		6.0		22.8		6.1		22.8
Green Ext Time (p_c), s		1.6		6.1		1.6		6.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Cumulative | A.M. Peak Hour
3: Riverside Avenue & 24th Street | 7/22/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	48	643	54	77	429	11	60	39	62	47	34	21
Future Volume (veh/h)	48	643	54	77	429	11	60	39	62	47	34	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	52	699	59	84	466	12	65	42	67	51	37	23
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	443	873	74	243	960	816	549	623	530	528	623	530
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	913	1694	143	704	1863	1583	1337	1863	1583	1279	1863	1583
Grp Volume(v), veh/h	52	0	758	84	466	12	65	42	67	51	37	23
Grp Sat Flow(s),veh/h/ln	913	0	1838	704	1863	1583	1337	1863	1583	1279	1863	1583
Q Serve(g_s), s	2.3	0.0	20.4	6.7	9.7	0.2	2.1	0.9	1.8	1.7	0.8	0.6
Cycle Q Clear(g_c), s	12.0	0.0	20.4	27.1	9.7	0.2	2.9	0.9	1.8	2.6	0.8	0.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	443	0	947	243	960	816	549	623	530	528	623	530
V/C Ratio(X)	0.12	0.00	0.80	0.35	0.49	0.01	0.12	0.07	0.13	0.10	0.06	0.04
Avail Cap(c_a), veh/h	452	0	965	250	978	831	549	623	530	528	623	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	12.0	23.2	9.4	7.1	14.5	13.6	13.9	14.5	13.5	13.5
Incr Delay (d2), s/veh	0.1	0.0	4.8	0.8	0.4	0.0	0.4	0.2	0.5	0.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	11.4	1.4	5.0	0.1	0.8	0.5	0.8	0.6	0.4	0.3
LnGrp Delay(d),s/veh	13.4	0.0	16.8	24.0	9.8	7.1	15.0	13.8	14.4	14.8	13.7	13.6
LnGrp LOS	B		B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		810			562			174			111	
Approach Delay, s/veh		16.6			11.9			14.5			14.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		24.6		35.4		24.6		35.4
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5
Max Q Clear Time (g_c+I1), s		4.9		22.4		4.6		29.1
Green Ext Time (p_c), s		0.9		5.8		0.9		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Cumulative P.M. Peak Hour
3: Riverside Avenue & 24th Street 7/22/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	538	74	78	642	31	61	67	85	58	72	88
Future Volume (veh/h)	67	538	74	78	642	31	61	67	85	58	72	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	73	585	80	85	698	34	66	73	92	63	78	96
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	814	111	292	945	803	499	639	543	504	639	543
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	721	1605	219	768	1863	1583	1206	1863	1583	1216	1863	1583
Grp Volume(v), veh/h	73	0	665	85	698	34	66	73	92	63	78	96
Grp Sat Flow(s),veh/h/ln	721	0	1824	768	1863	1583	1206	1863	1583	1216	1863	1583
Q Serve(g_s), s	5.3	0.0	17.0	5.8	17.7	0.6	2.4	1.6	2.4	2.2	1.7	2.5
Cycle Q Clear(g_c), s	23.1	0.0	17.0	22.8	17.7	0.6	4.1	1.6	2.4	3.9	1.7	2.5
Prop In Lane	1.00		0.12	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	0	925	292	945	803	499	639	543	504	639	543
V/C Ratio(X)	0.27	0.00	0.72	0.29	0.74	0.04	0.13	0.11	0.17	0.12	0.12	0.18
Avail Cap(c_a), veh/h	298	0	988	319	1009	858	499	639	543	504	639	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	11.5	20.3	11.7	7.4	14.9	13.5	13.8	14.8	13.5	13.8
Incr Delay (d2), s/veh	0.5	0.0	2.4	0.5	2.7	0.0	0.5	0.4	0.7	0.5	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	9.1	1.3	9.6	0.3	0.9	0.9	1.1	0.8	1.0	1.2
LnGrp Delay(d),s/veh	21.3	0.0	13.9	20.8	14.4	7.5	15.5	13.8	14.4	15.3	13.9	14.5
LnGrp LOS	C		B	C	B	A	B	B	B	B	B	B
Approach Vol, veh/h		738			817			231			237	
Approach Delay, s/veh		14.6			14.8			14.5			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.1		34.9		25.1		34.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5
Max Q Clear Time (g_c+I1), s		6.1		25.1		5.9		24.8
Green Ext Time (p_c), s		1.6		5.4		1.6		5.5

Intersection Summary			
HCM 2010 Ctrl Delay			14.6
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	644	54	78	429	11	60	39	64	63	37	23
Future Volume (veh/h)	48	644	54	78	429	11	60	39	64	63	37	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	52	700	59	85	466	12	65	42	70	68	40	25
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	444	874	74	243	961	817	545	622	529	527	622	529
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	913	1695	143	703	1863	1583	1331	1863	1583	1276	1863	1583
Grp Volume(v), veh/h	52	0	759	85	466	12	65	42	70	68	40	25
Grp Sat Flow(s),veh/h/ln	913	0	1838	703	1863	1583	1331	1863	1583	1276	1863	1583
Q Serve(g_s), s	2.3	0.0	20.4	6.8	9.7	0.2	2.1	0.9	1.8	2.3	0.9	0.6
Cycle Q Clear(g_c), s	12.0	0.0	20.4	27.2	9.7	0.2	3.0	0.9	1.8	3.2	0.9	0.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	0	948	243	961	817	545	622	529	527	622	529
V/C Ratio(X)	0.12	0.00	0.80	0.35	0.48	0.01	0.12	0.07	0.13	0.13	0.06	0.05
Avail Cap(c_a), veh/h	452	0	965	250	978	831	545	622	529	527	622	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	12.0	23.2	9.4	7.1	14.6	13.6	13.9	14.7	13.6	13.5
Incr Delay (d2), s/veh	0.1	0.0	4.8	0.9	0.4	0.0	0.4	0.2	0.5	0.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	11.4	1.4	5.0	0.1	0.8	0.5	0.9	0.9	0.5	0.3
LnGrp Delay(d),s/veh	13.4	0.0	16.8	24.1	9.8	7.1	15.1	13.8	14.4	15.2	13.8	13.7
LnGrp LOS	B		B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		811			563			177			133	
Approach Delay, s/veh		16.6			11.9			14.5			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		24.5		35.5		24.5		35.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5
Max Q Clear Time (g_c+I1), s		5.0		22.4		5.2		29.2
Green Ext Time (p_c), s		1.0		5.8		1.0		1.7

Intersection Summary			
HCM 2010 Ctrl Delay			14.6
HCM 2010 LOS			B

Cumulative + Project
3: Riverside Avenue & 24th Street

P.M. Peak Hour
7/22/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	540	74	79	642	31	61	67	88	68	74	90
Future Volume (veh/h)	67	540	74	79	642	31	61	67	88	68	74	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	73	587	80	86	698	34	66	73	96	74	80	98
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	814	111	291	945	803	496	639	543	503	639	543
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	721	1605	219	766	1863	1583	1201	1863	1583	1211	1863	1583
Grp Volume(v), veh/h	73	0	667	86	698	34	66	73	96	74	80	98
Grp Sat Flow(s),veh/h/ln	721	0	1824	766	1863	1583	1201	1863	1583	1211	1863	1583
Q Serve(g_s), s	5.3	0.0	17.0	5.9	17.7	0.6	2.4	1.6	2.5	2.7	1.8	2.6
Cycle Q Clear(g_c), s	23.0	0.0	17.0	22.9	17.7	0.6	4.2	1.6	2.5	4.3	1.8	2.6
Prop In Lane	1.00		0.12	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	0	925	291	945	803	496	639	543	503	639	543
V/C Ratio(X)	0.27	0.00	0.72	0.30	0.74	0.04	0.13	0.11	0.18	0.15	0.13	0.18
Avail Cap(c_a), veh/h	298	0	988	317	1009	858	496	639	543	503	639	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	11.5	20.4	11.7	7.4	15.0	13.5	13.8	14.9	13.5	13.8
Incr Delay (d2), s/veh	0.5	0.0	2.4	0.6	2.7	0.0	0.6	0.4	0.7	0.6	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	9.1	1.3	9.6	0.3	0.9	0.9	1.2	1.0	1.0	1.3
LnGrp Delay(d),s/veh	21.3	0.0	13.9	21.0	14.4	7.5	15.5	13.8	14.5	15.6	13.9	14.5
LnGrp LOS	C		B	C	B	A	B	B	B	B	B	B
Approach Vol, veh/h		740			818			235			252	
Approach Delay, s/veh		14.6			14.8			14.6			14.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.1		34.9		25.1		34.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5
Max Q Clear Time (g_c+I1), s		6.2		25.0		6.3		24.9
Green Ext Time (p_c), s		1.6		5.4		1.6		5.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	38	677	445	92	61	17
Future Vol, veh/h	38	677	445	92	61	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	736	484	100	66	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	484	0	-	0	1302	484
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	818	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1079	-	-	-	177	583
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	434	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1079	-	-	-	170	583
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	418	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1079	-	-	-	201
HCM Lane V/C Ratio	0.038	-	-	-	0.422
HCM Control Delay (s)	8.5	-	-	-	35.4
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	1.9

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	591	679	75	56	23
Future Vol, veh/h	20	591	679	75	56	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	642	738	82	61	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	738	0	-	0	1424	738
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	686	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	868	-	-	-	150	418
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	868	-	-	-	146	418
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	487	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	42
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	868	-	-	-	180
HCM Lane V/C Ratio	0.025	-	-	-	0.477
HCM Control Delay (s)	9.3	-	-	-	42
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.3

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	38	696	446	92	61	17
Future Vol, veh/h	38	696	446	92	61	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	757	485	100	66	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	485	0	-	0	1324	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	839	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1078	-	-	-	172	582
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1078	-	-	-	165	582
Mov Cap-2 Maneuver	-	-	-	-	165	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	408	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	36.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1078	-	-	-	196
HCM Lane V/C Ratio	0.038	-	-	-	0.433
HCM Control Delay (s)	8.5	-	-	-	36.7
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	606	680	75	56	23
Future Vol, veh/h	20	606	680	75	56	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	659	739	82	61	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	739	0	-	0	1441	739
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	702	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	867	-	-	-	146	417
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	867	-	-	-	142	417
Mov Cap-2 Maneuver	-	-	-	-	142	-
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	479	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	43.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	867	-	-	-	176
HCM Lane V/C Ratio	0.025	-	-	-	0.488
HCM Control Delay (s)	9.3	-	-	-	43.5
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.4

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	38	717	485	92	61	17
Future Vol, veh/h	38	717	485	92	61	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	779	527	100	66	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	527	0	-	0	1389	527
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	862	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1040	-	-	-	157	551
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	414	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1040	-	-	-	151	551
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	398	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	42
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1040	-	-	-	179
HCM Lane V/C Ratio	0.04	-	-	-	0.474
HCM Control Delay (s)	8.6	-	-	-	42
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.3

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	652	740	75	56	22
Future Vol, veh/h	20	652	740	75	56	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	709	804	82	61	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	804	0	-	0	1556	804
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	752	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	820	-	-	-	124	383
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	466	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	820	-	-	-	121	383
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	453	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	56.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	820	-	-	-	150
HCM Lane V/C Ratio	0.027	-	-	-	0.565
HCM Control Delay (s)	9.5	-	-	-	56.4
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	2.9

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	38	736	486	92	61	17
Future Vol, veh/h	38	736	486	92	61	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	800	528	100	66	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	528	0	-	0	1411	528
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	883	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1039	-	-	-	152	550
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	404	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1039	-	-	-	146	550
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	388	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	43.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1039	-	-	-	174
HCM Lane V/C Ratio	0.04	-	-	-	0.487
HCM Control Delay (s)	8.6	-	-	-	43.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.4

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	667	741	75	56	23
Future Vol, veh/h	20	667	741	75	56	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	725	805	82	61	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	805	0	-	0	1573	805
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	768	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	819	-	-	-	121	382
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	458	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	819	-	-	-	118	382
Mov Cap-2 Maneuver	-	-	-	-	118	-
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	446	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	58.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	819	-	-	-	148
HCM Lane V/C Ratio	0.027	-	-	-	0.58
HCM Control Delay (s)	9.5	-	-	-	58.5
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	3

Agenda Item 1

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	29	710	7	17	502	99	0	2	20	59	0	37
Future Vol, veh/h	29	710	7	17	502	99	0	2	20	59	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	772	8	18	546	108	0	2	22	64	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	653	0	0	779	0	0	1475	1529	776	1487	1478	599
Stage 1	-	-	-	-	-	-	839	839	-	636	636	-
Stage 2	-	-	-	-	-	-	636	690	-	851	842	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	934	-	-	838	-	-	104	117	397	103	126	502
Stage 1	-	-	-	-	-	-	360	381	-	466	472	-
Stage 2	-	-	-	-	-	-	466	446	-	355	380	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	934	-	-	838	-	-	92	111	397	92	119	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	92	111	-	92	119	-
Stage 1	-	-	-	-	-	-	348	368	-	450	462	-
Stage 2	-	-	-	-	-	-	419	436	-	322	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.3	17.1	70.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	322	934	-	-	838	-	-	92	502
HCM Lane V/C Ratio	0.074	0.034	-	-	0.022	-	-	0.697	0.08
HCM Control Delay (s)	17.1	9	-	-	9.4	-	-	106	12.8
HCM Lane LOS	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	3.5	0.3

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	34	625	5	25	714	131	0	0	30	49	0	47
Future Vol, veh/h	34	625	5	25	714	131	0	0	30	49	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	679	5	27	776	142	0	0	33	53	0	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	918	0	0	685	0	0	1658	1729	682	1674	1661	847
Stage 1	-	-	-	-	-	-	756	756	-	902	902	-
Stage 2	-	-	-	-	-	-	902	973	-	772	759	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	743	-	-	908	-	-	78	88	450	76	97	362
Stage 1	-	-	-	-	-	-	400	416	-	332	356	-
Stage 2	-	-	-	-	-	-	332	330	-	392	415	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	743	-	-	908	-	-	63	81	450	66	89	362
Mov Cap-2 Maneuver	-	-	-	-	-	-	63	81	-	66	89	-
Stage 1	-	-	-	-	-	-	380	395	-	315	345	-
Stage 2	-	-	-	-	-	-	277	320	-	345	394	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	13.6	91.5
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	450	743	-	-	908	-	-	66	362
HCM Lane V/C Ratio	0.072	0.05	-	-	0.03	-	-	0.807	0.141
HCM Control Delay (s)	13.6	10.1	-	-	9.1	-	-	163.4	16.6
HCM Lane LOS	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-	-	3.7	0.5

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	32	726	7	17	502	116	0	2	20	75	0	38
Future Vol, veh/h	32	726	7	17	502	116	0	2	20	75	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	789	8	18	546	126	0	2	22	82	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	672	0	0	797	0	0	1509	1572	793	1520	1512	609
Stage 1	-	-	-	-	-	-	863	863	-	646	646	-
Stage 2	-	-	-	-	-	-	646	709	-	874	866	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	825	-	-	99	110	389	97	120	495
Stage 1	-	-	-	-	-	-	349	372	-	460	467	-
Stage 2	-	-	-	-	-	-	460	437	-	344	370	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	919	-	-	825	-	-	87	104	389	86	113	495
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	104	-	86	113	-
Stage 1	-	-	-	-	-	-	336	358	-	442	457	-
Stage 2	-	-	-	-	-	-	412	427	-	311	356	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.3	17.5	116.7
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	311	919	-	-	825	-	-	86	495
HCM Lane V/C Ratio	0.077	0.038	-	-	0.022	-	-	0.948	0.083
HCM Control Delay (s)	17.5	9.1	-	-	9.5	-	-	169.3	12.9
HCM Lane LOS	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	5.3	0.3

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	39	635	5	25	714	155	0	0	30	59	0	48
Future Vol, veh/h	39	635	5	25	714	155	0	0	30	59	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	690	5	27	776	168	0	0	33	64	0	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	945	0	0	696	0	0	1693	1777	693	1709	1695	860
Stage 1	-	-	-	-	-	-	778	778	-	915	915	-
Stage 2	-	-	-	-	-	-	915	999	-	794	780	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	726	-	-	900	-	-	74	82	443	72	93	356
Stage 1	-	-	-	-	-	-	389	407	-	327	352	-
Stage 2	-	-	-	-	-	-	327	321	-	381	406	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	726	-	-	900	-	-	59	75	443	~ 62	85	356
Mov Cap-2 Maneuver	-	-	-	-	-	-	59	75	-	~ 62	85	-
Stage 1	-	-	-	-	-	-	366	383	-	308	341	-
Stage 2	-	-	-	-	-	-	271	311	-	333	383	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	13.8	137.3
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	443	726	-	-	900	-	-	62	356
HCM Lane V/C Ratio	0.074	0.058	-	-	0.03	-	-	1.034	0.147
HCM Control Delay (s)	13.8	10.3	-	-	9.1	-	-	235.4	16.8
HCM Lane LOS	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-	-	5	0.5

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	13.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	29	750	7	17	542	128	0	2	20	82	0	37
Future Vol, veh/h	29	750	7	17	542	128	0	2	20	82	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	815	8	18	589	139	0	2	22	89	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	823	0	0	1578	1647	819	1590	1582	659
Stage 1	-	-	-	-	-	-	882	882	-	696	696	-
Stage 2	-	-	-	-	-	-	696	765	-	894	886	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	876	-	-	807	-	-	89	99	375	~ 87	109	464
Stage 1	-	-	-	-	-	-	341	364	-	432	443	-
Stage 2	-	-	-	-	-	-	432	412	-	336	363	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	876	-	-	807	-	-	78	93	375	~ 77	103	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	93	-	~ 77	103	-
Stage 1	-	-	-	-	-	-	329	351	-	416	433	-
Stage 2	-	-	-	-	-	-	386	403	-	303	350	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	18.3	174.5
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	294	876	-	-	807	-	-	77	464
HCM Lane V/C Ratio	0.081	0.036	-	-	0.023	-	-	1.158	0.087
HCM Control Delay (s)	18.3	9.3	-	-	9.6	-	-	247.2	13.5
HCM Lane LOS	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	6.6	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	16.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	34	686	5	25	775	160	0	0	30	69	0	47
Future Vol, veh/h	34	686	5	25	775	160	0	0	30	69	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	746	5	27	842	174	0	0	33	75	0	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1016	0	0	751	0	0	1806	1893	748	1823	1809	929
Stage 1	-	-	-	-	-	-	822	822	-	984	984	-
Stage 2	-	-	-	-	-	-	984	1071	-	839	825	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	683	-	-	858	-	-	61	70	412	~ 60	79	324
Stage 1	-	-	-	-	-	-	368	388	-	299	327	-
Stage 2	-	-	-	-	-	-	299	297	-	360	387	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	683	-	-	858	-	-	48	64	412	~ 52	72	324
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	64	-	~ 52	72	-
Stage 1	-	-	-	-	-	-	348	367	-	283	317	-
Stage 2	-	-	-	-	-	-	244	288	-	314	366	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	14.5	250
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	412	683	-	-	858	-	-	52	324
HCM Lane V/C Ratio	0.079	0.054	-	-	0.032	-	-	1.442	0.158
HCM Control Delay (s)	14.5	10.6	-	-	9.3	-	-	$ 407.9	18.2
HCM Lane LOS	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.1	-	-	6.9	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	22.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	32	766	7	17	542	145	0	2	20	98	0	38
Future Vol, veh/h	32	766	7	17	542	145	0	2	20	98	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	833	8	18	589	158	0	2	22	107	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	747	0	0	840	0	0	1611	1690	836	1623	1615	668
Stage 1	-	-	-	-	-	-	906	906	-	705	705	-
Stage 2	-	-	-	-	-	-	705	784	-	918	910	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	861	-	-	795	-	-	84	93	367	~ 82	104	458
Stage 1	-	-	-	-	-	-	331	355	-	427	439	-
Stage 2	-	-	-	-	-	-	427	404	-	326	353	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	861	-	-	795	-	-	73	87	367	~ 72	98	458
Mov Cap-2 Maneuver	-	-	-	-	-	-	73	87	-	~ 72	98	-
Stage 1	-	-	-	-	-	-	318	341	-	410	429	-
Stage 2	-	-	-	-	-	-	380	395	-	292	339	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	18.8	273.9
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	284	861	-	-	795	-	-	72	458
HCM Lane V/C Ratio	0.084	0.04	-	-	0.023	-	-	1.479	0.09
HCM Control Delay (s)	18.8	9.4	-	-	9.6	-	-	$ 374.8	13.6
HCM Lane LOS	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	8.8	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	24.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	39	696	5	25	775	184	0	0	30	79	0	48
Future Vol, veh/h	39	696	5	25	775	184	0	0	30	79	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	757	5	27	842	200	0	0	33	86	0	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1042	0	0	762	0	0	1841	1941	759	1857	1844	942
Stage 1	-	-	-	-	-	-	844	844	-	997	997	-
Stage 2	-	-	-	-	-	-	997	1097	-	860	847	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	667	-	-	850	-	-	58	65	406	~ 56	75	319
Stage 1	-	-	-	-	-	-	358	379	-	294	322	-
Stage 2	-	-	-	-	-	-	294	289	-	351	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	667	-	-	850	-	-	45	59	406	~ 48	68	319
Mov Cap-2 Maneuver	-	-	-	-	-	-	45	59	-	~ 48	68	-
Stage 1	-	-	-	-	-	-	335	355	-	275	312	-
Stage 2	-	-	-	-	-	-	238	280	-	302	354	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	14.6	$ 355.7
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	406	667	-	-	850	-	-	48	319
HCM Lane V/C Ratio	0.08	0.064	-	-	0.032	-	-	1.789	0.164
HCM Control Delay (s)	14.6	10.8	-	-	9.4	-	-	$ 560.6	18.5
HCM Lane LOS	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.1	-	-	8.5	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	643	0	0	1488	259	361	0	797	0	0	0
Future Volume (veh/h)	64	643	0	0	1488	259	361	0	797	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1727	1727	0	0	1727	1900	1900	1727	1727			
Adj Flow Rate, veh/h	65	649	0	0	1503	262	365	0	805			
Adj No. of Lanes	1	2	0	0	4	0	0	1	1			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	10	10	0	0	10	10	10	10	10			
Cap, veh/h	81	1371	0	0	1648	287	788	0	703			
Arrive On Green	0.05	0.42	0.00	0.00	0.32	0.32	0.48	0.00	0.48			
Sat Flow, veh/h	1645	3368	0	0	5374	894	1645	0	1468			
Grp Volume(v), veh/h	65	649	0	0	1305	460	365	0	805			
Grp Sat Flow(s),veh/h/ln	1645	1641	0	0	1485	1570	1645	0	1468			
Q Serve(g_s), s	3.7	13.6	0.0	0.0	26.7	26.7	14.1	0.0	45.5			
Cycle Q Clear(g_c), s	3.7	13.6	0.0	0.0	26.7	26.7	14.1	0.0	45.5			
Prop In Lane	1.00		0.00	0.00		0.57	1.00		1.00			
Lane Grp Cap(c), veh/h	81	1371	0	0	1431	504	788	0	703			
V/C Ratio(X)	0.80	0.47	0.00	0.00	0.91	0.91	0.46	0.00	1.14			
Avail Cap(c_a), veh/h	95	1399	0	0	1431	504	788	0	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.57	0.57	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	44.7	20.1	0.0	0.0	31.0	31.0	16.6	0.0	24.7			
Incr Delay (d2), s/veh	20.6	0.1	0.0	0.0	10.4	23.4	0.4	0.0	81.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	6.2	0.0	0.0	12.2	14.8	6.5	0.0	34.3			
LnGrp Delay(d),s/veh	65.3	20.2	0.0	0.0	41.3	54.4	17.0	0.0	106.1			
LnGrp LOS	E	C			D	D	B		F			
Approach Vol, veh/h		714			1765			1170				
Approach Delay, s/veh		24.3			44.7			78.3				
Approach LOS		C			D			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		50.0		44.2			9.2	35.0
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5
Max Green Setting (Gmax), s		45.5		40.5			5.5	30.5
Max Q Clear Time (g_c+I1), s		47.5		15.6			5.7	28.7
Green Ext Time (p_c), s		0.0		19.1			0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

Agenda Item 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑↑↱			↰	↱			
Traffic Volume (veh/h)	69	653	0	0	1500	259	367	0	797	0	0	0
Future Volume (veh/h)	69	653	0	0	1500	259	367	0	797	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1727	1727	0	0	1727	1900	1900	1727	1727			
Adj Flow Rate, veh/h	70	660	0	0	1515	262	371	0	805			
Adj No. of Lanes	1	2	0	0	4	0	0	1	1			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	10	10	0	0	10	10	10	10	10			
Cap, veh/h	88	1389	0	0	1670	289	798	0	712			
Arrive On Green	0.05	0.42	0.00	0.00	0.32	0.32	0.49	0.00	0.49			
Sat Flow, veh/h	1645	3368	0	0	5381	888	1645	0	1468			
Grp Volume(v), veh/h	70	660	0	0	1314	463	371	0	805			
Grp Sat Flow(s),veh/h/ln	1645	1641	0	0	1485	1571	1645	0	1468			
Q Serve(g_s), s	4.2	14.5	0.0	0.0	28.2	28.2	15.0	0.0	48.5			
Cycle Q Clear(g_c), s	4.2	14.5	0.0	0.0	28.2	28.2	15.0	0.0	48.5			
Prop In Lane	1.00		0.00	0.00		0.57	1.00		1.00			
Lane Grp Cap(c), veh/h	88	1389	0	0	1448	510	798	0	712			
V/C Ratio(X)	0.80	0.48	0.00	0.00	0.91	0.91	0.47	0.00	1.13			
Avail Cap(c_a), veh/h	90	1395	0	0	1448	510	798	0	712			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.58	0.58	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	46.8	20.8	0.0	0.0	32.3	32.3	17.1	0.0	25.8			
Incr Delay (d2), s/veh	24.1	0.1	0.0	0.0	9.8	22.5	0.4	0.0	75.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.5	6.5	0.0	0.0	12.9	15.4	6.9	0.0	34.6			
LnGrp Delay(d),s/veh	70.9	21.0	0.0	0.0	42.1	54.8	17.5	0.0	101.5			
LnGrp LOS	E	C			D	D	B		F			
Approach Vol, veh/h		730			1777			1176				
Approach Delay, s/veh		25.8			45.4			75.0				
Approach LOS		C			D			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		53.0		46.8			9.8	37.0
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5
Max Green Setting (Gmax), s		48.5		42.5			5.5	32.5
Max Q Clear Time (g_c+I1), s		50.5		16.5			6.2	30.2
Green Ext Time (p_c), s		0.0		19.9			0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	668	0	0	1666	437	324	0	975	0	0	0
Future Volume (veh/h)	87	668	0	0	1666	437	324	0	975	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1727	1727	0	0	1727	1900	1900	1727	1727			
Adj Flow Rate, veh/h	88	675	0	0	1683	441	327	0	985			
Adj No. of Lanes	1	2	0	0	4	0	0	1	1			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	10	10	0	0	10	10	10	10	10			
Cap, veh/h	87	1365	0	0	1493	391	805	0	719			
Arrive On Green	0.05	0.42	0.00	0.00	0.32	0.32	0.49	0.00	0.49			
Sat Flow, veh/h	1645	3368	0	0	4969	1238	1645	0	1468			
Grp Volume(v), veh/h	88	675	0	0	1586	538	327	0	985			
Grp Sat Flow(s),veh/h/ln	1645	1641	0	0	1485	1509	1645	0	1468			
Q Serve(g_s), s	5.0	14.4	0.0	0.0	30.0	30.0	12.0	0.0	46.5			
Cycle Q Clear(g_c), s	5.0	14.4	0.0	0.0	30.0	30.0	12.0	0.0	46.5			
Prop In Lane	1.00		0.00	0.00		0.82	1.00		1.00			
Lane Grp Cap(c), veh/h	87	1365	0	0	1407	476	805	0	719			
V/C Ratio(X)	1.02	0.49	0.00	0.00	1.13	1.13	0.41	0.00	1.37			
Avail Cap(c_a), veh/h	87	1365	0	0	1407	476	805	0	719			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.43	0.43	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	45.0	20.4	0.0	0.0	32.5	32.5	15.5	0.0	24.3			
Incr Delay (d2), s/veh	67.5	0.1	0.0	0.0	66.9	81.4	0.3	0.0	175.6			
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.9	6.5	0.0	0.0	21.0	23.2	5.5	0.0	53.8			
LnGrp Delay(d),s/veh	112.6	20.5	0.0	0.0	99.4	113.9	15.8	0.0	199.8			
LnGrp LOS	F	C			F	F	B		F			
Approach Vol, veh/h		763			2124			1312				
Approach Delay, s/veh		31.2			103.1			154.0				
Approach LOS		C			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		51.0		44.0			9.5	34.5
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5
Max Green Setting (Gmax), s		46.5		39.5			5.0	30.0
Max Q Clear Time (g_c+I1), s		48.5		16.4			7.0	32.0
Green Ext Time (p_c), s		0.0		19.9			0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑↑↑↱			↰↑	↱			
Traffic Volume (veh/h)	92	678	0	0	1678	437	330	0	975	0	0	0
Future Volume (veh/h)	92	678	0	0	1678	437	330	0	975	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1727	1727	0	0	1727	1900	1900	1727	1727			
Adj Flow Rate, veh/h	93	685	0	0	1695	441	333	0	985			
Adj No. of Lanes	1	2	0	0	4	0	0	1	1			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	10	10	0	0	10	10	10	10	10			
Cap, veh/h	90	1395	0	0	1539	400	798	0	712			
Arrive On Green	0.05	0.43	0.00	0.00	0.32	0.32	0.49	0.00	0.49			
Sat Flow, veh/h	1645	3368	0	0	4978	1231	1645	0	1468			
Grp Volume(v), veh/h	93	685	0	0	1595	541	333	0	985			
Grp Sat Flow(s),veh/h/ln	1645	1641	0	0	1485	1510	1645	0	1468			
Q Serve(g_s), s	5.5	15.2	0.0	0.0	32.5	32.5	13.1	0.0	48.5			
Cycle Q Clear(g_c), s	5.5	15.2	0.0	0.0	32.5	32.5	13.1	0.0	48.5			
Prop In Lane	1.00		0.00	0.00		0.82	1.00		1.00			
Lane Grp Cap(c), veh/h	90	1395	0	0	1448	491	798	0	712			
V/C Ratio(X)	1.03	0.49	0.00	0.00	1.10	1.10	0.42	0.00	1.38			
Avail Cap(c_a), veh/h	90	1395	0	0	1448	491	798	0	712			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.42	0.42	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.3	20.9	0.0	0.0	33.7	33.8	16.6	0.0	25.8			
Incr Delay (d2), s/veh	68.6	0.1	0.0	0.0	56.5	71.6	0.3	0.0	181.2			
Initial Q Delay(d3),s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	6.9	0.0	0.0	20.8	23.3	6.0	0.0	55.4			
LnGrp Delay(d),s/veh	116.2	21.0	0.0	0.0	90.2	105.3	17.0	0.0	206.9			
LnGrp LOS	F	C			F	F	B		F			
Approach Vol, veh/h		778			2136			1318				
Approach Delay, s/veh		32.4			94.0			158.9				
Approach LOS		C			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		53.0		47.0			10.0	37.0
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5
Max Green Setting (Gmax), s		48.5		42.5			5.5	32.5
Max Q Clear Time (g_c+I1), s		50.5		17.2			7.5	34.5
Green Ext Time (p_c), s		0.0		21.7			0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			102.9
HCM 2010 LOS			F

Existing Conditions
3: State Route 46 & U.S. Highway 101 SB Ramps

P.M. Peak Hour
7/21/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	478	236	1079	808	0	0	0	0	229	0	121
Future Volume (veh/h)	0	478	236	1079	808	0	0	0	0	229	0	121
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1727	1727	1727	1727	0				1900	1727	1727
Adj Flow Rate, veh/h	0	493	243	1112	833	0				236	0	125
Adj No. of Lanes	0	2	1	2	2	0				0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	10	10	10	10	0				10	10	10
Cap, veh/h	0	708	317	1520	2426	0				273	0	244
Arrive On Green	0.00	0.22	0.22	0.80	1.00	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3368	1468	3191	3368	0				1645	0	1468
Grp Volume(v), veh/h	0	493	243	1112	833	0				236	0	125
Grp Sat Flow(s),veh/h/ln	0	1641	1468	1596	1641	0				1645	0	1468
Q Serve(g_s), s	0.0	13.2	14.8	16.2	0.0	0.0				13.3	0.0	7.4
Cycle Q Clear(g_c), s	0.0	13.2	14.8	16.2	0.0	0.0				13.3	0.0	7.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	708	317	1520	2426	0				273	0	244
V/C Ratio(X)	0.00	0.70	0.77	0.73	0.34	0.00				0.86	0.00	0.51
Avail Cap(c_a), veh/h	0	708	317	1520	2426	0				312	0	278
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.37	0.37	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.4	35.0	6.8	0.0	0.0				38.6	0.0	36.1
Incr Delay (d2), s/veh	0.0	3.0	10.8	0.7	0.1	0.0				19.7	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.3	7.0	6.8	0.0	0.0				7.5	0.0	3.1
LnGrp Delay(d),s/veh	0.0	37.4	45.8	7.4	0.1	0.0				58.3	0.0	37.8
LnGrp LOS		D	D	A	A					E		D
Approach Vol, veh/h		736			1945						361	
Approach Delay, s/veh		40.1			4.3						51.2	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			49.7	25.0		20.3		74.7
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s			43.0	20.5		18.0		68.0
Max Q Clear Time (g_c+I1), s			18.2	16.8		15.3		2.0
Green Ext Time (p_c), s			12.5	1.5		0.5		17.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	493	241	1079	826	0	0	0	0	229	0	127
Future Volume (veh/h)	0	493	241	1079	826	0	0	0	0	229	0	127
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1727	1727	1727	1727	0				1900	1727	1727
Adj Flow Rate, veh/h	0	508	248	1112	852	0				236	0	131
Adj No. of Lanes	0	2	1	2	2	0				0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	10	10	10	10	0				10	10	10
Cap, veh/h	0	702	314	1555	2449	0				270	0	241
Arrive On Green	0.00	0.21	0.21	0.81	1.00	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	3368	1468	3191	3368	0				1645	0	1468
Grp Volume(v), veh/h	0	508	248	1112	852	0				236	0	131
Grp Sat Flow(s),veh/h/ln	0	1641	1468	1596	1641	0				1645	0	1468
Q Serve(g_s), s	0.0	14.4	16.0	15.5	0.0	0.0				14.0	0.0	8.2
Cycle Q Clear(g_c), s	0.0	14.4	16.0	15.5	0.0	0.0				14.0	0.0	8.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	702	314	1555	2449	0				270	0	241
V/C Ratio(X)	0.00	0.72	0.79	0.72	0.35	0.00				0.88	0.00	0.54
Avail Cap(c_a), veh/h	0	738	330	1555	2449	0				296	0	264
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.37	0.37	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	36.6	37.2	6.2	0.0	0.0				40.8	0.0	38.4
Incr Delay (d2), s/veh	0.0	3.3	11.7	0.6	0.1	0.0				22.8	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.8	7.5	6.5	0.0	0.0				8.1	0.0	3.4
LnGrp Delay(d),s/veh	0.0	39.9	48.9	6.8	0.1	0.0				63.6	0.0	40.3
LnGrp LOS		D	D	A	A					E		D
Approach Vol, veh/h		756			1964						367	
Approach Delay, s/veh		42.8			3.9						55.3	
Approach LOS		D			A						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			53.2	25.9		20.9		79.1
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s			46.0	22.5		18.0		73.0
Max Q Clear Time (g_c+I1), s			17.5	18.0		16.0		2.0
Green Ext Time (p_c), s			13.6	1.8		0.4		17.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Cumulative — P.M. Peak Hour
3: State Route 46 & U.S. Highway 101 SB Ramps — 7/21/2017

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑						↰↑	↱
Traffic Volume (veh/h)	0	526	259	1257	856	0	0	0	0	407	0	144
Future Volume (veh/h)	0	526	259	1257	856	0	0	0	0	407	0	144
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1727	1727	1727	1727	0				1900	1727	1727
Adj Flow Rate, veh/h	0	542	267	1296	882	0				420	0	148
Adj No. of Lanes	0	2	1	2	2	0				0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	10	10	10	10	0				10	10	10
Cap, veh/h	0	656	294	1495	2349	0				312	0	278
Arrive On Green	0.00	0.20	0.20	0.78	1.00	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	3368	1468	3191	3368	0				1645	0	1468
Grp Volume(v), veh/h	0	542	267	1296	882	0				420	0	148
Grp Sat Flow(s),veh/h/ln	0	1641	1468	1596	1641	0				1645	0	1468
Q Serve(g_s), s	0.0	15.0	16.9	26.1	0.0	0.0				18.0	0.0	8.6
Cycle Q Clear(g_c), s	0.0	15.0	16.9	26.1	0.0	0.0				18.0	0.0	8.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	656	294	1495	2349	0				312	0	278
V/C Ratio(X)	0.00	0.83	0.91	0.87	0.38	0.00				1.35	0.00	0.53
Avail Cap(c_a), veh/h	0	660	295	1495	2349	0				312	0	278
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	36.4	37.2	8.3	0.0	0.0				38.5	0.0	34.7
Incr Delay (d2), s/veh	0.0	8.4	30.1	0.6	0.0	0.0				176.2	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	9.3	10.9	0.0	0.0				23.4	0.0	3.6
LnGrp Delay(d),s/veh	0.0	44.9	67.2	8.9	0.0	0.0				214.7	0.0	36.6
LnGrp LOS		D	E	A	A					F		D
Approach Vol, veh/h		809			2178						568	
Approach Delay, s/veh		52.2			5.3						168.3	
Approach LOS		D			A						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			49.0	23.5		22.5		72.5
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s			44.4	19.1		18.0		68.0
Max Q Clear Time (g_c+I1), s			28.1	18.9		20.0		2.0
Green Ext Time (p_c), s			10.8	0.1		0.0		20.9

Intersection Summary		
HCM 2010 Ctrl Delay		42.0
HCM 2010 LOS		D

Agenda Item 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	541	264	1257	874	0	0	0	0	407	0	150
Future Volume (veh/h)	0	541	264	1257	874	0	0	0	0	407	0	150
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1727	1727	1727	1727	0				1900	1727	1727
Adj Flow Rate, veh/h	0	558	272	1296	901	0				420	0	155
Adj No. of Lanes	0	2	1	2	2	0				0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	10	10	10	10	0				10	10	10
Cap, veh/h	0	668	299	1536	2396	0				296	0	264
Arrive On Green	0.00	0.20	0.20	0.80	1.00	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	3368	1468	3191	3368	0				1645	0	1468
Grp Volume(v), veh/h	0	558	272	1296	901	0				420	0	155
Grp Sat Flow(s),veh/h/ln	0	1641	1468	1596	1641	0				1645	0	1468
Q Serve(g_s), s	0.0	16.3	18.1	24.8	0.0	0.0				18.0	0.0	9.7
Cycle Q Clear(g_c), s	0.0	16.3	18.1	24.8	0.0	0.0				18.0	0.0	9.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	668	299	1536	2396	0				296	0	264
V/C Ratio(X)	0.00	0.83	0.91	0.84	0.38	0.00				1.42	0.00	0.59
Avail Cap(c_a), veh/h	0	676	302	1536	2396	0				296	0	264
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.2	38.9	7.5	0.0	0.0				41.0	0.0	37.6
Incr Delay (d2), s/veh	0.0	8.8	29.6	0.4	0.0	0.0				207.0	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.2	9.8	10.3	0.0	0.0				25.2	0.0	4.2
LnGrp Delay(d),s/veh	0.0	47.0	68.5	7.9	0.0	0.0				248.0	0.0	40.9
LnGrp LOS		D	E	A	A					F		D
Approach Vol, veh/h		830			2197						575	
Approach Delay, s/veh		54.1			4.7						192.2	
Approach LOS		D			A						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			52.6	24.9		22.5		77.5
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s			47.9	20.6		18.0		73.0
Max Q Clear Time (g_c+I1), s			26.8	20.1		20.0		2.0
Green Ext Time (p_c), s			13.0	0.3		0.0		21.7

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

DRIVE THROUGH QUEUE STUDY

Drive-Thru Queue Study

Date:	Thursday, January 26, 2017
Project No.:	17008
Weather:	Sunny
Project Description:	Black Oak Lodge Development
Location:	McDonald's, 2715 Black Oak Dr, Right Lane
City:	Paso Robles

Agenda Item 1

Ending @	In	Max Queue	Ending @	In	Max Queue
11:35 AM	3	1	12:35 PM	3	1
11:40 AM	1	1	12:40 PM	3	1
11:45 AM	1	1	12:45 PM	1	1
11:50 AM	2	1	12:50 PM	2	1
11:55 AM	2	1	12:55 PM	0	0
12:00 PM	1	1	1:00 PM	2	1
12:05 PM	2	1	1:05 PM	2	1
12:10 PM	1	1	1:10 PM	4	3
12:15 PM	2	1	1:15 PM	1	1
12:20 PM	1	1	1:20 PM	1	1
12:25 PM	1	1	1:25 PM	1	2
12:30 PM	4	1	1:30 PM	1	1

Notes Max queue on left lane is 2 @ 1:10 pm. Max queue on right lane is 3 @ 1:10 pm.
About 5 car spaces between food order board and pick-up window

Drive-Thru Queue Study

Date:	Thursday, January 26, 2017
Project No.:	17008
Weather:	Sunny
Project Description:	Black Oak Lodge Development
Location:	McDonald's, 2715 Black Oak Dr, Left Lane
City:	Paso Robles

Ending @	In	Max Queue	Ending @	In	Max Queue
11:35 AM	5	1	12:35 PM	3	1
11:40 AM	3	1	12:40 PM	2	1
11:45 AM	1	1	12:45 PM	1	1
489 11:50 AM	1	1	12:50 PM	4	1
11:55 AM	1	1	12:55 PM	2	1
12:00 PM	3	1	1:00 PM	1	1
12:05 PM	1	1	1:05 PM	3	2
12:10 PM	1	1	1:10 PM	2	2
12:15 PM	1	1	1:15 PM	2	1
12:20 PM	2	1	1:20 PM	2	1
12:25 PM	1	1	1:25 PM	2	1
12:30 PM	1	1	1:30 PM	0	0
Notes	Max queue on left lane is 2 @ 1:10 pm. Max queue on right lane is 3 @ 1:10 pm. About 5 car spaces between food order board and pick-up window				

Agenda Item 1

ATTACHMENT - 5c

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3111

Serious drought.
Help save water!

April 5, 2018

SLO 46 PM 29.77
SCH# 2017071017

Darren Nash
Planning and Building
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

RE: COMMENTS TO DRAFT IS/MND FOR PD 16-007, BLACK OAK LODGE – 2717 BLACK OAK DR

Dear Mr. Nash:

The California Department of Transportation (Caltrans) appreciates the opportunity to review the Initial Study/Mitigated Negative Declaration (IS/MND) and associated studies for the Black Oak Lodge project. The proposed project consists of the construction and operation of a 4-story, 96-room hotel located at 2717 Black Oak Drive. Caltrans notes that this project is located within 200 feet of the US 101 and State Route (SR) 46 East interchange with access from Black Oak Drive and Riverside Avenue. As noted in the project's *Traffic and Circulation Study* conducted by Associated Transportation Engineers (ATE), the proposed project is a highway-serving land use; therefore, much of the traffic is expected to be regional in nature (i.e., primarily arriving from SR 46 and US 101).

The revised *Traffic and Circulation Study* for the project concluded that the proposed project would not result in significant project-specific impacts to the State Highway System (SHS). However, the project would contribute to a long-term increase of traffic on the SHS, which would ultimately result in potentially significant cumulative impacts. Consequently, the project proponent will be required to pay traffic impact fees to the City, which will be used to develop a local parallel route system and grade-separated overcrossing of SR 46 in accordance with the *State Route 46 Comprehensive Corridor Study* and *State Route 46 Corridor System Management Plan* prepared by Caltrans (June 2009). Furthermore, the project's Black Oak Drive driveway will be restricted to inbound traffic only. Based upon our review and clarification from ATE, Caltrans concurs with the determinations of the project's IS/MND and recommends implementation of the proposed mitigation.

We look forward to continuing our combined efforts to protect the local and regional transportation network. If you have any questions regarding the items discussed above, please contact me at (805) 549-3131, or Michael.Hollier@DOT.ca.gov.

Sincerely,

Michael Hollier

MICHAEL D. HOLLIER
LD-IGR Coordinator
Planning District 5, South Branch

ATTACHNENT - 6
BLACK OAK LODGE

Roberts Engineering, Inc.

Preliminary Stormwater Control Plan

The Black Oak Lodge
2717 Black Oak Drive, Paso Robles, CA 93446

Roberts Engineering Inc.
2015 Vista de la Vina
Templeton, CA 93465
(805) 239-0664 phone
Robertsenginc.com

April 17, 20171/20/2015

Table of Contents

TABLES:

APPENDICES:

I. Introduction

Project Name: The Black Oak Lodge

Name of Applicant: Black's Hatchery – Matt Mascia

A. Property Description

Location: The new is situated on two adjacent parcels extending from Black Oak Drive to Riverside Avenue in Paso Robles, CA (See Appendix A for Vicinity and Location Exhibits)

Address: 2717 Black Oak Drive, Paso Robles, CA 93446

Assessor's Parcel Numbers: 008-132-019 & 021

Existing property description: Adelaide Inn and McDonalds to the south, Grocery Outlet and Carl's Jr. to the north.

The two acre site is improved with a 23,100 SF parking lot and driveway aisle. The topography of the site is flat to slightly sloping from west to east. There is no significant tree cover or vegetation on the site.

B. Project Description

Project Type: Commercial tourism

Project Description: The project consists of a new 4-story, 96 room hotel and new to outdoor parking areas.

Site runoff will be directed to landscaped bio swales/basins in the west parking area and a RainStore3 rainfall harvesting facility in the east parking area.

The project will implement LID principles and install structural Stormwater Control Measures (SCM's). The project is designed to satisfy the requirements of the City Post Construction Storm Water Quality Ordinance

Summary of Areas (See Table 1: Summary of Areas)

Total new and/or replaced impervious surface area: 59987 sf
Bioretention swale/planter: 3550 sf
Traditional landscaping: 4991 sf
Total project area of disturbance: 84236 sf

C. Purpose

The purpose of this Preliminary Stormwater Control Plan is to outline the site planning, LID concepts, best management practices (BMP's) and Stormwater Control Measures (SCM's) that will be employed in the design and development of the site to demonstrate that the requirements are met for the Post-Construction Stormwater Management Requirements for Development Project in the Central Coast Region Resolution

No. R3-2013-0032 prepared by the California Regional Water Quality Control Board Central Coast Region which went into effect September 6, 2013.

The objective of the Post-Construction Stormwater Management Requirements is to reduce pollutant discharges to the maximum extent practicable and prevent stormwater discharges from causing or contributing to a violation of receiving water quality standards. Also, to protect and restore key watershed processes to create and sustain links between hydrology, channel geomorphology and biological health for healthy watersheds.

In addition to meeting the Post-construction requirements, this report will demonstrate the requirements are met for the traditional City of Paso Robles Public Works stormwater drainage flooding requirements which are listed in the Engineering Department Standard Specifications and Drawings.

The requirement specifics and methodology to meet the requirements will be outlined in the remainder of this report.

II. Methodology

A. Post-Construction Stormwater Management Requirements

The total new and/or replaced impervious surface area is 59,987 sf. (See the III. Results section, Table: Summary of Areas and Table 2: Drainage Management Area breakdown)

If the impervious surface area exceeds the thresholds listed in the Post-Construction Stormwater Management Requirements, the corresponding Performance Requirements apply to the project. See the summary table below for which requirements apply to the project:

Performance Requirement	Impervious Threshold	Applies:
No.1 Site Design and Runoff Reduction	> 2,500 sf	Yes
No. 2 Water Quality Treatment	> 5,000 sf	Yes
No. 3 Runoff Retention	> 15,000 sf	Yes
No. 4 Peak Management	> 22,500 sf	No

There are no adjusted requirements based on the local jurisdiction's approval, an allowance of a Special Circumstance, Watershed or Regional Plan, or Urban Sustainability Area designation.

The project is located within Watershed Management Zone 4 (WMZ 4). (See Appendix B)

The project is not located within the Paso Robles groundwater basin.

The performance requirement criteria and how they are satisfied are contained in the next section.

1. Performance Requirement No. 1

Site Design and Runoff Reduction

Since the project's impervious area of 59,987 sf exceeds the threshold of 2,500 sf, the following components satisfy this requirement.

Site assessment summary:

The following site assessment measures were used to identify opportunities and constraints to implement LID Stormwater Control Measures. The site plan provided by the City of Paso Robles and coordinated with Central Coast LIDI was developed and designed taking the following into account (See Appendix C: Grading Plans for reference):

Site topography
Hydrologic features including contiguous natural areas, wetlands and watercourses
Soil types and hydrologic soil groups
Vegetative cover/trees
Run-on characteristics (source and estimated runoff from offsite which discharge to the project area)
Existing drainage infrastructure for the site and nearby areas including the location of municipal storm drains
Utilities
Easements
Zoning/Land Use
Setbacks
Other pertinent overlay(s) <u>Site design measures used:</u>
Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed
Conserve natural areas, including existing trees, other vegetation, and soils
Limit the overall impervious footprint of the project
Construct streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety or mobility uses are not compromised

- Set back development from creeks, wetlands, and riparian habitats
- Conform the site layout along natural landforms
- Avoid excessive grading and disturbance of vegetation and soils

Runoff Reduction Measures:

- Limit disturbance of creeks and natural drainage features
- Minimize compaction of highly permeable soils
- Limit clearing and grading of native vegetation at the site to the minimum area needed to build the project, allow access, and provide fire protection
- Minimize impervious surfaces by concentrating improvements on the least-sensitive portions of the site, while leaving the remaining land in a natural undisturbed state
- Minimize stormwater runoff by implementing:

Direct runoff from driveways and/or uncovered parking lots onto vegetated areas safely away from building foundations and footings, consistent with California building code. Construct bike lanes, driveways, uncovered parking lots, sidewalks, walkways, and patios with permeable surfaces.

Drainage Management Areas (DMA's)

Discrete Drainage Management Areas (DMA's) were delineated to support a decentralized approach to stormwater management. (See Appendix D for the Watershed Exhibit showing the DMA's and Table 2: DMA Breakdown)

2. Performance Requirement No. 2

Water Quality Treatment

Since the project's impervious area of 59,987 sf exceeds the threshold of 5,000 sf, Low Impact Development (LID) Treatment Systems have been implemented to satisfy this requirement.

The stormwater runoff is treated using onsite measures to reduce pollutant loads and concentrations using physical, biological and chemical removal using Low Impact Development (LID) Treatment Systems – implementing harvesting and use, infiltration and evapotransportation Stormwater Control Measures that collectively achieve the following hydraulic sizing criteria:

- Hydraulic sizing criteria: LID systems shall be designed to retain stormwater runoff equal to the volume of runoff generated by the 85th percentile 24-hour storm event, based on local rainfall data.

- 85th Percentile 24-hour Rainfall Depth = 0.9 inches

* Note: Rainfall statistics provided by the Central Coast Water Board were used.

Performance Requirement No. 2 will be satisfied because a greater rainfall depth associated with Performance Requirement No. 3 Runoff Retention also needs to be met. A LID hybrid bioretention swale and planter basin will be installed to capture and retain the required volume. (See the next section).

3. Performance Requirement No. 3

Runoff Retention

Since the project's impervious area of 59,987 sf exceeds the threshold of 15,000 sf, LID systems have been implemented to satisfy this requirement.

- For Watershed Management Zone 1, hydraulic sizing criteria: LID systems shall be designed to retain stormwater runoff equal to the volume of runoff generated by the 95th percentile 24-hour storm event, based on local rainfall data. Prevent offsite discharge from events up to the 95th percentile 24-hour rainfall event. Compliance must be achieved by infiltration.

- 95th Percentile 24-hour Rainfall Depth = 1.4 inches

* Note: Rainfall statistics provided by the Central Coast Water Board were used.

Two LID biorentention basins and a Rain Store 3 basin will be sized and installed to capture and retain the required volume. (See the Methodology section for bioretention SCM sizing satisfying this requirement)

4. Performance Requirement No. 4

Peak Management

This requirement is not applicable on the west side of Paso Robles and is assumed to be met if Tier 3 requirements are implemented in accordance with this plan.

B. Hydrology

Existing and developed watersheds were delineated using a topographic map of the project site; a field review was performed to verify the watershed limits in the vicinity of the project and to confirm the off-site run-on watersheds. All historical drainage patterns were maintained to the extent feasible and disturbance within the natural waterways present on the site have been minimized.

Since the impervious threshold > 15,000 sf was exceeded for Performance Requirement No. 3 Runoff Retention, the 95th percentile storm event was used to determine all Post-construction Stormwater Management retention requirements.

As prescribed in Attachment D of the Post-construction Stormwater Management Requirements, Method 1: Simple Method was used to determine that the SCM Capture Volume was greater than the Retention Volume for the 95th Percentile 24-hr Rainfall Depth.

See the summary of calculations below. The pertinent formulas used in this report to calculate the storage requirements are presented below in italics.

Tributary Area = (Entire Project Area) – (Undisturbed or Planted Areas) – (Impervious Surface Area that Discharges to Infiltration Areas)

There are several small areas that fall into these categories (described in Section B.4.d.iv.1 or Section B.4.d.iv.2):

- Undisturbed or Planted Areas = 4991 SF

- Impervious Surface Area that Discharges to Infiltration Areas - NA

Tributary Area

So: Tributary Area = 84236 – 4991 = 79245 sf

The requirements and formulas are prescribed in Attachment D of this Post-Construction Stormwater Management requirements:

95th Percentile 24-hr Storm Event Rainfall Depth > 85th Percentile 24-hr Storm Event Rainfall Depth

1.4 inches > 0.9 inches 1.4 inches will be used

Compute the Runoff Coefficient "C"

As set forth in WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998), pages 175-178 and based on the translation of rainfall to runoff using a runoff regression equation developed using two years of data from more than 60 urban watersheds nationwide.

$C = 0.858i^3 – 0.78i^2 + 0.774i + 0.04$

Where "i" is the fraction of the tributary area that is impervious

i = (Impervious Area) / (Tributary Area)
i = (59987 sf) / 79245 sf)
i = 0.76
So: $C = 0.858i^3 – 0.78i^2 + 0.774i + 0.04$

$C = 0.858\ (0.76)^3 – 0.78\ (0.76)^2 + 0.774(0.76) + 0.04$
C = 0.38 – 0.45 + 0.59 + 0.04
C = 0.56

Retention Volume for 95th Percentile 24-hr Rainfall Depth = (C) x (Rainfall Depth$_{95th}$) x (Tributary Area)

Retention Volume for 95th Percentile 24-hr Rainfall Depth = (0.56) x (1.4 in) x (1 ft / 12 in) x (79245 sf)

Retention Volume for 95th Percentile 24-hr Rainfall Depth = 5177 cubic feet

Retention Volume for 85th Percentile 24-hr Rainfall Depth = (0.56) x (0.9 in) x (1 ft / 12 in) x (79245 sf)

Retention Volume for 85th Percentile 24-hr Rainfall Depth = 3328 cubic feet

Confirmed, 5177 cf > 3328 cf

So 95th Percentile 24-hr Rainfall Depth governs, Performance Requirement No. 3 controls and

Performance Requirement No. 2 will be satisfied as long as No. 3 is met.

Structural Stormwater Control Measure (SCM) Sizing

As described above, Method 1: Simple Method was used to determine that the SCM Capture Volume was greater than the Retention Volume for the 95th Percentile 24-hr Rainfall Depth. The available volume of the bioretention basins and paver section were calculated in a static state to demonstrate the SCM Capture Volume. The bioretention basins were sized using the LIDI details and associated subsurface structural sections and depths.

The void ratio for the bioretention soil media (BSM) was assumed to be 0.10 and the void ratio for the permeable rock was assumed to be 0.40. No infiltration was taken into account using the Simple Method; however it is factored into the SCS method and the hydrologic model that was set-up to determine the peak flows and detention requirements for Performance Requirement No.4 and City flooding requirements, both of which are discussed later in this report.

SCM Capture Volume > Retention Volume for 95th Percentile 24-hr Rainfall Depth

6307 cubic feet > 5177 cubic feet

(See Table 3 for a summary of the SCM Capture Volume)

So, Performance Requirement No. 2 and Performance Requirement No. 3 are both satisfied.

III. Results

The project employs Runoff Reduction Measures and Structural Stormwater Control Measures (SCM's) described in this report and shown on the improvement plans to satisfy all requirements prescribed by the Post-construction Stormwater Management Requirements and the City of Paso Robles flooding requirements.

- Performance Requirement No. 1 is satisfied
- Performance Requirement No. 2 is satisfied
- Performance Requirement No. 3 is satisfied
- Performance Requirement No. 4 is not required

The selection, sizing, and design of the Stormwater Control Measures (SCM's) meet all of the applicable Water Quality Treatment, Runoff Retention Requirements.

A. Statement of Compliance

There is no documentation needed to demonstrate infeasibility where on-site compliance cannot be achieved because it doesn't apply; on-site compliance can be achieved.

The Water Quality Treatment, Runoff Retention, and Peak Management Performance Requirements have been met on-site.

B. Operations and Maintenance (O&M) Plan For all structural Stormwater Control Measures (SCM's) to ensure long-term performance

The following O&M Plan for all structural SCM's should be followed:

Have designated personnel conduct inspections of parking facilities and stormwater conveyance systems associated with parking facilities on a regular basis.
Inspect all structural SCM's:
At least once annually prior to the rainy season.
Prior to a forecast rain
Daily during extended rain events
After rain events
Weekly during the rainy season
Keep the parking areas clean and orderly.
Remove debris in a timely fashion.
Routinely sweep, shovel, and dispose of litter to appropriate trash receptacles.
Allow sheet runoff to flow into landscape and bioretention areas; remove any accumulated sediment from the curbs and gutters or the curb cuts.

Inspect curb cut and check dams for leaves and other debris.
Remove and dispose of debris in a timely fashion.
Inspect overflow inlets for leaves and other debris.
Remove and dispose of debris in a timely fashion.
Inspect curb storm drain inlet for leaves and other debris.
Remove and dispose of debris in a timely fashion.
Establish frequency of public parking lot sweeping based on usage and field observations of waste accumulation.
Sweep all parking lots at least once before the onset of the wet season.
Use dry cleaning methods (e.g., sweeping, vacuuming) to prevent the discharge of pollutants into the stormwater conveyance system if possible.

Owner of facilities

The owner of the facilities is: **Black's Hatchery** - Matt Mascia

TABLES:

Table 1: Summary of Areas

Total new and/or replaced impervious surface area	Area (sf)	Total (sf)
DMA A – Northwest parking area	6383	
DMA C – Southwest parking area	10806	
DMA E – Hotel / Southeast parking	42798	
		59987
Permeable Pavers		
DMA G	5040	
DMA H	6384	
DMA I	4284	
		15708
Bioretention swale/basins		
DMA B (Basin & Swale)	1750	
DMA D (Basin & Swale)	1800	
DMA F (RainStore3 facility) underground	(819)	
		3550
Traditional Landscaping		
DMA J	1361	
DMA K	480	
DMA L	3150	
		4991
Total		84236

Type	Area (sf)
Total new and/or replaced impervious surface area	59987
Permeable Pavers	15708
Bioretention / detention basins	3550
Traditional Landscaping	4991

Total project area of disturbance = 84236 sf

Table 2 – Drainage Management Areas (DMA'S)

DMA	Surface	Terminal DMA	Area(sf)	Area (Ac)	C Factor
A	Northwest parking	B	6383	0.15	.9
B	Bioretention Basin	B	1750	0.04	.35
C	Southwest Parking	D	10806	0.25	0.9
D	Bioretention Basin	D	1800	0.04	.35
E	Hotel/Parking	F	42798	1.01	.95
F	RainStore3 facility	F	819	0.02	.35
G	Permeable Pavers	B	5040	0.12	.35
H	Permeable Pavers	D	6384	0.15	.35
I	Permeable Pavers	F	4284	0.10	.35
J	Landscape	B	1361	0.03	.35
K	Landscape	D	480	0.01	.35
L	Landscape	F	3150	0.07	.35

Table 3: SCM Capture Retention Volume

Required Retention Volume for 95th Percentile 24 hour rainfall depth = 5177 cubic feet

BSM = 1.5 feet, voids – 0.1 Rock = 1.0 feet, voids = 0.4, RainStore3 = 3 feet, voids = .94, Pond depth = 6"

		Volume (cf)	Volume (cf)	Volume (cf)		Volume (cf)	
Bioretention Swale/basin	Area (sf)	BSM	Rock	Surface	RainStore3	Total	
DMA B	1750	263	700	875		1838	
DMA D	1800	270	720	900		1890	
DMA F (RainStore3)					2309	2309	
						Total	6037

APPENDICES:

Appendix A: Vicinity and Location Map Exhibit

Appendix B: Watershed Management Zone Exhibit

Appendix C: Grading Plans

Appendix D: Watershed Exhibit

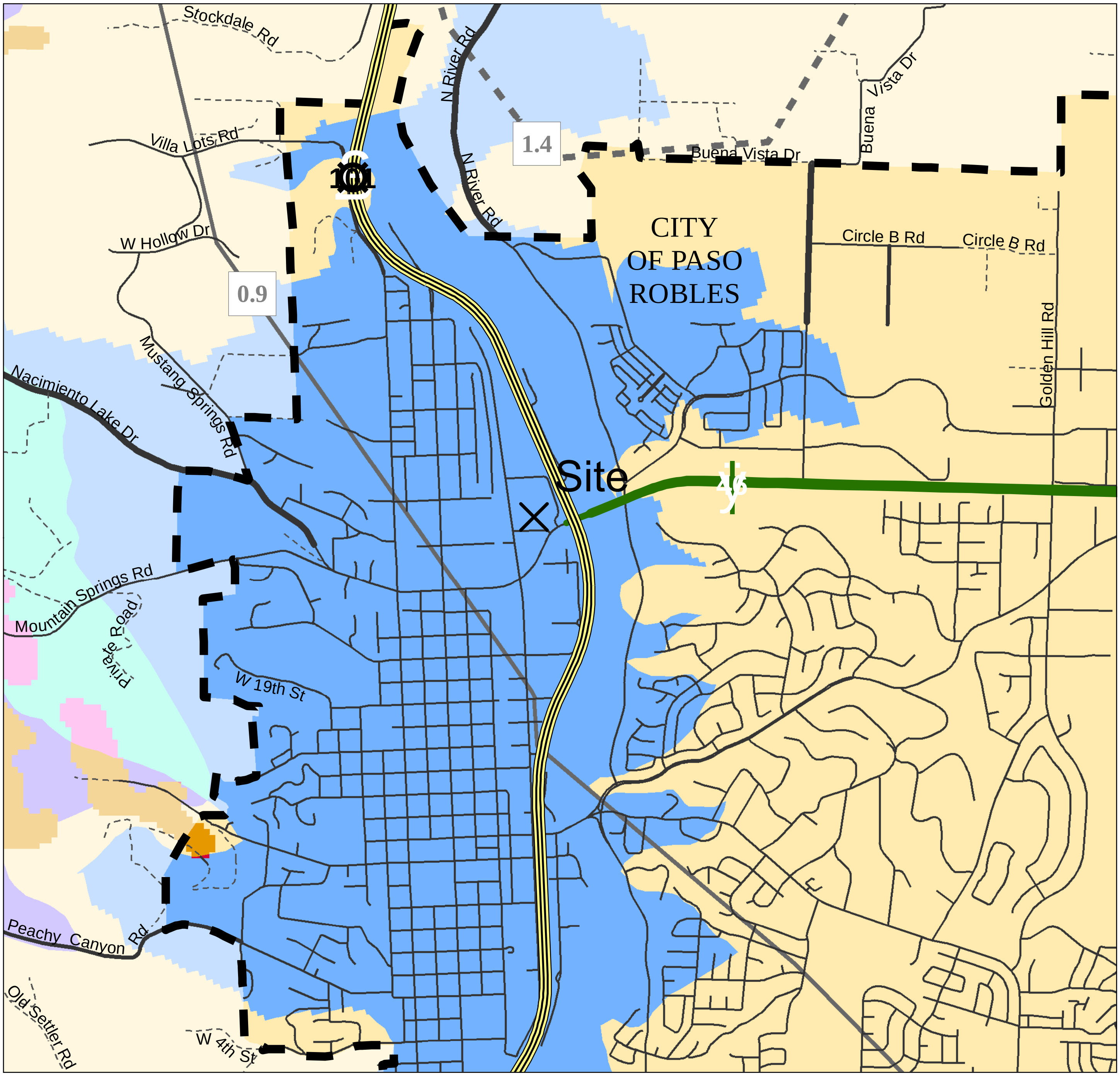
Appendix E: Stormwater Control Measures (SCM's) Exhibit

Appendix A: Vicinity and Location Map Exhibits

Agenda Item 1

Appendix B: Watershed Management Zone Exhibit

National Pollution Discharge Elimination System (NPDES)
San Luis Obispo County
Coverage Areas - **Paso Robles**



Source: San Luis Obispo County, 2010 Census, Stillwater Sciences, PRISM Climate Group, and Oregon State University. Map created January 2014

0 0.25 0.5 1
Miles

PUBLIC WORKS
GIS SERVICES
SAN LUIS OBISPO COUNTY

Coverage Areas

Isohyetal 24 Hour Rainfall (in.)

85th Percentile

95th Percentile

Watershed Management Zones

1 2 3 4 4* 5 6 7 7* 8 9 10

Appendix C: Grading Plans

Site Stormwater Information

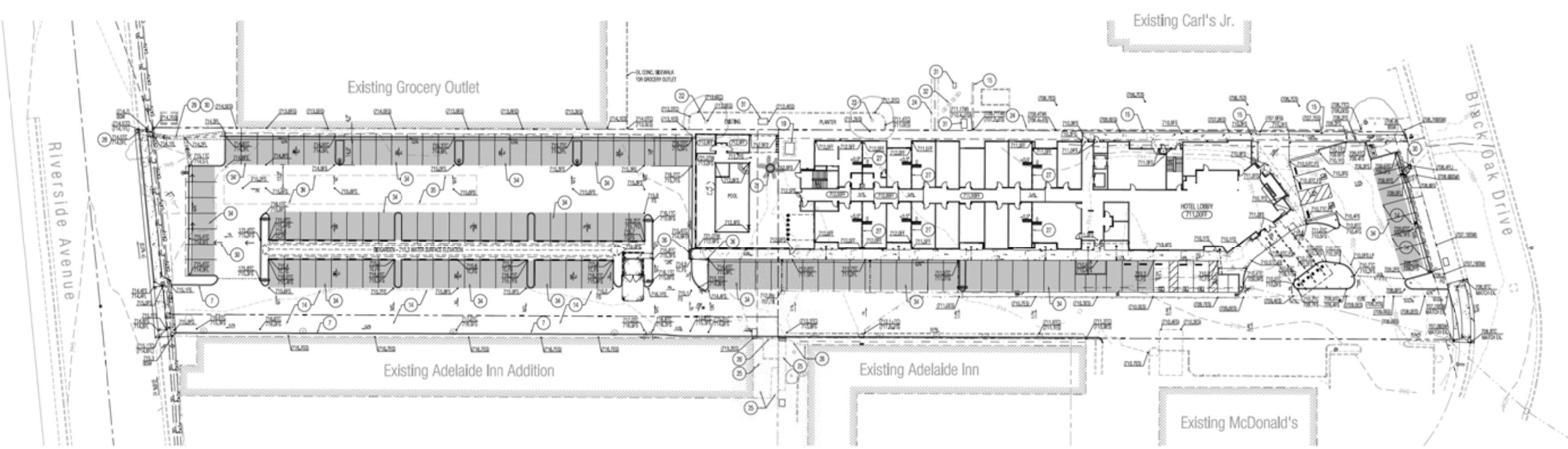
TOTAL SITE AREA:	83,360 S.F. (1.91 AC, PARCEL 1 - 38,250SF PARCEL 3 - 45,110SF)
EXISTING IMPERVIOUS AREA:	23,100 S.F. (EXISTING PARKING LOT AND DRIVE AISLE)
EXISTING PERVIOUS AREA:	60,260 S.F.
PROPOSED IMPERVIOUS AREA:	74,332 S.F.
NET IMPERVIOUS AREA INCREASE:	51,232 S.F. (74,332 SF NEW - 23,100 SF EXISTING)
PROPOSED PERVIOUS AREA:	9,028 S.F.
PROPOSED LANDSCAPED AREA:	7,500 S.F.
PROPOSED PERMEABLE PAVER AREA:	17,1802 S.F.
TREATMENT VOLUME REQUIRED:	5,785 C.F.
TREATMENT VOLUME PROVIDED:	6,247 C.F.
INFILTRATION / STORAGE PROVIDED:	6,150 C.F. (UNDERGROUND RAINSTORE3 FACILITY)

Grading & Drainage Plan Notes

1. EXISTING CONCRETE C,G & S TO REMAIN
2. NEW COMMERCIAL DRIVEWAY WITH 5' WIDE ACCESSIBLE PATH
3. LINE OF BUILDING AND/OR ROOF ABOVE
4. PLANTER AREA
5. ACCESSIBLE PARKING SPACES WITH VAN OFFLOAD AREA
6. NEW ACCESSIBLE CURB RAMP WITH TACTILE WARNING
7. NEW 6" CONCRETE CURB
8. NEW PARKING SPACE STRIPING
9. NEW REPLACEMENT CONCRETE CURB, GUTTER AND SIDEWALK PER CITY STANDARDS
10. NEW DETECTOR CHECK ASSEMBLY
11. NEW 3' WIDE CONCRETE SWALE
12. NEW CONCRETE PAVING
13. NEW AC PAVING
14. OUTLINE OF SUBSURFACE RAINSTORE3 FACILITY FOR RETENTION / INFILTRATION
15. EXISTING CMU WALL TO REMAIN
16. EXISTING OFF-SITE BUILDING
17. NEW SEWER CLEANOUT
18. CATCH BASIN
19. EXISTING PAD MOUNTED TRANSFORMER
20. EXISTING SEWER CLEANOUT
21. EXISTING 18" PALM TREE TO REMAIN
22. EXISTING TREE TO REMAIN
23. NEW CONCRETE GUTTER
24. EXISTING CONCRETE SWALE TO REMAIN
25. EXISTING CONCRETE FLATWORK TO REMAIN
26. EXISTING FENCE TO REMAIN
27. 0.5" STEP IN BUILDING FINISH FLOOR, TYPICAL
28. NEW SIDEWALK UNDERDRAIN
29. NEW SWALE FOR SIDEWALK UNDERDRAIN
30. OVERLAND EMERGENCY STORM WATER ESCAPE ROUTE
31. EXISTING UTILITY VAULT TO REMAIN
32. EXISTING DUAL-POLE MOUNTED SIGNAGE FOR ADJACENT PROPERTY
33. NEW TRASH ENCLOSURE. 6' TALL CMU WITH METAL GATES
34. SHADED AREA DENOTES PERMEABLE PAVERS IN PARKING SPACES
35. OUTLINE OF UNDERGROUND RAINSTORE3 FACILITY FOR INFILTRATION/STORAGE 6,150 C.F. CAPACITY
36. 6" WIDE TRENCH DRAIN WITH 3" PIPE TO DISCHARGE INTO GUTTER

Legend

TC	TOP OF CURB	(713.2)	EXISTING ELEVATION
FS	FINISH SURFACE	711.4	PROPOSED ELEVATION
FL	FLOWLINE	(0.5%)	EXISTING SURFACE SLOPE
ES	EXISTING SURFACE	1.2%	PROPOSED SURFACE SLOPE
EG	EXISTING GROUND		
SSCO	SANITARY SEWER CLEANOUT		
BSW	BACK OF SIDEWALK		
CONC	CONCRETE		
TW	TOP OF WALL		



NORTH

Preliminary Grading and Drainage Plan

SCALE: 1" 30'

garcia architecture + design
1308 monterey street, # 230
san luis obispo
california 93401
ph: 805.783.1880
fx: 805.783.1881
www.garciaarchdesign.com
George Garcia, AIA C-24540

seal:

LICENSED ARCHITECT GEORGE F. GARCIA C 24540 STATE OF CALIFORNIA

consultant:

project:

Black Oak Lodge
2717 Black Oak Drive
Paso Robles, CA

applicant/owner:

Black's Hatchery
Matt Masia
P.O. Box 486
Paso Robles, CA 93447

sheet title:

Preliminary Grading and Drainage Plan

revision:

legal stuff:

sheet data:

ga+d job no:	arna 588
CAD file:	C3.1.dwg
drawn by:	
plot date:	

sheet:

C3.1

Appendix D: Watershed Exhibit

DMA	Surface	Terminal DMA	Area(sf)	Area (Ac)	C Factor
A	Northwest parking	B	9683	0.22	.9
B	Bioretention Basin	B	1750	0.04	.35
C	Southwest Parking	D	10806	0.25	0.9
D	Bioretention Basin	D	1800	0.04	.35
E	Hotel/Parking	F	43798	1.01	.95
F	RainStore3 facility	F	819	0.02	.35
G	Permeable Pavers	B	5040	0.12	.35

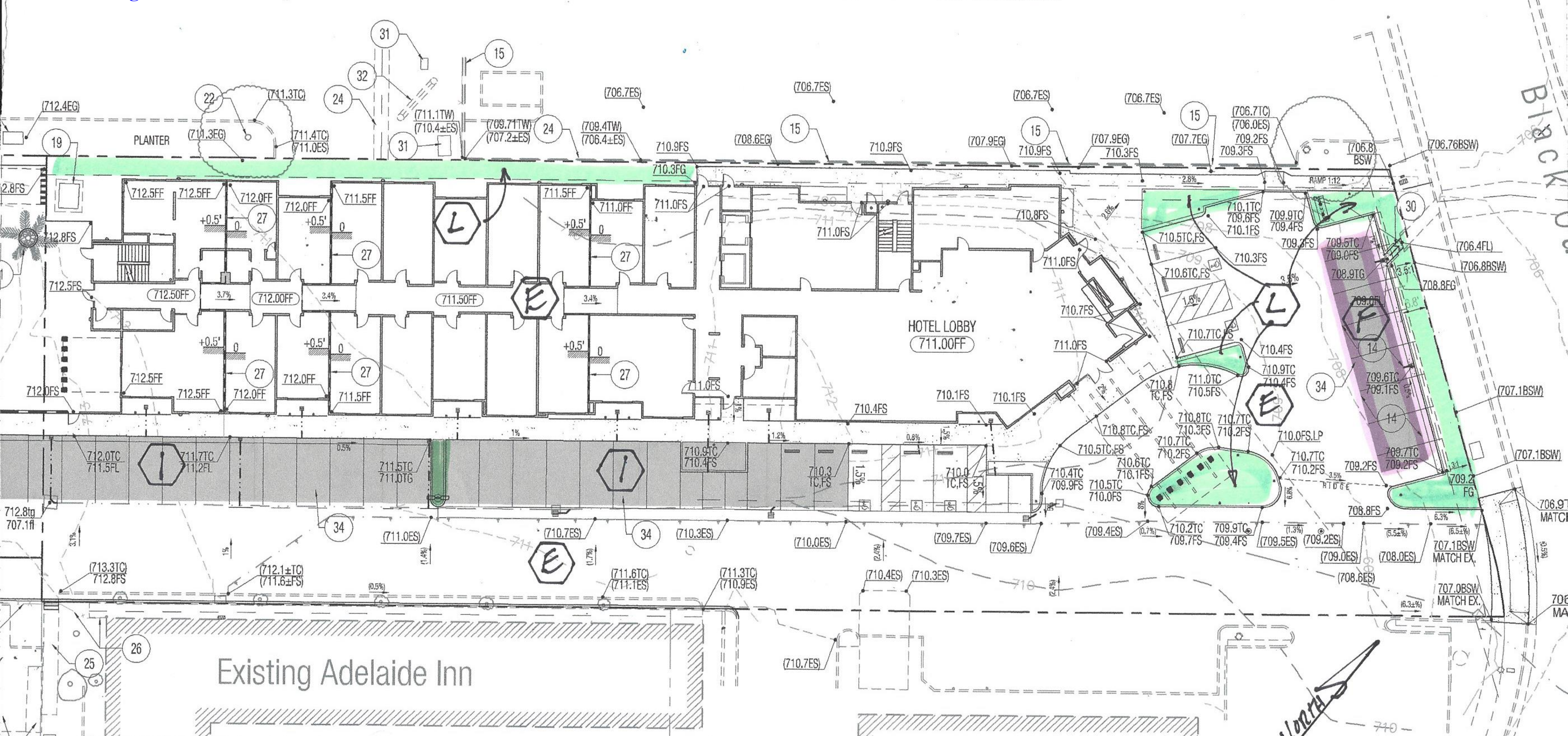
<u>Drainage Management Zone Exhibit</u>

Black Oak Lodge, Paso Robles, CA

1 inch = 30 feet (WEST)

1/2

Agenda Item 1



H	Permeable Pavers	D	6384	0.15	.35
I	Permeable Pavers	F	4284	0.10	.35
J	Landscape	B	1361	0.03	.35
K	Landscape	D	480	0.01	.35
L	Landscape	F	3150	0.07	.35

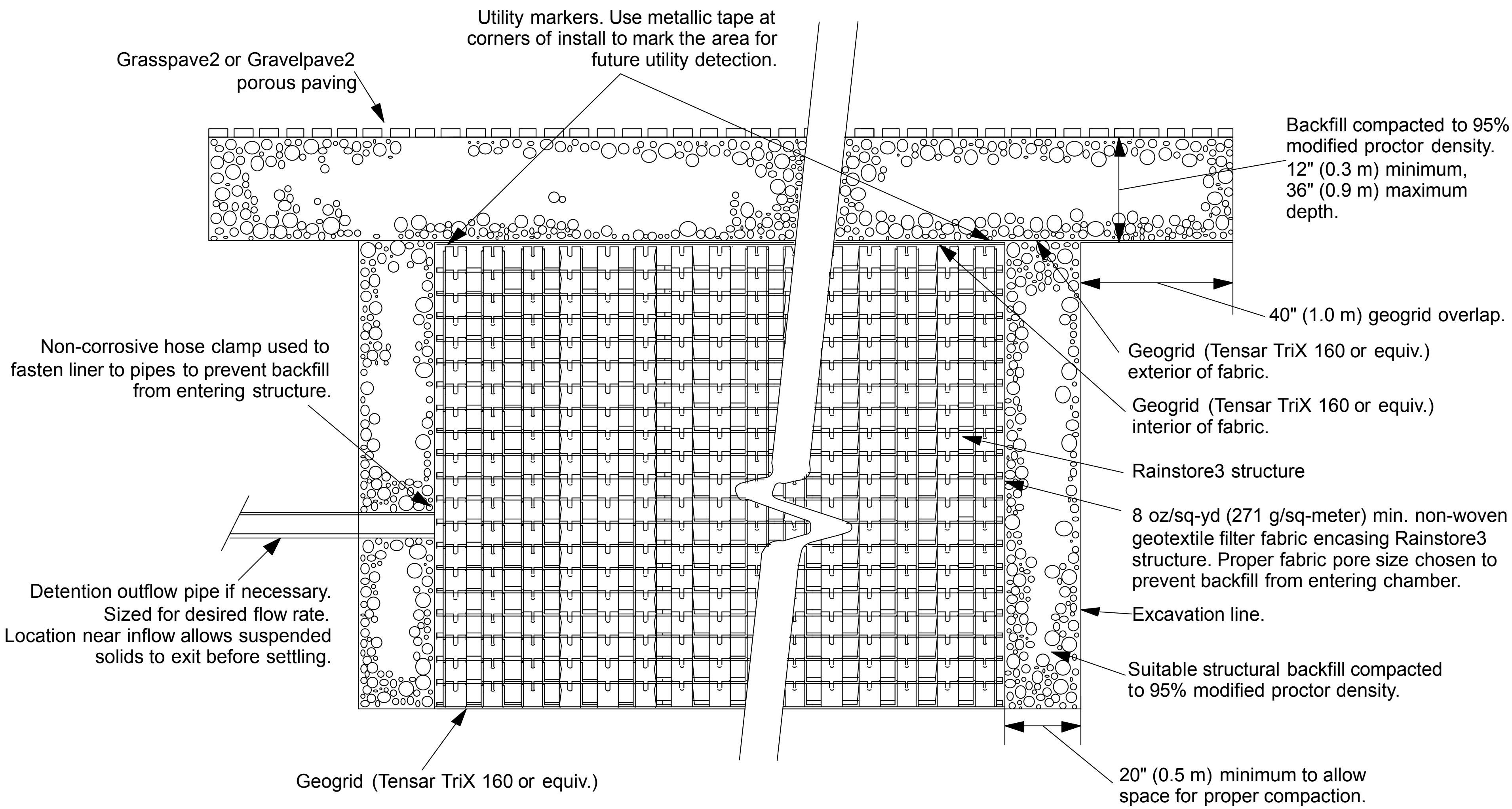
Drainage Management Zone Exhibit

Black Oak Lodge, Paso Robles, CA

1 inch = 30 feet (EAST)

2/2

Appendix E: Stormwater Control Measures (SCM's) Exhibit



Porous Paving Inflow Method

Eliminates structural inlets and provides thorough filtration

NOT TO SCALE

Invisible Structures, Inc.

RS3porouspaveinflow10.dwg

1600 Jackson Street, Suite 310
Golden, Colorado 80401
800-233-1510 FAX: 800-233-1522
www.invisiblestructures.com
rev. 12/2010

Rainstore3 Technical Specification
With Geotextile Fabric Liner
SECTION 33 49 23.13 Underground Strom Drainage Water Retention Tanks
(02630 Storm Drainage Containment & Reuse)

PART 1 - GENERAL

1.01 General Provisions
A. The Conditions of the Contract and all Sections of Division 1 are hereby made a part of this Section.

1.02 Description of Work
A. Work Included:
1. Provide excavation and base preparation per Geotechnical Engineer's recommendations and/or as shown on drawings, to provide adequate support for project designs loads and safety from excavation sidewall collapse. See 2.02 Materials.
2. Provide Rainstore3 system products including Rainstore3 units, geotextiles, geogrids, inlet and outlet pipe with connections and installation per the manufacturer's instructions furnished under this section.

B. Related Work:
1. Subgrade excavation preparation under Section 31 20 00 Earth Moving (02300 – Earthwork).
2. Utilities and subsurface drainage - Section 33 40 00 Storm Drainage Utilites (02700 - Subsurface Drainage and Structures), as needed.

1.03 Quality Assurance
A. Follow Section 01 33 23 Shop Drawings, Product Data, and Samples (01340 Shop Drawings, Product Data, and Samples) requirements.
B. Installation: Performed only by skilled work people with satisfactory record of performance on pipe, chamber, or pond/landfill construction projects of comparable size and quality.

1.04 Submittals
A. Submit manufacturer's product data and installation instructions.
B. Submit a 20" x 20" section of Rainstore3 product for review. Reviewed and accepted samples will be returned to the Contractor.
C. Submit material certificates for geotextile, geogrid, base course and backfill materials.

1.05 Delivery, Storage, and Handling
A. Protect Rainstore3 cells from damage during delivery and store under tarp to protect from sunlight when time from delivery to installation exceeds one week. Storage should occur on smooth surfaces, free from dirt, mud and debris.
B. Handling is to be performed with equipment appropriate to the size (height) of cells and site conditions, and may include, hand, handcart, forklifts, extension lifts, small cranes, etc., with care given to minimize damage to spacer bars and surrounding cells.

1.06 Project Conditions
A. Review installation procedures and coordinate Rainstore3 work with other work affected, such as grading, excavation, utilities, construction access, erosion control to prevent all non-installation related construction traffic over the completed Rainstore3 installation, especially with loads greater than design loads.

B. Cold weather:
   1. Do not use frozen materials or materials mixed or coated with ice or frost.
   2. Do not build on frozen work or wet, saturated or muddy subgrade.
   3. Care must be taken when handling Rainstore3 cells when air temperature is at 40 degrees or below as plastic becomes brittle.

C. Protect partially completed Rainstore3 installation against damage from other construction traffic when work is in progress, and following completion of backfill, with highly visible construction tape, fencing, or other means until construction is complete.

D. Protect adjacent work from damage during Rainstore3 installation.

PART 2 - PRODUCTS

2.01 Availability

A. Manufacturer: (Rainstore3) Invisible Structures, Inc., 1600 Jackson Street, Suite 310, Golden, Colorado 80401. Call from USA and Canada 800-233-1510 toll free, (International 303-233-8383), Fax 800-233-1522 (International 303-233-8282).

B. Distributor:

2.02 Materials

A. Base of Excavation: Shall be smooth soil, level and free of lumps or debris. Compact to at least 90% or as required by Engineer. Structural fill material may be used to amend the structural capacity of the soil, and should be placed on top of the geogrid layer if needed. Materials that can not be stabilized by compaction, such as sand and/or drainage rock, should be avoided.

B. Geogrid: Use geogrid product, such as Tensar BX1200, or equal, to overlay the excavation floor, the assembled cells, and above the completed liner, extending at least twice the width of side backfill, with geogrid joints overlapped by at least 12".

C. Geotextile: Shall be non-woven PP or PET with a weight of at least 8 oz per square yard, appropriate for the soil type and depth conditions, placed on the floor of the excavation, the sides of the chamber, and chamber top.

D. Rainstore3 Cells: Injection molded plastic units (layers) 1x1x0.1 m (Approximately 40"x40"x4"), (0.1 m3 each) assembled into vertical columnar cell structures of variable height (custom for each project) with each layer consisting of hollow rings rising from a strong open grid Unit weight = 6.4 kg (14.2 lb.), volume = 6% solid. DO NOT cut Rainstore3 Cells – Cells must be installed whole. Cutting of Rainstore3 is only permitted for installation of maintenance ports. DO NOT disassemble, reassemble, or reconfigure the height (stacks) of Rainstore3. Stacks must be assembled at Invisible Structures manufacturing facility.

E. Side Backfill: Structural fill free from lumps and debris or any other sharp materials to backfill along the sides of the cellular structure, taking care to compact with powered mechanical compactor, in lifts that do not exceed 12", to provide a settlement free-surface over the top and sides of the structure. Fill material should NOT consist of high percentage of clay or silt materials. Fill material should increase in shear strength when compacted; thus, no drain rock or pure open-graded rock allowed.

F. Top Backfill: Use 12" minimum to 36" maximum depth of 3/4" minus sandy/gravel roadbase material (with fines less than 3%). If backfill mixture must be custom mixed, use a ratio of 2 parts clean 3/4" drainage rock to 1 part clean sharp sand.

G. Utility Marker: Use metallic tape at corners of install to mark the area for future utility detection.

PART 3 - EXECUTION
3.01 Inspection

A. Examine prepared excavation and conditions for smoothness, compaction and level. Do not start Rainstore3 installation until unsatisfactory conditions are corrected. Check for presence of seasonal high water table, which must be kept at levels 3 feet below the bottom of the Rainstore3 structure at all times. Different municipalities have different regulations regarding the required distance between the bottom of an underground infiltration structure and the top of the seasonal high water table. Please check with your local regulations to ensure compliance.

B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance. If existing conditions are found unsatisfactory, contact Project Manager for resolution.

3.02 Preparation

A. Place geogrid over prepared grade, with any joints overlapped by a minimum of 12", extending over the entire excavation bottom.

B. Place the geotextile fabric on the geogrid, extending the excess portion of the rolls up the sides of the excavated area. Overlap the geotextile joints 12" or per manufacturer's recommendations.

C. It is helpful to identify the outline of the Rainstore3 cell placement on the fabric, using spray paint or chalk line, to ensure squareness.

D. The geotextile fabric will later be brought up and encompass all sides and the top of the Rainstore3 units

3.03 Installation of Rainstore3 Cells

A. Install Rainstore3 cells by placing side by side, with grid side down. Try to place sides of cells without damaged bumpers along outside of structure to resist backfill forces against fabric and liner materials. DO NOT cut Rainstore3 Cells – Cells must be installed whole. Cutting of Rainstore3 is only permitted for installation of maintenance ports. DO NOT disassemble, reassemble, or reconfigure the height (stacks) of Rainstore3. Place metallic tape on top corners of install to mark the area for future utility detection. Place a layer of geogrid directly over the top of the cells to bridge columns and joints and provide a secure walking surface. Place geotextile fabric layer over the top and sides to prevent soil entry into the chamber. Take great care to avoid damage to fabric liner material during placement.

B. After placement of Rainstore3 cells, bring liner material up the sides and over the top of the structure, overlapping or sealing joints per manufacturers recommendations. Fold excess fabric at corners to lay flat against sides of structure, securing folds and seams with staples or similar methods.

C. Identify locations of inlet, outlet, inspection ports, and any other penetrations of the liner, securing pipe into prefabricated boots with stainless steel pipe clamps. Support pipe in trenches and during backfill operations to prevent damage to liner or pipe.

D. With chambers greater than 1.2 meters (4 feet) deep, place piles of cover material over closed chamber top surface along the edge of the chamber to provide vertical load on perimeter cells. This will ensure compression of the columns and aid in resistance to side pressures from backfill operations.

E. Use a powered mechanical compactor to conduct backfill operations on structure sides with care to avoid damage to liner while providing required compaction forces to the top level of the structure.

F. Place a geogrid layer over the top of the structure, extending beyond the outside edge of the excavation by at least 40". Any joints must be overlapped by a minimum of 12".

G. Place sufficient sandy gravel backfill material over geogrid to ensure support of design loads. Place cover backfill in 6” lifts and compact with vibrating plates or walk-behind rollers (do not use drivable rolling compactors) to a minimum of 95%, with a minimum depth of 12” and a maximum depth of 36”. Take care to place backfill on top of structure and avoid damage to structure or liner, using low pressure tire or track vehicles.

H. Ensure that all non-chamber construction traffic be kept away from the limits of excavation until the project is complete and final surface materials are in place.

I. Place surfacing materials, such as groundcovers (no shrubs or trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.

J. Any slopes creating additional overburden above the Rainstore3 system should be carefully located. The toe of said slope should be 10’ away from the closest edge of the Rainstore3 system. This will prevent any additional earth pressure on the Rainstore3 system.

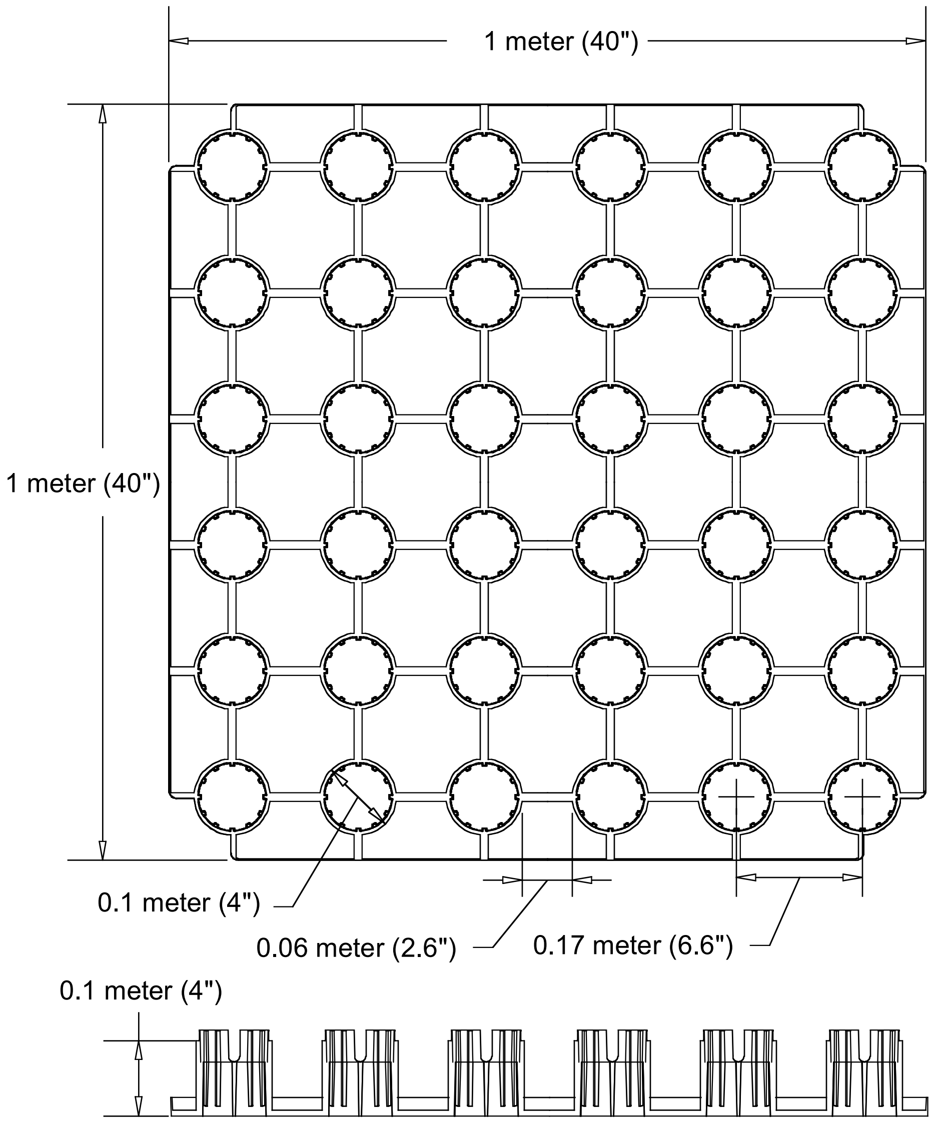
3.04 Cleaning

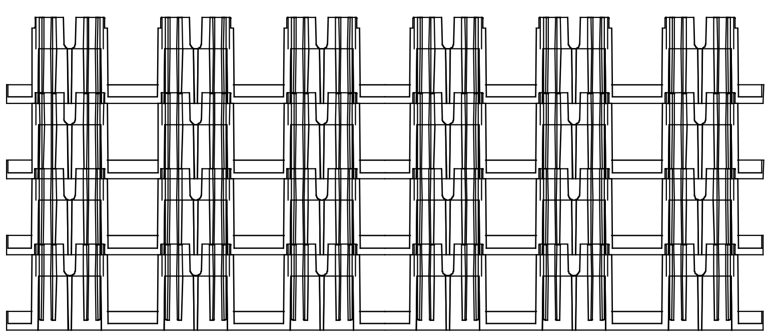
A. Perform cleaning during the installation of work and upon completion of the Work. Remove from site all excess materials, debris, and equipment. Repair any damage to adjacent materials and surfaces resulting from installation of this work.

END OF SECTION

If you have any questions regarding this specification, please call
Invisible Structures, Inc. 1-800-233-1510
Version 04/2016

Rainstore3 Unit Dimensions





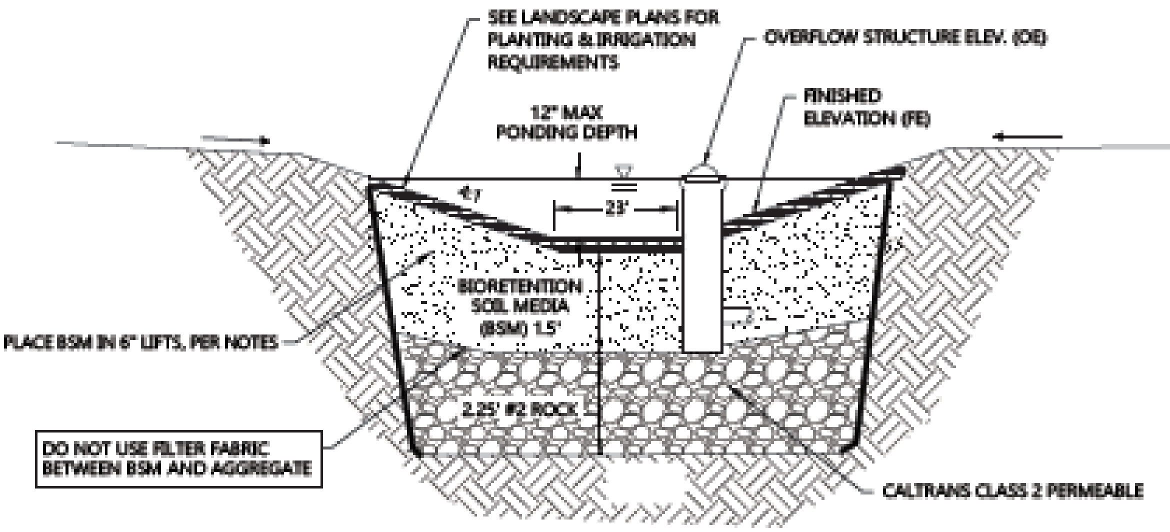
Rainstore3 Unit Detail

NOT TO SCALE

Single Rainstore3 injection molded unit geometry and dimensions

Invisible
Structures, Inc.
RS3detail.dwg

1600 Jackson St. Suite 310
Golden, Colorado 80401
800-233-1510 FAX: 800-233-1522
www.invisiblestructures.com 08/04



DESIGN NOTES

1. ADDITIONAL DESIGN GUIDANCE PROVIDED IN BIORETENTION TECHNICAL SPECIFICATIONS DOCUMENT.
2. OVERFLOW STRUCTURE REQUIRED FOR IN-LINE SYSTEMS WITHOUT OVERFLOW BYPASS, DETAIL 140.
3. PROVIDE SPOT ELEVATIONS AT INLETS ON CIVIL PLANS (FE, OE, GIE, SE). SEE DETAIL 121.
4. MAX. LONGITUDINAL SLOPE 6% WITH CHECK DAMS. SEE DETAILS 130, 131.
4. EDGE CONDITION WILL VARY FOR PARKING LOT PROJECTS. SEE PARKING LOT EDGE OPTIONS DETAILS, 114. CURB AND FLUSH EDGE DETAILS MAY BE MODIFIED FOR PROJECT BY CIVIL AND GEOTECHNICAL ENGINEERS.
5. PROVIDE MONITORING WELL IN EACH FACILITY, PER BIORETENTION TECHNICAL SPECIFICATIONS.
6. IF CALTRANS CLASS 2 PERMEABLE IS NOT AVAILABLE, SUBSTITUTE CLASS 3 PERMEABLE WITH AN OVERLYING 3" DEEP LAYER OF 3/4" (NO. 4) OPEN-GRADED AGGREGATE.
7. BIORETENTION SOIL MEDIA (BSM) SPECIFICATION PER BIORETENTION TECHNICAL SPECIFICATIONS.
8. PLANTING DESIGN AND IRRIGATION PER BIORETENTION TECHNICAL SPECIFICATIONS.
8. MULCH (OPTIONAL) PER BIORETENTION TECHNICAL SPECIFICATIONS.
9. LOCATE ENERGY DISSIPATION COBBLE ONLY AS SPECIFIED IN INLET DETAILS - AVOID DECORATIVE USE.

CONSTRUCTION NOTES

1. SCARIFY SUBGRADE BEFORE INSTALLING BIORETENTION AREA AGGREGATE AND BSM.
2. FACILITY EXCAVATION TO ALLOW FOR SPECIFIED SOIL AND MULCH DEPTHS TO ACHIEVE FINISHED ELEVATIONS ON CIVIL PLANS.
3. COMPACT EACH 6" LIFT OF BSM WITH LANDSCAPE ROLLER OR BY LIGHTLY WETTING. IF WETTING, ALLOW TO DRY OVERNIGHT BEFORE PLANTING.
4. DO NOT WORK WITHIN BIORETENTION AREA DURING RAIN OR UNDER WET CONDITIONS.
5. KEEP HEAVY MACHINERY OUTSIDE BIORETENTION AREA LIMITS.

HYBRID BIORETENTION FACILITY NOTES & DETAIL

(SLOPED SIDED, WITHOUT UNDERDRAIN). NOT TO SCALE.
REFER TO STORMWATER QUALITY PLAN BY ROBERTS ENGINEERING, INC.
ALSO SEE DETAIL NUMBER 105 LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT STANDARD DETAILS VERSION 3/6/2013.
PLEASE SEE CENTRAL COAST LIDI WEBSITE FOR ADDITIONAL SPECIFICATION & DETAILS.
www.centralcoastlidi.org

Bioretention Plant List

Plants for Zone A: Periodic inundation, area ponds following storm events (6" to 12" depth for 24 - 48 hours) and compost amended sand soil.

Scientific & Common Name	Height / Width	Light Preferences			Water Tolerances		CA Native	Sunset Climate Zones[1]	Notes
		Sun	Part	Shade	Drought	Inundation			
GRASS / GRASSLIKE									
Carex barbarae Santa Barbara Sedge/ Basket Sedge	1-2' / 1'-2'	X	X	X		X	X	4 - 9, 14 - 23	Attracts butterflies, deer resistant, good for erosion control, can spread agressively and should be sited carefully.
Carex divulsa Berkeley Sedge	1' / spreading	X	X	X	X	X		all, but 1A- 3A	Attractive blue-grey leaves. Can be mowed 4 in high to keep clean look.
Carex flacca Blue Sedge	1' / spreading	X	X		X	X		3A - 9, 14 - 23	Attractive blue-grey leaves. Can be mowed 4 in high to keep clean look.
Carex pansa California Meadow Sedge	6-10" / spreading	X	X			X	X	7-9, 11-24	Used as a lawn substitute, can be left long or mowed, tolerates drought, once established.
Carex praegracilis California Field Sedge	1' / spreading	X	X			X	X	all, but 1A -3A	Mounding, drought deciduous during summer months.
Carex spissa San Diego sedge	3 - 4' / 2 - 3'	X	X		X	X	X	all, but 1A-3A	Can handle foot traffic and is deer resistant.
Chondropetalum tectorum Small Cape Rush	2 - 3' / 3 - 4'	X	X	X	X	X		all, but 1A-3A and 7	Needs very little maintenance. If trimmed too much plant will loose visual integrity.
Leymus condensatus 'Canyon Prince' Canyon Prince Wild Rye	3'/3'	X	X			X	X	all, but 1A-3A	Tolerant of drought, poor soils, part shade and seasonal wet. Spreads by rhizomes, so nice planted in masses. Cut back annually in spring before new growth emerges.
Juncus effusus Common Rush	2 - 3' / clumping	X	X			X	X	all	Easy to grow & very reliable. Needs more water than *Juncus patens* .
Juncus patens 'Elk Blue' Elk Blue California Gray Rush	2' / clumping	X	X		X	X	X	all	Very little maintenance, handles dry summers and wet winters.
Muhlenbergia rigens Deer Grass	2 - 3' / 3 - 6'	X	X		X	X	X	all, but 1A-3A	Can handle no watering, will stay green year round with watering, trim annually.
Scirpus cernus Low Bulrush	1' / spreading	X	X			X		7 - 24	Grow individually or in mass, cut back once a year, very attractive.

1 Refers to Sunset Western Garden Book Zones. The Central Coast includes the following Climate Zones: 1A, 2A, 3A, 7, 9, 14-24 www.sunset.com/garden/climate-zones/

central coast LIDI
LOW IMPACT DEVELOPMENT INITIATIVE

Bioretention Plant List

Plants for Zone A: Periodic inundation, area ponds following storm events (6" to 12" depth for 24 - 48 hours) and compost amended sand soil.

Scientific & Common Name	Height / Width	Light Preferences			Water Tolerances		CA Native	Sunset Climate Zones[1]	Notes
		Sun	Part	Shade	Drought	Inundation			
 PERENNIALS									
Achillea millefolium californica Yarrow	1 - 3' / 2'	X	X		X	X	X	all	Tolerates regular to no watering, foot traffic, attracts butterflies, stress deciduous.
Anemopsis californica Yerba Mansa	1 - 2'/ spreading	X	X			X	X	all, but 1A-3A	Mat forming ground cover, interesting white flowers, prune back in late summer, likes moist conditions.
Bidens laevis Joaquin Sunflower	2 - 3' / 1 - 2'	X				X	X	all but 1A	Attracts beneficial insects, stress deciduous in summer, likes water but will survive drought if pruned back.
Calliandra eriophylla Fairy Duster	1 - 3' / 1 - 3'	X			X		X	10 - 24	Attractive pink flowers , drought tolerant once established, semi-evergreen, attracts pollinators, controls erosion.
Epipactis gigantea Stream Orchid	1 - 2' / 2 - 3'	X	X			X	X	all	Interesting muted pink and yellow flowers, drought stress deciduous.
Eschscholzia californica California Poppy	1 - 3 ' / 1 - 3"	X			X	X	X	all	Can handle periodic inundation, cut back yearly to prevent it from becoming weedy.
Fragaria chiloensis Beach Strawberry	4-8" / spreading	X	X		X	X	X	all, but 1A-3A	Vigorous, fast-growing perennial groundcover, tolerates light foot traffic.
Iris douglasiana Douglas Iris	1 - 2' / spreading	X	X			X	X	all, but 1A-3A	Needs moisture or shade inland, does well on coast, evergreen leaves, attractive lanvendar-blue flowers in Spring.
Iva hayesiana San Diego Marsh Elder	1-3' / 5'	X	X			X	X	all, but 1A-3A	Adaptable, low-maintenance shrub, controls erosion, shear or mow it back to the crown about every five years to rejuvinate.
Lilium pardalinum Leopard Lily	3 - 8' / 6"	X	X			X	X	2-7, 14-17	Attractive red-orange spotted blossoms in spring, needs regular water, will get large in moist, partial shade conditions.
Lobelia cardinalis Cardinal Flower	2 - 3' / 2'	X	X	X		X	X	1-7, 14-17	A bog plant, attracts hummingbirds, showy scarlet flowers.
Mimulus cardinalis Scarlet Monkey Flower	1 - 3' / 1 - 3'	X	X	X		X	X	all but 1A	Year round red color with regular water, attracts hummingbirds, reseeds itself & should not be used for small spaces.
Mimulus guttatus Seep Monkey Flower	1 - 3' / 1 - 3'	X	X			X	X	all but 1A	Yellow flowers are abundant in spring-summer, attracts butterflies, will die back in drought and come back following year.

1 Refers to Sunset Western Garden Book Zones. The Central Coast includes the following Climate Zones: 1A, 2A, 3A, 7, 9, 14-24 www.sunset.com/garden/climate-zones/

central coast LIDI
LOW IMPACT DEVELOPMENT INITIATIVE

Agenda Item 1

Bioretention Plant List

Plants for Zone A: Periodic inundation, area ponds following storm events (6" to 12" depth for 24 - 48 hours) and compost amended sand soil.

Scientific & Common Name	Height / Width	Light Preferences			Water Tolerances		CA Native	Sunset Climate Zones[1]	Notes
		Sun	Part	Shade	Drought	Inundation			
 PERENNIALS (cont.)									
Rudbeckia californica California Coneflower	2 - 5' / 1 - 2'		X		X	X	X	all	Yellow showy flowers late summer and fall, cut back in winter, can get large under ideal conditions and may require pruning.
Salvia spathacea Hummingbird Sage	1 - 3' / spreading		X	X	X	X	X	all, but 1A-3A	Very attractive foliage and flowers, fragrant, attracts hummingbirds, deer resistant, likes to grow in understory of trees.
Salvia uliginosa Bog Sage	4-6' /3-4'	X			X	X		6-9,14-24	Cut back to ground in winter, spreads by rhizomes.
Satureja mimuloides Monkeyflower Savory	1-3' / 1-3'	X	X		X	X	X	4-9, 16-24, 26	Deciduous perennial with orange flowers that attract hummingbirds.
Sisyrinchium bellum Blue-Eyed Grass	6" - 1' / 6" - 1	X			X	X	X	all, but 1A-3A	Low maintenance, summer dormant, spring bloomer. Can irrigate to prolong flowering.
Solidago californica California Goldenrod	1 - 3' / 2 - 3'	X	X	X	X	X	X	all, but 24	Attractive yellow flowers in summer and fall, attracts pollinators, dormant in winter, cut back to ground.
Zephyranthes candida Rain Lily	1' / 1'	X	X			X		4-9, 12-24	A hardy bulb with rush-like foliage and small white flowers in late summer/fall.
 SHRUBS/SUBSHRUBS									
Baccharis pilularis Coyote Brush	wide variation	X			X	X	X	all, but 1A-3A	Adaptable evergreen shrub, provides quick cover and bank stabilization, tolerant of coastal conditions, alkaline soil, sand, clay and seasonal wet, dwarf (low growing) varieties available.
Zauschneria californica 'Catalina' Island California Fuchsia	1 - 3' / 2 - 3'	X	X		X	X	X	All but 1A	Likes moisture but will survive through drought, attractive red flowers that hummingbirds like. This species is hardier and flowers last longer.
Zauschneria californica 'Uvas Canyon' San Jose California Fuchsia	2 - 3' / spreading	X	X		X	X	X	All but 1A	Grey foliage, attractive red- orange flowers, very showy in late fall. Full sun with regular watering or along coast. Can be mowed to look like lawn.

1 Refers to Sunset Western Garden Book Zones. The Central Coast includes the following Climate Zones: 1A, 2A, 3A, 7, 9, 14-24 www.sunset.com/garden/climate-zones/

central coast LIDI
LOW IMPACT DEVELOPMENT INITIATIVE

Low Impact Development Initiative (LIDI)
Bioretention Technical Specifications

The following technical information is for use in conjunction with the complete set of bioretention area standard details developed by the LIDI for in the Central Coast region.

Facility Design/Dimensions

- Bottom width – provide 2' wide minimum flat bottom for facilities with side slopes and longitudinal slope.
- Allowable standing water duration – 72 hours.
  - Allowable ponding time is typically associated with mosquito vector control, and varies by location. Confirm with local vector control agency to confirm appropriate drawdown time for facility.
- Planter minimum widths are typically associated with their application. Considerations influencing minimum widths include:
  - 4' minimum for planters in ROW with trees
  - 2' minimum for planters without trees
- Ponding depth - Min. 6", max. 12"
- Planter depth – (from adjacent pedestrian walking surface to facility finished elevation/planting surface) is based on desired ponding plus freeboard, but also relates to planter width. Planters can be deeper if they are wider, and need to be shallower as they narrow. This is a pedestrian perception and safety issue. Some recommended width to depth guidelines are:

PLANTER WIDTH	MAX. PLANTER DEPTH
< 5'	16"
4' – 5'	12"
3' – 4'	10"
2' – 3'	8"

- Slope/grades
  - Side slope - 4:1 preferred
    - Max. 3:1 allowed with min. 12" wide shoulder (2% slope toward facility) adjacent to pedestrian use or curb.
  - Longitudinal slope – Max. 6% longitudinal slope of bottom.
    - Erosion and movement of soil and mulch intensifies with increased longitudinal slope, minimize longitudinal slope.

- Stair stepping planters on a slope to provide flat bottomed cells separated by check dam/weir overflows can provide more storage and infiltration than a sloped facility.

- Grades on opposite sides within a facility should be similar to optimize ponding across the entire basin/cell.

Hard Infrastructure

- Inlet curb cut design selection should be based on application considerations:
  - Sloped sided or flat/planter facility
  - Curb and gutter adjacent to facility or separated by pedestrian sidewalk
- Sidewalk edge type selection should be based on application considerations:
  - New or retrofit
  - Sloped sided or flat/planter
- Sidewalk wall - flat/planter requires 4” min. height wall adjacent to sidewalk for pedestrian safety.
- Sidewalk wall drainage notch – when sidewalk drains to planter, provide 4”-6” wide notch openings in wall, 1” below sidewalk, slope to facility. Space openings to convey flows.
  - Provide minimum 2” cover between notch and structural dowels in curbs/walls.
- Energy dissipation – provide aggregate or concrete splash pads at inlets per inlet details.
  - For aggregate: 6” depth, 3" – 6" rounded, washed cobble
  - For sloped sided facilities where inlet flow velocity is high, extend cobble into facility, but avoid excessive or decorative use.
- Where impermeable liner is included between facility and adjacent infrastructure (street, parking lot), use 30 ML HDPE or PVC material, see Impermeable Liner detail.
- Check dams – provide for facilities with bottom slope
  - Per check dam details 130,131
  - Use LIDI check dam spacing detail (under development detail TBD).
- Overflow structure – required for on-line systems without an overflow bypass
  - Per overflow structure details 140, 141
  - Connects to approved discharge point or another downstream bioretention area.
- Provide monitoring well in each facility
  - Upright 6 inch rigid PVC (SDR 40 or equivalent) pipe, perforated for the section extending through the depth of the bioretention soil media (and aggregate layer if included), extending 6 inches above the top of soil elevation, with a threaded cap.
  - Locate to avoid damage from maintenance activities.

Facility Media (soil, aggregate, mulch)

- Aggregate layer – where an aggregate layer is included in the design (underdrain design or optional use based on project requirements, depth based on sizing calculations), specify "CalTrans Class 2 Permeable."
  - CalTrans Class 2 Permeable does not require an aggregate filter course between the aggregate storage layer and the bioretention soil media above.
  - When CalTrans Class 2 Permeable is not available, substitute CalTrans Class 3 Permeable.
    - Class 3 Permeable requires an overlying 3" deep layer of ¾" (No. 4) open graded aggregate (between Class 3 and bioretention soil media above).
- Bioretention soil media (BSM) - use Bay Area Stormwater Management Agencies Association (BASMAA) Specification of Soils for Biotreatment or Bioretention Facilities (Attachment L).
  - Using performance specification for alternative bioretention soil mix is not recommended.
  - A pre-mixed bioretention soil media is preferable to mixing soil on-site.
- BSM depth – 18" minimum depth, 24" recommended.
  - For systems with underdrain, BSM min. depth is 24".
  - Where aggregate layer is used and trees are specified, replace aggregate with increased BSM depth in tree planting locations.
    - Tree planting in bioretention detail (TBD)
- Bioretention Soil media placement and compaction – place BSM in 6" lifts. Compact each lift with a landscape roller or by lightly wetting. Allow BSM to dry overnight before planting.
- Filter fabric - do not use fabric between BSM and aggregate layer
- Mulch depth – 2" – 3"
  - Mulch use optional below ponding high water mark.
  - Do not apply mulch in ponding zone just prior to or during rainy season.
  - When mulch is used, excavation must allow for specified bioretention soil and mulch depths to achieve finished elevations as shown on civil plans.
- Mulch type - when used in ponding zone, must be aged, stabilized, non-floating mulch, such as a specified compost mulch.

Landscape (planting and irrigation)

- Irrigation - Provide irrigation for plant establishment (2-3 years), and supplemental irrigation during periods of prolonged drought.
  - Provide separate zone for connection to water supply

- Planting - see LIDI plant guidance for bioretention areas technical assistance memo (TAM).
  - Landscape Architects who have not previously designed bioretention systems should use plants from the LIDI TAM plant list. Landscape Architects with experience designing for bioretention may use additional plant species appropriate for the facility design and local conditions.
  - Do not locate plants at inlets. Consider mature growth to determine planting layout and avoid future blockage of inlets by plants.
  - Trees located on slopes should be 5’ minimum from inlets to avoid erosion of soil at root ball.

<u>Underdrain Design</u>

- BSM depth – 24” minimum depth.
- Aggregate layer depth – 12” minimum depth.
- Underdrain – use 4” diameter, PVC SDR 35 perforated pipe.
  - Install underdrain with holes facing down.
  - Underdrain discharge elevation shall be near top of aggregate layer.
  - Underdrain slope may be flat.
  - Connects to approved discharge point.
- Provide capped, threaded PVC cleanout for underdrain, 4" min. dia. with sweep bend.

Memorandum

To: The Low Impact Development Initiative
From: Rick Engineering
Subject: Summary of Bioretention Soil Specifications for the San Diego Region

OVERVIEW

As part of ongoing implementation of Low Impact Development (LID) requirements throughout the State of California and various regions throughout the nation, Bioretention (aka Biofiltration) has become a preferred Best Management Practice (BMP) to meet both water quality treatment and water quantity storage criteria (i.e. – detention/retention/hydromodification management). In recent years, the specification of the Bioretention Soil Mix (BSM) component for Bioretention BMPs has evolved based on lessons learned from the design, construction, and maintenance of these facilities.

This Technical Assistance Memo (TAM) is intended to provide background to the process that went into the recent development of BSM specifications in the San Diego Region, as well as the use of similar specifications to provide guidance within the Central Coast Region. As implementation of Bioretention BMPs continues to increase and additional information becomes available, these BSM specifications are anticipated to evolve over time.

BACKGROUND

Typical BSM specifications have been released over the past several years in numerous regions along the West Coast, including Washington State, Portland, Oregon, San Francisco, Ventura, and Los Angeles. Each of these seemed to have been adopted based on its predecessor, resulting in the following typical mixture of Sand and Compost:

60% - 70% Sand
30% - 40% Compost

Subsequent concerns for high levels of nutrients leaching from Bioretention BMPs became apparent, including a moratorium in Washington State associated with the issue. As a result, a BSM with more sand and less compost was desirable; however, this needed to be counterbalanced with enough organics to sustain healthy soil and plant growth. In addition to the appropriate mix of sand and compost, another significant issue that was identified related to methods of placement to help prevent over-compaction and low percolation rates.

DEVELOPMENT OF BSM SPECIFICATION IN SAN DIEGO REGION

In the San Diego Region, the 2007 MS4 Permit provided further emphasis on LID-based BMPs, including bioretention. The permit requirements were phased in over time, and local BMP design manuals (i.e. - Countywide Model SUSMP in early 2008 and subsequently updated in early 2011) called for Bioretention BMPs to prove an 18-inch layer of “sandy loam” with a long-term percolation rate of 5 inches/hour. There had not been any further guidance provided for the actual BSM percentages of sand, sandy loam, or compost. As a result of lessons learned through the bidding of construction documents that included Bioretention BMPs and issues that occurred during and after construction, several local efforts began to develop BSM specifications.

One of these efforts was led by Rick Engineering Company (RICK), a Civil Engineering firm that had been very involved with LID design and construction based on the San Diego Region requirements. RICK convened a “Task Force” to convene input from local civil engineers, landscape architects, geotechnical engineers, and soil agronomists. At the tail end of finalizing these BSM specifications that would be used for in-house design projects, the County of San Diego was in the process of updating their LID Handbook, which provides supplemental guidance to the local SUSMP Manuals. As part of the effort, the County and their consultant team (Tetra Tech), were also developing a set of BSM specifications for all of the same reasons, and the City of San Diego had also been evaluating similar issues for use with CIP projects. Based on these parallel efforts, representatives from each of these efforts met several times to discuss common issues, potential solutions, elements of common agreement and differences, and ultimately led to each effort revising their BSM specifications to be very similar.

Due to growing demand in the region for both private and public works projects, several suppliers had starting mixing and providing bioretention soil media. As part of the research, one such supplier had already started to deviate from the typical 60-70% Sand and 30-40% Compost, having introduced a portion of Sandy Loam, resulting in 50% Sand, 25% Sandy Loam, and 25% Compost. The sandy loam soil will bind with the compost and provide water retention, which is good for root growth, especially in a highly porous soil in an arid climate (whereas a mix of only Sand and Compost does not bind well, resulting in less water retention). However, one concern with adding sandy loam soil to the soil media was a potential reduction to infiltration rates. The amount of infiltration provided through the BSM layer was critical to the design of Bioretention BMPs in the San Diego Region since local design criteria called for them to provide a long term in-place infiltration rate of at least 5 inches per hour. In addition to identifying an appropriate mix, the method of placement and amount of compaction was critical to ensuring a successful installation. A challenge associated with the issue of compaction was whether or not to include a percent compaction (i.e. – 80%, 85%, etc.), however, it was ultimately agreed that the level of compaction was not a driving force in the design intent or long-term effectiveness; however, the need for "in situ" testing of infiltration rates was seen as necessary so that corrective action could be taken prior to project closeout.

The draft BSM specification originally developed by the County's consultant had come up with a BSM mix of 5% compost and 95% sand at 85% to 90% compaction. The RICK BSM specification had identified a mix of 50% Sand, 25% Sandy Loam and 25% Compost. Based on everyone's input it was collectively agreed to develop a mix that included Sand, Sandy Loam, and Compost, with a goal of reducing the amount of organic matter within the BSM to a minimum level that would still allow for good plant growth but significantly reduces the potential leaching of nutrients associated with high levels of organics within compost. As mentioned earlier, it was also deemed important to introduce the Sandy Loam component for an arid region. The collective agreement resulted in the following mixture (by volume), which results in approximately 1.5% to 5% organic matter (by weight), once mixed:

65% Sand
20% Sandy Loam
15% Compost

In terms of material submittals, contractors were submitting agricultural soil testing results for the soil mix, but yet most of the previous sets of specifications had only provided separate specification and testing requirements for each sand and compost, but none of them had specifications and testing requirements for the soil mix media itself. For example, for a BSM with a ratio of 30% compost, the compost will include 35% to 70% organic matter, but when mixed with 70% sand, the result is a much lower rate of organic matter. With a desired goal of 5% organic matter (by weight) in the BSM itself, it was important to develop a set of testing requirements for the mixed soil media.

These parallel and collaborative efforts resulted in the adoption of BSM specifications in the County of San Diego LID Handbook, dated June 2014; as well as adoption of very similar BSM specifications by RICK.

ADDITIONAL REFERENCE

County of San Diego LID Handbook, June 2014 –
http://www.sandiegocounty.gov/content/sdc/dpw/watersheds/susmp/lid.html

BIORETENTION SOIL SPECIFICATION

1. BIORETENTION SOIL

Bioretention soil shall achieve an initial infiltration rate of at least 8 inch per hour nor more than 20 inches per hour "in situ" and a long-term, in-place infiltration rate of at least 5 inches per hour. Bioretention soil shall also support vigorous plant growth. Bioretention Soil shall be a mixture of fine sand, and compost, measured on a volume basis:

65% Sand
20% Sandy Loam
15% Compost

A. SUBMITTALS

Product Data: Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials, application rate/testing and percolation rates.
Certifications: Manufacturer shall submit a letter of certification that the products meet or exceeds all physical property, endurance, performance and packaging requirements.
Submittals for Bioretention Soil: Tests must be <u>conducted</u> within 120 days prior to the delivery date of the bioretention soil to the project site.
Batch-specific test results and certification will be required for projects installing more than 100 cubic yards of bioretention soil.

The contractor must submit the following for approval:

1. A sample of mixed bioretention soil.
2. Grain size analysis results of the sand component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
3. Grain size analysis results of the sandy loam component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
4. Grain size analysis results of compost component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
5. Agricultural soil analysis of results for the Bioretention Soil as specified in Section 2.03 E
6. Provide the following information about the testing laboratory(ies) name of laboratory(ies) including
   - a) contact person(s)
   - b) address(es)
   - c) phone contact(s)
   - d) e-mail address(es)

B. Sand shall be free of wood, waste, coating such as clay, stone dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be non-plastic.

Sand for Bioretention Soil shall be analyzed by an accredited lab using #200, #100, #40, #30, #16. #8, #4, and 3/8 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)
3/8 inch	100
No. 4	90-100
No. 8	70-100
No. 16	40-95
No. 30	15-70
No. 40	5-55
No. 100	0-15
No. 200	0-5

Note: all sands shall consist of natural sand, manufactured sand, or a combination thereof.

C. Sandy loam for Bioretention Soil shall be free of wood, waste, coating such as stone dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be non-plastic.

Sandy loam soil should comply with the following specifications on USDA soil textural classification scheme by weight:

a. 50-74% sand
b. 11-48% silt
c. 2-15% clay

Note: all sandy loam shall consist of natural sand, manufactured sand or a combination thereof.

D. Compost for Bioretention Soil shall be a well decomposed, stable, weed free organic matter source derived from waste materials including yard debris, wood wastes or other organic materials. Compost shall have a dark brown color and a soil like odor. Compost exhibiting a sour or putrid smell, containing recognizable grass or leaves, or is hot (120F) upon delivery or rewetting is not acceptable. Compost shall be produced at a facility inspected and regulated by the Local Enforcement Agency for CalRecycle. The past 3 inspection reports shall be submitted verifying compliance with Title14 requirements of the Process to Further Reduce Pathogens (PFRP), Fecal coliform and Salmonella testing and pathogen and EPA, 40 CFR 503 regulations.

Composite Quality Analysis:

Property	Method	Requirement
pH, Units	Saturation Paste	6 to 8.5
EC, dS/m	Saturation Extract	0 to 10
Boron, ppm	Saturation Extract	less than 2.5
Moisture content, %	Gravimetric	30 to 60
Bulk Density, lbs/cubic yard		500 to 1100
Organic Matter, % of Dry Wieght	Loss on Ignition	35% to 75%
Carbon to Nitrogen Ratio		15:1 to 25:1
Maturity	Solvita	5 or above
Stability	Solvita	5 or above
Particle Size	Sieve Analysis	
Pass 1/2 inch sieve		≥80%
Pass #200 sieve		max 5%
503C Metals	Title 14	
Arsenic (As)		20
Cadmium (Cd)		15
Chromium (Cr)		100
Copper (Cu)		150
Lead (Pb)		300
Mercury (Hg)		10
Nickel (Ni)		100
Selenium (Se)		30
Zinc (Zn)		300
Pathogen		
Salmonella	Title 14	< 3 MPN per 4 gms
Fecal Coliform		<1000 MPN per 1 gm
Physical contaminants		

Plastic Metal and Glass, %> 4mm	% by Weight	< 1
Sharps, % > 4mm	% by Weight	0

E. Bioretention Soil shall be free of roots, clods, and/or stones larger than 1-inch in the greatest dimension, pockets of coarse sand, noxious weeds, sticks, lumber, brush and other litter. It shall not be infested with nematodes, or undesirable disease-causing organisms such as insects and plant pathogens. Bioretention soil mix shall be friable and have sufficient structure in order to give good tilth and aeration to the soil.

Gradation limits – The definition of the soil should be the following USDA classification scheme by weight:

Sand 85-92%
Silt 14% maximum
Clay 5% maximum

Permeability Rate - Hydraulic conductivity rate shall be not less the 8 inch per hour nor more than 20 inches per hour when tested in accordance with USDA Handbook Number 60, method 34b or other approved methods.

Analysis for pH, salinity and nutrient levels shall be submitted for approval prior to acceptance. Nutrient tests should include the testing laboratory recommendations for supplemental additions to the soil as calculated by the amount of material to be added per volume of soil for the type of plants to be grown in the soil.

Property	**Method**	**Requirement**
pH, Units	Saturation Paste	6.0 to 8.0
EC, dS/m	Saturation Extract	0.5 to 2.5
Boron, ppm	Saturation Extract	less than 2.5
Chloride, ppm	Saturation Extract	less than 150
Sodium Adsorption Ratio		less than 3.0
Carbon to Nitrogen Ratio		10 to 20
Organic Matter, % of Dry Weight	Loss on Ignition	1.5 to 5
Extractable Nutrients, dry weight basis	Ammonium Bicarbonate/DPTA Extraction	
phosphorus, ppm		10 to 40
potassium, ppm		100 to 200
iron, ppm		24 to 35
manganese, ppm		0.6 to 6
zinc, ppm		1 to 8
copper, ppm		0.3 to 5
magnesium, ppm		50 to 150

sodium, ppm		0 to 100
sulfur, ppm		25 to 500
molybdenum, ppm		0.1 to 2
aluminum, ppm		less than 3.0

Bioretention Soil shall be analyzed by an accredited lab using #200, 1/4 inch, 1/2 inch, and 1 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)
1 inch	99-100
1/2 inch	90-100
1/4 inch	40-90
No. 200	Less than 5%

2. BIORETENTION SOIL PLACEMENT

A. Imported backfill material for the bioretention zones should be placed in a relatively loose condition, no rolling or other heavy equipment, to promote the planned infiltration of water, through the bioretention soil mix layer.
B. Bioretention soil shall be installed in six (6) to twelve (12) inch lifts and lightly watered to provide settlement and natural compaction. No mechanical compaction is allowed. After natural compaction has been completed, add, if needed, additional bioretention soil to proposed finish grade as indicated on the plans.
C. Rake bioretention soil as needed to level out.
D. Vehicular traffic, construction equipment shall not drive-on, move onto, or disturb the bioretention soil once placed and water compacted.
E. The geotechnical engineer shall perform at least one percolation test per bioretention basin/swale in accordance with the County of San Diego Department of Environment Health Percolation Testing Criteria or other approved methods “in situ” prior to planting the Bioretention area (the engineer of work may require more than one in situ test depending on size of bioretention area). “In situ” percolation test(s) shall have an initial rate of at least 8-10 inches per hour to insure a long term infiltration rate of at least 5 inches per hour. If the percolation rate does not meet at least 8-10 inches per hour, the contractor shall provide and submit corrective action to the geotechnical engineer for approval, such as rototilling or hand cultivation to improve the percolation rate. Once the approved corrections are determined, the contractor will perform the required corrective action to improve the percolation rate and re-test at his expense.
F. Erosion and Sediment Control practices during construction shall be employed to protect the long-term functionality of the bioretention basin/swale. The following practices shall be followed for this reason:
   1. Provide erosion control in the contributing drainage areas to the facility and stabilize upslope areas.
   2. Facilities should not be used as sediment control facilities, unless installation of all bioretention-related materials are withheld towards the end of construction

allowing the temporary use of the location as a sediment control facility, and appropriate excavation of sediment is provided prior to installation of bioretention materials.

G. A two-inch layer of well-aged shredded hardwood mulch shall be installed on the surface of the bioretention soil if planting of container stock is installed (i.e. - no hydroseeding is to be installed), which will also help reduce foot compaction of the bioretention soil. Alternative “non-floating” mulch may be used if specified by the landscape architect. Bark or wood chip mulch may be used on the side slopes of basins/swales above the maximum water line, if specified by the landscape architect.

H. If hydroseeding is to be installed on the surface of the bioretention soil, no stabilized matrix shall be used in the hydroseed components or mix.

ATTACHMENT - 7
Mitigation Monitoring and Reporting Plan

Project File No./Name: PD 16-007 Black Oak Lodge – Black's Hatchery

Approving Resolution No.: Resolution ______ by: ☒ Planning Commission ☐ City Council Date: _August 8, 2017__________

The following environmental mitigation measures were either incorporated into the approved plans or were incorporated into the conditions of approval. Each and every mitigation measure listed below has been found by the approving body indicated above to lessen the level of environmental impact of the project to a level of non-significance. A completed and signed checklist for each mitigation measure indicates that it has been completed. A description of each measure is provided in Exhibit A, attached to this document.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
	Project	CDD			Prior to certificate of occupancy.
AQ-1 The following measures shall be implemented to minimize construction-generated emissions. These measures shall be shown on grading and building plans: 1. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter. 2. Reduce the amount of the disturbed area where possible; 3. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible; 4. All dirt stock pile areas should be sprayed daily as needed; 5. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities; 6. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;	Project, ongoing	CDD Building			Written description, prior to certificate of occupancy.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
7. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD; 8. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid a s soon as possible after grading unless seeding or soil binders are used; 9. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site; 10. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114; 11. Install construction stabilized entrance and exit to construction site to help remove dust, mud and debris from vehicles. 12. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible; 13. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912. 14. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant). For more information, contact the SLOAPCD Engineering & Compliance Division at (805) 781-5912.					

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
15. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.					
AQ-2 The following measures shall be implemented to reduce expose of sensitive receptors to substantial pollutant concentrations. These measures shall be shown on grading and building plans: a. Implement Mitigation Measure AQ-1, as identified in "Impact AQ-C", above. b. Prior to any grading activities a geologic evaluation shall be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. These requirements may include but are not limited to: 1. Development of an Asbestos Dust Mitigation Plan which must be approved by the SLOAPCD before operations begin, and, 2. Development and approval of an Asbestos Health and Safety Program (required for some projects). If NOA is not present, an exemption request must be filed with the SLOAPCD. More information on NOA can be found at http://www.slocleanair.org/rules-regulations/asbestos/noa.php. c. On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles: 1) Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and, 2) Shall not operate a diesel-fueled auxiliary power system to power a heater, air conditioner, or any	Project	Building Dept			Prior to issuance of grading permit

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation. d. Maintain all construction equipment in proper tune according to manufacturer's specifications; e. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); f. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation; g. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation. h. Electrify equipment when possible; i. Substitute gasoline-powered in place of diesel-powered equipment, when available; and, j. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.					
GHG-1 The proposed project shall implement, at a minimum, the following GHG-reduction measures: a. Utilize high-efficiency lighting in parking lots and other public areas (i.e., sodium, light-emitting diode [LED]). b. Utilize built-in energy efficient appliances (i.e., Energy Star rated). c. Install energy-saving systems in guest rooms that reduce energy usage when rooms are not occupied. d. Provide on-site bicycle parking beyond those required by California Green Building Standards Code and related facilities to support long-term use (lockers, or a locked room with standard racks and access limited to bicyclists only). e. Provide a pedestrian access network that internally links all uses and connects all existing or planned external streets, pedestrian facilities, and public transit stops contiguous with the project site f. The project site shall be designed to minimize barriers to pedestrian access and interconnectivity. g. Implement traffic calming improvements as appropriate (e.g., marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, median islands, mini-circles, tight corner radii, etc.) h. Comply with CALGreen Tier 1 or Tier 2 standards for water efficiency and conservation.	Project	CDD, Building Dept			Prior to issuance of certificate of occupancy

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
i. Divert, at a minimum, 65 percent of non-hazardous construction or demolition debris. j. Include the planting of native and drought tolerant trees beyond those required as mitigation for tree removal.					

<u>Explanation of Headings</u>:

Type: ....Project, ongoing, cumulative
Monitoring Department or Agency: ....Department or Agency responsible for monitoring a particular mitigation measure
Shown on Plans: ....When a mitigation measure is shown on the plans, this column will be initialed and dated.
Verified Implementation: ....When a mitigation measure has been implemented, this column will be initialed and dated.
Remarks: ....Area for describing status of ongoing mitigation measure, or for other information.

City of El Paso de Robles

"The Pass of the Oaks"

AFFIDAVIT

OF MAIL NOTICES

PLANNING COMMISSION/CITY COUNCIL PROJECT NOTICING

I, Monica Hollenbeck, employee of the City of El Paso de Robles, California, do hereby certify that the mail notices have been processed as required for Planned Development 16-007, on this 10th day of July, 2017.

City of El Paso de Robles
Community Development Department
Planning Division

Signed: Monica C Hollenbeck
Monica Hollenbeck

Agenda Item 1

Charged

RECEIVED

APR 20 2018

City of Paso Robles
Community Development Dept.

THE TRIBUNE
Newspaper of the Central Coast

3825 South Higuera • Post Office Box 112 • San Luis Obispo, California 93406-0112 • (805) 781-7800

In The Superior Court of The State of California
In and for the County of San Luis Obispo

AD #3616054
CITY OF PASO ROBLES

STATE OF CALIFORNIA
ss.
County of San Luis Obispo

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen and not interested in the above entitled matter; I am now, and at all times embraced in the publication herein mentioned was, the principal clerk of the printers and publishers of THE TRIBUNE, a newspaper of general Circulation, printed and published daily at the City of San Luis Obispo in the above named county and state; that notice at which the annexed clippings is a true copy, was published in the above-named newspaper and not in any supplement thereof – on the following dates to wit;; APRIL 17, 2018 that said newspaper was duly and regularly ascertained and established a newspaper of general circulation by Decree entered in the Superior Court of San Luis Obispo County, State of California, on June 9, 1952, Case #19139 under the Government Code of the State of California.

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Jane E. Durand
(Signature of Principal Clerk)
DATE: APRIL 17, 2018
AD COST: $323.07

CITY OF EL PASO DE ROBLES
NOTICE OF AVAILABILITY OF RECIRCULATED MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC HEARING PLANNED DEVELOPMENT 16-007
(Black Oak Lodge Hotel)

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of El Paso de Robles will consider adopting a Recirculated Mitigated Negative Declaration in accordance with the California Environmental Quality Act and approval of the following project:

Project Title: Planned Development 16-007 (Black Oak Lodge)
Applicant: Black's Hatchery (Matt Masia)
Project Location: 2717 Black Oak Drive, Paso Robles, CA.
APNs: 008-132-019
Project Description: **Planned Development 16-007:** a request to develop a 96-room 4-story hotel on an existing 1.8-acre vacant lot.

The Public Review Period for the proposed Recirculated Mitigated Negative Declaration will commence on April 18, 2018, and end on May 8, 2918. The document is being recirculated specifically to analyze updated traffic impact information. A revised Traffic Impact Analysis is included with the Recirculated Mitigated Negative Declaration.

A public hearing before the Planning Commission is scheduled to take place on Tuesday, May 8, 2018, at the hour of 6:30 pm in the Conference Center (First Floor) at the Paso Robles Library/City Hall, 1000 Spring Street, Paso Robles, California. All interested parties may appear and be heard at this hearing.

FINDING

The City of Paso Robles has reviewed the above project in accordance with the City of Paso Robles' Rules and Procedures for the Implementation of the California Environmental quality Act and has determined that an Environmental Impact Report need not be prepared because:

- ☐ The proposed project will not have a significant effect on the environment.
- ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures have been added to the project as a part of a Mitigated Negative Declaration.

The Initial Study which provides the basis for this determination is available at the City of Paso Robles, Community Development Department, 1000 Spring Street, Paso Robles, CA 93446.

A copy of the Recirculated Mitigated Negative Declaration may be reviewed at the Community Development Department, located on the 2nd floor at 1000 Spring Street, Paso Robles, California or on the City website at: http://www.prcity.com/government/departments/commdev/ beginning on April 18, 2018.

NOTICE

The public is invited to provide written comment on the Recirculated Draft Mitigated Negative Declaration and/or to provide oral comment at the public hearing noted above. The appropriateness of the Recirculated Draft Negative Declaration will be considered in light of the comments received.

Questions about and comments on the proposed project and Mitigated Negative Declaration may be mailed to the Community Development Department, 1000 Spring Street, Paso Robles, CA 93446 or e-mailed to CDdirector@prcity.com provided that any comments are received prior to the time of the Planning Commission hearing. Should you have any questions about this project, please call Darren Nash at (805) 237-3970 or send email to dnash@prcity.com.

Darren Nash, Associate Planner — Date April 12, 2018
April 17, 2018 — 3616054