Appendix A

TEIR Checklist

APPENDIX B

Off-Reservation Environmental Impact Analysis Checklist

I. AESTHETICS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Create a new source of substantial light or glare which would adversely affect day or nighttime views of historic buildings or views in the area?	☐	☒	☐	☐

See TEIR Section 3.2, Aesthetics

II. AGRICULTURAL AND FOREST RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Involve changes in the existing environment, which, due to their location or nature, could result in conversion of off-reservation farmland to non-agricultural use?	☐	☐	☐	☒

No off-reservation agricultural lands would be converted to non-agricultural lands as a result of the Proposed Project.

III. AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose off-reservation sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people off-reservation?	☐	☐	☒	☐

See TEIR Section 3.3, Air Quality.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse impact, either directly or through habitat modifications, on any 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?	☐	☐	☒	☐

b) Have a substantial adverse effect on any off-reservation riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected off-reservation wetlands as defined by Section 404 of the Clean Water Act?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

See TEIR Section 3.4, biological resources.

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of an off-reservation historical or archeological resource?	☐	☐	☒	☐
b) Directly or indirectly destroy a unique off-reservation paleontological resource or site or unique off-reservation geologic feature?	☐	☐	☒	☐

c) Disturb any off-reservation human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

See TEIR Section 3.5, Cultural Resources.

VI. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Expose off-reservation people or structures to potential substantial adverse effects, including the risk of loss, injury, or deal 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.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial off-reservation soil erosion or the loss of topsoil?	☐	☒	☐	☐

See TEIR Section 3.6, Geology and Soils.

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Create a significant hazard to the off-reservation public or the off-reservation environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the off-reservation public or the off-reservation environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed off-reservation school?	☐	☐	☐	☒
d) Expose off-reservation people or structures to a significant risk of loss, injury or death involving wildland fires.	☐	☐	☐	☒

See TEIR Section 3.7, Hazards and Hazardous Materials.

VIII. WATER RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete off-reservation groundwater supplies or interfere substantially with	☐	☐	☒	☐

	groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
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 off-site?	☐	☐	☒	☐
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 off-site?	☐	☐	☒	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff off-reservation?	☐	☐	☒	☐
f)	Place within a 100-year flood hazard area structures, which would impede or redirect off-reservation flood flows?	☐	☐	☐	☒
g)	Expose off-reservation 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?	☐	☐	☐	☒

See TEIR Section 3.13, Water Resources.

IX. LAND USE

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with any off-reservation land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
b) Conflict with any applicable habitat conservation plan or natural communities conservation plan covering off-reservation lands?	☐	☐	☒	☐

See TEIR Section 3.8, Land Use.

X. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known off-reservation mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of an off-reservation locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Implementation of the Proposed Project would not adversely impact any known off-reservation mineral resources.

XI. NOISE

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exposure of off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of off-reservation persons to excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the off-reservation vicinity of the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the off-reservation vicinity of the project?	☐	☐	☐	☐

See TEIR Section 3.9, Noise

XII. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial off-reservation population growth?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere off-reservation?	☐	☐	☐	☒

No substantial off-reservation population increases are anticipated as a result of the proposed project, and the proposed project will not displace off-reservation housing.

XIII. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered off-reservation 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 off-reservation public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police Protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

See TEIR Section 3.10, Public Services.

XIV. RECREATION

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Increase the use of existing off-reservation neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

The Proposed Project will create an expanded entertainment and recreational opportunity in San Diego County. While the increase in patron trips to the area and the provision of additional overnight accommodations resulting from the Proposed Project may result in an increase in the use of regional recreational facilities, the increase would be minor and not sufficient to adversely affect existing recreational facilities or require the construction of new facilities.

XV. TRANSPORTATION / TRAFFIC

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause an increase in off-reservation traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated off-reservation roads or highways?	☐	☐	☒	☐

c) Substantially increase hazards to an off-reservation design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access for off-reservation responders?	☐	☐	☒	☐

See TEIR Section 3.11, Transportation and Traffic

XVI. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exceed off-reservation wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
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 off-reservation environmental effects?	☐	☐	☐	☒
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 off-reservation environmental effects?	☐	☐	☐	☐
d) Result in a determination by an off-reservation wastewater treatment provider (if applicable), which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐

See TEIR Section 3.12, Utilities

XVII. CUMULATIVE EFFECTS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have impacts that are individually limited, but cumulatively considerable off-reservation? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past, current, or probable future projects.	☒	☐	☐	☐

See TEIR Section 4.4, Cumulative Impacts.

Appendix B

NOP and Scoping Comment Letters

NOTICE OF PREPARATION
OF A TRIBAL ENVIRONMENTAL IMPACT REPORT FOR THE JAMUL CASINO HOTEL AND EVENT CENTER PROJECT

DATE: May 20, 2022

TO: State Clearinghouse
County of San Diego
Interested Parties

LEAD AGENCY: Jamul Indian Village of California
14191 Highway 94
Jamul, CA 91935

PROJECT TITLE: **Jamul Casino Hotel and Event Center Project**

PROJECT WEBSITE www.jamulteir.com

COMMENT PERIOD: Friday, May 20 – Monday, June 20, 2022

The Jamul Indian Village Development Corporation, a wholly owned subsidiary and instrumentality of the Jamul Indian Village of California (Tribe), owns and operates the Jamul Casino situated on federally owned land that is held in trust for the Tribe and located at 14145 Campo Road, Jamul, CA 91935 (Reservation).

The Jamul Casino is operated pursuant to the Tribal-State Compact between the State of California and the Jamul Indian Village of California (Compact). Section 11 of the Compact requires that, before beginning the construction of any new "Project" (as defined in Section 2.22 of the Compact), the Tribe must prepare a Tribal Environmental Impact Report (TEIR) analyzing the potentially significant off-Reservation environmental impacts of that Project. That environmental analysis is to be conducted pursuant to the process described in the Compact.

The Tribe has authorized the preparation of a TEIR for a potential project on the Reservation that would remodel the existing Jamul Casino to include a new event center and 226-room hotel (Proposed Project). The Proposed Project is a "Project" under the Compact and, therefore, requires a TEIR.

This Notice is given pursuant to the Compact to inform interested parties that the Tribe is beginning the TEIR process and that, as required by that process, a draft of the TEIR for the Proposed Project will be prepared. That draft TEIR will address each of the items listed in the Off-Reservation Environmental Impact Analysis Checklist included in Appendix B to the Compact.

The Compact provides that interested parties may, at any time within thirty (30) days after the date on which this Notice is received by the State Clearinghouse in the State Office of Planning and Research (State

Clearinghouse) and the County of San Diego (County), provide comments to the Tribe. The Tribe requests that you identify in your comments any potentially significant off-Reservation environmental impacts, and any reasonable mitigation measures to address those impacts, that you believe should be considered in the draft TEIR for the Proposed Project. Comments should be in writing and sent by email or mail to the following address with the subject heading "Comments Re: NOP for the Jamul Casino Hotel and Event Center Project". Please send your comments to:

Email: Admin@JamulTEIR.com

Mail: Jamul Indian Village of California
Attn: Chairwoman Erica M. Pinto
P.O. Box 612
Jamul, CA 91935

All comments postmarked by June 20, 2022 will be reviewed and considered by the Tribe. A project description, location map, and site plan for the Proposed Project, as well as a brief description of the environmental areas in which off-Reservation impacts attributable to the Proposed Project may be probable, are included in the following pages of this Notice. The description of probable off-Reservation environmental impacts of the Proposed Project in this Notice has been prepared before the analysis required to complete the TEIR has been completed. Accordingly, the description of probable impacts in this Notice is subject to the results of the analysis in the TEIR, and the potentially significant off-Reservation impacts identified in the TEIR may differ from those described in this Notice.

A copy of this Notice is available online at the project website: www.jamulteir.com. A copy of the draft TEIR will be posted on that website when the draft TEIR is completed. The draft TEIR will include the analysis of potentially significant direct and indirect off-Reservation environmental impacts attributable to the Proposed Project and mitigation measures to address such impacts as required by the Compact. The draft TEIR will also describe a range of reasonable alternatives to the Proposed Project that could avoid or minimize potentially significant adverse impacts and evaluate the comparative merits of the alternatives.

The draft TEIR, when completed, will be filed with the State Clearinghouse, the County, the State Gaming Agency, and the California Department of Justice Office of the Attorney General. After that filing, there will be a 45-day period during which interested persons and agencies may submit comments regarding the draft TEIR. The draft TEIR will include provisions describing how any such comments are to be submitted to the Tribe. Any comments regarding the draft TEIR received by the Tribe during the 45-day comment period will be considered and evaluated in connection with the preparation of a final draft of the TEIR. The final TEIR will be posted on the project website.

INFORMATION REGARDING THE PROPOSED PROJECT

PROJECT TITLE

Jamul Casino Hotel and Event Center Project

LOCATION

The Reservation consists of approximately six acres of federal trust land located in unincorporated San Diego County, approximately one mile south of the community of Jamul (**Figure 1**). The Jamul Casino is located on the Reservation at 14145 Campo Road, Jamul, CA 91935. The Reservation is located within portions of Section 10 and unsectioned areas of Township 17 S, Range 1 East, San Bernardino Baseline and Meridian, Dulzura, CA and Jamul Mountains, CA, U.S. Geological Survey 7.5-minute Quadrangles.

State Route 94 (SR 94) provides regional access to the Reservation from downtown San Diego, which is located approximately 20 miles to the west of the Reservation. Local access to the Reservation is provided directly from SR 94 via Daisy Drive and an access road limited to authorized vehicles.

PROJECT DESCRIPTION

The Jamul Casino opened in October 2016 and was the subject of an exhaustive environmental review including the 2006 Tribal Environmental Impact Statement/Report (Tribal EIS/R) and the 2013 Tribal Environmental Evaluation and subsequent addendums. The Jamul Casino currently includes 1,656 slot machines, 378 table game seats, food court, seven dining locations, rooftop event venue, and associated parking. Other existing uses on the Reservation include wastewater treatment facilities, tribal administration building, and a tribal community center. Immediately adjacent to the Reservation, on land owned by the Tribe, is a chapel and Tribal cemetery.

The Proposed Project consists of remodeling the existing Jamul Casino to include a new event center, 226-room hotel, and associated parking and infrastructure. The proposed remodeling would eliminate the second floor (which is a veranda level between the main casino floor and the third floor, and the location of a restaurant) and the fourth floor (currently the rooftop lounge) of the existing Casino building and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. The existing restaurant located on the second floor of the casino building would be relocated to the third floor with no changes in occupant capacity. Existing office space on the eastern portion of the third floor would be relocated to an expanded area of the western portion of the third floor (**Figure 2**). The new event venue would result in a net increase of approximately 35,000 sf of enclosed, covered outdoor, and uncovered outdoor areas. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed.

The new hotel and associated parking structure would be located west of the existing casino building with pedestrian access to the casino building potentially provided through a new bridge over Willow Creek, which bisects the Reservation immediately west of the existing casino building (**Figure 2**). The proposed 226-room hotel would consist of 16 stories including 3 levels of back-of-house, a hotel lobby level with restaurant, a spa level with outdoor deck, 10 levels of guest rooms, and a rooftop pool deck. The height of the hotel tower would be at an elevation of 1,112 feet above mean sea level (amsl), which is approximately 209 feet above ground level and 100 feet taller than the existing casino building. The new four-story parking structure would be located south of the new hotel building and would connect to the

hotel lobby. The existing tribal community center and administration building would be removed to accommodate the footprint of the new hotel and parking structure. There are several options under consideration for relocation of the Tribal administration and community facilities, including utilizing space within the expanded third floor administrative areas of the casino, purchase of an off-site property with an existing building, or leasing existing office space within the region.

Construction activities associated with the Proposed Project are proposed to commence in 2023 and may take place over 18-24 months. Construction employee parking and staging areas for equipment and materials will occur within the Reservation boundaries, and potentially on nearby previously disturbed off-reservation properties.

PROBABLE OFF-RESERVATION ENVIRONMENTAL EFFECTS

In accordance with the Off-Reservation Environmental Impact Analysis Checklist included in Appendix B of the Compact, the following issue areas will be addressed in the TEIR: aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, water resources, land use, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, utilities and service systems, as well as cumulative, indirect, and growth-inducing effects. The range of issues to be addressed in the TEIR may be expanded or reduced based on the comments received.

This section of this notice briefly discusses, based on current knowledge without the benefit of the environmental analysis that will be performed as part of the TEIR process, potential off-Reservation impacts attributable to the Proposed Project may occur.

- Aesthetics – The Proposed Project would change the visual character of the project site by introducing a new hotel tower and parking structure to the western portion of the site and remodeling the upper stories of the existing casino building. Additionally, the Proposed Project will introduce additional sources of light and glare to the project area.
- Air Quality/Greenhouse Gases – The Proposed Project would generate short-term emissions, including dust, during the construction phase and long-term emissions from increased vehicle traffic, both of which could contribute to existing or projected air quality issues. Additionally, the Proposed Project would result in short-term emissions of greenhouse gas (GHG) associated with construction and long-term GHG emissions primarily associated with increased vehicle traffic and energy usage, which could contribute to cumulative effects associated with climate change.
- Biological Resources – Construction activities for the Proposed Project would be on Reservation land that has already been disturbed with prior grading and development. Accordingly, impacts to off-Reservation terrestrial and aquatic biological resources would likely be minimal.
- Cultural Resources – Construction activities for the Proposed Project would be on Reservation land that has already been disturbed with prior grading and development. Accordingly, impacts to off-Reservation cultural resources would likely be minimal.
- Geology and Soils – The Proposed Project would be constructed on the project site and will be built to applicable building code standards, including all applicable earthquake safety standards. It is therefore not anticipated that any off-Reservation people or structures would be subjected to adverse effects from earthquakes, ground shaking, seismic ground failure, landslides, or erosion as a result of the Proposed Project.
- Hazardous Materials – Certain hazardous materials would be used in the construction and in the operation of the Proposed Project. The TEIR will assess off-Reservation impacts associated with

the hazards and hazardous materials attributable the Proposed Project and identify mitigation measures to address any potentially significant impacts.

- Water Resources – The Proposed Project would generate an increase in demand for water supply and wastewater treatment and disposal. Water supply for the reservation is currently provided by the Otay Water District, and wastewater treatment is provided via an on-site wastewater treatment plant (WWTP). Treated wastewater that cannot be reused on-site is trucked to the City of San Diego Pump Station 1, for further treatment and disposal at a regional WWTP. Construction of the Proposed Project could increase the potential for erosion and direct or indirect discharge of sediment and other materials into Willow Creek, which bisects the project site, and off-Reservation drainages near the project site. The TEIR will include an analysis of the potential for impacts to off-site water resources from additional water demands, wastewater generation, and stormwater run-off.
- Land Use – The Proposed Project would be constructed on the Reservation, and therefore no off-Reservation land use plan, policy, habitat conservation plan, or natural community conservation plan would apply to the Proposed Project. The TEIR will assess the Proposed Project's off-Reservation impact on surrounding land uses and any applicable off-Reservation land use, habitat conservation and natural community preservation plans, and will identify mitigation measures to address any potentially significant impacts.
- Noise – Construction and operation of the Proposed Project could increase noise levels and vibration in off-Reservation areas near the Proposed Project.
- Population and Housing – The Proposed Project would not displace any existing off-Reservation housing. The Proposed Project would provide new employment opportunities that could have an impact on off-Reservation housing availability.
- Public Services – It is anticipated that police and fire protection services would be provided to the Proposed Project by local jurisdictions. The Proposed Project would employ additional employees and attract additional patrons that could use public services and facilities.
- Transportation and Traffic – The Proposed Project would generate additional vehicular use of certain public roads, contributing to increased traffic volumes and possible deterioration of levels of service. The TEIR will identify mitigation measures to address any potentially significant impacts.
- Utilities and Service Systems – Water supply for the reservation is currently provided by the Otay Water District, and wastewater treatment is provided via an on-site wastewater treatment plant (WWTP). Treated wastewater that cannot be reused on-site is trucked to the City of San Diego Pump Station 1, for further treatment and disposal at a regional WWTP. The TEIR will address the potential for off-Reservation impacts to public utilities and service systems from the increase in water supply demands, wastewater generation and electricity usage resulting from the Proposed Project.
- Indirect Impacts – Under a separate Project, the Tribe may establish a larger security office in a mobile building located on a 4-acre parcel owned in fee by the Tribe directly north of the existing casino. Although this is a separate project not directly related to the expansion project, the indirect effects of relocating the security office to the 4-acre parcel will be addressed in the TEIR. Additionally, the indirect effects of any applicable traffic mitigation, and potentially relocating the tribal administration office to an off-reservation location will also be addressed in the TEIR.
- Cumulative Impacts – The TEIR will analyze whether the Proposed Project will cause any "cumulatively considerable" off-Reservation impacts for each issue area listed above. Under the Compact, "cumulatively considerable" off-Reservation environmental impacts of the Proposed

Project will be those that are considerable when viewed in connection with past, current, or probable future projects.

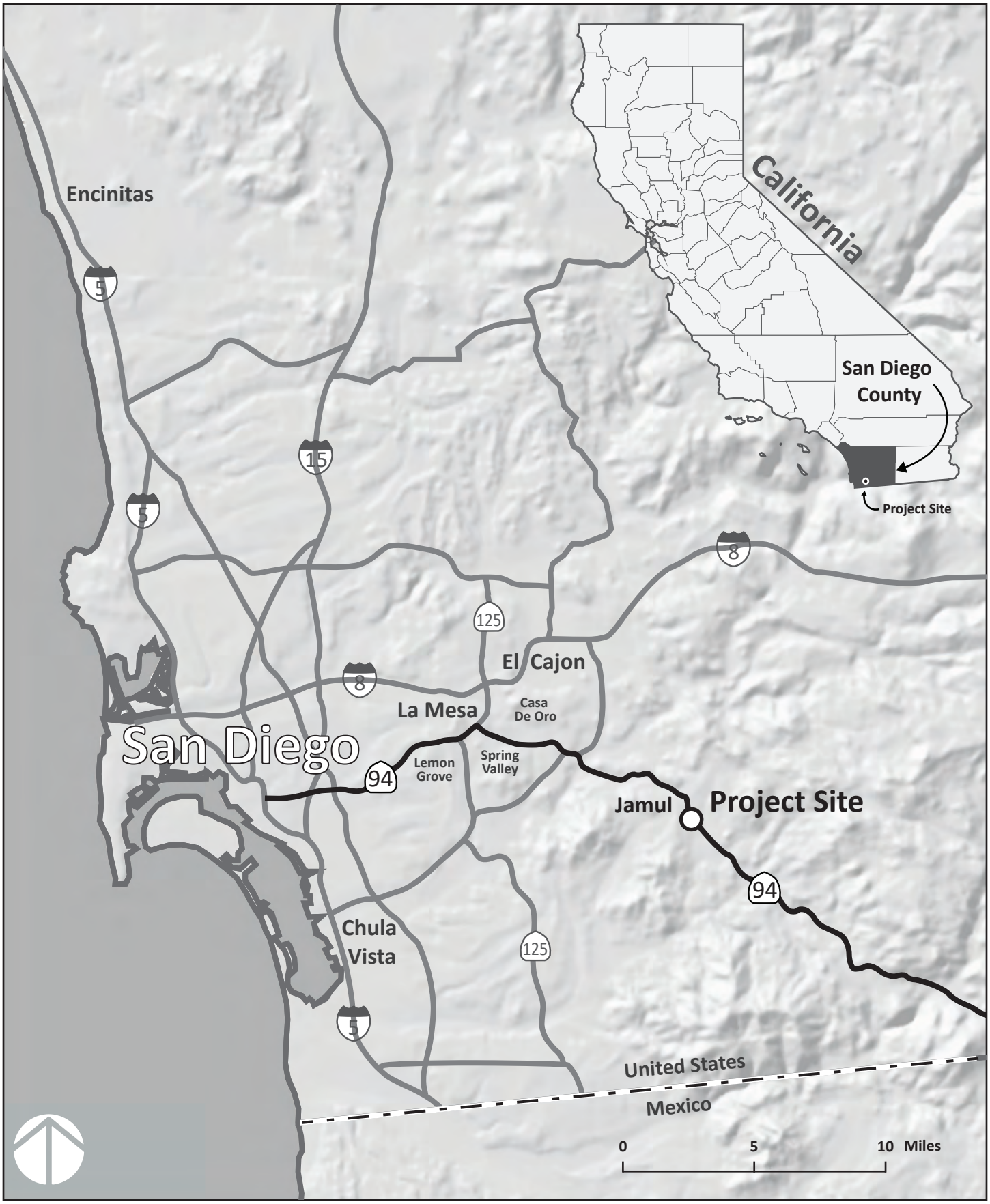


FIGURE 1

REGIONAL LOCATION



Source: JCJ Architecture

FIGURE 2

SITE PLAN

Comment Letters Recieved in Response to May 2022 Notice of Preparation of a Tribal EIR for the Jamul Casino Hotel and Event Center Project

Comment #	Date	Commenter
1	May 20, 2022	Native American Heritage Commission
2	June 1, 2022	San Diegans for Sustainable, Economic and Equitable Development (SEED)
3	June 15, 2022	Caltrans
4	June 13, 2022	SEED San Diegans
5	June 17, 2022	County of San Diego
6	June 17, 2022	California Highway Patrol El Cajon Area
7	June 20, 2022	SEED San Diegans
8	June 20, 2022	Southwest Regional Council of Carpenters

NATIVE AMERICAN HERITAGE COMMISSION

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
May 20 2022
STATE OF CALIFORNIA

May 20, 2022

Chairwoman Erica M. Pinto
Jamul Indian Village of California
P.O. Box 612
Jamul, CA 91935

Re: 2022050410, Jamul Casino Hotel and Event Center Project, San Diego County

Dear Chairwoman Pinto:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

From: **Zach Strasters** <pastorzach@sdseed.net>
Date: Wed, Jun 1, 2022 at 10:47 AM
Subject: RE: Jamul Casino Hotel and Event Center
To: epinto@jamulindianvillage.com <epinto@jamulindianvillage.com>

June 1st, 2022

Erica M. Pinto, Chairwoman
Jamul Indian Village Tribal Council
P.O. Box 612
Jamul, CA 91935

Dear Ms. Pinto,

On behalf of SEED San Diegans, it's my pleasure to contact you about your proposed project, the Jamul Casino Hotel and Event Center, located at 14145 Campo Road in the city of Jamul. We understand that the project will be the construction of a 16-story tower with 226 hotel rooms, restaurant space, as well as the remodeling of the existing Jamul Casino to include a new 35,000 square foot event center.

SEED SD, San Diegans for Economic, Equitable Development, was formed to ensure that major environmental and public service impacts and maximizing community economic and employment benefits. Our coalition includes local residents, nonprofit organizations and labor organizations and their members and families that live and work in the City of San Diego and the region.

We would appreciate an opportunity to meet with you to discuss the ramifications of your project for our community. We will make ourselves available at your earliest convenience.

Please contact me at (619) 365.4218 or email@ sdseed@sdseed.net.

We look forward to meeting with you.

Sincerely,

Jeff Modrzejewski

Interim Director of Outreach

CC: Mary Cheeks, President & GM, Jamul Casino

California Department of Transportation

DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
(619) 709-5152 | FAX (619) 688-4299 TTY 711
www.dot.ca.gov

June 15, 2022

11-SD-94
PM 20.967
Jamul Casino Hotel and Event Center Project
NOP/SCH#2022050410

Ms. Erica M. Pinto
Chairwoman
Jamul Indian Village of California
PO Box 612
Jamul, CA 91935

Governor's Office of Planning & Research

Jun 16 2022

STATE CLEARINGHOUSE

Dear Ms. Pino:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Notice of Preparation for the Jamul Casino Hotel and Event Center Project located near State Route 94 (SR-94). The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Safety is one of Caltrans' strategic goals. Caltrans strives to make the year 2050 the first year without a single death or serious injury on California's roads. We are striving for more equitable outcomes for the transportation network's diverse users. To achieve these ambitious goals, we will pursue meaningful collaboration with our partners. We encourage the implementation of new technologies, innovations, and best practices that will enhance the safety on the transportation network. These pursuits are both ambitious and urgent, and their accomplishment involves a focused departure from the status quo as we continue to institutionalize safety in all our work.

Caltrans is committed to prioritizing projects that are equitable and provide meaningful benefits to historically underserved communities, to ultimately improve transportation accessibility and quality of life for people in the communities we serve.

We look forward to working with the Jamul Indian Village of California in areas where the Jamul Indian Village of California and Caltrans have joint jurisdiction to improve

the transportation network and connections between various modes of travel, with the goal of improving the experience of those who use the transportation system.

Caltrans has the following comments:

Traffic Impact Study

- A Vehicle Miles of Travel (VMT) based Traffic Impact Study (TIS) should be provided for this project. Please use the Governor's Office of Planning and Research Guidance to identify VMT related impacts.[1]
- The TIS may also need to identify the proposed project's near-term and long-term safety or operational issues, on or adjacent any existing or proposed State facilities.
- Please confirm that the following mitigation projects have been completed by the Jamul Indian Village for the building of the Casino and its approved EIR:
    - Lyons Valley Road and SR-94 Signalization and improvements.
    - SR-94 and Maxfield Road roadway improvements.
    - SR-94 and Steele Canyon Road Intersection widening Improvements.
    - SR-94/Campo Rd and Jamacha Road dual right-turn and other improvements.
    - SR-94/Campo Rd and Jamacha Boulevard dual right-turn improvements.
    - The Melody Road and SR-94 intersection improvement project.

Traffic Control Plan

A Traffic Control Plan is to be submitted to Caltrans District 11, including the interchanges at SR-94/Daisy Drive, at least 30 days prior to the start of any construction. Traffic shall not be unreasonably delayed. The plan shall also outline suggested detours to use during closures, including routes and signage.

Potential impacts to the highway facilities (SR-94) and traveling public from the detour, demolition and other construction activities should be discussed and addressed before work begins.

Hydrology and Drainage Studies

- Please provide hydraulics studies, drainage and grading plans to Caltrans for review.
- Provide a pre and post-development hydraulics and hydrology study. Show drainage configurations and patterns.

[1] California Governor's Office of Planning and Research (OPR) 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

- Provide drainage plans and details. Include detention basin details of inlets/outlet.
- Provide a contour grading plan with legible callouts and minimal building data. Show drainage patterns.
- On all plans, show Caltrans' Right of Way (R/W).
- Early coordination with Caltrans is recommended.
- Caltrans generally does not allow development projects to impact hydraulics within the State's Right-of-Way. Any modification to the existing Caltrans drainage and/or increase in runoff to State facilities will not be allowed.

Complete Streets and Mobility Network

Caltrans views all transportation improvements as opportunities to improve safety, access and mobility for all travelers in California and recognizes bicycle, pedestrian and transit modes as integral elements of the transportation network. Caltrans supports improved transit accommodation through the provision of Park and Ride facilities, improved bicycle and pedestrian access and safety improvements, signal prioritization for transit, bus on shoulders, ramp improvements, or other enhancements that promotes a complete and integrated transportation network. Early coordination with Caltrans, in locations that may affect both Caltrans and the Jamul Indian Village of California is encouraged.

To reduce greenhouse gas emissions and achieve California's Climate Change target, Caltrans is implementing Complete Streets and Climate Change policies into State Highway Operations and Protection Program (SHOPP) projects to meet multi-modal mobility needs.

Bicycle, pedestrian, and public transit access during construction is important. Mitigation to maintain bicycle, pedestrian, and public transit access during construction is in accordance with Caltrans' goals and policies.

Land Use and Smart Growth

Caltrans recognizes there is a strong link between transportation and land use. Development can have a significant impact on traffic and congestion on State transportation facilities. In particular, the pattern of land use can affect both local vehicle miles traveled and the number of trips. Caltrans supports collaboration with local agencies to work towards a safe, functional, interconnected, multi-modal transportation network integrated through applicable "smart growth" type land use planning and policies.

The Jamul Indian Village of California should continue to coordinate with Caltrans to implement necessary improvements at intersections and interchanges where the agencies have joint jurisdiction.

Noise

The applicant must be informed that in accordance with 23 Code of Federal Regulations (CFR) 772, the Department of Transportation (Caltrans) is not responsible for existing or future traffic noise impacts associated with the existing configuration of SR-94.

Glare

The proximity of the project site to SR-94 raises some concerns regarding potential glare that could pose a potential risk to motorists traveling on SR-94. The project's potential glare characteristics should be considered. Caltrans would want to ensure that all lighting, including reflected sunlight and reflected night lighting, within this project should be placed and/or shielded so as not to be hazardous to vehicles traveling on SR-94.

Environmental

Caltrans welcomes the opportunity to be a Responsible Agency under the California Environmental Quality Act (CEQA), as we have some discretionary authority of a portion of the project that is in Caltrans' R/W through the form of an encroachment permit process. We look forward to the coordination of our efforts to ensure that Caltrans can adopt the alternative and/or mitigation measure for our R/W. We would appreciate meeting with you to discuss the elements of the EIR that Caltrans will use for our subsequent environmental compliance.

An encroachment permit will be required for any work within the Caltrans' R/W prior to construction. As part of the encroachment permit process, the applicant must provide approved final environmental documents for this project, corresponding technical studies, and necessary regulatory and resource agency permits. Specifically, CEQA determination or exemption. The supporting documents must address all environmental impacts within the Caltrans' R/W and address any impacts from avoidance and/or mitigation measures.

We recommend that this project specifically identifies and assesses potential impacts caused by the project or impacts from mitigation efforts that occur within Caltrans' R/W that includes impacts to the natural environment, infrastructure including but not limited to highways, roadways, structures, intelligent transportation systems elements,

on-ramps and off-ramps, and appurtenant features including but not limited to lighting, signage, drainage, guardrail, slopes and landscaping. Caltrans is interested in any additional mitigation measures identified for the project's draft Environmental Document.

Broadband

Caltrans recognizes that teleworking and remote learning lessen the impacts of traffic on our roadways and surrounding communities. This reduces the amount of VMT and decreases the amount of greenhouse gas (GHG) emissions and other pollutants. The availability of affordable and reliable, high-speed broadband is a key component in supporting travel demand management and reaching the state's transportation and climate action goals.

Right-of-Way

- Per Business and Profession Code 8771, perpetuation of survey monuments by a licensed land surveyor is required, if they are being destroyed by any construction.
- Any work performed within Caltrans' R/W will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction.

Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (619) 688-6158 or emailing D11.Permits@dot.ca.gov or by visiting the website at https://dot.ca.gov/programs/traffic-operations/ep. Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions or concerns, please contact Kimberly Dodson, LDR Coordinator, at (619) 985-1587 or by e-mail sent to Kimberly.Dodson@dot.ca.gov.

Sincerely,

Maurice A. Eaton

MAURICE EATON
Branch Chief
Local Development Review

RECEIVED
JUN 15 2022
Initial: MO

SEED SD

June 13, 2022

Via Email and U.S. Mail

Jamul Indian Village
Attn: Erica M. Pinto
P.O. Box 612
Jamul, CA 91935
admin@jamuTEIR.com

RE: Public Records Act Request and Request for Mailed Notice of Public Hearings and Actions – Jamul Casino Hotel and Event Center, 14145 Campo Rd Jamul, CA 91935

Dear Ms. Pinto,

SEED SD is writing to request a copy of any and all records related to the project, the Jamul Casino Hotel and Event Center, located 14145 Campo Road in Jamul. The project will be the construction of a 16-story tower with 226 hotel rooms, restaurant space, as well as the remodeling of the existing Jamul Casino to include a new 35,000 square foot event center. We are also writing to request copies of any and all hearings and/or actions related to the Project.

Our request for mailed notice of all hearings includes hearings, study sessions and community meetings related to the Project, certification of the MND (or recirculated DEIR), and approval of any Project entitlements. This request is made pursuant to Public Resources Code Sections 21092.2, 21080.4, 21083.9, 21092, 21108 and 21152 and Government Code Section 65092, which require local agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body. Our request includes notice to any City actions, hearings or other proceedings regarding the Project, Project approvals and any actions taken, or additional documents released pursuant to the California Environmental Quality Act.

Our request for all records related to the Project is made pursuant to the California Public Records Act. (Government Code § 6250 et seq.) This request is also made pursuant to Article I, section 3(b) of the California Constitution, which provides a constitutional right of access to information concerning the conduct of government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.

We will pay for any direct costs of duplication associated with filling this request up to $200. However, please contact me at (619) 932-6685 with a cost estimate before copying/scanning the materials.

5155 Mercury Point San Diego, CA 92111
(619) 932-6685 sdseed@sdseed.net

Pursuant to Government Code Section 6253.9, if the requested documents are in electronic format and are 10 MB or less (or can be easily broken into sections of 10 MB or less), please email them to me as attachments.

My contact information is:

U.S. Mail
Jeff Modrzejewski
SEED SD
5155 Mercury Point
San Diego, CA 92111

Email
sdseed@sdseed.net

Please call me if you have any questions. Thank you for your assistance with this matter.

Sincerely,



Jeff Modrzejewski
Executive Director

County of San Diego

PLANNING & DEVELOPMENT SERVICES
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123
(858) 505-6445 General ▪ (858) 694-2705 Codes
(858) 565-5920 Building Services
www.SDCPDS.org

DAHVIA LYNCH
DIRECTOR

June 17, 2022

Honorable Erica Pinto
Chairwoman, Jamul Indian Village of California
P.O. Box 612
Jamul, CA 91935

Sent via email to: Admin@JamulTEIR.com

REQUEST FOR COMMENTS ON THE JAMUL CASINO HOTEL AND EVENT CENTER PROJECT FOR THE JAMUL INDIAN VILLAGE OF CALIFORNIA

Dear Chairwoman Pinto,

The County of San Diego (County) staff reviewed the Jamul Indian Village of California's (Jamul Indian Village) Notice of Preparation (NOP) of an Off-Reservation Tribal Environmental Impact Report (TEIR) for the Jamul Casino Hotel and Event Center Project (Project), dated May 19, 2022.

County staff appreciates the opportunity to participate in the review process for this NOP and we would like to thank you and your team for taking time to meet with us on June 16 to discuss our initial comments. This letter responds to the NOP's request for comments regarding Off-Reservation environmental issues and reasonable mitigation measures that the Jamul Indian Village could explore in the TEIR.

DEPARTMENT OF PUBLIC WORKS – WATERSHED PROTECTION

This project site drains into Willow Creek and other nearby Off-Reservation drainage systems and then flows southward for approximately 1.8 miles before entering Jamul Creek. Jamul Creek is considered an impaired waterbody due to the presence of pollutants at levels exceeding the State water quality standards. Development activities, even those located within previously disturbed and paved areas, have the potential to increase pollutants and bacteria, further impairing surface water resources. For this reason, the County respectfully requests that Off-Reservation water quality and water quantity impacts be analyzed as part of the TEIR.

The County has a wide array of information on stormwater quantity and quality mitigation measures such as post-construction treatment control Best Management Practices (BMPs), Low Impact Development, Source Control BMPs, hydromodification management practices, and construction BMPs. The County, in partnership with the cities of Chula Vista, Coronado, Imperial Beach, La Mesa, Lemon Grove, National City, and San Diego, the San Diego County Regional

Airport Authority, and the San Diego Unified Port District, have also developed a Water Quality Improvement Plan (WQIP) for the watershed. The WQIP consists of a framework of strategies to address impairments in the watershed. The County would welcome the opportunity to provide this information to the Jamul Indian Village in furtherance of our shared interest in protecting water quality and aquatic habitats.

DEPARTMENT OF PUBLIC WORKS – TRAFFIC

The County appreciates the statements within the NOP identifying that the Project may increase traffic volumes on public roads and possibly reduce their levels of service. We also appreciate the Jamul Indian Village's proactiveness and willingness to identify mitigation measures in the TEIR to address any potentially significant impacts. Jamul Casino's entrance is along State Route 94, which is managed by CALTRANS, but the Project may impact traffic on County-maintained roads. Consequently, the County respectfully requests that the TEIR include a traffic impact report, which will aid the Jamul Indian Village and County in identifying areas of potential concern. As we shared during our meeting on June 16, the County would be happy to meet with Jamul Indian Village and your Project consultants, Acorn Environmental, to discuss the potential scope of a traffic impact report. Upon completion of a traffic impact report, we would also welcome an opportunity to review it alongside CALTRANS to identify the most effective projects to mitigate traffic issues.

SAN DIEGO COUNTY FIRE PROTECTION DISTRICT

Across State Route 94 from the Jamul Casino's entrance is San Diego County Fire Protection District Station 36, which provides emergency response service to the Jamul Casino and surrounding community. As mentioned above, the County greatly appreciates the Jamul Indian Village's proactiveness and willingness to consider traffic impacts and mitigation measures as part of the TEIR. We respectfully request the future TEIR include an analysis of impacts any increased traffic will have on Station 36's access to State Route 94. Upon completion of an analysis, the County would welcome an opportunity to discuss potential mitigation measures with the Jamul Indian Village and CALTRANS to address impacts to ingress and egress from Station 36.

The County appreciates the opportunity to comment on the Project TEIR NOP. We look forward to receiving future documents related to the Project and providing any additional assistance that you request. If you have any questions regarding these comments, please contact me at 619-613-5197 or Scott.Christman@sdcounty.ca.gov.

Sincerely,

Scott Christman
Group Program Manager, Long Range Planning Division
Planning & Development Services

cc: Bibiana Alvarez, Principal, Acorn Environmental
Ryan Sawyer, Project Director, Acorn Environmental
Sarah Aghassi, Deputy Chief Administrative Officer, LUEG
Tony Mecham, Fire Chief, San Diego County Fire
Dave Nissen, Deputy Chief, San Diego County Fire
David Sibbet, Fire Services Coordinator, San Diego County Fire
Derek Gade, Assistant Director, DPW
Richard Whipple, Deputy Director, DPW
Murali Pasumarthi, Traffic Engineering Manager, DPW
Crystal Benham, LUEG Program Manager, DPW

State of California-Transportation Agency GAVIN NEWSOM, Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
1722 East Main Street
El Cajon, CA 92021
(619) 401-2000
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

June 17, 2022

File No.: 680.15811.14517.Jamul Casino Hotel Project

Jamul Indian Village of California
P.O. Box 612
Jamul, CA 91935

Attention: Chairwoman Erica M. Pinto

Dear Ms. Pinto:

The California Highway Patrol (CHP) El Cajon Area recently received a Notice of Preparation of a Tribal Environmental Impact Report for the Jamul Casino Hotel and Event Center Project, State Clearing House number 2022050410. A review of the Report has raised several concerns. The addition of 226 hotel rooms and event space will increase traffic in two phases. First, a short-term consequence will be the construction phase, which will bring an influx of vehicular traffic from construction workers, equipment, and supplies. Second, a long-term consequence will be additional vehicular traffic from additional casino workers, vendors, and patrons.

The Jamul Casino Hotel and Event Center Project will likely result in an increase in several aspects of functions within the CHP El Cajon Area, specifically related to State Route 94, and the unincorporated roadways in and around the Jamul Community. The project will likely increase the number of calls into the CHP Border Communication Center, increase the number of calls for service within the CHP El Cajon jurisdiction, increase the amount of traffic enforcement by the CHP El Cajon within this geographical area of San Diego County necessary to protect life and property. Additionally, it will likely increase traffic within the geographical area of responsibility of the CHP El Cajon Area which would increase response times of CHP officers responding to calls for service in other geographical areas of San Diego County and increase the amount of emergency services the CHP El Cajon Area provides within this area of San Diego County.

Thank you for allowing me the opportunity to comment on the Notice of Preparation of a Tribal Environmental Impact Report for the Jamul Casino Hotel and Event Center Project. Should you have any questions, please contact the El Cajon Area, Lieutenant Clyde Larkin, at (619) 401-2000.

Sincerely,

C. FOUYER, Captain
Commander
El Cajon Area

cc: Special Projects Section
Border Division

06/20/2022

VIA EMAIL ONLY

Jamul Indian Village of California
Chairwoman Erica M. Pinto
P.O. Box 612
Jamul, CA 91935
Admin@JamulTEIR.com

RE: NOP Comments for Jamul Casino Hotel and Event Center Project

Dear Ms. Pinto,

On behalf of San Diegans for Sustainable, Economic and Equitable Development ("SD SEED") thank you for the opportunity to provide comments on the Notice of Preparation ("NOP") for environmental review of the Jamul Casino Hotel and Event Center Project (the "Project").

The proposed Project consists of remodeling the existing Jamul Casino to include a new event center, 16-story 226 room hotel, and associated parking and infrastructure. The proposed remodeling would eliminate the second floor and the fourth floor of the existing Casino building and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation.

The NOP identifies the Project's potentially significant off-reservation impacts under CEQA to include all environmental considerations except Biological Resources, Cultural Resources, and Geology and Soils. SD SEED respectfully requests, under CEQA complete analysis of these impacts, imposition of all feasible mitigation and study of a reasonable range of alternatives to the Project.

II. General Comments

i) Project Description & Baseline: An erroneous project description and baseline can lead to masking potentially significant impacts. Therefore, in order to reflect a good faith effort at full disclosure, the TEIR should provide a detailed description of the "real conditions on the ground" and use these physical conditions as the baseline to assess the significance of the Project's impacts. The California Supreme Court, in *Communities for a Better Environment v. South Coast Air Quality Management District*, recognized that "the baseline 'normally' consists of 'the physical environmental conditions in the vicinity of the project, as they exist at the time ...

environmental analysis is commenced.... *CBE v. SCAQMD*, supra, 48 Ca.4th 310, 327–328, citing Guidelines, § 15125, subd. (a).

ii) Air Quality & Public Health: The TEIR should include a Health Risk Assessment to address the potential impacts of air quality on public health. Estimates of the significance of air quality impacts must be consistent with current epidemiological studies regarding the effects of pollution and various kinds of environmental stress on public health.

iii) Mitigation measures: Mitigation measures must be effective and enforceable. Every effort must be made to incorporate modern technology in the mitigation measures and MMRP. For example, a requirement that all off-road equipment and trucks using the site during construction and operations be zero emission, near-zero emissions or alternative-fueled vehicle would both reduce and/or eliminate air pollution impacts and CO2 emissions.

iv) Full Disclosure: Provide all sources and referenced materials when the TEIR is made available.

II. Conclusion

Thank you for the opportunity to submit NOP comments. Again, SD SEED respectfully requests under CEQA full analysis of the environmental impacts, feasible mitigation, and reasonable alternatives to the Project.

We look forward to reviewing and commenting on subsequent environmental review documents when these documents are released for public review.

Sincerely,



Jeff Modrzejewski
Director of Outreach

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F: (626) 389-5414
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Mitchell M. Tsai
Attorney At Law

155 South El Molino Avenue
Suite 104
Pasadena, California 91101

VIA E-MAIL

June 20, 2022

Jamul Indian Village of California
Attn: Erica M. Pinto
P.O. Box 612
Jamul, CA 91935
E: admin@JamulTEIR.com

RE: Notice of Preparation of a Tribal Environmental Impact Report for the Jamul Casino Hotel and Event Center Project (SCH No. 2022050410)

Dear Ms. Pinto and the Jamul Indian Village of California ("**Tribe**"),

On behalf of the Southwest Regional Council of Carpenters ("**Southwest Carpenter**" or "**SWRCC**"), my Office is submitting these comments regarding the Notice of Preparation ("**NOP**") of a Tribal Environmental Impact Report ("**TEIR**") for the Jamul Casino Hotel and Event Project ("**Project**"), SCH No. 2022050410.

SWRCC is a labor union representing 50,000 union carpenters in six states, including California, and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects. Individual members of the Southwest Carpenters live, work and recreate in the County of San Diego and surrounding communities and would be directly affected by the Project's environmental impacts.

SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

SWRCC incorporates by reference all comments raising issues regarding the NOP of a TEIR submitted prior to approval of the TEIR for the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has

objected to the Project's environmental documentation may assert any issue timely raised by other parties).

SWRCC also requests that the Tribe provide notice for any and all notices referring or related to the Project issued under the compact between the Tribe and the State of California ("**Compact**"). California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

The Tribe should require the use of a local skilled and trained workforce to benefit the community's economic development and environment. The Tribe should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California.

Community benefits such as local hire and skilled and trained workforce requirements can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce

Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> . . . labor should be considered an investment rather than a cost – and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Local skilled and trained workforce requirements and policies have significant environmental benefits since they improve an area's jobs-housing balance, decreasing the amount of and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2]

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the City of Hayward 2040 General Plan requires the City to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3]

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to requiring that the City "[c]ontribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential developments to require contractors to utilize apprentices from state-approved, joint

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf.

labor-management training programs, . . ."[4] In addition, the City of Hayward requires all projects 30,000 square feet or larger to "utilize apprentices from state-approved, joint labor-management training programs."[5]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6]

In addition, local hire mandates as well as skill training are critical facets of a strategy to reduce vehicle miles traveled. As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions since the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing." The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy

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[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://www.hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.

[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).

[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

about negotiating corporate participation in First Source as a condition of approval for development permits.

The Tribe should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and mitigate greenhouse gas, air quality and transportation impacts.

I. THE TRIBE FAILED TO COMPLY WITH ALL OF THE NOP REQUIREMENTS SPECIFIED IN THE COMPACT

A. The Tribe Must Assess and Mitigate Substantial Adverse Effects on Human Beings Stemming From COVID-19 Impacts

Pursuant to the Compact, the NOP must provide all interested persons with information describing the Project's significant effects on the environment sufficient to enable interested persons to make a meaningful response or comment. Compact at 76. At a minimum, the NOP must include "the probable off-reservation environmental effects of the Project." *Id.*

California law establishes that environmental effects also encompass adverse effects on human beings stemming from a project. Cal. Code Regs. 14 § 15065(a)(4). Public health risks related to construction work constitutes adverse effects on human beings as it has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. In fact, several construction sites have recently been identified as sources of community spread of COVID-19.[8]

Nevertheless, the NOP fails to include COVID-19 impacts in its list of environmental effects to be analyzed and mitigated. Thus, the NOP should be revised and recirculated to include such information.

Additionally, in order to properly mitigate COVID-19 impacts and in light of the Compact's prohibition against conducting Class III gambling in a manner that "endangers the public health, safety, or welfare", SWRCC requests that the Tribe require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site. Compact at 82. In particular, based upon SWRCC's experience with safe construction site work practices, SWRCC

[8] Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, *available at* https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx.

recommends that the Tribe require the following while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- A perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area.
- There will be clear signage posted at the Project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.
- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at entrances from 5:30 am to 7:30 am.

- After 7:30 a.m., only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, the individual will be instructed that he/she will not be allowed to enter the Project Site. The individual will also be instructed to promptly notify his/her supervisor and his/her human resources (HR) representative.

Planning

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches), and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health, or applicable local public health agencies.[9]

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. Likewise, the Tribe should

[9] *See also* The Center for Construction Research and Training, North America's Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, *available at* https://www.cpwr.com/wp-content/uploads/publications/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, *available at* https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

B. The NOP is Not Posted on the Tribe's Website

In addition to requiring the Tribe to issue an NOP to the State Clearinghouse in the State Office of Planning and Research and to the County for distribution to the public, the Compact also requires the Tribe to post a copy of the NOP on its website. Compact at 76. Such requirement helps enable individuals interested in responding to or providing comments on the NOP. *Id.*

To date, we do not see any copy of the NOP posted anywhere on the Tribe's website.[10] Accordingly, the Tribe must promptly post a copy of the NOP on its website to comply with the Compact's NOP requirements.

II. CONCLUSION

In view of the above-noted concerns, we respectfully request that the NOP for the Project be recirculated to include COVID-19 impact analysis and mitigation information and that the Tribe promptly post a copy of the NOP on its website. If the Tribe has any questions or concerns, feel free to contact my Office.

Sincerely,

Talia Nimmer
Attorneys for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

[10] The Tribe's website can be found at https://jamulindianvillage.com/.

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

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(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Attachment B of the SWAPE Comment Letter dated March 8, 2021 is available upon request.

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

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Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

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Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Appendix C

Water Supply and Wastewater Report

EEC ENVIRONMENTAL

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Jamul Casino Hotel and Event Center Project Assessment of Wastewater and Water Related Environmental Off-Site Impacts Report

September 26, 2022

Prepared for:

Ms. Ryan Sawyer
Acorn Environmental
5170 Golden Foothill Parkway
El Dorado Hills, California 95762

Prepared by:

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Varshini Reddy
Project Engineer

Stan Steinbach, PE
Principal Engineer

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Appendix A: OWD Capacity Determination Letter - Jamul Casino Hotel_APN 597-060-06-00_5-11-22

1.0 INTRODUCTION

This report has been prepared to present the results of the assessment of the wastewater and water related environmental off site impacts associated with the Jamul Casino Hotel and Event Center Project. The assessment was based on available historical records from the Jamul Casino and the Jamul Casino WWTP operations, and from correspondence with the Otay Water District. This introductory section will discuss the site location, the background of the project, and a brief description of how the report is organized.

1.1 Location

The proposed project is located on the Jamul Indian Village of California Reservation at 14145 Campo Road, Jamul, CA 91935. The Reservation is located within portions of Section 10 and unsectioned areas of Township 17 S, Range 1 East, San Bernardino Baseline and Meridian.

State Route 94 (SR 94) provides regional access to the Reservation from downtown San Diego, which is located approximately 20 miles to the west of the Reservation (Figure 1 below). Local access to the Reservation is provided directly from SR 94 via Daisy Drive and an access road limited to authorized vehicles.

Figure 1: Jamul Casino Location Map



1.2 Background

The Jamul Indian Village of California (Tribe) is proposing to expand its Jamul Casino to include a new event center within the Casino building, a new hotel, an additional parking garage, and associated infrastructure. The proposed improvements will be developed on the Tribe's existing Reservation. The existing casino facility includes a 203,130 square-foot (sf) casino and an eight-level parking garage. The proposed casino remodeling would eliminate the second floor and the fourth floor and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. The existing restaurant located on the second floor of the casino building would be relocated to the third floor with no changes in occupant capacity. Approximately 11,838 sf of existing office space on the eastern portion of the third floor would be relocated to an expanded area of the western portion of the third floor (Figure 2). The new event venue would result in a net increase of approximately 35,000 sf of enclosed, covered outdoor, and uncovered outdoor areas. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed.

The proposed hotel will consist of a total of 16 floors, with 10 floors of guest rooms, roof-top pool, spa, restaurant, and banquet space. The proposed hotel will provide up to 225 rooms and be developed on the west side of the Reservation. An additional parking garage will be located south of the proposed hotel building. The existing tribal community center and administration building currently located on the west side of the Reservation will be relocated to accommodate the footprint of the new hotel and parking structure. Refer to Figure 2 below.

Figure 2: Jamul Casino Property with Proposed Expansion



1.3 Report Organization

The report is organized as follows:

- Section 1.0 – "Introduction" provides the location, project background information, and the organization of the Report.
- Section 2.0 – "Wastewater" describes: the WWTP; the wastewater historical flows, water reuse and WWTP discharges; the projected new wastewater flows, water reuse and WWTP discharges with the Casino Hotel and Event Center Project; and the environmental off-site impacts related to wastewater.
- Section 3.0 – "Water" describes the water supply, the historical water usage, the projected future water demand, and the environmental off-site impacts related to water.
- Section 4.0 – "Summary of Environmental Off-site Impacts" provides a summary of the wastewater and water off-site impacts.

2.0 WASTEWATER

2.1 Wastewater Treatment Plant (WWTP)

The Jamul Casino Wastewater Treatment Plant (WWTP) is an existing wastewater treatment plant that is owned by the Jamul Indian Village and is operated by the Tribe's contract operator Water Quality Specialists (WQS). The existing WWTP is located on the Reservation west of the casino building. The WWTP receives wastewater flows from the nearby community center, the administration building, the Casino, and the Casino's cooling tower. The WWTP was designed to treat the wastewater at design flows (Table 1 below) to meet the Department of Drinking Water (DDW) Title 22 standards for disinfected tertiary recycled water, so that the Casino can reuse the recycled water for irrigation purposes, toilet flushing, and as a water source for the cooling tower.

Table 1: WWTP Design Flows, GPD

Description	Design Flow
Average design flow	68,000 gpd
Daily Max design flow	98,000 gpd
Hourly peak design flow	128,000 gpd

Excess wastewater that cannot be reused or treated on-site, waste activated sludge and brine waste[1] is trucked to the City of San Diego Pump Station 1, for further treatment and disposal at a regional WWTP. Additionally, the Tribe has a National Pollution Discharge System (NPDES) permit for direct discharge of up to 68,000 gallons per day of tertiary treated wastewater to an outfall to Willow Creek (Creek) within the Reservation.

The list of permits related to the WWTP operations and discharges are identified in Table 2 below.

[1] Brine waste is wastewater with high total dissolved solids (TDS) concentrations. The brine waste collected at the WWTP for off-site disposal is from the Casino water softener and from the discharge of the TDS removal process waste (Reverse Osmosis concentrate discharge) from the treatment of the incoming wastewater flows (includes cooling tower blowdown) to the WWTP.

Table 2: WWTP Related Permits

Agency	Permit/License	Permit/ID Number
SWRCB	Grade V Wastewater Operator (WQS)	6165
County of San Diego	County Environmental Health Sewage Hauler Permit (WQS)	DEH2017-LSHOP-000049
City of San Diego	Industrial Waste Hauler Permit (WQS)	25-0510-04
City of San Diego	Domestic Waste Hauler Permit (WQS)	25-0509-04
City of San Diego	Brine Waste Generator (WQS)	25-0485-08A
City of San Diego	Activated Sludge Waste Generator (WQS)	25-0491-10A
City of San Diego	Plant Effluent Generator (WQS)	25-0495-07A
EPA	National Pollutant Discharge Elimination System (NPDES) Permit (Jamul Indian Village)	CA0084284
EPA Region 9	Underground Injection Control (UIC, Class V)	100000115

SWRCB – California State Water Resources Control Board
EPA – Environmental Protection Agency

2.2 Wastewater Historical

2.2.1 Wastewater Influent Flows

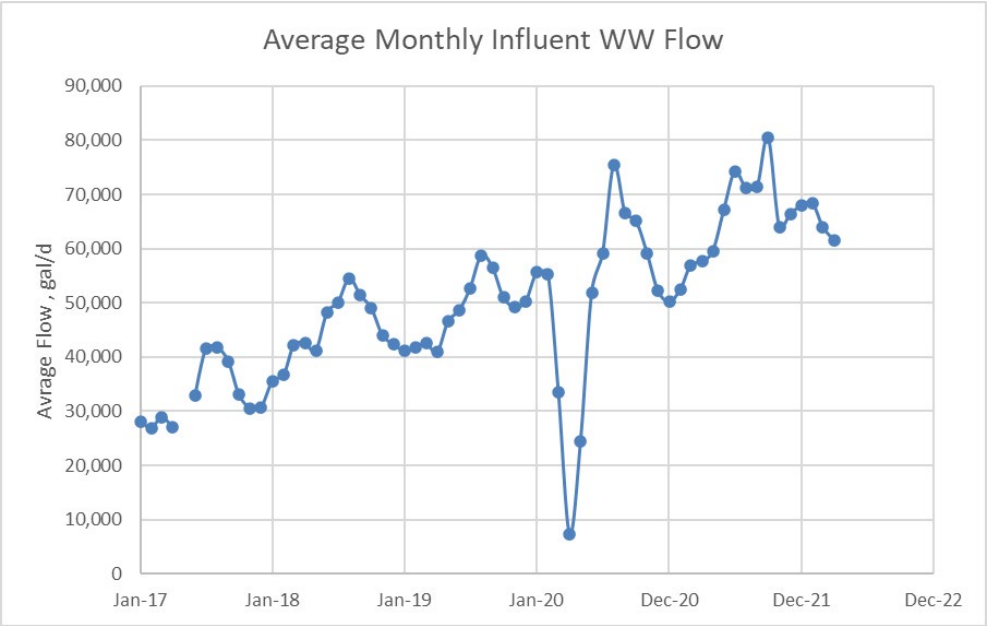
Daily influent wastewater flow data from January 2017 through April 2022 (except for April 2017) to the WWTP was evaluated with yearly flows tabulated in Table 3 (below) and average monthly flows graphically displayed in Figure 3 (below). The figure depicts the monthly average flows over the time period, which includes the flows from the Casino cooling tower blowdown.

Table 3: WWTP Influent Wastewater Yearly Flows

Year	Influent Wastewater Flow	
	Average Daily Flow (gallons/day)	Total (gallons)
2017	32,798	11,000,475
2018	44,829	16,379,743
2019	48,338	17,661,155
2020	50,483	18,483,921
2021	64,311	23,505,717
2022*	65,467	7,851,282

*Data for January to April 2022

Figure 3: WWTP Influent Wastewater Average Monthly Flows



The figure shows an increasing trend of approximately 8,000 gallons/year for the average monthly flows. The flow decreased during the COVID-19 lockdown (March through May 2020) but then pickup to "normal." Maximum monthly flow was about 80,000 gallons per day (gpd) in October 2021. Additionally, the summer and early fall (warmer months) have higher flows than the winter (cooler) months likely partially attributable to cooling tower usage and associated blowdown (discharge) to the WWTP.

Analysis of the daily influent flow data is presented in Table 4 and shows the flows are substantially higher at the present time with a maximum day flow of nearly 105,000 gpd which occurred on October 23, 2021. All of the "multi-day average" flows included October 23, 2021.

Cooling tower blowdown, from the original casino design criteria, was projected to be 10,233 gpd. Subtracting the cooling tower wastewater from the values in Table 4, results in the estimated wastewater flows from the casino, which are shown in Table 5. Note: the cooling tower blowdown is likely higher in the summer and early fall months than the originally projected flow rate, which would result in casino wastewater flows (without the cooling tower blowdown) lower than those identified in Table 4.

Table 4: Daily Wastewater Flow Characteristics, GPD (includes cooling tower blowdown)

Description	Jan 2017 through April 2022*	May 2021 through April 2022
Maximum Day	104,818	104,818
Maximum 2-day Average	99,991	99,991
Maximum 3-day Average	97,421	97,421
Maximum 5-day Average	93,357	93,357
Maximum 7-day Average	91,474	91,474
Maximum 14-day Average	87,882	87,882
Maximum Month	80,525	80,525
Average	49,521	68,050

*Not including April 2017

Table 5: Daily Wastewater Flow Characteristics, GPD (excludes cooling tower blowdown)

Description	Jan 2017 through April 2022*	May 2021 through April 2022
Maximum Day	94,585	94,585
Maximum 2-day Average	89,758	89,758
Maximum 3-day Average	87,188	87,188
Maximum 5-day Average	83,124	83,124
Maximum 7-day Average	81,241	81,241
Maximum 14-day Average	77,649	77,649
Maximum Month	70,292	70,292
Average	39,288	57,817

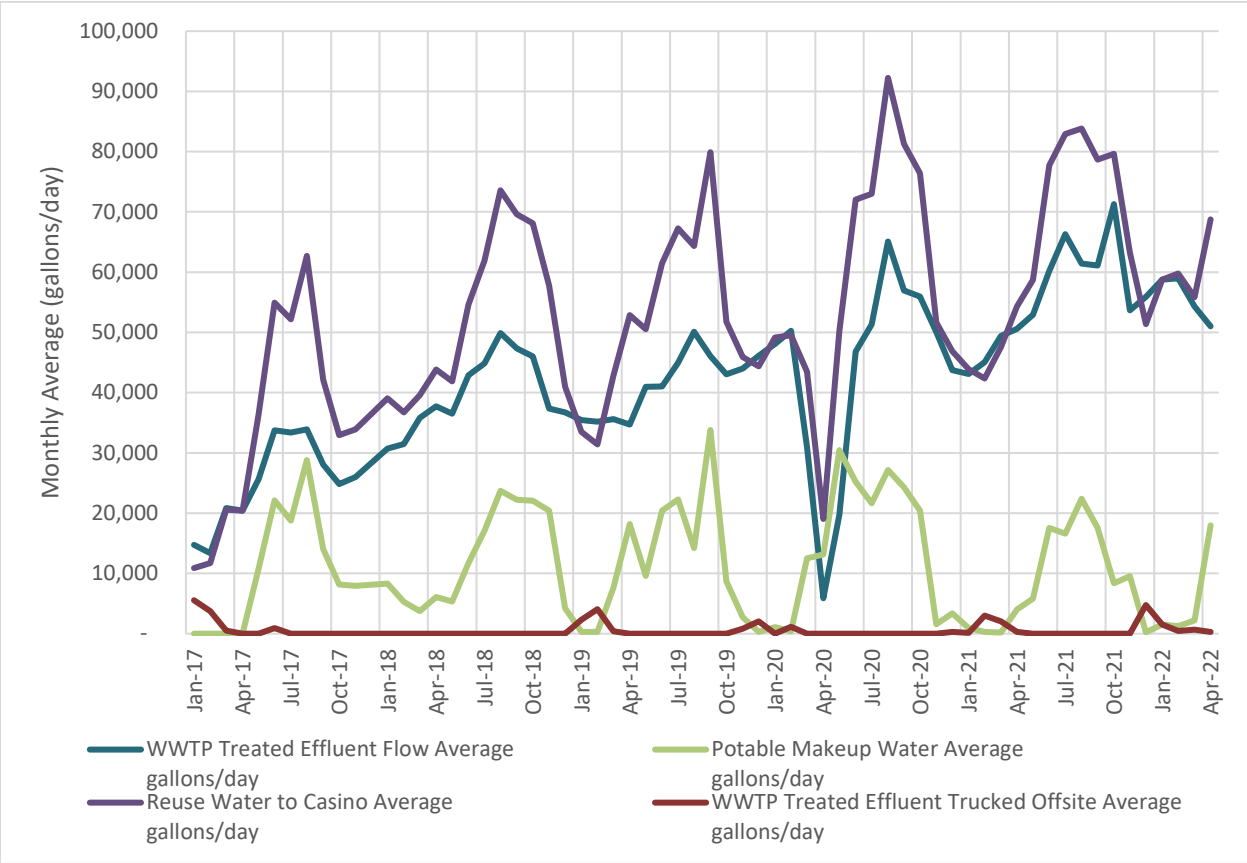
*Not including April 2017
** Cooling tower wastewater = 10,233 gpd from original WWTP design

2.2.2 Wastewater WWTP Effluent Flow and Reuse Water

Daily wastewater WWTP flow and reuse water data from January 2017 through April 2022 (except for April 2017) from the WWTP was evaluated and average monthly flows are graphically displayed in Figure 4 (below). The figure depicts the monthly average flows over the time period for the WWTP Treated Effluent Flows, the Potable Water Makeup, Reuse Water Supplied, and the Treated Effluent trucked off-site for disposal. The Reuse Water Supplied (recycled water) is supplied from the WWTP Treated Effluent Flows and when required was supplemented with potable water - Potable Water Makeup –to meet reuse water demands. When the recycled water demands were less than the treated effluent from the WWTP, the treated effluent was trucked off-site for disposal (no treated effluent was discharged using the Tribe's NPDES Permit). The formulae used for Reuse Water Supplied is as follows:

"Reuse Water Supplied" = "WWTP Treated Effluent Flows" + "Potable Water Makeup" – "Treated Effluent Trucked Off-site" – "Effluent Discharge by NPDES Permit to Willow Creek"

Figure 4: Historical WWTP Effluent and Water Reuse Average Monthly Flows



The figure shows an increasing trend for the average monthly flows for treated effluent and for water reuse similar to the WWTP wastewater influent flows (displayed in Figure 3). The flow decreased during the COVID-19 lockdown (March through May 2020) but then returned to "normal." Additionally, the summer and early fall (warmer months) have higher flows than the winter (cooler) months also similar to the WWTP wastewater influent flows (displayed in Figure 3). This is likely partially attributable to cooling tower usage. The figure shows potable makeup water supplied was also higher during summer and early fall (warmer months) when recycle water demand was high. During the winter months when water reuse demand was lower, not all of the WWTP treated effluent was able to be utilized for reuse and the excess treated effluent was required to be trucked off-site for disposal.

2.2.3 WWTP Waste Disposal

Daily Trucking Off-site data from January 2017 through April 2022 (except for April 2017) from the WWTP was evaluated and tabulated in Table 6 (below). The table identifies the yearly total waste and effluent volumes trucked off-site for disposal, the days when waste or effluent was trucked off-site for disposal, and the number of loads (~4,200 gallons per truck load) of waste or effluent trucked off-site. The data identified that the total volume of waste trucked off-site for disposal increased yearly with the exception of 2020 (related to decrease wastewater flows to the WWTP due to COVID-19 lockdown).

Note: As previously stated, there has been no discharge of treated effluent to the Creek from the WWTP. Thus, the NPDES permit for the WWTP has not been utilized – all treated effluent not utilized for reuse was trucked off-site for disposal

Table 6: WWTP Waste and Effluent Trucked Off-Site for Disposal

Yearly Trucked Off-site Totals																
Year	Number of Days	Brine Waste			Activated Sludge			Domestic Waste			Treated Effluent			Total Trucked Off-site		
		TOTAL (gallons)	Days of Waste Trucked Off-site	Loads of Waste Trucked Off-site[1]	TOTAL (gallons)	Days of Waste Trucked Off-site	Loads of Waste Trucked Off-site[1]	TOTAL (gallons)	Days of Waste Trucked Off-site	Loads of Waste Trucked Off-site[1]	TOTAL (gallons)	Days of Waste Trucked Off-site	Loads of Waste Trucked Off-site[1]	TOTAL (gallons)	Total Loads Trucked Off-site[1]	Monthly Average Loads Trucked Off-site[1]
2017[2]	335	1,945,530	187	467	197,400	29	48	12,200	2	3	320,700	25	77	2,475,830	595	54.09
2018	365	2,447,700	224	583	478,800	63	114	8,400	2	2	-	0	0	2,934,900	699	58.25
2019	365	2,335,200	232	556	537,600	87	128	35,800	9	9	285,600	47	68	3,194,200	761	63.42
2020	366	2,087,400	224	497	562,800	95	134	25,200	6	6	42,000	7	10	2,717,400	647	53.92
2021	365	2,461,200	244	586	659,400	112	157	63,000	12	15	306,600	38	73	3,490,200	831	69.25
2022[3]	120	886,200	84	211	176,400	41	42	16,800	4	4	88,200	9	21	1,167,600	278	69.50

[1] Truck Load (volume) is 4,200 gallons

[2] Not including April 2017

[3] Totals for Janury to April

2.3 Wastewater Estimated Future Demands

Wastewater flows for the Casino Hotel and Event Center Project were projected based on typical flow factors for hotel rooms and facility uses taken from the City of Los Angeles Sewage Generation Factors Chart, and professional experience. The projected wastewater flows represent a full occupancy and expected maximum daily flow are shown in Table 7.

Table 7: Projected Casino Hotel and Event Center Project Water Requirements & Wastewater Generation

Location			Guest Room/Seating Quantity	Area (SQFT)	Demand Factor	Unit	Water Usage (GPD)	Wastewater Generation (GPD)
Event Center	Casino	New Event Venue Outdoor	-	25,500	350	GPD/KSF	8,925	8,925
		Multipurpose/Bingo Hall	-	9,250	350	GPD/KSF	3,238	3,238
		Cooling Tower ~5% increase in Indoor sqft from Bingo Hall requires associated 5% increase in Cooling Demand	-	-	-	-	1,536	512
		Casino Expansion Total		**34,750**			**13,699**	**12,675**
Hotel	Hotel	Guest Rooms (Total Buildout)	225	-	120	GPD/ROOM	27,000	27,000
		Mechanical Equipment	-	18,557	30	GPD/KSF	557	557
	Hotel Lobby And Management	Hotel Lobby	-	6,552	50	GPD/KSF	328	328
		Front Desk & Administration	-	1,956	50	GPD/KSF	98	98
	Food & Beverage	Dining One[1]	92	6,724	30	GPD/Seat	2,760	2,760
		Banquet Dining[1]	187	5,180	30	GPD/Seat	5,610	5,610
		Speakeasy[2]	49	1,242	720	GPD/KSF	894	894
		F&B Storage	-	1,173	30	GPD/KSF	35	35
	Recreation	Spa	-	8,600	250	GPD/KSF	2,150	2,150
		Fitness Center	-	900	650	GPD/KSF	585	585
		Pool[3]	-	3,000	-	-	1,547	329
		Pool Support	-	11,608	200	GPD/KSF	2,322	2,322
	Building Services	Hotel Storage	-	1,116	30	GPD/KSF	33	33
		Laundry and Housekeeping	-	1,461	50	GPD/KSF	73	73
		Hotel Total (without Cooling Towers)		**68,069**			**43,991**	**42,773**
Totals						**Total (without Hotel Cooling Towers)**	**57,690**	**55,448**
	Hotel Cooling Towers	Cooling Tower	-	-	-	-	11,250	5,625
						Total (with Hotel Cooling Towers)	**68,940**	**61,073**

Notes:

GPD *Gallons Per Day*
SQFT *Square Foot*
KSF *1000 Square Foot*
1 *Utilized Demand Factor for Seating in the Analysis - higher Wastewater Generation*
2 *Utilized Demand Factor for Area in the Analysis - higher Wastewater Generation*
3 *Pool Water Usage includes evaporation and blowdown (GPD)*

The projected future daily wastewater influent flows to the WWTP are displayed in Table 8 and are based on the wastewater flows from May 2021 through April 2022 identified in Table 5, and the Casino Hotel and Event Center Project projected wastewater influent flows identified in Table 7. The totals with cooling tower blowdown discharged to the WWTP for treatment and also with no cooling tower blowdown (cooling tower blowdown treated at the cooling tower and discharged directly to the Brine Storage Tank to be trucked off-site for disposal) are identified in Table 8.

Table 8: Projected Wastewater Generation

Description	No Cooling Tower Blowdown			Including Cooling Tower Blowdown	
	Existing Casino, [a] gpd	Proposed Hotel and Event Center Project, gpd	Total Wastewater Flow, gpd	Total Cooling Blowdown, [b] gpd	Total Flow, gpd
Maximum Day	94,585	55,448	150,033	16,370	166,403
Maximum 2-day Average	89,758	55,448	145,206	16,370	161,576
Maximum 3-day Average	87,188	55,448	142,636	16,370	159,006
Maximum 5-day Average	83,124	55,448	138,572	16,370	154,942
Maximum 7-day Average	81,241	55,448	136,689	16,370	153,059
Maximum 14-day Average	77,649	55,448	133,097	16,370	149,467
Maximum Month	70,292	55,448	125,740	16,370	142,110
Average	57,817	55,448	113,265	16,370	129,635

a) Based on May 2021 through April 2022 Flows
b) Cooling tower blowdown = 10,233 gpd (Casino - from original WWTP design) + 512 gpd (Casino 5% increase in cooling demand due to 5% increase in indoor space [Bingo Hall] requiring cooling) + 5,625 gpd (hotel) = 16,370 gpd

Based on the wastewater flows from May 2021 through April 2022 and the wastewater flows projected from the Hotel and Event Center Project, the future daily wastewater flows to the WWTP are projected as follows:

- Maximum daily flow of 166,403 gpd (150,033 gpd without cooling tower blowdown);
- Maximum month average flow of 142,110 gpd (125,740 gpd without cooling tower blowdown); and
- Yearly average flow of 129,635 gpd (113,265 gpd without cooling tower blowdown).

The projected reuse water and the projected treated effluent that may be required to be discharged to the Creek using the Tribe's NPDES permit are displayed in Table 9 and Figure 5. These estimates are based on the historical flows from May 2021 through April 2022 and the projected increase in treated effluent and reuse water requirements from Section 3.3.

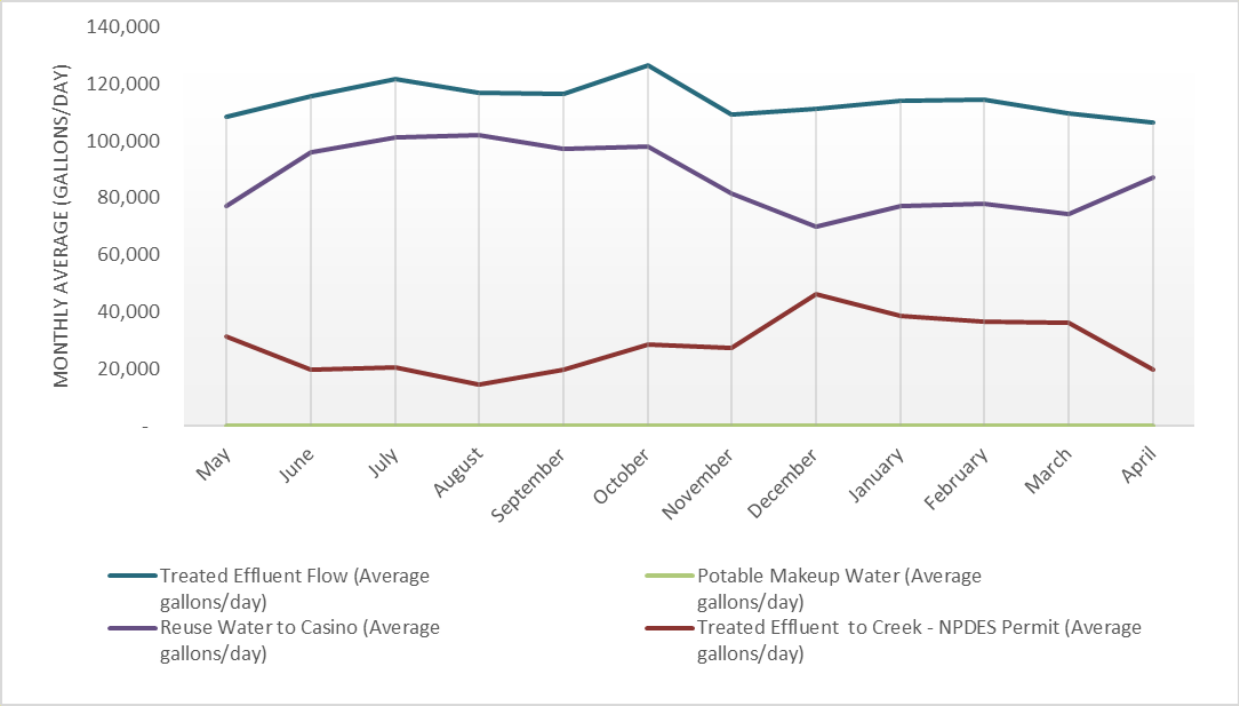
Table 9: Projected WWTP Treated Effluent Flows, Potable Makeup Water, Reuse Water, & Treated Effluent Discharge

Month	Historical Data[1]				Projected Increase			Future Estimate			
	Treated Effluent Flow (Average gallons/day)	Potable Makeup Water (Average gallons/day)	Reuse Water to Casino (Average gallons/day)	Treated Effluent Trucked Offsite (Average gallons/day)	Treated Effluent Flow[2] (Average gallons/day)	Reuse Water to Casino (Average gallons/day)	Net Increase in Treated Efluent (to be used inlieu of potable water for reuse or discharged) (Average gallons/day)	Treated Effluent Flow (Average gallons/day)	Potable Makeup Water (Average gallons/day)	Reuse Water to Casino (Average gallons/day)	Treated Effluent to Creek - NPDES Permit (Average gallons/day)
	A	B	C=A+B-D	D	A1	C1	E=A1-C1	A2=A+A1	B2=C2-A2 (value 0 if negative)	C2=C+C1	D2=A2-C2 (value 0 if negative) Also D2=E-B
May	52,910	5,805	58,715	-	55,448	18,336	37,112	108,358	0	77,051	31,307
June	60,198	17,544	77,741	-	55,448	18,336	37,112	115,646	0	96,077	19,568
July	66,284	16,619	82,903	-	55,448	18,336	37,112	121,732	0	101,239	20,493
August	61,422	22,413	83,834	-	55,448	18,336	37,112	116,870	0	102,170	14,699
September	61,117	17,564	78,681	-	55,448	18,336	37,112	116,565	0	97,017	19,548
October	71,296	8,352	79,648	-	55,448	18,336	37,112	126,744	0	97,984	28,760
November	53,680	9,560	63,240	-	55,448	18,336	37,112	109,128	0	81,576	27,552
December	55,896	217	51,372	4,742	55,448	18,336	37,112	111,344	0	69,708	46,379
January	58,769	1,490	58,768	1,490	55,448	18,336	37,112	114,217	0	77,104	38,603
February	58,960	1,254	59,765	450	55,448	18,336	37,112	114,408	0	78,101	36,758
March	54,317	2,220	55,860	677	55,448	18,336	37,112	109,765	0	74,196	36,247
April	51,006	17,998	68,724	280	55,448	18,336	37,112	106,454	0	87,060	19,674

1 Based on May 2021 through April 2022 Flows

2 Assumed to be same as the projected wastewater generation from Table 7

Figure 5: Projected Future WWTP Effluent and Water Reuse Average Monthly Flows



The volume of reuse water required for the Casino Hotel and Event Center Project is not projected to increase significantly - 18,366 gpd (refer to Section 3.3 for recycled water demand details) - compared to the overall increase in influent wastewater flows - 55,448 gpd - to the WWTP. The net increase in excess wastewater flows that would not be reused as recycled water by the proposed Hotel and Event Center Project is 37,112 gpd as identified in Table 9. This net increase will be required to be used as recycled water for the existing Casino demand, trucked off-site, or discharged to the Creek using the Tribe's NPDES permit.

The portion of the net increase of excess wastewater flows that can used as recycled water for the existing Casino demand will be the volume used to offset potable makeup water that was historically used to supplement the treated effluent shortfalls. The historical monthly average daily volume of potable makeup water that was utilized as recycled water, as identified in Table 9, ranged from 217 to 22,413 gpd (utilizing the period from May 2021 to April 2021) with the higher potable makeup water demand in the summer months and lower potable water demands in the winter months. The resulting future estimated potable makeup water demand is "0" gpd (no potable makeup water is projected to be added) with the excess treated wastewater flows supplying its demand as recycled water. The remainder of the net increase of excess wastewater flows not being used in lieu of potable makeup water will be required to be discharged to the Creek using the Tribe's NPDES permit (maximum 68,000 gpd). The future estimate of the monthly average gpd of treated effluent that will be required to be discharged to the Creek will also include the historical volume of treated effluent that has been trucked off-site for disposal. The future monthly average gpd of treated effluent to be discharged to the Creek using the Tribe's NPDES permit is estimated to range from 14,699 gpd to 46,379 gpd with the higher discharges in the summer months and the lower discharges in the winter months.

The total volume of waste trucked off-site for disposal will also increase as identified in Table 10 below. Based on approximately doubling of the yearly average flows to the WWTP (57,817 gpd to 113,265 gpd as identified in Table 8), the Brine Waste, Activated Sludge, and Domestic Waste are projected to increase proportionally to the increase in flows essentially doubling. The treated effluent flows from the WWTP will be utilized for reuse or will be discharged to the Creek using the Tribe's NPDES permit (it is projected that it will not be trucked off-site for disposal). Thus, the total annual volume and truck loads of waste hauled off-site are projected to increase from 3,490,200 gallons per year and 831 truck loads per year (~69 loads per month) to an estimated volume of 6,236,755 gallons per year and 1,485 truck loads per year (~124 loads per month).

Table 10: Projected Future WWTP Waste and Effluent Trucked Off-site for Disposal

Year	Brine Waste		Activated Sludge		Domestic Waste		Treated Effluent		Total Trucked Off-Site	
	Total (gallons)	Total Loads Trucked Off-site	Total (gallons)	Total Loads Trucked Off-site	Total (gallons)	Total Loads Trucked Off-site	Total (gallons)	Loads of Waste Trucked Off-site	Total (gallons)	Total Loads Trucked Off-site
	A	A1	B	B1	C	C1	D	D1	E=A+B+C+D	E1=A1+B1+C1+D1
Historical Data (2021)[1]	2,461,200	586	659,400	157	63,000	15	306,600	73	3,490,200	831
Future Estimate[2]	4,821,555	1,148	1,291,782	308	123,419	29	0[3]	0[3]	6,236,755	1,485
Net Change for Proposed Project	2,360,355	562	632,382	151	60,419	14	-306,600	-73	2,746,555	654

1 Based on 2021 Trucked Off-site Totals.

2 Future Estimate Total is projected based on WWTP yearly average daily influent flow increasing from 57,817 gpd in 2021 to 113,265 gpd (~1.96 times the 2021 value) in the future with no cooling tower blowdown and with all treated effluent not used for reused discharged to Willow Creek using the NPDES Permit.

3 Future Estimate Total assumes all treated effluent not used as a source for recycled water will be discharged to Willow Creek using the NPDES Permit. Thus, no ("0") Loads of Treated Effluent are projected to be Hauled Off-site.

2.4 Wastewater Recommendations

The wastewater recommendations are as follows:

1. The existing WWTP does not have design capacity to treat the current and projected increases in influent wastewater flows from the new Casino Hotel and Event Center Project. The future influent wastewater flows to the WWTP are approximately double of the design flows for the facility. The existing WWTP is designed for an average wastewater flow of 68,000 gpd and the future maximum month average flow is projected to be ~141,086 gpd (125,228 gpd without cooling tower blowdown) and the maximum daily flow is projected to be 165,379 gpd (149,521 gpd without cooling tower blowdown).

   Thus, an upgrade to the WWTP has been planned to increase the capacity of the of the current facility to meet current and projected increases wastewater flow requirements from the Casino Hotel and Event Center Project . The upgraded WWTP will increase the design average daily flow from 68,000 gpd to 150,000 gpd and will be designed to treat the wastewater to meet the Department of Drinking Water (DDW) Title 22 standards for disinfected tertiary recycled water and to meet the Tribe's NPDES permit requirements. This will enable the Casino to reuse the recycled water for irrigation purposes, toilet flushing, and as a water source for the cooling towers. Additionally, this will enable excess treated wastewater not used for recycling to be discharged to the Willow Creek within the Reservation utilizing the Tribe's NPDES permit if it is not trucked off-site for disposal.

   The upgrade to the WWTP processes required to accommodate the new design flows will require installation of new tankage and equipment. Not all of this equipment and tankage will be able to be located in the existing WWTP building and will be required to be installed in a new location/treatment room. The key processes that will remain and be expanded/upgraded in the existing WWTP building are the Biological (Aerobic/Anoxic) Treatment System, Clarification (MBR) System, and Sludge Processing System designs that require the aeration basins, blowers, and associated equipment and instruments. The upgrade for these systems will require repurposing of the below grade Effluent Storage Tank beneath the WWTP existing building to provide the location for a new Aeration Basin (increasing the quantity of basins from 2 to 3) associated with the Biological (Aerobic/Anoxic) Treatment System and to expand the Digester Basin associated with the Sludge Processing System.

   A new Wastewater Treatment Room is planned to be constructed west of the existing WWTP Building in the first-floor most southern bay of the parking structure associated with the new Casino Hotel to accommodate the processes and tankage that will not be able to be located in the existing WWTP Building - due to insufficient space (processes downstream [or after] of the Clarification (MBR) System process). The tankage and processes are as follows: TDS Removal Systems, Disinfection and odor Control Systems, Recycled Water Pumping System, Dichlorination System, Wastewater Cooling System, Brine Storage System (below grade tank and pumping system), and Off-Specification Storage System (below grade tank and pumping system). A new Effluent Water Storage Tank for storing treated wastewater for the recycled water system is planned to be installed beneath (below grade) the first-floor bay of the parking structure adjacent (north) to the new Wastewater Treatment Room.

Additionally, to increase the capacity of the WWTP, the cooling tower blowdown is planned to be treated at the cooling towers utilizing a Reverse Osmosis (RO) System for TDS removal similar to the RO Systems used at the WWTP and, thus, the blowdown will not be discharged as a part of the wastewater flows to the WWTP for treatment. The treated water from the new cooling tower RO treatment system will be used as makeup water for the cooling tower and the waste stream – brine waste - from the treatment system will be discharged to the Brine Storage Tank at the WWTP and will be trucked off-site for disposal.

2. The WWTP has not historically discharged tertiary treated wastewater effluent to the Creek utilizing the Tribe's NPDES permit (maximum 68,000 gpd). With the increase of wastewater flows to the WWTP, not all of the treated wastewater will be able to be utilized as reuse water and, therefore, excess treated wastewater would be discharged to the Creek utilizing the Tribe's NPDES permit. The monthly average volumes to be discharged is estimated to range from 14,699 gpd to 46,379 gpd with the higher discharges in the summer months and the lower discharges in the winter months (refer to Table 9 for details). Note: The current NPDES permit is in the process of being extended.

3. The volume of waste and number of truck loads required to haul WWTP waste off-site for disposal is projected to increase from 3,490,200 gallons per year and 831 truck loads per year (~69 loads per month) to an estimated volume of 6,236,755 gallons per year and 1,485 truck loads per year (~124 loads per month). These quantities assume the treated effluent flows from the WWTP will be utilized for reuse or will be discharged to the Creek using the Tribe's NPDES permit – this assumes that treated effluent will not be trucked off-site for disposal. If the NPDES permit is not utilized, the number of loads trucked off-site will be greater. To accommodate the increase in trucking demand, an additional truck is recommended to supplement the existing truck to haul waste off-site for disposal.

3.0 WATER

3.1 Water Supply

The Jamul Casino receives its water supply from the Otay Water District (OWD), which is a publicly owned retail water and sewer agency serving a 125.5 square mile portion of southern San Diego County. OWD's boundaries encompass a large portion of eastern Chula Vista, a portion of the city of San Diego on Otay Mesa, and various unincorporated areas, including Rancho San Diego, Jamul, Spring Valley, Bonita, Otay Mesa, and areas adjacent to El Cajon and La Mesa.

The OWD provides water service to almost all of the area within its boundaries, encompassing approximately 200,000 residents and making the OWD the second largest water purveyor by population in San Diego County. OWD was authorized as a California Special District by the State Legislature in 1956, under the provisions of the Municipal Water District Code.

The OWD has a 12-inch water main in Campo Road that supplies water to the Jamul Casino through a 12-inch lateral on the east side of the property (Refer to Appendix A, OWD Capacity Determination Letter - Jamul Casino Hotel_APN 597-060-06-00_5-11-22).

3.2 Water Historical Usage

The water usage for the Jamul Casino for 2021 and 2022 (through March) has been tabulated and is summarized in Table 11 (below). The average water usage for the period is 30,383 gpd with a minimum usage of 22,576 in January 2022 and a maximum usage of 46,197 in August 2021. The higher water usage is in the summer (hotter) months where potable water was used as makeup water to supplement the WWTP treated effluent wastewater as sources for recycled water (see Figure 4, Section 2.2.2)

Table 11: Jamul Casino - Historical Water Usage (2021 – 2022 through March)

Year	Month	Billing Period (Days)	Service From	Service To	Usage (HCF)	Usage (Gallons)	Avg. Daily Use (GPD)-Calculated
2021	January	33	12/10/2020	1/12/2021	1,100	822,800	24,933
	February	28	1/13/2021	2/9/2021	848	634,304	22,654
	March	28	2/10/2021	3/9/2021	887	663,476	23,696
	April	30	3/10/2021	4/8/2021	994	743,512	24,784
	May	33	4/9/2021	5/11/2021	1,263	944,724	28,628
	June	28	5/12/2021	6/8/2021	1,067	798,116	28,504
	July	31	6/9/2021	7/9/2021	1,705	1,275,340	41,140
	August	32	7/10/2021	8/10/2021	1,848	1,382,304	43,197
	September	30	8/11/2021	9/10/2021	1,718	1,285,064	42,835
	October	33	9/11/2021	10/13/2021	1,639	1,225,972	37,151
	November	27	10/14/2021	11/9/2021	998	746,504	27,648
	December	30	11/10/2021	12/9/2021	1,292	966,416	32,214
2022	January	33	12/10/2021	1/11/2022	996	745,008	22,576
	February	28	1/12/2022	2/8/2022	980	733,040	26,180
	March	28	2/9/2022	3/8/2022	1,108	828,784	29,599
				Min	848	634,304	22,576
				Max	1,848	1,382,304	43,197
				Avg	1,230	919,691	30,383
				Total	18,443	13,795,364	455,739

HCF - hundred cubic feet

GPD - gallons per day

The Jamul Casino utilizes recycled water at the property for irrigation purposes, toilet flushing, and as a water source for the cooling tower. The water is primarily supplied from the WWTP treated effluent that meets or exceeds DDW Title 22 standards for disinfected tertiary recycled water. The recycled water is also supplemented with potable water to meet recycled water demands on the property. Table 9 and Figure 5, Section 2.2.3, displays the recycled water utilized historically at the property and the contribution of WWTP treated effluent and potable water utilized to meet the demand. The historical monthly average daily volume of recycled water supplied to the Casino ranged from 51,372 gpd to 83,834 gpd (from May 2021 to April 2021) with the higher potable makeup water demand in the summer months and lower potable water demands in the winter months. Potable makeup water was used as a supplemental source

for recycled water during this period that ranged from 217 gpd to 22,413 gpd with the higher potable makeup water demand in the summer months and lower potable water demands in the winter months, similar to the recycled water that was supplied during the winter and summer months.

3.3 Water Estimated Future Demand

Water demands for the Casino Hotel and Event Center Project were projected based on typical flow factors for hotel rooms and facility uses taken from the City of Los Angeles Sewage Generation Factors Chart, and professional experience. These water demands estimates are documented in in Table 7, Section 2.3. The projected water demand for the Casino Hotel and Event Center is 57,690 gpd and with the addition of a Hotel Cooling Tower the demand is 68,940 gpd. This new demand is in addition to the current monthly average demand of 30,383 gpd and the maximum monthly average demand identified in Table 11, Section 3.2. The combined future monthly average demand is 88,073 gpd (maximum monthly average 100,887 gpd) and with the addition of a Hotel Cooling Tower, the monthly average demand is 99,323 gpd (maximum monthly average 112,137 gpd) as identified in Table 12 below. Note: These values assume that there are no new recycled water requirements related to the new Hotel and Casino Event Center where reuse water could be used instead of potable water.

Table 12: Projected Future Potable Water Demand

Historical Potable Water Usage[1]		New Demand for Potable Water[2]		Projected Future Potable Water Demand (assuming no new reuse water requirements Hotel and Casino Event Center)		Projected Increase in Reuse Water To Be Used Versus Potable Water Requirement for the Hotel and Casino Event Center						Projected Future Potable Water Demand (new reuse water requirements Hotel and Casino Event Center supplied by Recycled Water System)	
		Less Hotel Cooling Tower	With Hotel Cooling Tower	Less Hotel Cooling Tower	With Hotel Cooling Tower	Toilet Flushing (Hotel)	Toilet Flushing (Casino)	Cooling Demand (Casino)	Total Projected Increase in Reuse Without Hotel Cooling Tower	Cooling Demand (Hotel)	Total Projected Increase in Reuse With Hotel Cooling Tower	Less Hotel Cooling Tower	With Hotel Cooling Tower
(Average gallons/day)		(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)	(Average gallons/day)
A		B	B1	C=A+B	C1=A+B1	D1	D2	D3	E=D1+D2+D3	D4	F=E+D4	G=C-E	H=C1-F
Monthly Average	30,383	57,690	68,940	88,073	99,323	1,900	3,650	1,536	7,086	11,250	18,336	80,987	80,987
Maximum Monthly Average	43,197	57,690	68,940	100,887	112,137	1,900	3,650	1,536	7,086	11,250	18,336	93,801	93,801

1 Based on historical water usage data from January 2021 to March 2022 - Table 9

2 Based on projected water demand- Table 7

The recycled water requirements for the new Hotel and Casino Event Center are projected to increase by approximately 18,336 gpd as identified in Table 11 above. The increase is attributable to: ~1,900 gpd for toilet flushing at for the Hotel (estimate of 4 flushes per occupied room per day for guests and ~2.6 flushes per occupied room per day for staff, at 1.28 gallons per flush with a total of 225 rooms), ~ 3,650 gpd for toilet flushing at for the Casino Event Center (estimate 30% of the Water Usage Requirements for the Casino Event Center – Table 7); ~1,536 gpd for cooling demand for the Casino Event Center (Table7); and approximately 11,250 gpd for the New Hotel cooling tower (refer to Table 7). The projected future water potable water demand is 80,987 gpd (90.7 acre-foot per year) based on the monthly average due to the reduction of potable water demand being filled by reuse water for areas in the new Hotel and Casino Event Center that can utilize recycled water.

The future estimated reuse water demand (identified in Section 2.3, Table 9 and Figure 5) ranges from 69,708 gpd to 102,170 gpd with the higher demands generally in the summer months and the lower demands in the winter months.

3.4 Water Recommendations / Requirements

A request to OWD was submitted to determine their ability to supply projected future water demands to the expanded Jamul Casino. The request was submitted early in the water assessment process when projected demands were significantly higher (~180,000 gpd) than the current projected maximum volume (80,987 gpd). The OWD identified in their response (Appendix A: Appendix A, OWD Capacity Determination Letter – Jamul Casino Hotel_APN 597-060-06-00_5-11-22) that they have no objection to serving the project site with the requested volume of water. They also stated that the Jamul Casino Hotel and Event Center Project can be served by the existing 12-inch potable water main on Campo Road that extends through a 12-inch lateral onto the Jamul Casino property. The existing service for the Jamul Casino is through a 4-inch potable water meter (maximum flow 800 gpm) connected to the 12-inch lateral.

The potable water supply for the new Hotel is planned to be from OWD's existing 12-inch lateral and existing 4-inch water meter that is used to supply potable water to the Jamul Casino (as identified above).

APPENDIX A

...Dedicated to Community Service
2554 SWEETWATER SPRINGS BOULEVARD, SPRING VALLEY, CALIFORNIA 91978-2004
TELEPHONE: 670-2222, AREA CODE 619 www.otaywater.gov

Sent via email to: vreddy@eecenvironmental.com

May 11, 2022

Project No.: P1438-010000
Activity: 3111

Varshini Reddy
EEC Environmental
One City Boulevard West, Suite 1800
Orange, CA 92868

Subject: Jamul Casino Hotel
Project Description: Remodel existing Jamul Casino to include a new event center and 226 room hotel
Address: 14145 Campo Road, Jamul, CA 91935
APN: 597-060-06-00

Dear Mr. Reddy:

The Otay Water District ("District") has no objection to the subject Project ("Project"). As provided to the District, the Project consists of one (1) parcel totaling 4.03 acres for the proposed Jamul Casino new event center and hotel. The Project can be served by an existing 12-inch potable water main on Campo Road.

The Project site is currently served by one 4.0-inch potable water meter 800 GPM maximum. If any modifications to the existing water systems are proposed, the developer will be required to submit improvement plans for District approval and pay all fees, including plan review, inspection, water meter installation, and capacity fees prior to any work. The developer will be required to confirm that the new Project water demands can be served by the existing meters. If service laterals do not exist for the Project, the developer must pay to have the District install them.

The developer must comply with Section 62.01 of the District's Code of Ordinances, "To provide for future line extensions, pipelines installed within public streets must be constructed to the subdivision boundary and pipelines not installed within a public street must be installed in a District easement or right-of-way and must extend across the frontage of the parcel or parcels to be served."

When a customer requests water service on a parcel of land with potable irrigated landscape equal to 5,000 square feet or more, a separate meter will be required for irrigation purposes on the site.

Fire service plans must be designed to Water Agencies' Standards. Each service must have an approved reduced pressure principal backflow prevention device (R/P) purchased and installed by the developer after District review and approval. The developer should contact the Project's fire agency for any fire protection requirements and determine early on how the fire protection requirements can be met from the existing pressure zone.

The fire service line will not be allowed to be connected to any buildings; the line will be intended for fire services purposes only. Failure to comply with this request will result in violation of the District's Code of Ordinances and will be subject to penalties determined by the District. Water furnished for fire hydrant or fire sprinkler service shall be used only for fire protection purposes and shall be connected to a District water main. Where service is provided for a fire hydrant or fire sprinkler service on privately-owned land, the service shall be provided by the District at the property line of land to be served.

Water availability is subject to all District requirements in effect at the time and you are strongly encouraged to adopt water conservation measures throughout the development.

The District's Engineering Public Services Division can be contacted at (619) 670-2241 or visit the website at http://otaywater.gov/engineering-services/public-services/ for further requirements regarding inspection services, water main extensions, service laterals, backflow devices, and meter costs. Also, visit the District's website at www.otaywater.gov/code-of-ordinances for sections pertaining to the Project and any other conditions that may have arisen since this letter was written for this Project.

Sincerely,
OTAY WATER DISTRICT

Michael J. Long, P.E., QSP
Engineering Manager

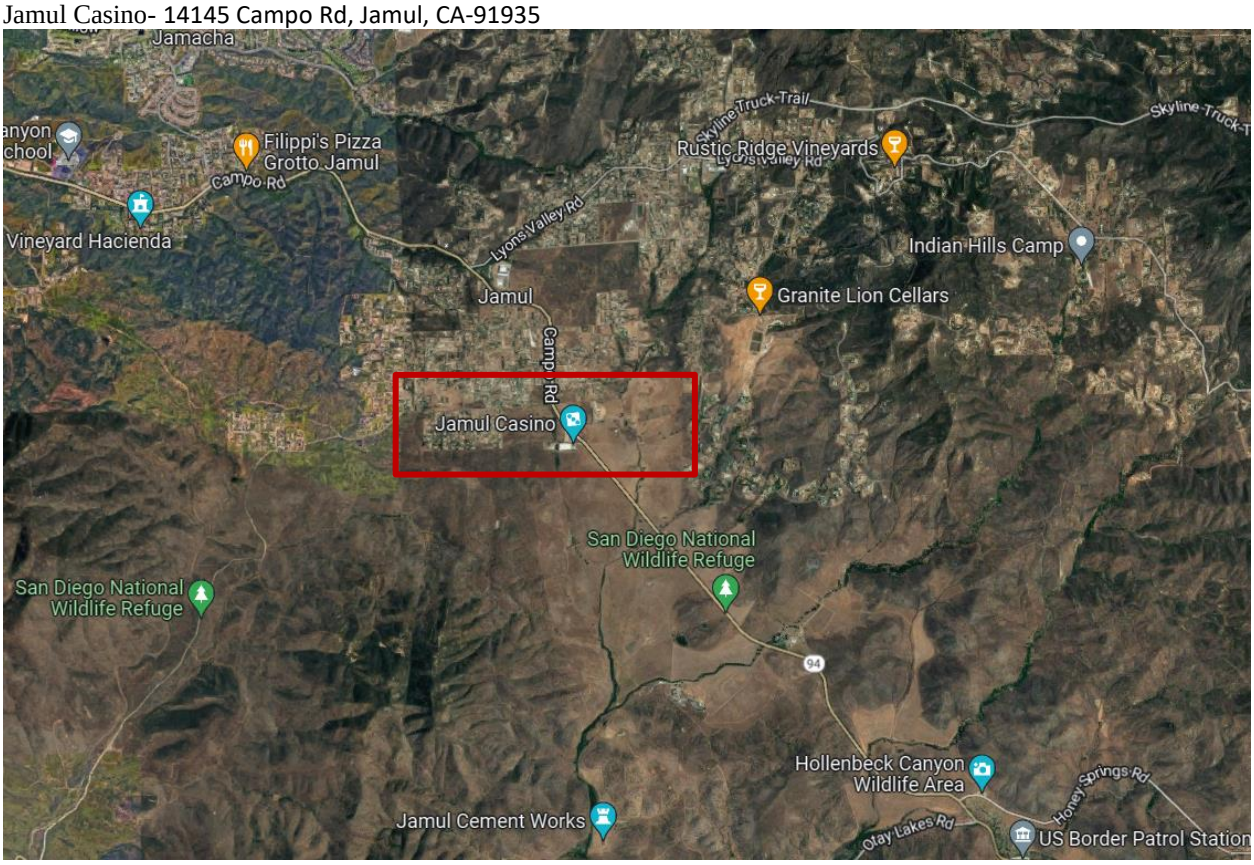
MJL:jf


CA-94
Campo Rd
RD.
Highway 94
Peaceful Valley Ranch Rd
PEACEFUL VALL
5970700600
5970600200
5970600800
5970600700
ROW
91935
5970600600
5970700200
204
205
Casino Jamul- Hotel
5970800500
5970800600
5970800400
5970800700
5970800800
MAP: 205
AB: 117-09
ID: 22
Pzone: 1296
Existing 12" Potable
Water Main
Existing 4" Potable
Meter#

EEC ENVIRONMENTAL
Corporate Office
Tel: (714) 667-2300
Fax: (714) 667-2310
One City Boulevard West, Suite 1800
Orange, California 92868
www.eecenvironmental.com

Project Location

Jamul Casino- 14145 Campo Rd, Jamul, CA-91935



Project Description

The Proposed Project consists of remodeling the existing Jamul Casino to include a new event center and 226-room hotel. The proposed remodeling would eliminate the second and fourth floors of the existing Casino building and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. The existing restaurant located on the second floor of the casino building would be relocated to the third floor with no changes in occupant capacity. Existing office space on the eastern portion of the third floor would be relocated to an expanded area of the western portion of the third floor. The new event venue would result in a net increase of approximately 35,000 sf of enclosed, covered outdoor, and uncovered outdoor areas. No expansion of the gaming floor or increase in the number of slot machines or table games are proposed.

The new hotel and associated parking structure would be located west of the existing casino building with access to the casino building provided through a new pedestrian bridge and new vehicular bridge over Willow Creek, which bisects the Jamul Reservation immediately west of the existing casino building. The new 226-room hotel would consist of 16 stories including 3 levels of back-of-house, a hotel lobby level with approximately 4,800 sf restaurant, a spa level with outdoor deck, 10 levels of guest rooms, and a rooftop pool deck. The new four-story parking structure would be located south of the new hotel building and would connect to the hotel lobby, the eastern portions of the upper two stories would be constructed over the existing wastewater treatment plant. The existing tribal community center and fire station would be demolished to accommodate the footprint of the new hotel and parking structure.

Water Consumption Estimate

An estimate of the likely and expected water consumption of the hotel was undertaken. The two key references for the estimation were (i) City of Ventura- Comprehensive Water Resource Report (May 2021) and (ii) City of LA- CEQA Thresholds Guide (2006). Assuming two persons per room, this works out to 100 GPD per person or 200 GPD per room for total consumption. The estimated water consumption presented in Table are based on the number of bedrooms in the hotel.

	Location		Area (SFT)	Assumed Values	Unit	Water Usage (GPD)
Proposed Hotel Tower						
	Guestroom modules in all levels	226	92,100	200	gpd/room	45200
	SPA level guestroom	13	15,350	300	gpd/ksf	3900
	Rooftop Pool Deck		15,350	100	gpd/ksf	1535
	MEP Transfer		15,350	250	gpd/ksf	3838
	New Event Venue Outdoor		25,500	4	gpd/seat	10200
	Multipurpose/Bingo Hall		9,250	400	gpd/ksf	3700
	Food & Beverage		4,800	700	gpd/ksf	3360
	Lobby		12,995	100	gpd/ksf	1300
	Front Office		3,320	100	gpd/ksf	332
	Parking Level P4		6,150	25	gpd/ksf	154
	Parking Level P5		6,150	25	gpd/ksf	154
	Parking Level P7		6,150	25	gpd/ksf	154
	Pedestrian Bridge		1,770	25	gpd/ksf	44
	Vehicular Bridge		7,550	25	gpd/ksf	189
Proposed Parking						
	Lobby Level Parking P8		39,670	25	gpd/ksf	992
	Parking Level P4		21,376	25	gpd/ksf	534
	Parking Level P5		21,376	25	gpd/ksf	534
	Parking Level P7		39,670	25	gpd/ksf	992
Cooling Towers	Cooling Tower			4.5	gpm/100ton	103680
	Total		343,877			180,791

gpd *Gallons Per Day*

gpd/ksf *Gallons Per Day Per 1000 Square Feet*

Appendix D

Preliminary Drainage Analysis



PRELIMINARY DRAINAGE STUDY

JAMUL CASINO HOTEL AND EVENT CENTER PROJECT
14145 Campo Road
Jamul, California 91935

Original Submittal Date September 8, 2022

Prepared for:

Acorn Environmental
c/o Bibiana Alvarez
5170 Golden Foothill Parkway
El Dorado Hills, CA 95762

Prepared by:

SAN DIEGUITO ENGINEERING, INC.
Engineering | Surveying | Planning

San Dieguito Engineering, Inc.
1911 Palomar Oaks Way, Suite 200
Carlsbad, CA 92008
P: (858) 345-1149
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SDE Contact Person:

Raymond L. Escobar, RCE #72463
SDE Project Number 5481.13

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DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

BY: _____ DATE: 9/7/22
(Raymond L Escobar)

RCE NO.: 72463 EXPIRES: 06/30/2024



SAN DIEGUITO ENGINEERING, INC.
5911 PALOMAR OAKS WAY, #22
CARLSBAD, CALIFORNIA 92008
PHONE: (858) 345-1149

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Introduction

This preliminary drainage study presents an analysis of the effects that the proposed Jamul Casino Hotel, new garage, and casino improvements may have on the *quantity* and *pattern* of storm water runoff in the local watershed. The purpose of this report is to help fulfill requirements of the Tribal Environmental Impact Report (TEIR). Storm water *quality* for the project is assessed in a memo prepared under separate cover from this document.

This study examines the existing and proposed hydrology of the site and nearby watershed and presents preliminary design engineering recommendations for the project drainage facilities.

Section 1 – Project Information

This section describes the location, activities, and hydrologic setting (watershed, topography, land use, soils and vegetation, drainage patterns, and impervious cover) of the project site.

1.1 Project Description

The Jamul Indian Village of California (Tribe) is proposing to expand its Jamul Casino with the addition of a hotel, event center, additional parking garage, and associated infrastructure. The proposed improvements will be developed on the Tribe's existing Reservation. The existing facility includes a 203,130 sf -square-foot (sf) casino and an eight-level parking garage. The proposed hotel will consist of a total of 16 floors, with 10 floors of guest rooms, roof-top pool, spa, restaurant, and banquet space. The proposed hotel will provide up to 225 rooms and be developed on the west side of the Reservation. An additional parking garage will be located south of the proposed hotel building. The proposed parking garage will have 6 levels and provide 290 parking spaces. The existing tribal community center and administration building currently located on the west side of the Reservation will be relocated to accommodate the footprint of the new hotel and parking structure. The existing casino building will be remodeled to eliminate the second floor (which is a veranda level between the main casino floor and the third floor, and the location of a restaurant) and the fourth floor (currently the rooftop lounge) of the existing Casino building and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. Other existing dining, office, circulation, and support spaces will be reconfigured or relocated within the Casino, but not expanded. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed.

1.1.1 Project Location

The Reservation consists of approximately six acres of federal trust land located in unincorporated San Diego County, approximately one mile south of the community of Jamul (Figure 1). The Jamul Casino is located on the Reservation at 14145 Campo Road, Jamul, CA 91935. The Reservation is located within

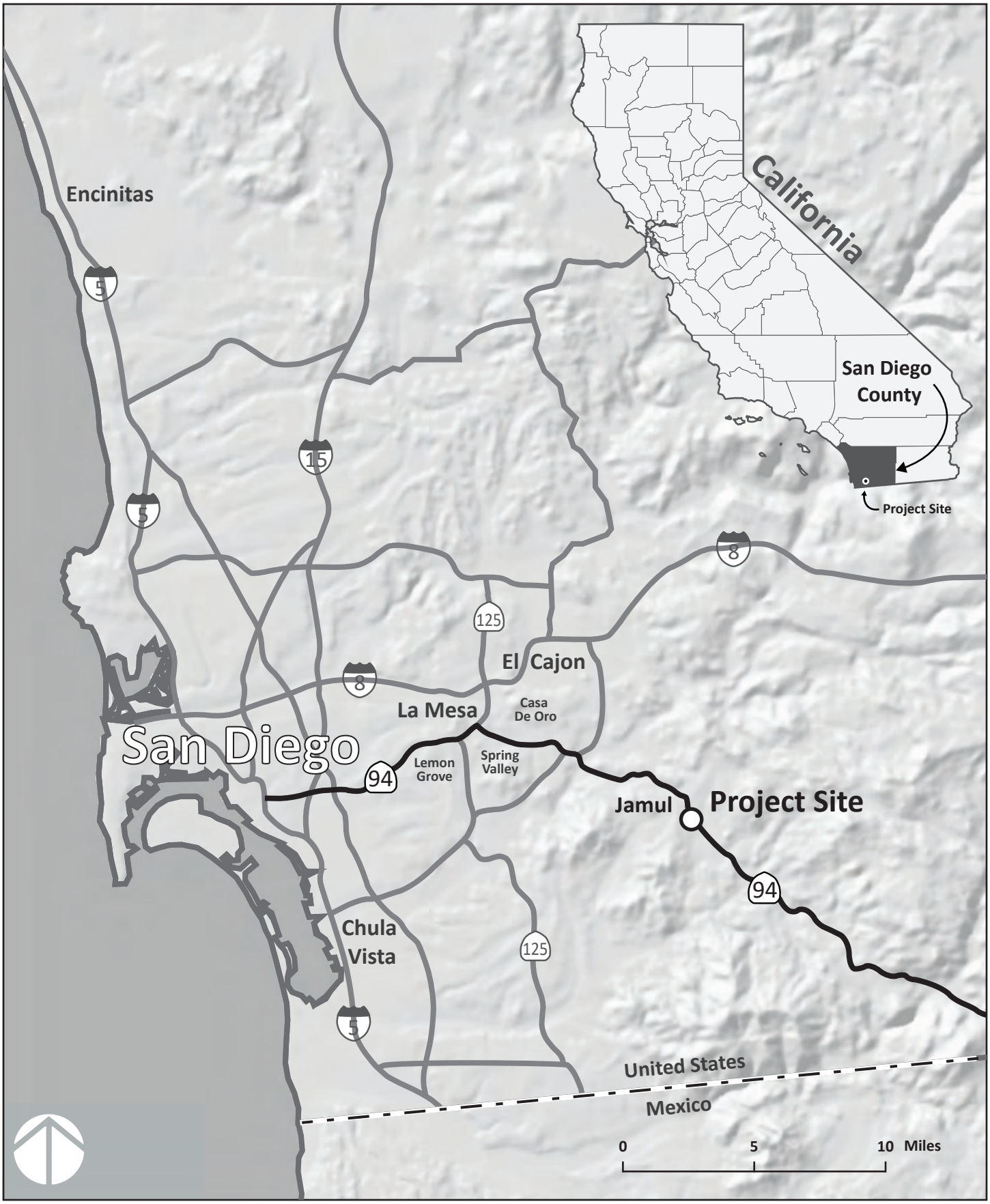


FIGURE 1

REGIONAL LOCATION

portions of Section 10 and unsectioned areas of Township 17 S, Range 1 East, San Bernardino Baseline and Meridian.

State Route 94 (SR 94) provides regional access to the Reservation from downtown San Diego, which is located approximately 20 miles to the west of the Reservation. Local access to the Reservation is provided directly from SR 94 via Daisy Drive and an access road limited to authorized vehicles.

1.1.2 Project Activities Description

The Proposed Project consists of remodeling the existing Jamul Casino to include a new event center, 225-room hotel, and associated parking and infrastructure. Currently, the Jamul Casino occupies four levels above an eight-level parking garage. The main casino floor is the first building floor and there are three floor levels above main casino floor. The second floor is a partial level that provides a restaurant with veranda and allows circulation between the main casino floor and the fourth floor. The third floor provides kitchen and administrative office space. The fourth floor is a partial level that provides a rooftop lounge terrace.

The proposed remodeling would eliminate the second floor and the fourth floor and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. The existing restaurant located on the second floor of the casino building would be relocated to the third floor with no changes in occupant capacity. Approximately 11,838 sf of existing office space on the eastern portion of the third floor would be relocated to an expanded area of the western portion of the third floor (Figure 2). The new event venue would result in a net increase of approximately 35,000 sf of enclosed, covered outdoor, and uncovered outdoor areas. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed. Table 1 provides a summary of the existing and proposed development.

A new hotel and associated parking structure would be developed west of the existing casino building with pedestrian access to the casino building provided by a new bridge over Willow Creek, which bisects the Reservation immediately west of the existing casino building (Figure 2). The proposed 225-room hotel would consist of 16 stories including a banquet hall (Floor 2), a hotel lobby level with restaurant (Floor 3), a spa level with outdoor deck (Floor 4), 10 levels of guest rooms (Floors 5 through 14), a rooftop pool deck (Floor 16), and 2 levels of back-of-house/mechanical (Floors 1 and 15). The height of the hotel tower would be at an elevation of approximately 1,128 feet above mean sea level (AMSL), which is approximately 225 feet above ground level and 116 feet taller than the existing casino building. A new 6-story parking structure would be developed south of the new hotel building and would connect to the hotel lobby. The existing tribal community center and administration building would be removed to accommodate the footprint of the new hotel and parking structure. There are several options under consideration for relocation of the Tribal administration and community facilities, including utilizing space within the expanded third floor administrative areas of the casino, purchase of an off-site property with an existing building, or leasing existing office space within the region.

Table 1: Existing and Proposed Development

	Existing	Proposed Change	Proposed New Total
Casino			
First Floor	125,850 sf	—	125,850 sf
Casino Floor	*68,262 sf*	—	*68,262 sf*
Restaurants/Bars	*29,035 sf*	—	*29,035 sf*
Misc. and Circulation	*28,553 sf*	—	*28,553 sf*
Second Floor	8,110 sf	(6,907 sf)	1,203 sf
Restaurant/Bars (Loft 94)	*248 seats / 4,549 sf*	*(4,549 sf)*	*0 sf*
Misc. and Circulation	*3,561 sf*	*(2,358 sf)*	*1,203 sf*
Third Floor	60,132 sf	50,983 sf	111,115 sf
Outdoor Event Center	—	*25,514 sf*	*25,514 sf*
Bingo Hall	—	*9,233 sf*	*9,233 sf*
Restaurant/Bars (relocated Loft 94)	—	*248 seats / 7,449 sf*	*248 seats / 7,449 sf*
Office, Misc., and Circulation	*60,132 sf*	—	*60,132 sf*
Fourth Floor	9,038 sf	(9,038 sf)	0 sf
Restaurant/Bars (Loft 94 roof deck)	*5,604 sf*	*(5,604 sf)*	*0 sf*
Misc. and Circulation	*3,434 sf*	*(3,434 sf)*	*0 sf*
Total Casino (Floors 1-4)	203,130 sf	35,038 sf	238,168 sf
Hotel			
Guest Rooms		225 rooms	225 rooms
Dining	—	92 seats/6,724 sf	92 seats/6,724 sf
Banquet	—	187 seats/5,180 sf	187 seats/5,180 sf
Bar	—	49 seats/1,242 sf	49 seats/1,242 sf
Rooftop Pool Deck	—	14,608 sf	14,608 sf
Fitness Center	—	900 sf	900 sf
Spa	—	8,600 sf	8,600 sf
Total Hotel	—	16 floors/253,390 sf	16 floors/253,390 sf
Hotel Parking	—	290 spaces/111,415 sf	290 spaces/111,415 sf

Notes: All measurements are approximate; sf = square feet of building area; (x) = reduction in square footage



Source: JCJ Architecture

FIGURE 2

SITE PLAN

1.1.3 Access

Access to the Reservation is provided directly from SR 94 via Daisy Drive. The intersection of SR 94 and Daisy Drive is a signalized intersection. In the vicinity of the Reservation, SR 94 is a two-lane highway. Dedicated turning lanes are provided on SR 94 at the Daisy Drive intersection. No changes are proposed to the existing off-Reservation roadways and driveways serving the site. Circulation to the proposed hotel and associated parking garage would be provided through extensions to the existing roadway on the Reservation. The existing access road to the chapel and cemetery located west of the Reservation will be preserved.

1.2 Hydrologic Setting

This section summarizes the project's size and location in context of the larger watershed perspective, topography, soil and vegetation conditions, percent impervious area, natural and infrastructure drainage features, and other relevant hydrologic and environmental factors specific to the project area's watershed.

The project site is located in the 98,500-acre Otay Watershed and more specifically within the Jamul Hydrologic Sub-Area (910.33) which is within the Dulzura Hydrologic area. Exhibit A is a Vicinity Map of the local area while Exhibit B illustrates the project site in the context of the watershed.

1.2.1 Topography

The project site is currently developed as described above. The general topography of the existing improvements vary with the majority of the project site draining towards the existing natural drainage channel (Willow Creek) which is parallel to and located about 900 feet west of Campo Road. A small portion of the east side of the property chiefly consists of natural slopes which sheet drain east to Campo Road. Runoff from a portion of the entrance road also drains east towards Campo Road via a biofiltration facility which is located just south of the entrance.

Historical topographic maps indicated that the predeveloped condition of the site consisted of slopes between 4.5% and 16%. With development of the existing casino improvements, the effective slope of the site was reduced. For instance, the looped road around the existing casino generally ranges between 2% and 9% with some smaller sections at even flatter slopes.

1.2.2 Current and Adjacent Land Use

The project site is currently a casino with parking lot area. Other buildings are located on site for office space, community center, church, and utilities. The immediate properties surround the site are undeveloped with the exception of the adjacent Campo Road.

1.2.3 Soil and Vegetation Conditions

The USDA NRCS Web Soil Survey classifies the site as consisting of C and D -type soils. However, the area associated with soil group D is located in the southeast corner of the site where no new grading work will occur related to the proposed remodeling of the existing casino. Exhibit D illustrates the soil types and limits.

The vegetation on the site varies on the west side of the site between Willow Creek and the western property boundary. Willow Creek contains medium to heavy vegetation whereas the areas along the western and eastern slopes are sparsely vegetated.

1.2.4 Existing Drainage Patterns and Facilities

The existing drainage patterns were determined by the available improvement and utility plans for the loop road as well as by a site visit conducted by team staff (August 3, 2022). The available plans provide insight to the existing stormwater improvements constructed as part of the Jamul Casino building, driveways, and associated appurtenances. These stormwater improvements include inlets, storm drain, storage facilities, biofiltration treatment basins, and rip rap energy dissipating devices. As previously discussed above, the drainage patterns generally consist of the front (eastern) section of the site draining towards Campo Road and the remaining lot area draining towards Willow Creek which generally bisects the lot. The *Preliminary Detention Storm Water Analysis* (updated October 2012) and the *Hollywood Casino Loop Road Improvements* (January 14, 2016) were referenced in helping to determine the site's existing drainage boundaries and Q100 peak flows at each of the discharge locations into Willow Creek. The Q100 flows at the four discharge points into Willow Creek as shown on the *Hollywood Casino Loop Road Improvements* were used to establish the existing condition flows. Therefore, in terms of complying with peak flow requirements, the flows at these discharge locations establish a baseline that should not be exceeded by the proposed new improvements. Applicable plan sheets from the *Hollywood Casino Loop Road Improvements* have been included in Appendix D for reference. Table 1-1 below and Exhibit 1 in Appendix A summarize and show the locations and Q100 peak flows at the four discharge points at Willow Creek. (Refer to Exhibit 1 for Node locations).

Table 1-1: Summary of Existing Q100 Flows To Willow Creeks

East Willow Creek	18	3.38	17.8
West Willow Creek-North	23	1.92	2.8
West Willow Creek- Central	42	0.27	6.2
West Willow Creek- South	33	0.13	3.3
		5.70	30.1

1.2.5 Floodplain Mapping

The project is located within an area which does not have a printed panel (06073C1955G) on the FEMA website but is shown as being in a Zone D area, which are defined as areas where flood hazards are undetermined, but possible. Per the *Jamul Casino and Resort Project, Hydrology and Drainage & Flood Storage Study*, prepared by Martin and Ziemniak, dated September 9, 2006, Willow Creek through the site conveys a 100-year storm event flow of 392 cubic feet per second. Subsequent plotting of the floodplain taken from the referenced study indicates that the existing site does not encroach into the 100-year floodplain except for the piers for the bridge crossing which have minimal effect on existing flood patterns, levels, and velocities through and south of the site. A snippet of the FIRM Map Number 06073C1955G is included in Exhibit E.

1.2.6 Downstream Conditions

Analysis of downstream conditions has not been performed as part of this drainage study since this preliminary study anticipates that the recommended site plan and storm water facilities will be designed to attenuate peak storm water flows to match existing levels.

1.2.7 Existing Impervious Cover

The site is currently developed with buildings for the casino, community center, offices, and church. Other impervious surfaces are located at the site such as for parking, driveway, and sidewalks. The current impervious surface area from the casino and adjacent driveway and from the area has been calculated to be approximately 159,921 sf. This amount does not include the existing pervious pavement areas which are better characterized as pervious surfaces. It also does not include a portion of the existing casino roof which is vegetated and considered a 'Green Roof'. The project anticipates that an impervious surface area increase of approximately 61,000 sf will occur due to the proposed improvements.

Section 2 – Methodology and Design Criteria

This section summarizes the design criteria and methodology applied for drainage analysis of the project site. The design criteria and methodology follows the County of San Diego Hydrology Manual (June 2003) and the San Diego County Hydraulic Design Manual (September 2014) as appropriate for the project site.

2.1 Rational Method

Proposed Condition Rational Method peak flows for the site were calculated using methodology in the County of San Diego Hydrology Manual utilizing the Advanced Engineering Software (AES) 2016 RATSCx software. The calculations were performed for the proposed conditions to quantify any increases or decreases to the peak Q100 flowrates at the proposed discharge locations. Runoff coefficients were based upon researched soils data and Table 3-1 of the County Hydrology Manual for the existing condition. The proposed condition assumed a Type C Soil since the areas impacted by the proposed changes are located in areas underlain by Type C soils. Time of concentration was calculated per Section 3.1.4 of the County Hydrology Manual and corresponding runoff intensities for the 100-year storm were based on a 6-hour precipitation of 3.0 inches. See Appendix A for Post-project rational method hydrology calculations.

2.2 Detention Analysis

Although an increase in peak runoff rates is expected when comparing the existing to developed conditions of the site, attenuation of the increases can and will be accomplished by use of detention facilities including those already existing onsite. These existing facilities could possibly be retrofit to achieve treatment and/or detention goals of the proposed site layout.
Preliminary flow control hydromodification (HMP) calculations have been prepared as part of the *Conceptual Stormwater Treatment Strategy Memo* prepared by San Dieguito Engineering (September 2022). HMP mitigation is anticipated to be provided by the same detention facility(ies) proposed for peak flow attenuation. Where possible, these facilities may also function to address stormwater treatment (pollutant control) via engineered biofiltration soil media (BSM). Preliminary detention calculations for attenuating peak flows from the proposed improvements are provided in Appendix B. Hydrographs for flows entering the respective detention facilities were developed using the County's Rational Hydrograph (RATHYDRO) software. Detention was modeled using the EPA SWMM 5.1 program by entering the hydrograph information as well as the facility's physical characteristics such as stage-storage, stage discharge, etc.

2.3 Hydraulic Calculations

Aside from the detention hydraulics which are an inherent part of the detention modeling, storm drain pipe hydraulic calculations were not prepared for this preliminary design study since construction drawings have not been prepared which would provide a more detailed storm drain conveyance systems for the proposed project improvements. Hydraulic Calculations should be included as part of the final construction drawing submittal to confirm pipe conveyance capacity and to design adequate energy dissipation at all discharge locations.

Section 3 – Hydrologic Effect of Project

This section summarizes the quantities and location of storm water runoff from the project site. Discussion of the water quality aspects of the project can be found in the *Conceptual Stormwater Treatment Strategy Memo*, which is under separate cover from this report.

3.1 Drainage Patterns

The overall drainage patterns due to the proposed improvements will remain relatively consistent compared to existing conditions. That is, the areas on the west side of Willow Creek will continue to discharge on the western bank of Willow Creek while the casino roof and partial driveway will continue to discharge on the eastern bank. However, the new local inlets and piping configurations necessary as part of the improvements may likely require slightly altering the existing drainage boundaries.

In consideration of concurrently achieving both peak flow and water quality objectives, this study assessed the proposed project via two paths. The first analysis performed would determine what the 'hydrological-only' impact of the proposed site changes would have on the existing structural facilities consisting of the existing cistern and bioretention basins. This would help answer the initial question whether the existing facilities could be utilized without considerably revising the existing drainage patterns and/or requiring significant structural changes to the existing facilities. The second assessment would then assess a feasible option(s) which would account for integrating water quality and flow-control hydromodification measures to the site design in order to achieve compliance with County MS4 permit requirements. See Section 3.3 for detailed discussion of each analysis.

A couple of strategic design considerations were taken into account for assessing and more efficiently addressing the site's drainage situation. The proposed drainage facilities should initially be designed to mimic the existing condition drainage patterns wherever possible to minimize creation of drainage area diversions and to minimize the flow increases at the respective discharge points. Secondly, if found deficient, could further assessment of the existing detention and treatment facilities determine that compliance can be achieved by retrofitting them and/or their respective outlet structure.

3.2 Proposed Impervious Cover

The proposed remodel of the casino for the new events center will require replacing a portion of the roof which will slightly alter existing drainage patterns and require drainage inlets and piping to convey drainage towards the existing detention (cistern) storage facility located at the west side of the casino building. The roof remodel will increase the impervious surface area by approximately 26,539 sf.

The proposed improvements west of Willow Creek consisting of the new hotel, new parking structure, new vehicular bridge crossing, and pedestrian bridge crossing are estimated to add approximately 34,100 sf of impervious surface. This amount accounts for the reduction of permeable paver sections which is anticipated to either be removed or built over.

The overall net increase amount of impervious surface from these new improvements will be approximately 61,000 sf.

3.3 Peak Runoff

As briefly mentioned in Section 3.1 above, two proposed-condition scenarios were assessed to aid in determining compliance options to ultimately achieve both peak flow and stormwater treatment objectives per current San Diego County standards.

3.3.1 Analysis 1: Assessment of Proposed Site Maintaining Existing Drainage Boundaries

The initial analysis which attempted to mimic existing drainage subareas expectedly determined that increasing the amount of impervious surfaces would, in turn, increase the cumulative unmitigated peak flow. Calculations determined that cumulatively, the peak Q100 flow would increase by approximately 3.12 cfs during the proposed-unmitigated flow condition, from 30.1 cfs to 33.22 cfs. The increase is attributed to the increase of impervious surface area from the new hotel, parking, and remodel of the casino. When integrating the effect from the existing stormwater detention facilities including the cistern located at the southeast corner of the casino and the bioretention basin (IMP B) on the west side of Willow Creek, the cumulative peak flows discharging into Willow Creek were calculated to be 12.31 cfs; 17.79 cfs less than the cumulative existing condition of 30.1 cfs. Please see Table 3-1 below for a summary of peak flows calculated for this initial analysis.

Table 3-2 Summary of Hydrology Analysis- Using Existing Drainage Boundaries

East Willow Creek (Cistern + IMP A)	18	3.38	17.8	3.38	22.04	2.69	-15.11
West Willow Creek-North (IMP B)	23	1.92	2.8	2.01	8.79	7.23	+4.43
West Willow Creek- Central	42	0.27	6.2	0.27	1.77	1.77 (No Detention)	-4.43
West Willow Creek- South (IMP C)	33	0.13	3.3	0.11	0.62	0.62 (No Detention)	-2.68
		5.70	30.1	5.90	33.22	12.31	-17.79

Clearly, strictly in terms of peak flow, the existing facilities have the capacity to effectively reduce the *cumulative* peak flow into Willow Creek enough to offset the impervious surface increases from the proposed project. However, if evaluating each discharge location individually, it is shown that the 'North' discharge point on the West side of Willow Creek would experience a Q100 increase. A separate, concurrent study was performed as part of the *Conceptual Stormwater Treatment Strategy*

Memo (September 2022) which similarly studied whether the existing facilities could adequately address stormwater treatment and HMP requirements for the proposed site revisions. In brief, the study of the Analysis 1 condition found sizing and volume deficiencies in the required bioretention basins (IMP A, IMP B, and IMP C). Therefore, between both this study and the 'Stormwater Treatment' study, it was found that the facilities as they currently exist (Analysis 1) could achieve peak flow compliance but not MS4 permit compliance. This initial Analysis 1 helps establish or gauge the potential volume capacity available and identifies any deficiencies which occur at each facility. This information serves as an aid in planning a better-defined stormwater strategy when integrating water quality and HMP measures as part of the second assessment below. Below are a few findings resulting from Analysis 1 :

1. The existing Cistern located at the southwest corner of the Casino building has sufficient storage volume capacity to mitigate peak flows and HMP (flow-control) flowrates. However, the outlet structure should be altered to properly meter discharge for compliance.
2. The bioretention basin (IMP A) located immediately south of the Cistern does has sufficient size when classified as a compact water quality basin with a lower maintenance frequency interval.
3. The bioretention basin (IMP B) which outlets to the northernmost discharge point on west side of Willow Creek is not adequately sized to handle the proposed revisions to the site. The peak flow discharge is increased at the discharge location per Table 3-1 above. Also, it's surface area and depth is not considered large enough for flow control storage per the County's BMP Sizing Spreadsheet (V3.1). There is also a potential that the associated HMP sizing and discharge parameters may exceed maximum drawdown limits.
4. The bioretention basin (IMP C) located at the southwest corner of the loop road will be impacted by placement of the new garage. Its size will be significantly reduced. Preliminary analysis indicates that peak flow detention is not necessary at this location in order to match existing pipe design flows (Table 3-1). However, in terms of water quality surface area and volume for HMP detention, this location has a borderline size for compliance and would be dependent on the finalized garage configuration.
5. The design of the existing casino was performed about ten years ago. Although hydrologic standards haven't changed since, the County's BMP Design Manual has evolved and seen updates. These updates provide more definitive guidance on complying with the local MS4 permit and provide worksheets which were not available in 2012. Redefining the nomenclature used on the 2014 Casino plans will be necessary to clarify the project BMPs to be proposed.

3.3.2 Analysis 2: Assessment of Proposed Site Revising Existing Drainage Boundaries

Following the initial Analysis 1, it is apparent that the existing cistern and bioretention basin (IMP A) at the southwest corner of the casino can adequately continue to function to treat stormwater runoff from the casino building, with minimal modifications. Therefore, this Analysis 2 will not restate the findings above except to add that, the storm drain which is currently collecting a small portion of the loop road along the southern property boundary should be tied to the building piping instead of bypassing the cistern detention and water quality treatment facilities. The calculations presented in this study have anticipated this revised piping to occur.

Similar to IMP A, Analysis 1 found that bioretention basin 'IMP C' located at the southwestern end of the looped road potentially had sufficient size for achieving water quality and HMP compliance. Detention storage for peak flow mitigation was found not to be necessary since calculations showed a reduction of peak flows compared to the existing pipe's design flow. That said, due to the uncertainty that this location may ultimately not be adequately sized due to the design of the ne garage, Analysis 2 assumes

this associated drainage subarea will be diverted towards the northern drainage subarea which is tributary to the bioretention 'IMP B'. As determined in Analysis 1 and described in bullet point #3, Section 3.3.1, IMP B does not have the surface area to treat the new hotel and garage. The *Conceptual Stormwater Treatment Strategy Memo* proposes to modify the existing treatment strategy. The memo proposes to utilize a modular-type flow-based biofiltration treatment unit for treating the impervious surfaces located on the western side of Willow Creek. This would allow the existing bioretention basin (IMP B) to be converted into a detention-only basin used strictly for detaining HMP flows and peak Q100 flows. Modifications to the basin would include removing of the existing biosoil media (BSM) and gravel sections and modifying the existing outlet structure and piping. The preliminary proposed adjustments would result in a peak outflow into Willow Creek 6.65 cfs from the basin. See Table 3-2 below for a flow comparison at the multiple discharge points into Willow Creek.

Table 3-2 Summary of Hydrology Analysis- per Conceptual Storm Drain Layout

East Willow Creek (Cistern + IMP A)	18	3.38	17.8	3.38	22.04	2.69	-15.11
West Willow Creek-North (IMP B)	23	1.92	2.8	2.38	10.51	6.65	+3.85
West Willow Creek- Central	42	0.27	6.2	0.00	0.00	0.00	-6.2
West Willow Creek- South (IMP C)	33	0.13	3.3	0.00	0.00	0.00	-3.3
		5.70	30.1	5.90	32.55	9.34	-20.76

The results from Analysis 2 indicate treatment of site's stormwater runoff can be achieved utilizing many of the existing facilities but will require retrofitting to achieve compliance of drainage and MS4 permit requirements. The following recommendations or similar present a pathway for project compliance to be confirmed during preparation of the construction drawings:

1. All storm drain piping from the casino building should be routed towards to and emptied into the existing cistern located at the building's southwest corner. This includes all existing downdrains. Also, the existing storm drain which collects loop road runoff along the casinos south side should be re-routed to empty into the cistern instead of directly discharging to the creek.
2. The existing basin and outlet structure outside the southwest corner of the casino building should be restored and repaired as necessary to achieve required ponding levels and infiltration rates.
3. To minimize the size of the proposed treatment facilities west of Willow Creek, site design BMPs such as permeable pavers should be utilized wherever possible.

4. Storm drain piping on the west side of Willow Creek should be a connected system draining towards the vicinity of existing bioretention basin IMP B. Prior to emptying into IMP B, a diversion structure should be constructed to divert lower (Q85th) treatment flowrates towards a flow-based modular biofiltration treatment device. Higher flowrates should be routed through the diversion structure and empty into the retrofitted 'IMP B' basin. The changes to the basin will include removal of the biosoil media and gravel sections, essentially creating a deeper basin for detention volume. The current outlet structure will also require modifying to achieve compliance with Q100 and HMP standards.

3.4 Project Erosion and Sedimentation

Because the proposed project will limit the flows and velocities of runoff generated, neither erosion or sedimentation are anticipated. Where necessary, pipe discharge velocities will be decreased to non-erosive levels by use of energy dissipating device such as rip rap, check dams, or permanent turf reinforcement matting.

Section 4 – Summary and Conclusions

This section provides a summary discussion of the potential effects of the proposed project on local water resources in terms of quantity and location.

- The proposed project will not alter areas from existing confluence points. In addition, the 100-year peak flows to Willow Creek will not be increased compared to the existing condition since the onsite detention facilities will meter the proposed development flowrates prior to discharge.
- The project proposes to replace existing onsite storm drain and treatment facilities as necessary to adequately convey any generated peak flows through the site without causing flooding.

Section 5 – TEIR Summary

This section summarizes the results of the hydrologic analysis in the context of TEIR significance guidelines.

5.1 Drainage

5.1.1 Erosion and/or Sedimentation

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

The project will not alter existing drainage patterns of the site area in a manner that would result in substantial erosion or sedimentation. The project does not alter the course of a stream or river.

- Flows may be concentrated at certain locations, including storm drain outfalls. However, all proposed outfalls will be outfitted with energy dissipation devices. Other storm water Best Management Practices (BMPs) will help preclude significant erosion and/or siltation on- and off-site.

5.1.2 Flooding

Does the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

The project will not alter existing drainage patterns of the site area in a manner that would result in flooding on- or off-site. The project does not alter the course of a stream or river.

- This drainage study demonstrates that the project will not increase the 100-year peak storm discharge, as compared with existing conditions.

5.1.3 Drainage System Capacity

Does the project create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems?

The project will not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems.

- All proposed drainage facilities will be designed to accommodate the 100-Year storm event.

5.2 Flood Hazards

5.2.1 Residential Flood Hazard

Would the project 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, including County Floodplain Maps?

The project does not propose to locate any housing within the 100-year flood hazard area.

- The project does not propose any development within the 100-year floodplain or other Special Flood Hazard Area (SFHA) designated by FEMA or the County of San Diego.

5.2.2 Flood Flow

Does the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

The project does not propose to locate any structures or grading in the floodplain that would impede or redirect flood flows.

- The project does not propose any development within the 100-year floodplain or other Special Flood Hazard Area (SFHA) designated by FEMA or the County of San Diego.

5.2.3 Flood Hazard

Does the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a levee or dam?

The project does not place any people or structures at significant risk of loss, injury or death due to flooding.

- The project does not propose any development within the 100-year floodplain or other Special Flood Hazard Area (SFHA) designated by FEMA or the County of San Diego.

5.2.4 Other Hazards

Is the project at significant risk of inundation by seiche, tsunami, or mudflow?

The project is not located in an area at risk of inundation by seiche (lake slosh), tsunami, or mudflow.

5.3 Waiver and Release Agreements

The project does not alter downstream flow characteristics significantly, either due to increase in flow or flood condition, diversion of flow, or flow concentration. Therefore, it should not be necessary to obtain waiver and release agreements from any affected property owners.

Section 6 – References

County of San Diego Department of Public Works Flood Control (June 2003). San Diego County Hydrology Manual.

County of San Diego Department of Public Works Flood Control Section (September 2014). San Diego County Hydraulic Design Manual.

County of San Diego Department of Public Works Flood Control Section (July 2005). San Diego County Drainage Design Manual.

Soil Conservation Service (December 1973). Soil Survey, San Diego Area, California.

Preliminary Detention and Storm Water Analysis- Jamul Indian Village Casino Project (October 2012) prepared by San Dieguito Engineering, Inc.

Jamul Casino and Resort Project Hydrology and Drainage & Flood Storage Study (September 29, 2006), prepared by Martin & Ziemniak

Hollywood Casino Loop Road Improvements (As-Builts) (September 8, 2016), plans prepared by San Dieguito Engineering, Inc.

Hollywood Casino Loop Road Utility Improvements (September 8, 2016), plans prepared by San Dieguito Engineering, Inc.

Exhibit A

Vicinity Map

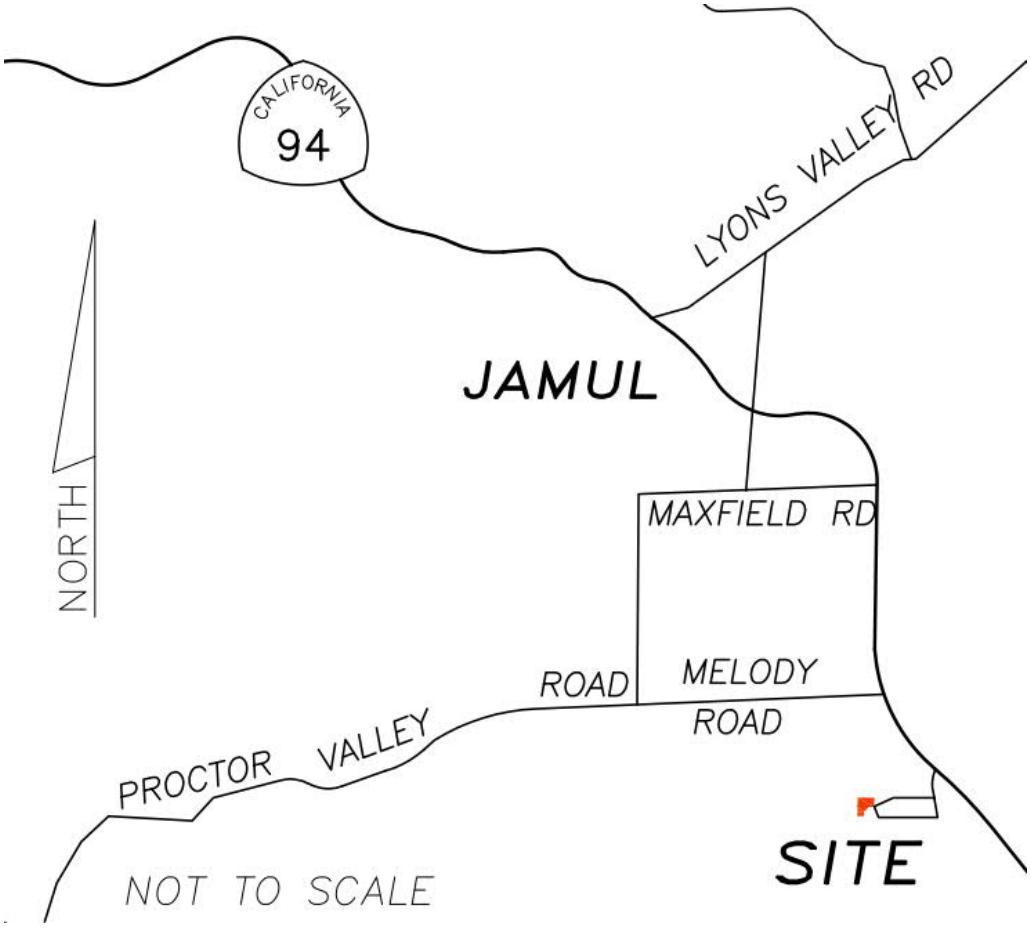
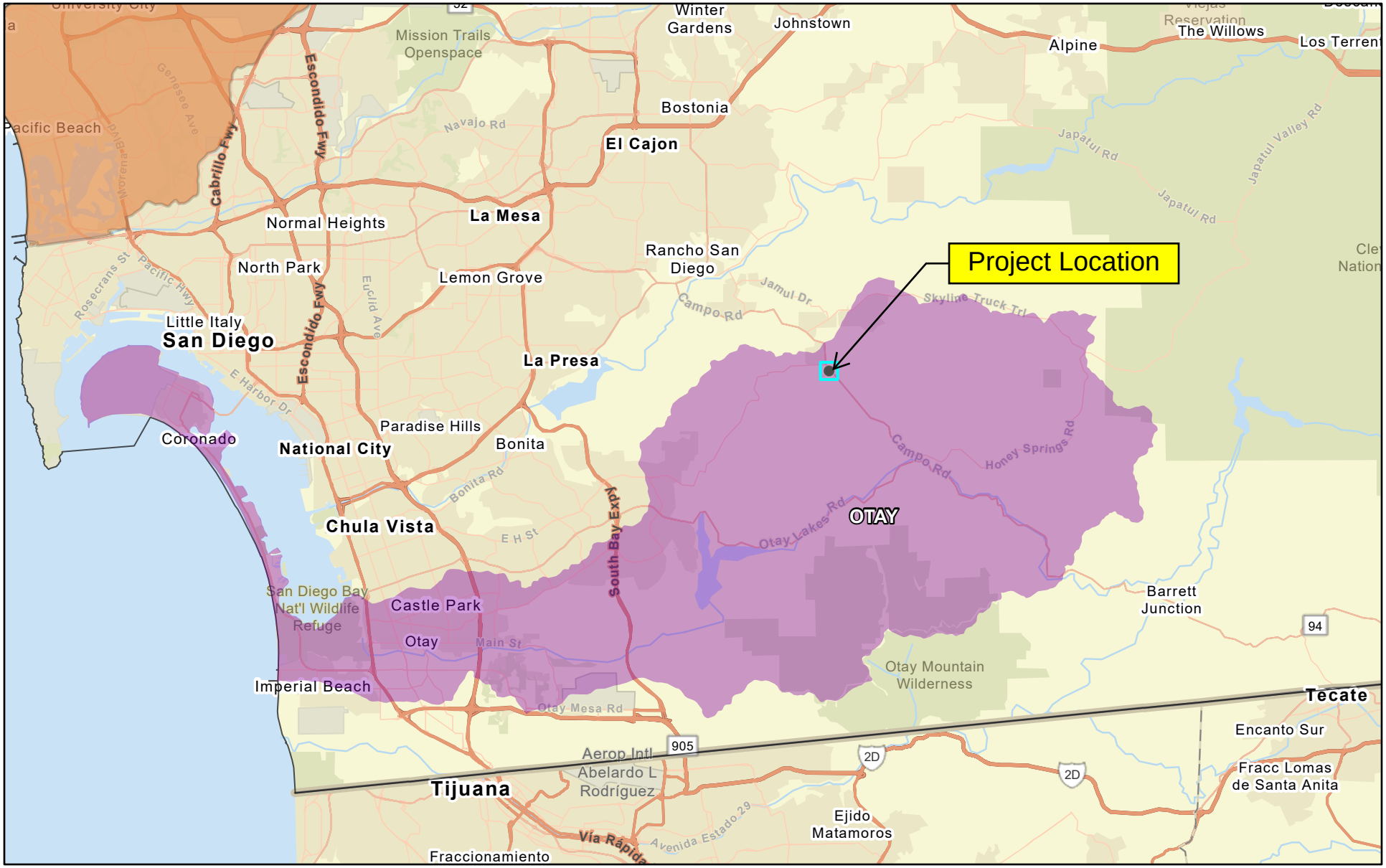


Exhibit B

Watershed Vicinity Map

Jamul Casino Hotel



July 6, 2022

1:288,895

0 2 4 8 mi

0 3.25 6.5 13 km

City of Chula Vista, SanGIS, California State Parks, CONANP, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, Bureau of Land

Exhibit C

County General Plan Land Use/Zoning Map

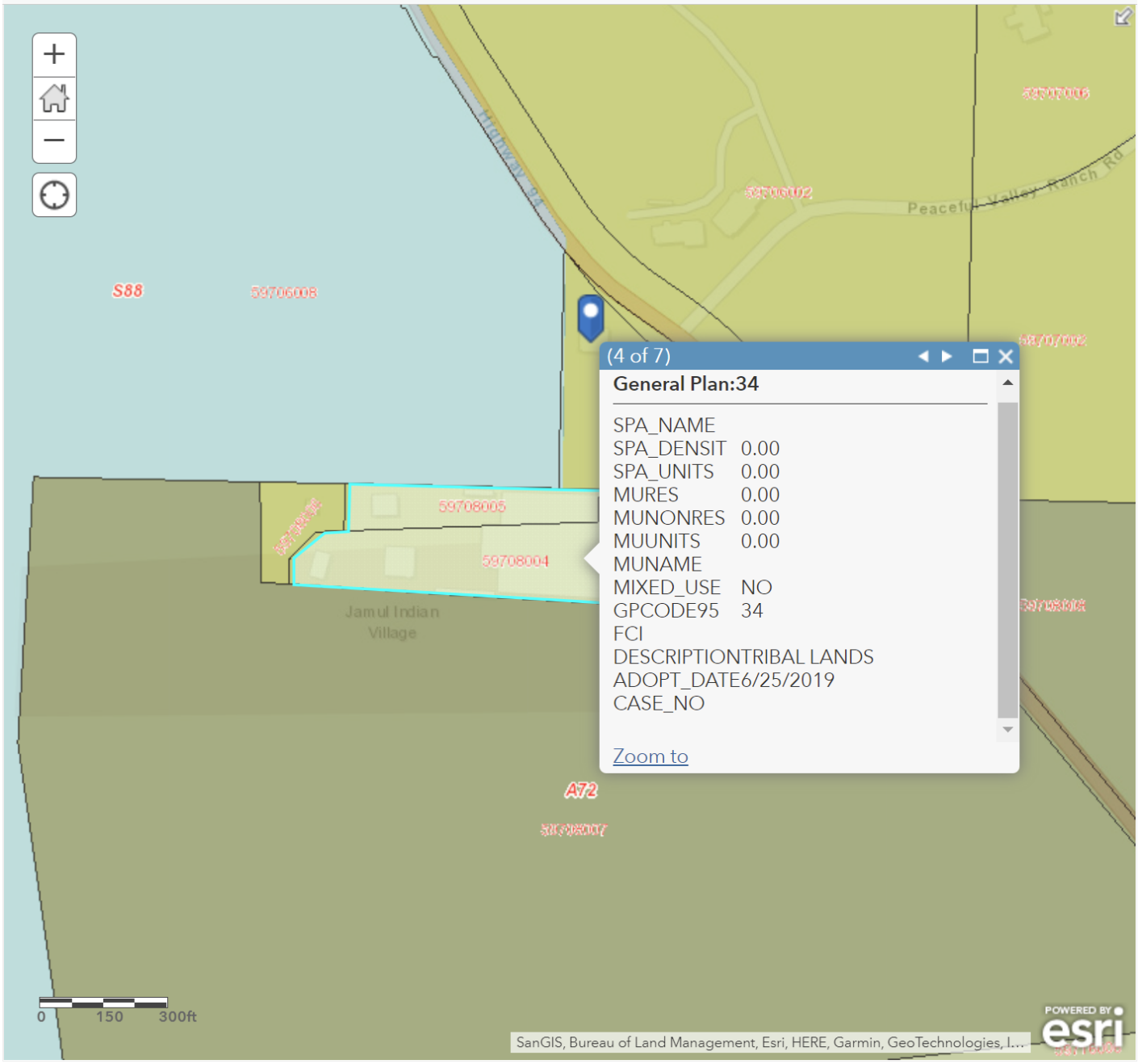
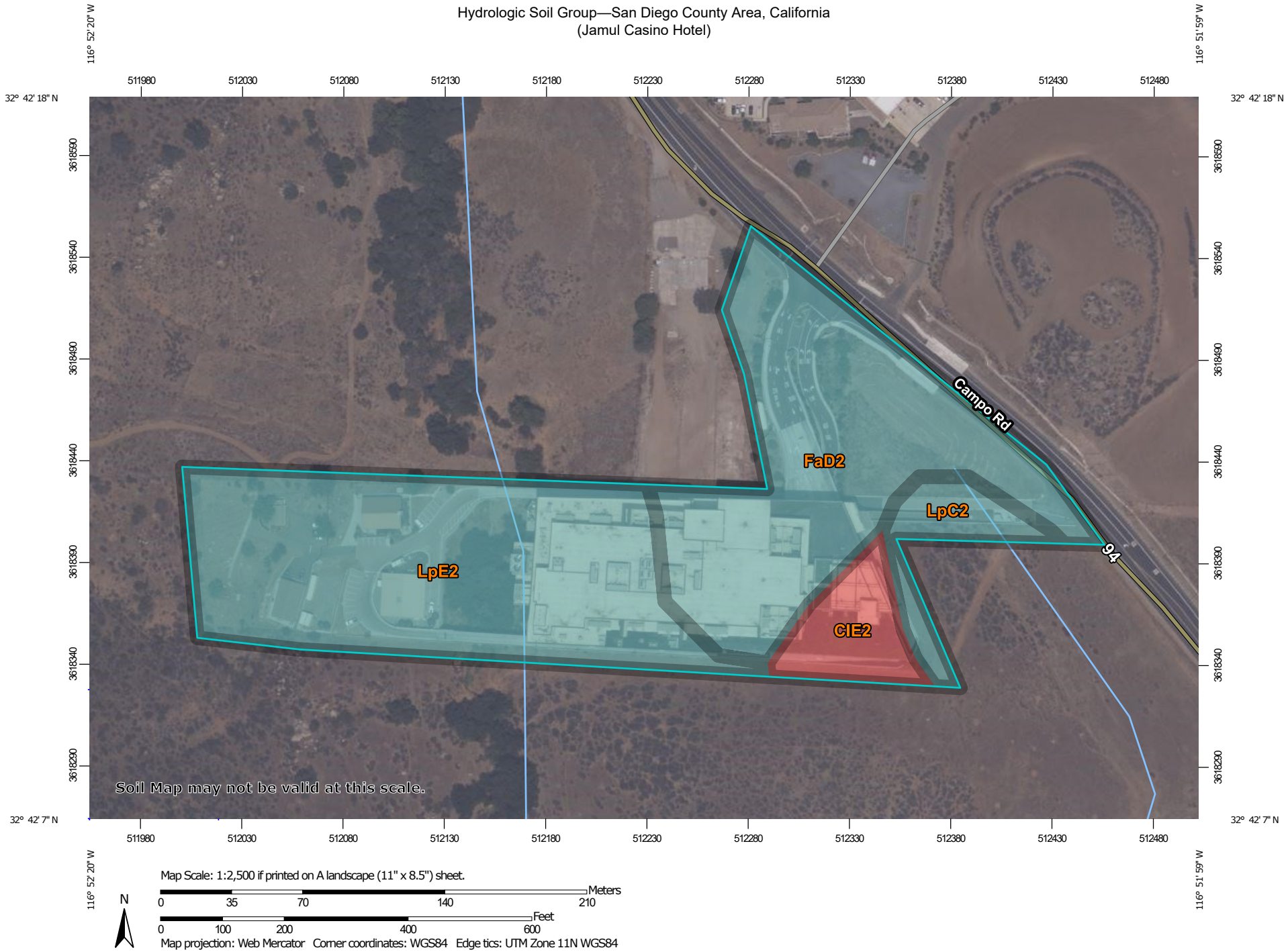

S88
59706008
59706002
Peaceful Valley Ranch Rd
59708005
59708004
Jamul Indian Village
A72
(4 of 7)
General Plan:34
SPA_NAME
SPA_DENSIT 0.00
SPA_UNITS 0.00
MURES 0.00
MUNONRES 0.00
MUUNITS 0.00
MUNAME
MIXED_USE NO
GPCODE95 34
FCI
DESCRIPTIONTRIBAL LANDS
ADOPT_DATE6/25/2019
CASE_NO
Zoom to
0 150 300ft
SanGIS, Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, I...
POWERED BY esri

Exhibit D

Soil Types

Hydrologic Soil Group—San Diego County Area, California
(Jamul Casino Hotel)



Map Scale: 1:2,500 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Diego County Area, California
Survey Area Data: Version 16, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 18, 2018—Aug 22, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ClE2	Cieneba coarse sandy loam, 15 to 30 percent slopes, eroded	D	0.8	6.9%
FaD2	Fallbrook sandy loam, 9 to 15 percent slopes, eroded	C	4.6	40.2%
LpC2	Las Posas fine sandy loam, 5 to 9 percent slopes, eroded	C	0.7	6.2%
LpE2	Las Posas fine sandy loam, 15 to 30 percent slopes, eroded	C	5.3	46.7%
Totals for Area of Interest			**11.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Exhibit E

FEMA Flood Insurance Rate Map


SAN DIEGO COUNTY
UNINCORPORATED AREAS
060284
Zone D
SAN DIEGO COUNTY
JAMUL INDIAN
VILLAGE
06073C1955G
5/16/2012
Not Printed
Streets
USGS The National Map: Orthoimagery. Data refreshed December, 2021.
POWERED BY esri

Appendix D sub-appendices available upon request.

Appendix E

Conceptual Stormwater Treatment Assessment

SAN DIEGUITO ENGINEERING, INC.
Engineering | Surveying | Planning

September 8, 2022

Bibiana Alvarez
Principle
Acorn Environmental
5170 Golden Foothill Parkway
El Dorado, CA 95762

Subject: 'Jamul Casino Hotel and Event Center' Conceptual Stormwater Treatment Assessment and Options

San Dieguito Engineering has completed its initial stormwater analysis relative for the proposed improvements for the Jamul Casino Hotel and Event Center Project. The project description is fully described in the section below. The scope of this analysis was to evaluate the existing stormwater treatment features within the project site and determine how they would be impacted by the proposed improvements and then provide recommendations for offsetting these potential impacts. A separate study has been prepared concurrently to evaluate the hydrologic and drainage aspects of the site. Please refer to the *Preliminary Drainage Study for Jamul Casino Hotel and Event Center Project* prepared by San Dieguito Engineering (September 2022).

Section 1 – Project Information

1.1 Project Description

The Jamul Indian Village of California (Tribe) is proposing to expand its Jamul Casino with the addition of a hotel, event center, additional parking garage, and associated infrastructure. The proposed improvements will be developed on the Tribe's existing Reservation. The existing facility includes a 203,130 sf -square-foot (sf) casino and an eight-level parking garage. The proposed hotel will consist of a total of 16 floors, with 10 floors of guest rooms, roof-top pool, spa, restaurant, and banquet space. The proposed hotel will provide up to 225 rooms and be developed on the west side of the Reservation. An additional parking garage will be located south of the proposed hotel building. The proposed parking garage will have 6 levels and provide 290 parking spaces. The existing tribal community center and administration building currently located on the west side of the Reservation will be relocated to accommodate the footprint of the new hotel and parking structure. The existing casino building will be remodeled to eliminate the second floor (which is a veranda level between the main casino floor and the third floor, and the location of a restaurant) and the fourth floor (currently the rooftop lounge) of the

existing Casino building and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. Other existing dining, office, circulation, and support spaces will be reconfigured or relocated within the Casino, but not expanded. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed.

1.1.1 Project Location

The Reservation consists of approximately six acres of federal trust land located in unincorporated San Diego County, approximately one mile south of the community of Jamul (Figure 1). The Jamul Casino is located on the Reservation at 14145 Campo Road, Jamul, CA 91935. The Reservation is located within portions of Section 10 and unsectioned areas of Township 17 S, Range 1 East, San Bernardino Baseline and Meridian.

State Route 94 (SR 94) provides regional access to the Reservation from downtown San Diego, which is located approximately 20 miles to the west of the Reservation. Local access to the Reservation is provided directly from SR 94 via Daisy Drive and an access road limited to authorized vehicles.

1.1.2 Project Activities Description

The Proposed Project consists of remodeling the existing Jamul Casino to include a new event center, 225-room hotel, and associated parking and infrastructure. Currently, the Jamul Casino occupies four levels above an eight-level parking garage. The main casino floor is the first building floor and there are three floor levels above main casino floor. The second floor is a partial level that provides a restaurant with veranda and allows circulation between the main casino floor and the fourth floor. The third floor provides kitchen and administrative office space. The fourth floor is a partial level that provides a rooftop lounge terrace.

The proposed remodeling would eliminate the second floor and the fourth floor and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. The existing restaurant located on the second floor of the casino building would be relocated to the third floor with no changes in occupant capacity. Approximately 11,838 sf of existing office space on the eastern portion of the third floor would be relocated to an expanded area of the western portion of the third floor (Figure 2). The new event venue would result in a net increase of approximately 35,000 sf of enclosed, covered outdoor, and uncovered outdoor areas. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed. Table 1 provides a summary of the existing and proposed development.

A new hotel and associated parking structure would be developed west of the existing casino building with pedestrian access to the casino building provided by a new bridge over Willow Creek, which bisects the Reservation immediately west of the existing casino building (Figure 2). The proposed 225-room hotel would consist of 16 stories including a banquet hall (Floor 2), a hotel lobby level with restaurant (Floor 3), a spa level with outdoor deck (Floor 4), 10 levels of guest rooms (Floors 5 through 14), a rooftop pool deck (Floor 16), and 2 levels of back-of-house/mechanical (Floors 1 and 15). The height of the hotel tower would be at an elevation of approximately 1,128 feet above mean sea level (amsl), which is approximately 225

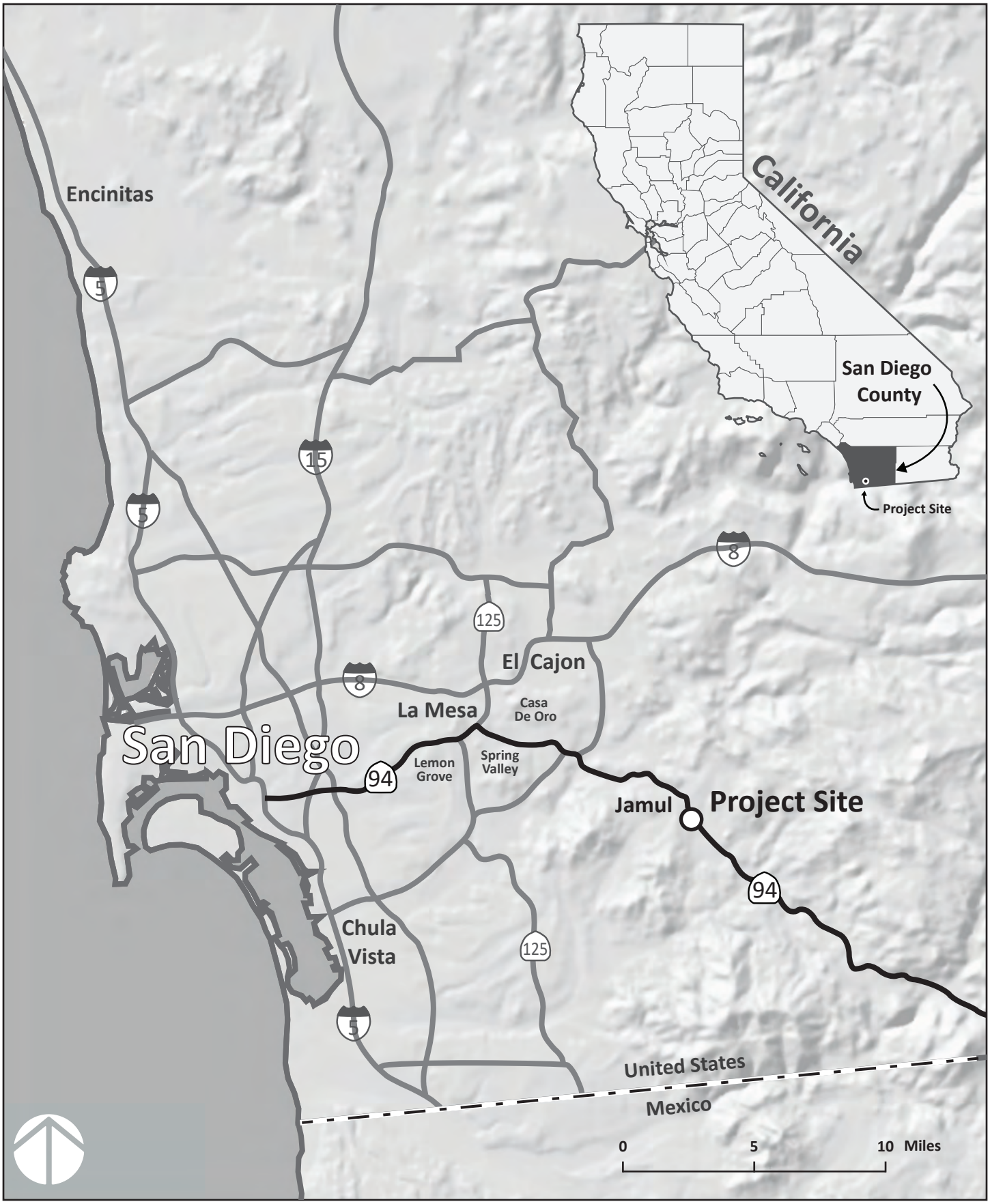


FIGURE 1

REGIONAL LOCATION



Source: JCJ Architecture

FIGURE 2

SITE PLAN

feet above ground level and 116 feet taller than the existing casino building. A new 6-story parking structure would be developed south of the new hotel building and would connect to the hotel lobby. The existing tribal community center and administration building would be removed to accommodate the footprint of the new hotel and parking structure. There are several options under consideration for relocation of the Tribal administration and community facilities, including utilizing space within the expanded third floor administrative areas of the casino, purchase of an off-site property with an existing building, or leasing existing office space within the region.

Table 1: Existing and Proposed Development

	Existing	Proposed Change	Proposed New Total
Casino			
First Floor	125,850 sf	—	125,850 sf
Casino Floor	*68,262 sf*	—	*68,262 sf*
Restaurants/Bars	*29,035 sf*	—	*29,035 sf*
Misc. and Circulation	*28,553 sf*	—	*28,553 sf*
Second Floor	8,110 sf	(6,907 sf)	1,203 sf
Restaurant/Bars (Loft 94)	*248 seats / 4,549 sf*	*(4,549 sf)*	*0 sf*
Misc. and Circulation	*3,561 sf*	*(2,358 sf)*	*1,203 sf*
Third Floor	60,132 sf	50,983 sf	111,115 sf
Outdoor Event Center	—	*25,514 sf*	*25,514 sf*
Bingo Hall	—	*9,233 sf*	*9,233 sf*
Restaurant/Bars (relocated Loft 94)	—	*248 seats / 7,449 sf*	*248 seats / 7,449 sf*
Office, Misc., and Circulation	*60,132 sf*	—	*60,132 sf*
Fourth Floor	9,038 sf	(9,038 sf)	0 sf
Restaurant/Bars (Loft 94 roof deck)	*5,604 sf*	*(5,604 sf)*	*0 sf*
Misc. and Circulation	*3,434 sf*	*(3,434 sf)*	*0 sf*
Total Casino (Floors 1-4)	203,130 sf	35,038 sf	238,168 sf
Hotel			
Guest Rooms		225 rooms	225 rooms
Dining	—	92 seats/6,724 sf	92 seats/6,724 sf
Banquet	—	187 seats/5,180 sf	187 seats/5,180 sf
Bar	—	49 seats/1,242 sf	49 seats/1,242 sf
Rooftop Pool Deck	—	14,608 sf	14,608 sf
Fitness Center	—	900 sf	900 sf
Spa	—	8,600 sf	8,600 sf

Total Hotel	—	16 floors/253,390 sf	16 floors/253,390 sf
Hotel Parking	—	290 spaces/111,415 sf	290 spaces/111,415 sf
Notes: All measurements are approximate; sf = square feet of building area; (x) = reduction in square footage			

1.1.3 Access

Access to the Reservation is provided directly from SR 94 via Daisy Drive. The intersection of SR 94 and Daisy Drive is a signalized intersection. In the vicinity of the Reservation, SR 94 is a two-lane highway. Dedicated turning lanes are provided on SR 94 at the Daisy Drive intersection. No changes are proposed to the existing off-Reservation roadways and driveways serving the site. Circulation to the proposed hotel and associated parking garage would be provided through extensions to the existing roadway on the Reservation. The existing access road to the chapel and cemetery located west of the Reservation will be preserved.

Section 2 – Stormwater Treatment

2.1 Existing Condition

The portion of property which will be affected by the proposed improvements currently consists of the casino building, looped road around casino, community center, church, tribal office building, and waste water treatment plant. Willow Creek bisects the property with the casino on the east side and the remaining facilities on its west side. Treatment of stormwater runoff from the site including addressing flow control hydromodification (HMP) is currently being taken care of by a variety of mechanisms as described below. The *Preliminary Detention Storm Water Analysis* (updated October 2012) and the *Hollywood Casino Loop Road Improvements* (January 14, 2016) were referenced in helping to determine the site's existing treatment and discharge locations into Willow Creek.

2.1.1 Casino Building

The overall footprint of the existing casino's roof including its lower-level roofs is approximately 139,890 sf. As a means of reducing its runoff factor and, in turn, the amount of runoff generated, a portion of the roof was originally designed as a 'Green Roof' with planted landscaping and drainage system to convey unretained runoff. Approximately 26,540 sf (19%) of the roofs overall footprint area was landscaped for 'Green Roof' credit. The roof drainage system collects runoff and directs it west towards a cistern located at the lower southwest corner of the casino building. This cistern was designed to address the HMP flow control storage requirements per County of San Diego requirements. The cistern has approximately 39,875 cubic feet of storage and an outlet riser meant to attenuate HMP-level and Q100 flowrates. The outlet from this riser discharges into a bioretention basin located immediately outside the southern wall of the cistern. See Attachment 1 for a current layout of the existing onsite BMPs. The bioretention basin (Imp A) is a 2,400 sf flat-bottomed basin with an 18" thick layer of biosoil media. The low treatment

flowrates percolate through the media and exit the basin via a 6' perforated underdrain. Higher flowrates overtop a catch basin outlet structure and exit the basin through a 24" outfall pipe. This outfall pipe discharges directly into Willow Creek.

2.1.2 Existing Parking and Improvements west of Willow Creek.

The area on the west side of Willow Creek generally slopes east towards Willow Creek. Drainage from this area discharges into Willow Creek at three locations. The tributary area to the northernmost discharge location includes much of looped road (west of Willow Creek), the community center, church, tribal offices, and cemetery. A large portion of the looped road in this subarea was constructed of pervious pavement to allow for local infiltration and reduction in site runoff. Runoff is routed through the subarea to a bioretention facility (IMP B). This water quality treatment facility is a basin with a 2,400 sf bottom surface area and catch basin riser structure equipped with an orifice used for addressing flow control (HMP). The basin subsurface layers consist of an 18" engineered soil mix section underlain with 18" of aggregate.

Runoff from the center discharge location along the west side of Willow Creek comes from the wastewater treatment plant (WWTP) subarea. The driveway to the WWTP is constructed with permeable pavement. Surface runoff for this area initially filters through the paver section for treatment. Higher flows from this area are collected by a curb inlet and then discharged into Willow Creek.

The southernmost discharge location along the west side of Willow Creek discharges runoff from a small portion of the site consisting of the looped road and a small bioretention area (IMP C) which treats the respective subarea. Approximately half of the road area draining to IMP C was constructed with permeable pavement. The road surface drains into the 667 square foot bioretention basin which is also utilized to address flow control (HMP). The treatment flowrates percolate through the 18" engineered soil mix layer and then through the 18" aggregate layer. A 6" perforated pipe within the gravel section collects and conveys the runoff to a catch basin. At the surface, this catch basin serves as a riser and helps in metering outflows before discharging its runoff to Willow Creek (underneath the loop road bridge section).

2.2 Proposed Condition Improvements and drainage treatment recommendations

The proposed project will increase the site's overall impervious surface area. For the most part, the increase will come from the new hotel and garage, and from removal of the existing green roof atop the eastern side of the casino relative to the new events center. A net overall increase of about 61,000 sf of impervious surface area is expected from the proposed improvements. For this study, the existing treatment facilities have been initially evaluated to determine whether the proposed improvements would impact their capacity to comply with the local treatment requirements. If they could not, they would then be evaluated to determine whether they could feasibly be retrofit or would require significant adjustments to the existing treatment facility design. The above two scenarios were analyzed to coincide with the preparation of the *TEIR Preliminary Drainage Study for Jamul Casino Hotel and Event Center Project* (September 8, 2022) prepared by San Dieguito Engineering and are identified as 'Analysis 1' and 'Analysis 2' in both studies.

The current major drainage patterns will generally be maintained with minor adjustments. Also, portions of the looped road which are currently constructed with permeable pavement are planned to be effectively removed and reclassified as an impermeable surface. This is due to either that portion being replaced as part of the improvements or that portion to be located directly underneath a newly constructed impervious improvement such as where the new hotel and garage are being built over the loop road.

2.2.1 Casino Building

As previously mentioned, removal of the green roof section and replacing with an impervious roof will increase the impervious surface area to the downstream BMPs consisting of the cistern and bioretention basin at the southwest corner of the casino. The increase is estimated to be about 34,000 sf. The cistern serves to address flow control hydromodification and peak flow (Q100) detention while the basin addresses water quality treatment. The initial Analysis 1 determined that, in regards to water quality treatment, the current basin with a surface area of 2,400 sf could meet the County's retention requirement but marginally complies with the Performance standard since it is sized less than the County's standard 3% requirement. However, when considering the pollutant loads which can be expected from 'roof areas', the existing basin could be reclassified as a 'Compact' Biofiltration BMP and still comply with the County's BMP Design Manual requirements. See the attached worksheet calculations in Attachment 2.

Review of the approved plans and as-builts indicate that the cistern footprint is approximately 5,500 square feet and is equipped with an orifice outlet riser and separate spillway box. The outlet to the riser includes a low-flow orifice which allows for complying with HMP flow control requirements and detaining peak flowrates. The spillway box is approximately 4' x 4' x 7.25' and helps in metering outflow from the cistern. In utilizing the latest County's BMP Sizing Spreadsheet (V3.1) which uses pre-determined sizing factors to determine cistern volumes and orifice sizes, it was determined that the existing cistern does have the volume necessary to provide HMP storage for the proposed casino which includes replacing the green roof portion with an impervious surface roof. It should be noted that an existing storm drain which collects loop road runoff along the casino's south side currently discharges to Willow Creek per the Hollywood Casino Improvement Plans. To achieve water quality and HMP compliance, the calculations for this Analysis 1 added that road area to be tributary to the cistern and IMP A basin. Per the County worksheet, a cistern volume of 20,595 cf is necessary for cistern storage for HMP alone. For a 5,500 sf bottom cistern, this volume can be accomplished at a depth of approximately 3.75'. The spreadsheet further calculates an orifice of 1.7 inches at the base of the riser. Refined calculations utilizing continuous simulation software such as EPA SWMM should be performed during preparation of final construction drawings to optimize the cistern capacity and discharge rates. See Attachment 2 for HMP calculations. Please refer to the *TEIR Preliminary Drainage Study for Jamul Casino Hotel and Event Center Project* for calculations associated with peak flow attenuation being accomplished by the cistern.

Analysis 1 relative to the casino was able to determine that both the existing bioretention basin (IMP A) and cistern could adequately meet the treatment and storage needs of the casino with minimal structural

modifications to the cistern outlet structure and by restoring the existing IMP C basin to achieve the required ponding levels and infiltration rates.

2.2.2 Hotel and Garage west of Willow Creek

The proposed layout of the new hotel, garage, and pedestrian bridge will increase the amount of impervious surface on the west side of Willow Creek by approximately 34,300 sf. As discussed in Section 2.1.2 above, the west side of Willow Creek currently discharges at three separate locations into Willow Creek. Analysis 1 for treating of the areas on the west side of the Willow Creek would determine whether the existing stormwater facilities could continue to be utilized for treating the proposed improvements without requiring significant alteration the current treatment plan.

The northern discharge has the largest tributary area in current conditions and will remain so with the proposed improvements including the hotel and garage site. All of the increase in impervious area for the west side of Willow Creek will essentially come from these two structures. The areas tributary to the central and south discharge points will slightly be reduced due to the impact of the hotel and garage improvements. Therefore, most if not all, of the revised treatment BMP effort west of Willow Creek will be focused on the northern discharge point.

Analysis 1:

The treatment BMP for the northern BMP (IMP B) consists of a 2,400 sf bioretention basin which also currently serves to address flow control hydromodification by metering discharge flowrates via a riser structure. With the added impervious surface areas associated with the new hotel and garage, the design capture volume (DCV) from this respective subarea increased from 1,294 cf to 2,356 cf. Updated calculations utilizing the County's BMP Sizing worksheet (V2.0) did determine that the current basin's size could still comply with the County's retention and performance requirements for water quality treatment of runoff. However, the existing basin cannot provide adequate volume capacity when considering that this basin also needs to serve a conjunctive use to addressing flow control hydromodification (HMP) and peak flow (Q100) detention. Preliminary calculations utilizing the County's HMP BMP Spreadsheet (V3.1) indicate that a bottom surface area of about 4,465 sf would be needed to address the volumes for HMP storage. An initial option to achieve this volume could be to expand the existing basin south. However, doing so would require grading and filling along the existing slope and incorporating the runoff from the area tributary to the central discharge location.

The area which currently drains towards to the central discharge location on the west side of Willow Creek consists chiefly of runoff from the waste water treatment plant (WWTP). This subarea drains towards the permeable pavers within the driveway on the east side of the plant. An inlet at the northeast corner of the WWTP collects stormwater runoff from the driveway and directs it to the discharge point at Willow Creek. The pavers are site design features and provide some runoff reduction credit. However, research of past site documents and plans could not conclusively determine whether the pavers within this drainage management area (DMA) were intended to achieve both treatment and HMP compliance for the

respective DMA. Based on the paver's cross section taken from the *Hollywood Casino Loop Road Improvements* plans, it is unlikely that HMP compliance is achieved at the discharge point based on current County standards.

The area tributary to the southern discharge point along the west side of Willow Creek will experience a small area reduction due to the footprint of the new garage structure. The reduction in area will be at the western end of the subarea at the location of the existing biofiltration basin (IMP C). The preliminary revised BMP calculations indicate that a reduced basin surface area of 180 square feet can still meet the retention and performance standards per County requirements. However, similar to IMP B above, based on the County's automated HMP sizing worksheet (V3.1), the basin will no longer have the storage capacity needed to address HMP requirements. Due to the surrounding horizontal constraints of this BMP location and because the amount of needed storage volume is relatively small, a possible treatment alternative at this location could be to thicken the gravel layer below the engineered soil section and essentially utilize it as a cistern for additional HMP storage volume. This option is possible since the existing 18" HDPE pipe depth is sufficiently deep enough to thicken the gravel. The existing catch basin outlet structure will need to be relocated due to the new garage location. Peak (Q100) flowrates per the Preliminary Drainage Study being concurrently prepared, determined that there will be reduction in peak flow rate at the pipe discharge location compared to the existing pipe's design flow as shown on the approved *Hollywood Casino Loop Road Improvements* plans. Therefore, peak flow detention storage is not necessary at this basin location.

See the supporting worksheet calculations included Attachment 3 relative to Analysis 1.

Analysis 2:

In brief, Analysis 1 determined that with the proposed site improvements for the hotel, garage, and pedestrian bridge:

- IMP B could not continue to meet storage volume requirements as a conjunctive basin for water quality, HMP storage, and Q100 detention
- The paver section within the driveway east of WWTP was likely deficient as a HMP BMP measure based on current County standards
- IMP C could potentially be retrofit to marginally achieve compliance with water quality and hydromodification standards

With the information determined above, a conceptual stormwater facilities layout was determined (Analysis 2) for the area west of Willow Creek which could treat the anticipated proposed improvements and comply with County standards for water quality, flow control hydromodification, and peak flow attenuation. Treatment and detention of the casino building on the east of Willow Creek is as described in Section 2.2.1 above.

It was evident from Analysis 1 that basin IMP B would be undersized if it was to be utilized to address water quality treatment and HMP detention. The surface area requirements would require a significant size increase to the current basin and require grading which is already constrained due to the adjacent

floodway limits. In addition, County's requirements for conjunctive use facilities would require additional storage volume for addressing peak flow detention; thus, further hindering this location. After evaluating the various BMP strategies and available footprints, Analysis 2 was conducted and proposes to utilize the existing IMP B basin strictly to address detention storage (i.e., peak flow and HMP) while separately addressing stormwater treatment with a modular proprietary biofiltration device which could be situated just upstream of the basin within the driveway east of the WWTP. By removing the biosoil media and gravel layers currently within IMP B basin, the volume gained would be sufficient for HMP and Q100 detention use. In addition, the calculations performed for this Analysis 2 assumed a single connected storm drain system connecting all areas west of the Willow Creek. That is, all stormwater from areas west of the creek would be treated by means of an underground modular biofiltration device and be routed via IMP B basin to attenuate HMP and Q100 flowrates. This approach would help to address the concerns of the bullet points listed above and subsequent to Analysis 1. Please refer to the calculations in Attachment 4 which include preliminary sizing of the proprietary biofiltration device as well as a SWMM continuous similar model which confirms HMP compliance by IMP B basin.

Section 3 – Conceptual Study Summary and Recommendations

The following summarizes the results of this Conceptual Stormwater Treatment Memo and provides preliminary recommendations for achieving compliance with San Diego County BMP Design Manual requirements. This summary is consistent with the conclusions stated in the *TEIR Preliminary Drainage Study for Jamul Casino Hotel and Event Center Project.*

1. Analysis 1 for the cistern and bioretention basin (IMP A) located at the southeast corner of the casino building determined that, with minimal modifications to these facilities, water quality and detention objectives could be accomplished. That is, the impact of the proposed improvements to the casino consisting of replacing the green roof with impervious roof could be offset with minor adjustments to the existing facilities.
2. All storm drain piping from the casino building should be routed towards to and emptied into the existing cistern located at the building's southwest corner. This includes all existing downdrains. Also, the existing storm drain which collects loop road runoff along the casinos south side should be re-routed to empty into the cistern instead of directly discharging to the creek.
3. The existing basin and outlet structure outside the southwest corner of the casino building should be restored and repaired as necessary to achieve required ponding levels and infiltration rates.
4. Storm drain piping on the west side of Willow Creek should be a connected system draining towards the vicinity of existing bioretention basin IMP B. Prior to emptying into IMP B, a diversion structure should be constructed to divert lower (Q85th) treatment flowrates towards a flow-based modular biofiltration treatment device. Higher flowrates should be routed through the diversion structure and empty into the retrofitted 'IMP B' basin. The changes to the basin will include removal of the biosoil media and gravel sections, essentially creating a deeper basin for detention volume. The current outlet structure will also require modifying to achieve compliance with Q100 and HMP standards.

5. To minimize the size of the proposed treatment facilities west of Willow Creek, site design BMPs such as permeable pavers should be utilized wherever possible.

Thank you in advance. We look forward to your answers to start working together on setting the project's stormwater strategy. Please let me know if you have any comments or questions relative to this memo.

Thank You,



-Raymond L. Escobar
858.345.1278

Attachments:
Attachment 1, Current BMP Site Layout
Attachment 2, Analysis 1 BMP and HMP worksheets for Cistern and IMP A
Attachment 3, Analysis 1 BMP and HMP worksheets for BMPs west of Willow Creek
Attachment 4, Analysis 2 BMP and HMP worksheets for BMPs west of Willow Creek

Attachment 1
Current BMP Site Layout
Proposed Condition BMP Layout

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P: 858-345-1149 | F: 858-345-1151
1911 Palomar Oaks Way | Suite 200 | Carlsbad, CA 92008





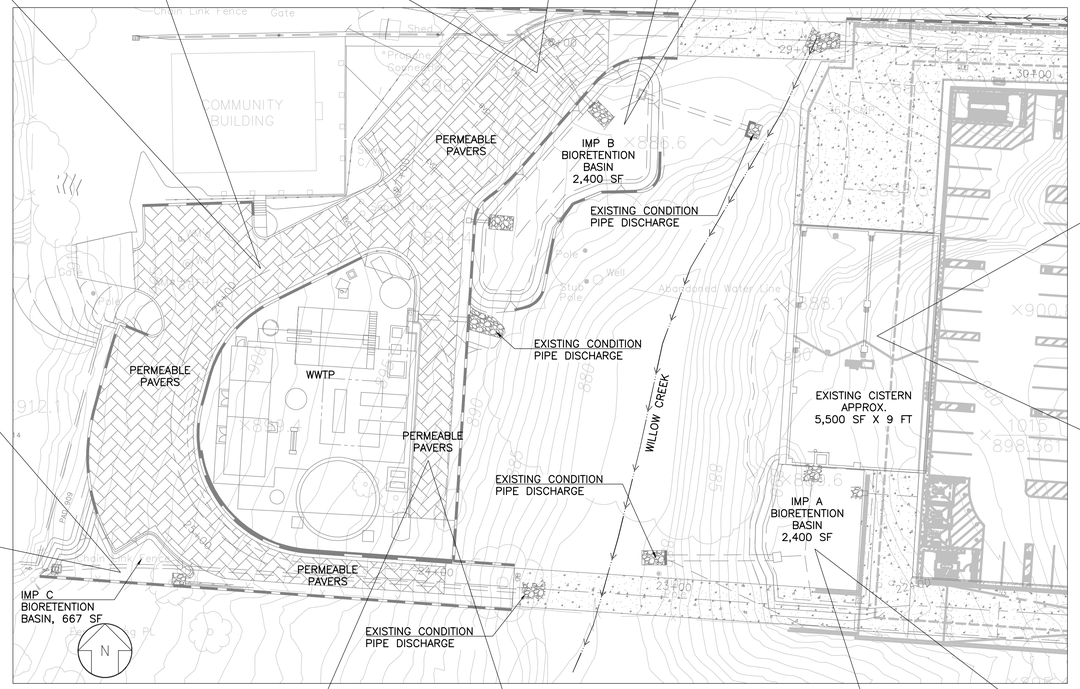
photo by Mike Long, Nova Engineering



photo by Mike Long, Nova Engineering



photo by Mike Long, Nova Engineering





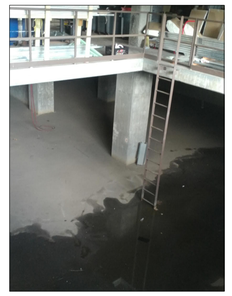


photo by Mike Long, Nova Engineering



photo by Mike Long, Nova Engineering



30 15 0 30 60

SCALE: 1" = 30'

EXHIBIT 1
EXISTING CONDITION
SITE BMPS
JAMUL CASINO HOTEL

SDE 5481.13

PROPOSED MODULAR BIOFILTRATION UNIT (8'X20')

EXISTING CONDITION PIPE DISCHARGE

PERMEABLE PAVERS

NEW HOTEL

NEW PEDESTRIAN BRIDGE

EXISTING IMP B BIORETENTION BASIN TO BE CONVERTED TO DETENTION BASIN (2,400 SF BOTTOM)

EXISTING CONDITION PIPE DISCHARGE TO BE REMOVED

WWTP

PERMEABLE PAVERS

NEW PARKING STRUCTURE

WILLOW CREEK

EXISTING CISTERN APPROX. 5,500 SF X 9 FT

EXISTING CONDITION PIPE DISCHARGE

IMP A BIORETENTION BASIN 2,400 SF

PERMEABLE PAVERS

NEW INLET

IMP C – EXISTING BIORETENTION BASIN TO BECOME INLET LOCATION

EXISTING CONDITION PIPE DISCHARGE TO BE ABANDONED

RE-ROUTE EXIST. PIPE TO CISTERN

30 15 0 30 60

SCALE: 1" = 30'

SDE 5481.13

EXHIBIT 2
PROPOSED CONDITION
SITE BMPs
JAMUL CASINO HOTEL

Appendix E sub-appendices available upon request.

Appendix F

Casino Fire and Emergency Plan



HOLLYWOOD CASINO FIRE AND EMERGENCY PLAN

Jamul Indian Village

Jamul, California

October, 2016

Prepared By:



Michael S. Rohde, CEO/Principal Consultant
Jeffrey O. Lannon, Project Lead Consultant

Rohde & Associates
Rancho Santa Margarita, CA

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Section I. FACILITY DESCRIPTION

The Hollywood Casino is an enterprise of the Jamul Indian Village, a tribe of the Kumeyaay Nation, and Penn National Gaming. The casino is located on tribal reservation lands in the community of Jamul, California. The Jamul Indian Village Reservation consists of 6 acres south of State Route 94 in Jamul, California. The property includes the 3 story Hollywood Casino and attached 8 story (3 floors of which are below ground) parking garage, a wastewater treatment plant, tribal administration building, a tribal community center, a tribal church, and cemetery. The value of the development exceeds $400 million dollars. The Jamul Indian Village is surrounded on the east, south, and west sides by California Department of Fish and Wildlife administered lands. State Route 94 borders the property on the north. Onsite security is provided for the casino and related facilities 24 hours/day.

Casino and Related Structures

The Hollywood Casino gaming area includes over 1,700 slot machines, 43 gaming tables, and 8 lounges and restaurants. The casino does not offer overnight accommodations or large entertainment venues. The casino and attached parking garage is a large and tall building, but only includes selected fire and life-safety features that are commonly associated with high-rise structures in California. The parking garage can accommodate 1,800 vehicles.

Tribal Facilities:

Three separate buildings are located on the west-end of the compound. A one-story tribal community center, a one-story tribal administrative office, and a small tribal church are located here. An historical tribal cemetery is located on the west end of the property. The wastewater treatment plant is located immediately west of the casino. These are all non-public areas.

1. BUILDING FEATURES

Casino Layout

The Hollywood Casino is a 203,000 square foot, three story, fire resistive structure, with 73,000 square feet of gaming area and a guest maximum occupancy of 5,500 persons. 300-400 employees are onsite at any one time. Guest access occurs on floors C1 and C2, with administrative support on floor C3. The roof area is referred to as floor C4. The primary gaming area is on floor C1. The main casino floor has an 18 ft. ceiling, with a center core atrium housing two reversible escalators between floors C1 and C2. Interior building length (E-W) averages 536 feet; building depth (N-S) averages 220 feet.

The casino utilizes propane as a natural gas alternative, and is supported by onsite hot water boiler and water cooler facilities, and heating, ventilation, and air conditioning (HVAC) systems. The casino maintains domestic water and electrical connections with municipal utility companies.

Key locations within the casino

A rear corridor (aka: “Back of House”) provides access on floor C1 behind most of the casino facilities.

All restaurants are located on floor C1, including:

a. Final Cut Restaurant, Lounge, south wall-center floor (includes kitchen, main & private dining room)
b. Tony Gwynn’s Sports Pub, west wall
c. Food court, north-west wall. Common main kitchen. (Includes: Ruby’s Dinette, Tres Taqueria, Pizza Port, Hollywood & Grind)
d. Emerald’s (Noodle Bar), kitchen

Additional facilities on floor C1:

a. Jive Bar Lounge and stage, north wall, center building
b. Rodeo Drive Gift Shop, east wall.
c. Cage, mid-north wall
d. High Limit Gaming- Floor C-1, south side

Facilities on Floor C2:

a. Loft 94 Beer Gardens/patio bar, top of escalators, east wall. (C2 consists of a partial floor-loft only)

Administrative offices are located on floor C3, including:

a. Security, south-west areas, rooms 037-041 Includes full facility surveillance camera array
b. Detention/Interview, adjacent to Stair 1, room 045.
c. Medical treatment, in Security area
d. Administrative Offices, Mailroom, east end
e. Training, rooms 100/101
f. Human Resources, room 030
g. Exercise room, room 022

General Building Facilities:

a. Boiler room, floor C3, west end of building, room 046
b. Water chiller, Parking structure, floor P7, west end of building
c. Elevator control rooms-Main elevators: floor P8 near the Fire Control Room. Service elevators: Floor C1 adjacent to elevators. The Beer Garden elevator on floor C2 has a control room on floor P8.
d. Parking adjacent to main electrical room, south side of facility, floor P4.
f. Main electrical room, west end of casino, floor P5
g. Loading dock, north side of casino, floor P4 (Ambulance entrance)
h. Small loading dock, next to main electrical room, south side of structure, floor C4

i. Ambulance entrance: Main loading dock (P4-North), small loading dock (P4 south), or main lobby entrance (P8), as directed by security.
j. Main water shutoff, on service road, casino northeast corner.

Parking Garage Layout

The attached parking garage is 8 floors (P1-8). Floor P1 is the bottom floor and P8 is at the lobby level. Floors P1-3 are underground, with a total of 1,800 parking spaces, up to 250 spaces per floor. Vehicle entry into this structure is from floor P-8, and vehicle exiting is from floors P4-7. Each floor is approximately 2 acres in size. The parking garage and casino share the same roof. Floor height is 10 feet between parking floors, however maximum vehicle access height is 7 feet due to other ceiling level obstructions. Interior building length (E-W) averages 536 feet, building depth (N-S) averages 220 feet.

- Valet Parking:
  a. Parking floor P8 entire floor, P7 & P6, east half
  b. Valet pickup, parking floor C6, north-east exit.

- Parking Entrance: Floor P8- north side of building

- Parking Exits: Floor P7, P6, P5, P4- All exits are on the south side of the building

Onsite Road/Bridge Access

Roads and bridges in the casino complex are rated at a minimum of 75,000 pounds, or 37.5 US Tons. Service roads surround the south and east side of the casino and parking garage; however, the west side is unavailable to vehicle access and the north side/front entry is highly obstructed. The south-east corner of the casino has a 90 degree turn in its service access with a 14 ft. overhead obstruction. Congestion is likely in an evacuation where private automobiles will be exiting the casino. In this case it will be important for Casino Security and Law Enforcement to manage traffic flow and preserve emergency vehicle access.

Roof Access

Aerial ladder access to the roof of the casino/parking garage is available from the North side of the building (from bridge accessing floor P-8). The height from this location to the rooftop parapet is 68 feet. Aerial ladder access may also be available to a casino rooftop patio bar deck (height 53 feet above access road) on the east side of the casino; however, this location has significant access restrictions due to roadway width and overhead obstruction. Roof access via stairwell may be obtained via stairwell 8. A built-in roof ladder accesses the roof above the boiler on the west end of the structure, adjacent to the boiler room.

2. FIRE COMMAND CENTER

The Fire Command Center (aka: Fire Control Room) is located in the northwest corner of parking garage, floor P-8, adjacent to the main parking entrance, and serves both the casino and parking garage. The Fire Command Center is equipped with alarm annunciator panels, evacuation public announcement system, elevator control systems, smoke ventilation systems/stairwell pressurization status panel, emergency lighting controls, building plans, and facility keys.

Firefighter Access Keys

Seven (7) sets of casino keys for firefighter use are stored inside the Fire Command Center. These key sets include a master key and an elevator over-ride key (Labeled "Cal-Fire 01-07"). These keys will access most areas of the casino except the "Rack Room" and related sensitive locations. For these locations Casino Security will generally need to escort firefighters. A lock box is located outside the Fire Command Center door for emergency access. This lock box contains: 1 master key card, 1 "A" master key, and 1 "B" master key for the facility (labeled "Cal-Fire Masters"). These keys will enable access to all areas of the casino, including sensitive areas. Security for these keys is essential, and responders need to provide extra diligence to return these keys to proper secure storage after each use.

Fire Alarm Panel

The central fire alarm panel provides for indication of the type and location of fire alarms, allows for manual silencing or reset of alarms, and facilitates emergency communications.

Fire officers arriving will need to take written note of the fire alarm conditions reported in the green alarm window. An active alarm will also be lit in the "ALARMS" lights on the left, under the green window. System trouble would be indicated by lights under the SYSTEM WARNINGS lights on the right.

Multiple alarms may be indicated, but only one alarm may be described at a time. Multiple alarms may show warning lights under the ALARMS lighting in both the Fire Alarm and Priority 2 alarm sections.

The Fire Officer should take note, then press the appropriate "acknowledge" ("ack") orange colored button once, and inspect the green text box for additional alarm descriptions. If there are additional alarms described, repeat this process until all alarms are known. Press acknowledge on all alarms in both the fire alarm and priority 2 areas, and record all alarms in writing.

Digital fire alarm read-out, alarm silence and reset function



Single alarms (fire, smoke, etc.) must be inspected but does not indicate the certainty of fire. The indication of a trouble alarm is usually an indication of system trouble or malfunction, but the alarm source should continue to be investigated until proven to be a non-emergency.

Multiple and redundant alarms, indicating presence of fire and smoke in one or more locations should be considered as a working fire, and actions going forward should be based on that premise until proven otherwise.

<u>Fire Alarm Zones</u>
The fire alarm system is separated into two zones:
Zone 1: Floors C1-4, and floor P-8 elevator lobby (Casino and entry).
Zone 2: Floors P1-8 (parking garage).

Fire alarms and related building fire protection systems will only activate for areas within the zone of the alarm.

<u>Fire Alarm Codes</u>
The following types of codes are annunciated at the alarm panel in the Fire Command Center:

a. Smoke

b. Heat Sensor
c. Waterflow (sprinkler or standpipe activation)
d. Duct Sensor (Smoke)
e. Manual Pull (only one, in Fire Command Center)

Alarms annunciated at the alarm panel will include a type of alarm, followed by the building location. A full list of possible alarms will be maintained in the Fire Command Center.

If the fire alarm system does not activate automatically for a fire or smoke condition, the entire system may be activated by activation of the building's single manual pull station to the right of the annunciator panel.

Alarm Silence Switch

The alarm silence switch will silence audio alarms both at the panel and any audio alarms being voiced within the building. No alarm may be silenced manually until building staff is on scene of the reported incident and indicate no fire or smoke is visible.

Security or building services staff may activate a "silence alarm switch" prior to the arrival of fire department staff only when they have reason to believe that such an alarm is false. This requires the presence of building staff on scene of the reported fire location who confirm that no fire or smoke is immediately visible.

In the presence of continuing fire or smoke alarm, a silenced alarm may return automatically into an active mode.

Alarm Reset Switch

The System Reset switch resets the alarm panel to the original "ready" mode. The system reset will not function if the alarm panel continues to detect a fire or smoke condition. This function should not be activated by building staff without fire department's review of the active alarm. Exceptions may occur, such as when a fire alarm is transmitted, but determined to be of accidental nature (i.e.: waterflow alarm caused by a sprinkler head damaged by a forklift, or similar event).

Once fire department staff are onsite of a reported alarm location and indicate they believe it is a small contained incident or false alarm, the Fire Officer in the Fire Command Center may attempt a system reset. A return of all systems to a standby-ready status, with no alarm reactivation is generally an indicator that the alarm event is concluded. However, in all cases, reports of alarms should be thoroughly inspected at the source prior to incident closure.

Alarm History

Alarm history can be re-read, even after a system reset. To retrieve historical alarm data, use the annunciator panel scroll switch to select “Historical Alarms”. These alarms will be listed by last alarms first. Enter the following:

a. Alarm Log, then ENTER
b. Read alarms displayed
c. Scroll through alarms to capture all alarms displayed in alarm event.

Active fires will quickly re-trigger alarms following a “System Reset”. However, the temporary loss of notification, smoke management, and elevator controls due to premature system reset can jeopardize human life.

Smoke Control Panel

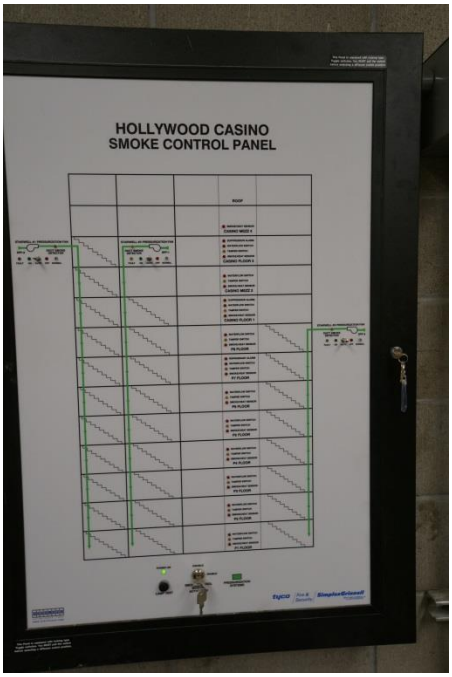
A smoke management system provides for smoke and fire alarms, and activation of stairwell pressurization fans to prevent smoke intrusion for three building stairwells 1, 2 and 9. The Smoke Control Panel controls this system and despite similar marked spaces on the adjacent fire annunciator panel, which are not in service, the Smoke Control Panel is the only panel to annunciate or control these specific systems in the Fire Command Center.

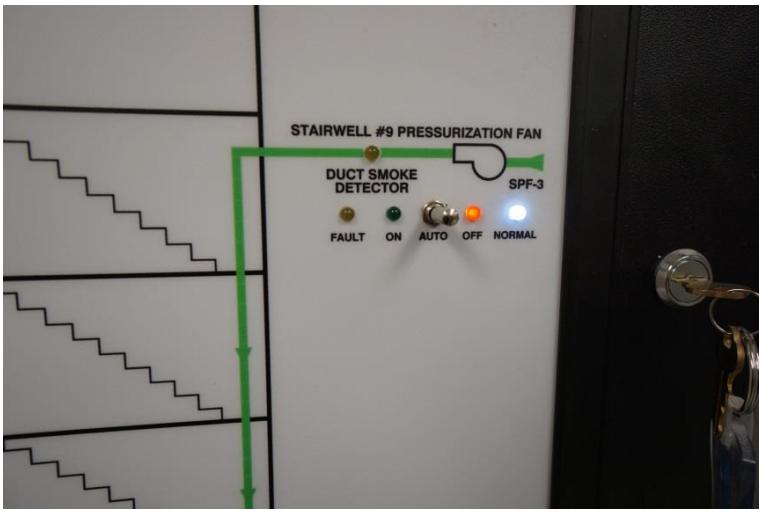
When any smoke or fire detector is activated in the casino or parking garage, all 3 stairwell pressurization systems will be activated. A “system on” light will be lit on this panel, indicating fans are pressurizing the stairwells. This system is always in the “standby-ready mode”. The panel is equipped with a key switch on the bottom which should always be switched to the “enable mode”.

In the event that smoke will be exhausted using parking garage exhaust fans, it is essential to ensure stairwell pressurization is operating first to prevent smoke migration into the casino. In the event that stairwell pressurization does not occur automatically, it will be necessary to manually activate this system.

Manual activation is accomplished by applying a light pull outward to the toggle switch associated with the desired stairwell’s system, then directing the switch to the “on” position. This process should be repeated for each the three stairwells as required.

Smoke Control Panel and Detail





Elevator Controls

All elevators in the casino and parking garage are electric powered. Elevator controls for two banks of elevators are found within the Fire Command Center.

Elevator control banks in Fire Command Center



Fireman Service is available for all elevators. A key switch will enable activation of Fireman Service and recall all elevators to floor P-8. If the fire alarm is activated for floor P8, the elevators will alternatively recall to floor P7. Further movement of elevators will require elevator keys in individual lifts and be subject to manual controls.

Emergency Generators

Facility backup power diesel generators supply power to all casino lighting, emergency lighting, and the majority of parking garage lighting. It has a 3-day fuel supply. Should they fail to automatically operate, manual activation switches are located in the Fire Command Center.

Audio Communications Systems

Both recorded evacuation messaging and voice loudspeaker messaging may be managed from the Fire Command Center. Located below the alarm digital readout panel is a microphone and select-to-talk switching.

Communications Panel



Evacuation messaging for the entire building, including the parking structure, will automatically activate upon activation of fire and smoke alarms. They will activate for areas of the casino or parking garage that are in alarm mode only, unless manually over-ridden for an “all-call” broadcast.

Activating an all-call Emergency Broadcast

An automatic and generic emergency broadcast directing guests to move to evacuation stairwells and leave the building may be manually broadcast to all casino and parking garage floors by activating the “All Speaker Evac” button on the messaging console.

Selective Emergency Broadcast

Selective automatic and generic emergency messaging may be manually activated using the “Selective Evac” button on the massaging console. Additionally, buttons must be selected for floors where broadcasting is desired by activating the button for floors C-1 through 3 or P1-8.

Manual Broadcasting

To manually operate the public address system, select “Speaker Talk”. Then wait until the green light for “Ready to Speak illuminates. This will allow the user to then communicate as desired throughout the building and parking structure.

To select a particular floor or area to message, select “Local Speaker”, then select the appropriate floor from the panel, then select “speaker talk”. Then wait until the green light for “Ready to Speak illuminates. This will allow the user to then communicate in selected areas.

Alarm System Failure

Should an alarm system fail to reset or show “system trouble”, an alarm company will need to be called to service the system. The casino should require the establishment of a dedicated “Fire Watch” to both conduct active walking patrol, and physical system observance until the system is restored in full.

Radio and Internal Communications

An onsite repeater system will boost 800 MHz radios used within the Parking Garage and casino. Cal Fire-San Diego County Fire Authority has placed a communications kit inside the Fire Command Center for firefighter use.

Parking Garage Speaker System

The parking garage has messaging boxes that communicate to Security Dispatch on floor C3 (They do not communicate directly to the Fire Command Center). They are located on each floor of the parking garage at two locations. The boxes are marked by a bright blue light. Activating the system will broadcast a picture of the caller to Security and allow direct voice communications.

3. FIRE SPRINKLERS AND STANDPIPES

Fire Sprinkler Systems

The entire casino and parking structure share a common fire-sprinkler/standpipe system. It is supported by domestic water supply alone; no facility fire pumps or additional onsite reservoirs supplement this system. Any boost in pressure or supply to the system must be provided solely by fire apparatus by connection to the Fire Department Connection. While domestic water supply is sufficient to support the activation of a single sprinkler head, activation of multiple sprinkler heads must be

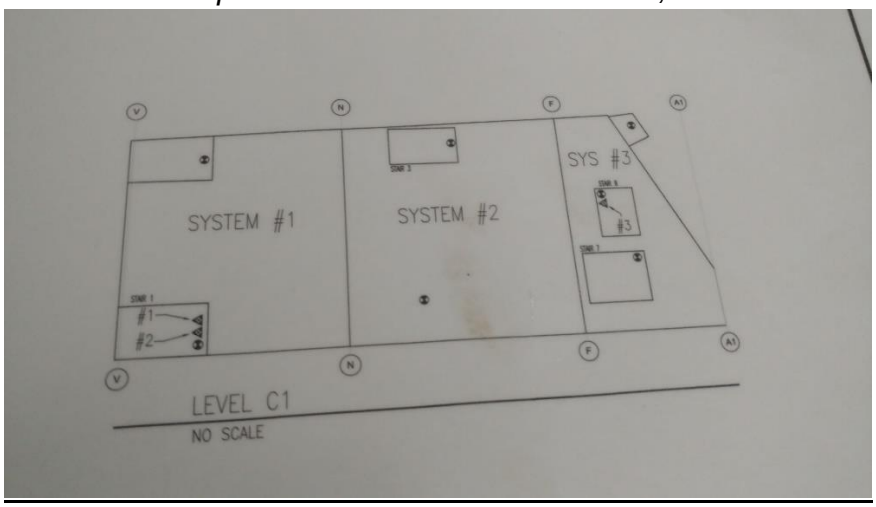
supported by fire apparatus pumping or risk ineffective fire flows to hold an aggressive fire. The sprinkler system is separated into three zones:

Zone 1: West 1/3 of the casino and parking garage
Zone 2: Center 1/3 of the casino and parking garage
Zone 3: East 1/3 of the casino and parking garage

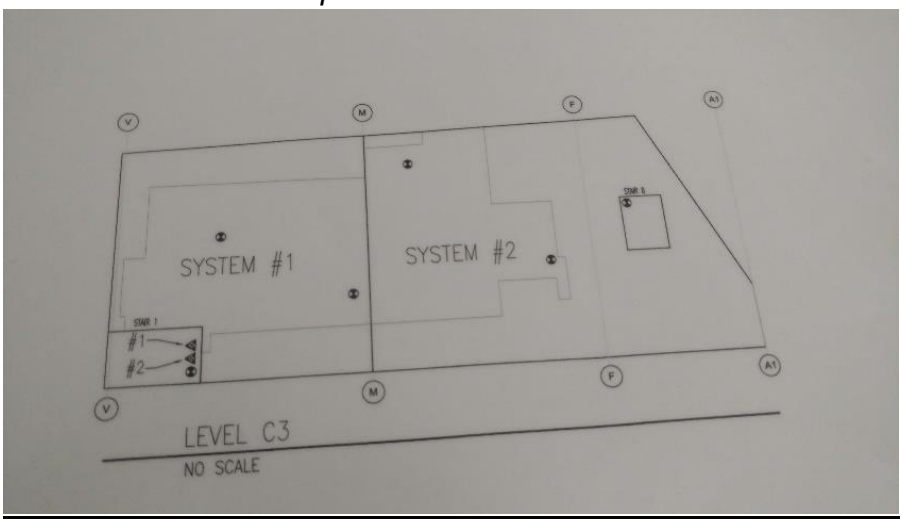
Sectional valves for fire sprinklers are available for 1/3 of each floor, and may isolate water flow. These valves are located:

Zone 1: (West 1/3 of building): Stairwell 1
Zone 2: (Center 1/3 of building): Stairwell 1
Zone 3: (East 1/3 of building): Stairwell 3 for floors P1-8, then Stairwell 8 for C1-3

Fire Sprinkler Zones- Floors C1 & C2, P1-8

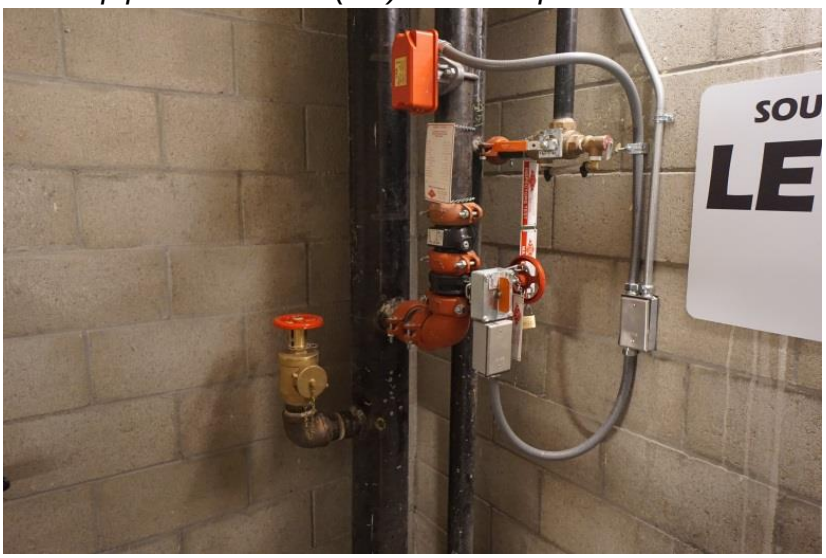


Fire Sprinkler Zones- Floor C3



All system valves are set to “open” and are ready to support firefighting operations. Spare sprinkler heads and tools are stored in the Fire Command Center. Numerous boxes contain sprinklers of all sizes, design, and GPM output that are used in the casino. Be sure to match the replacement head exactly with the style of head to be replaced.

Typical stairwell standpipe connection (left) and fire sprinkler sectional valve (right)



Some of the spare sprinkler head storage in the Fire Control Room



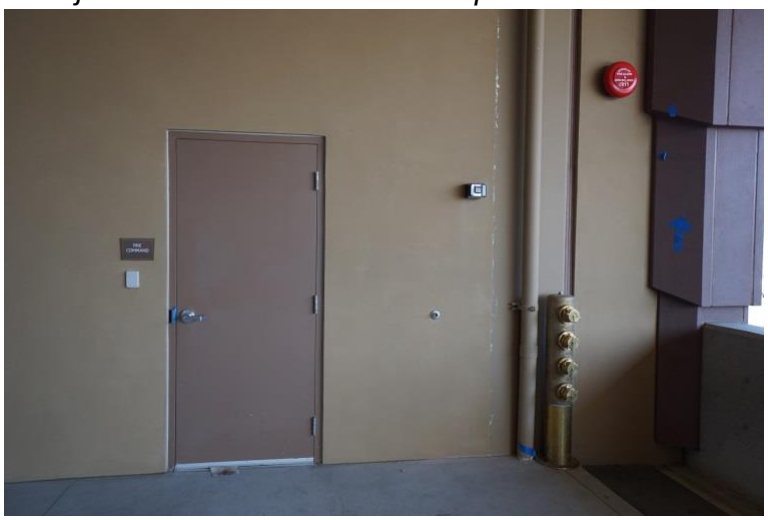
<u>Fire Department Connection</u> (FDC)

The FDC allows fire apparatus to boost pressure and supply to the fire sprinkler and standpipe system. The single FDC supports both the casino and parking garage. It is located adjacent to the Fire Command Center, near the parking structure entrance on floor P8. The 4 FDC intakes all provide water to the common sprinkler and standpipe system, (No one port is related to any one part of the system). To ensure adequacy of

fire flow for working fires, all intakes should be supplied. *The maximum pressure and volume for this system to be supplied by fire apparatus is 1,000 GPM at 165psi.*

A fire hydrant is located immediately across the driveway from the FDC. The fire apparatus supplying the FDC should connect to multiple fire hydrant discharges to support system volume requirements.

Door to Fire Command Center, at the north parking entrance on floor P8, showing the adjacent Lock box and Fire Department Connection.



The Fire Department Connection with fire hose connected for supply



The nearest Fire Hydrant to the Fire Department Connection, located immediately east of the FDC, across the driveway lanes. This entry and will be blocked by fire apparatus when in use.





Fire Standpipes

Wet standpipes are located in most stairwells and in boxes on floors C1 and C3. (see maps).

STANDPIPE LOCATION	LOCATION In BUILDING	CASINO FLOORS SERVED	PARKING FLOORS SERVED
Stair 1	SW corner	C1 & C3	P1-8
Stair 2	NW corner	C1	P1-8
Stair 3	N Center	C1 & C3	P8
Stair 4	Center Core	C1	P8
Stair 5	Center Core	C1	P8
Stair 6	NE corner	C1	P8
Stair 7	SE corner	C1	P8
Stair 8	SE corner	C1, C2, C4	P8
Stair 9	SE corner		P1-8
Floor C1	Across from Steak House	C1	
Floor C1	Stairwells (6)	C3	
Floor C2	Stairwell (1)	C2	
Floor C3	Hallways (3)	C3	
Floor C3	Stairwells (3)	C3	

The standpipe and sprinkler system are inter-connected. The system is supported by domestic water pressure, unless augmented by a fire engine on the Fire Department Connection. All standpipe connections are a single 2 ½ inch discharge with National Standard thread.

Additional standpipe cabinets are located in the Parking Structure and on casino floors as flows:

a. 3 on each parking floor: Mid- west side, and north-east quadrant
b. Floor C3 in NW and SE hallways
c. Floor C1, SE corner- near Steakhouse entrance

Hose lays of up to 550 feet may be required to stretch fire service lines from a stairwell standpipe to the opposite side of most floors. 225 feet will generally reach the maximum halfway point to the next standpipe.

The Outside Stem and Yoke (OS&Y) valve serves as a master shutoff for the building's fire sprinkler and standpipe system. It is located outside the Casino, on the northeast side service road.

Fire Hydrants

Six (6) fire hydrants are located on roads surrounding the casino/parking garage, and 1 is located adjacent to the Wastewater Treatment facility. Hydrants are located as follows:

1. Floor P8 north (near FCC)
2. Floor P8 south- near exit
3. Floor P6 south driveway access
4. Floor P4 north driveway access
5. Adjacent to (west of) waste-water treatment facility,
6. On Reservation road, near the water main shutoffs.

Emergency Fire Flow

Each onsite fire hydrant has a reasonable expectation of 1,500 GPM fire flow, with a static pressure of 152 PSI. A maximum fire flow of 5,000 GPM (from multiple hydrants) will result in a residual pressure of 109 PSI. Reservoir capacity in the area can deliver the maximum fire flow for a four-hour duration. The Otay Water District should be immediately notified of any major fire affecting the casino. (619) 670-2222.

4. STAIRWELLS

Stairwells

Eleven stairwells are included in the casino and parking structure. Stairwells have a 1-hour fire rating. Stairwells 1, 2 and 9 are equipped with positive pressure stairwell pressurization systems. These systems activate upon detection of fire or smoke by the fire protection system. The system can be calibrated between 2,500 and 2,000 PSI, and is currently set for the 2,000 PSI airflow.

STAIRWELLS / STANDPIPES					
STAIR	**LOCATION**	**CASINO FLOORS SERVED**	**PARKING FLOORS SERVED**	**STAND PIPE**	**NOTES & Planned Use**
Stair 1	SW corner	C1 & C3	P1-8	Y	Primary Fire Attack- C1, C3, & Parking/Ambulance Entrance. Pressurized when smoke/ fire detected. Sprinkler sectional valves- Zones 1 &2.
Stair 2	NW corner	C1	P1-8	Y	Primary Fire Attack-C1 & Parking. Pressurized when smoke/fire detected.
Stair 3	N Center	C1 & C3	P8	Y	Exit.
Stair 4	Center Core	C1	P8	N	Exit
Stair 5	Center Core	C1	P8	N	Exit
Stair 6	NE corner	C1	P8	Y	Exit
Stair 7	SE corner	C1	P8	Y	Exit
Stair 8	SE corner	C1, C2, C4	P8	Y	Primary Fire Attack.- C1, C2, C4 Only stairs with roof access.
Stair 9	SE corner		P1-8	Y	Primary Fire Attack-parking only. Pressurized when smoke/fire detected. Sprinkler sectional valves-Zone 3.
Stair 12	SE corner	C1, C2			Beer Garden Access

5. ELEVATORS

All elevators are electric powered. Both service and public elevators are provided in 3 building locations:

a. Main Elevators (public) 1, 2, 3, 4, serving casino floors C1 & C3 and parking garage floors P1-8, building center core
b. Service Elevators: SE1, SE2, SE3- serving casino floors C1 & C3 & parking garage floors P1-8 (Except floor P4), southwest corner
c. Service Elevator SE4: Casino, south east corner, C1 & C2 (beverage movement)

All elevators have fireman service, and can be recalled from the Fire Control Room. Elevators will recall in fire alarm mode to floor P8, or alternately floor P7 if P8 is in the fire alarm mode.

Elevator “Smoke Guards”

The elevator lobbies within the parking garage, C1 elevator lobby, and C1/C3 elevators (“Back of House”) are protected by “Smoke Guards Systems”, which are curtains that drop down to protect elevator and corridor openings from smoke intrusion, upon smoke

detector activation. The guards deploy when smoke is detected locally, and only for the area where smoke is detected.

Elevator Control Rooms

Controls for guest elevators are located in a room on floor P8 near the Fire Control Room. Service elevators have a control room on floor C1 (next to the elevators). The Beer Garden elevator on floor C2 has a control room on floor P8. Switches in these rooms can turn-on/off electric power to the elevators. Once power is shut-off, Fireman Service will no longer operate the elevators.

Elevator Rescue

Rescues of persons trapped in elevators requires special tools, processes and training. This can be a hazardous process, and has resulted in fatalities in other jurisdictions when performed without proper training and safety procedure. Rescues must always be performed with main power shutoff and the elevator car immobilized. In the event fire or facilities staff on hand lack proper training, call for elevator company assistance to conduct rescues.

6. VENTILATION and AIR HANDLING

The casino is equipped with a HVAC system and a garage exhaust system. Due to air movement and ducting, smoke from working fires may show at locations which do not indicate the specific location of fire, but it will likely indicate the location of system exhaust ports.

Casino Emergency Ventilation

The casino has an HVAC system that routinely exchanges air on all floors. It is important to ensure the casino HVAC system is set to recirculate air or turned off rather than import outside air to control smoke intrusion during any fire where smoke may be imported into the structure, including nearby wildland fires. Seek facility engineering to accommodate this need.

The HVAC system may be used to support casino smoke ventilation, however facility engineers may have to overcome fire and smoke detection systems in order to accommodate this.

No removable skylights, wall panels, or windows exist to support emergency ventilation, however patio decks with large openings are located in the Beer Gardens on floor C2 and the Steakhouse on floor C1. Otherwise, ventilation through doors and shafts using traditional fire service methods will be required. Breaching of walls, roofs, or related means should be used only as a last resort.

Vehicle Exhaust Management System

The parking garage exhaust system will import fresh air and discharge vehicle exhaust contaminated air under normal operations to floors P1-8. The system is equipped with fire and smoke alarm systems designed to automatically detect and shut off this system in the presence of fire or smoke. This system includes mechanical exhaust ports located on the casino exterior.

Parking Garage Emergency Ventilation

In the event of a fire, zero visibility and potential IDLH smoke conditions may develop rapidly within the parking structure, posing critical risks to civilians and firefighters alike. *In the event of a fire, Casino Security must immediately restrict all pedestrian and vehicle access to the parking structure*. Large commercial fans may be needed to ventilate smoke volumes; traditional fire service fans will be generally inadequate due to their inability to move such large air volumes.

The parking garage lacks a specifically designed smoke management system; however, it does have the vehicle exhaust management system which can be manually operated to vacate smoke. This system has no ductwork connection with the casino. The system can be used to exhaust smoke from the garage, but only with certain conditions. These conditions are established to prevent transfer of smoke and fire from garage into the casino, and include:

a. The fire must be confirmed as out, and smoke must have cooled to a point to ensure no further fire propagation.
b. All stairwells and elevator shafts are to remain closed.
c. The stairwell fire pressurization system (stairwells 1, 2 & 9) must be turned on and remain operational while garage exhaust fans are operating.
d. Visual monitors should be posted on upper casino floors.
e. Fire alarm systems must be active and capable of new fire/smoke detections (system not reset or turned off).
f. Casino exterior patio doors for the Steakhouse (floor C1) and Beer Gardens (floors C2) must be closed. These patios are situated above garage exhaust ports and have the potential to intake exhausted smoke under certain conditions.

The garage exhaust system may then be manually switched into the “on” position on each of 8 units, and operated until smoke is cleared from the garage.

Typical ventilation fan enclosure in parking garage



Turn on manual switch in exhaust fan cage to exhaust air



Petroleum fuel powered fire department fans should not be operated within confined spaces, as they will introduce carbon monoxide from the engine exhaust into the space, and are generally of insufficient capacity to reduce trapped smoke volumes from a vehicle fire.

The garage should be monitored for carbon monoxide concentrations following fires, even once the floor appears generally clear. Respiratory protection should be worn by responders, and civilians should be barred from entry, until such time as carbon monoxide and other pollutant levels have been confirmed as non-IDLH.

7. SPECIALIZED FIRE PROTECTION SYSTEMS

Fire Walls and Dampers

Fire wall separation between the parking garage and casino is provided by 1-hour rated glass doors in elevator lobbies, 1-hour fire doors for stairwells, and 2-hour separations for each building floor. Fire dampers are located within ductwork in 5 locations: 3 in the Rack Rooms and 2 in the horizontal exit in the middle of the structure on floor C3. These dampers provide 2-hour rated fire barriers.

Special Systems

Seven commercial fire protection systems are found in data management rooms. These systems are located:

a. 2 systems on casino floor C-3; rack rooms
b. 4 systems on parking garage floor P-8; IT rooms
c. 1 system in the wastewater treatment facility

These rooms are equipped with *FM200* fire suppression systems. *FM200* is an environmentally safe, non-electrically conductive fire suppression agent which leaves no damaging residue on electrical components. They are supplied by stand-alone pressurized agent bottles mounted upright in affected room corners. When exposed to high temperature, *FM200* generates highly acidic gases and firefighters should be protected against FM200 and other products of combustion with breathing apparatus until ventilation is completed. Avoid skin contact with *FM200* liquids due to frost hazards.

Commercial hood and duct fire suppression systems are located in all kitchens. These are independent systems for each individual site.

8. SALVAGE and DE-WATERING

Casino De-watering

Limited drainage exists within the casino for fire suppression water. Potential methods include use of kitchen floor drains, removal of toilets for plumbing pipe access, use of stairwells and elevator shafts, or use of water vacuum equipment. Channelization of water using salvage covers, plastic sheeting, or other equipment may assist in water management.

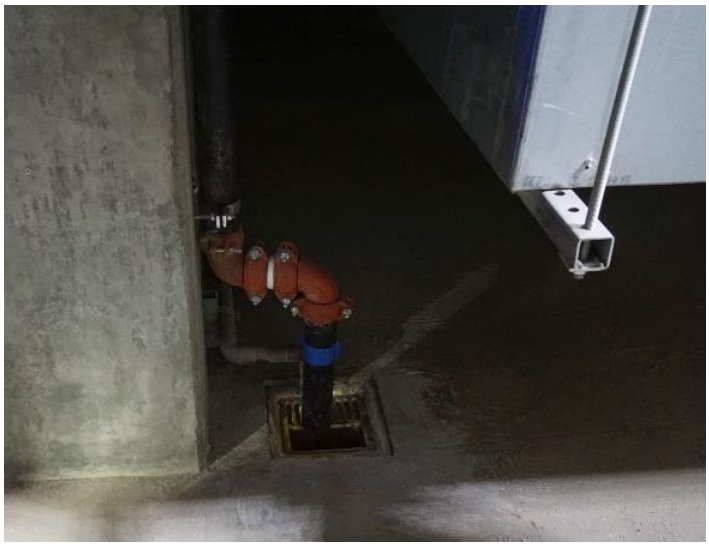
Parking Garage De-watering

Limited drainage exists for the parking garage. Parking levels P4 through P8 have access to driveways where water may be manually moved. Parking levels P2 and P3 have no floor drains. Parking level P1 has a single floor drain in the northwest corner of the garage for drainage of floors P1-3.

Use of Elevator Shafts

Runoff water may be directed into elevator hoist ways where it will be transferred by sump pumps into the waste-water treatment facility. *It is CRITICAL that electrical power be turned off to elevators used for this purpose for safety*. Notify facility engineers that such action is being taken so they may best manage intake at the waste-water facility. The parking structure floor P1 has a water drainage intake, located in the northwest corner of the facility below an exhaust fan unit. P2 and P3 have no floor drains.

Floor water drain, NW corner of Floor P1



Drainage Avoidance

There are 6 manhole covered sumps and lift pumps in the northwest corner of the parking garage on various floors that are *not to be used* for fire drainage. These locations drain into a sump area, then directly into an open creek outside the casino. This cover should be isolated by berming, when possible, to avoid discharge of fire products or other environmentally harmful products into the environment. The opening covers are marked “sewer” and are locked within fenced areas of floors P1 and P4-P8 of the parking garage.

Sewer cover and sump pump - DO NOT USE FOR FIRE DRAINAGE



9. UTILITIES

Propane:
A propane-air mix is used as a surrogate to natural gas in this facility. A main propane supply line manifold and tank is located near front entrance to the casino on Floor P8.

A 30,000-gallon propane tank is located on the west side of the entrance driveway. Emergency propane shutoffs are located in three (3) locations along the entry road into the main entrance, (Roadside, at top-side valves, and on ground at bottom of tank)

Emergency propane shutoff sign and toggle switch on rear of sign on main entry bridge





Emergency propane shutoff assembly near tank on entry road bridge



Electrical Shutoff:
Main panels are located in the main electrical room on the southwest side of the parking garage, floor P5, west end of the building. Consult facility engineering staff prior to any electrical shutoff at the main panel.

Facility main power shut-off is the far left bank of these 4, with a single throw switch on the left. The bank is the furthest north in the main electrical room.



Water Shut-off
The Outside Stem and Yoke (OS&Y) valve serves as a master shutoff for the building's fire sprinkler and standpipe system. It is located outside the casino, on the northeast side service road. The main domestic water shut-off for the casino is located immediately next to the OS&Y valve, with the OS&Y nearest the driveway, and the main domestic water shut-off located nearest the wall. There are no Post Indicator Valves (PIV) in the sprinkler/standpipe system other than sectional valves in the stairwells.

OS&Y (front) and main water shut-off (smaller and behind OS&Y) for casino



Water shut-off: Parking Garage

The main water shutoff for both domestic water and fire sprinklers in the parking garage is located on floor P6, north side.

Floor P6: Fire risers are the bottom white/gray assembly; cold water is the copper pipe above.

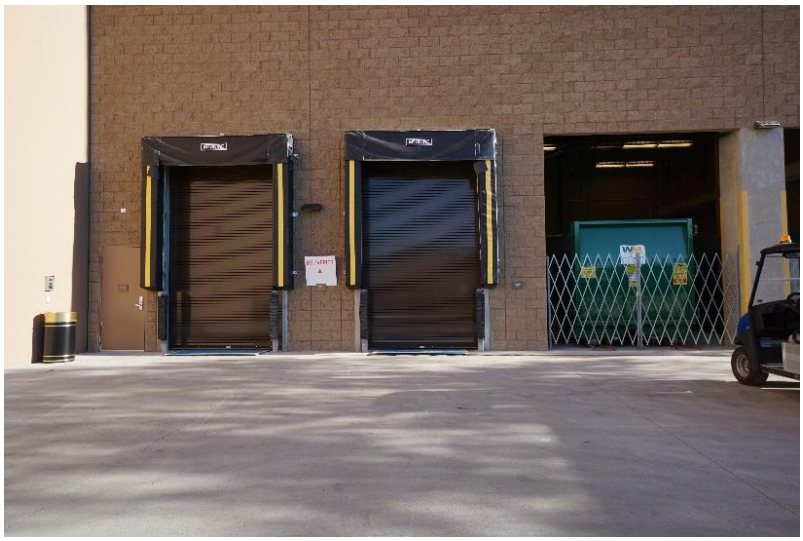


Hot water boiler/water heater: is located in the casino on floor C-3, west end of the building (room C3-046). Emergency boiler shutoffs are located within the boiler room and immediately outside the boiler room door.



HVAC systems: Heating, Ventilation and Air Conditioning (HVAC) units are located on the roof (floor C4). Each HVAC unit has individual service area, numbering, and shutoffs. A fixed ladder located outside the Boiler Room allows for access to HVAC units on small roof area above the boiler room. Water cooling towers are located on the west side of the structure.

Loading dock: The loading dock is located on the north side of the building on floor P4. The dock accesses warehousing on the west end of the casino.



Wastewater Treatment Facility

A 5,000+ sq. ft., one story, wastewater treatment facility Is located immediately west of the loading dock area. The building is fire sprinklered, and has a separate Fire Department Connection from the casino/parking garage. This FDC and a fire hydrant is located immediately west of the facility. The facility processes all facility waste-water and recycles water for toilet, irrigation, and cooling uses. The facility houses typical liquid-biological waste management processes and relatively small quantities of chemicals. Hazardous processes and elements for this facility include the following features:

a. Alarm Systems: The treatment plant operates a system of alarms, including fire, smoke, and waterflow alarms, and two specialty alarms: Lower Explosive Limit (LEL) and Oxygen Concentration (O2). These alarms are transmitted to a monitoring company and are not annunciated on the casino alarm system. The specialty alarms are both transmitted to an alarm company and activate a local revolving red light above an alarm panel inside the facility. When activated, assume the potential exists for explosive conditions from biological processes and facility operations.

b. Confined Space: A number of below grade vaults housing various processes and effluent containment are located below the floors of the building or in vaults immediately outside the structure. These include 12.5 foot deep sumps that are likely oxygen deficient. Confined space rescue techniques are required for any entry into these spaces. Onsite crews are trained and equipped to conduct such entry.

c. Hazardous Materials: Chemicals are used in various processes within the facility. These chemicals are typically stored in approximately ten 55 gallon drums and assorted smaller containers, with the drums in use being mounted on spill containment racks. Appliances are hooked to drums directly to extract needed chemicals when product transfer is required. These chemicals include common acids and caustic liquids, marked typically as corrosive hazards. Biological hazards are posed by both effluents and waste-water process residues. (Older water facilities commonly use hazardous substances such as chlorine for water processing. This facility is designed to not use chlorine and use ozone and UV light as a surrogate for such processes). Eye-wash stations and emergency showers are located within the facility for emergency decontamination. Typical chemical quantities include:

	Chemical	Largest Container	Quantity on Hand
1	Diesel Fuel	425 gallons	2/3 tank
2	Sodium Hypochlorite	55 gallons	4 drums
3	Citric Acid 50%	55 gallons	2 drums
4	Sodium Bisulfite 25%	55 gallons	1 Drum
5	Descalant Solution 10%	55 gallons	1 drum
6	Vitec 7000 Descalant	5 gallons	5 gallons
7	Activated carbon	55 gallons	4 drums
8	MicroC	55 gallons	2 drums
9	Hydrochloric Acid 20%	5 gallons	1 glass carboy
10	Caustic Acid 50%	6 gallons	2 glass carboys
11	Sodium Bisulfate	7.5 gal Pail	1 Pail

d. Emergency Generator: An emergency generator with fuel storage is located on the north-exterior of the facility. This generator supplies emergency power to this facility only.

Typical corrosives used in the wastewater treatment facility



Wastewater treatment Fire Department Connection



Ambulance Access

Fire Department units and ambulances should utilize the entrance as directed by Security at the time of call. The access point will be determined by patient location, but will generally be one of the following locations:

a. Loading Dock, north side of casino, floor P5

b. Main casino entrance, floor P8

c. Small loading dock, near main electrical room, south side of building,floor P4.

10. TRIBAL BUILDINGS

Several additional buildings are located on the west side of the property that are closed to public access and reserved for tribal use. These include:

FACILITY NAME	*Square Feet*	*Floors*	*Fire Sprinklers*
Tribal Administrative Offices	2,000	One	No
Community Center	4,000	One	No
Church	500	One	No

11. CASINO MANAGEMENT

Tribal Governance

Jamul Indian Village has a six-member Tribal Council providing executive leadership for the Tribe, its sovereign lands, and the casino. The Tribe was recognized by the Federal Government in 1981. The Tribe has a casino management relationship with Penn National Gaming of Wyomissing, PA.

The Tribe maintains a 20 year-MOU (2016) with the County of San Diego providing over $2.75 million annually for fire, life safety, and public safety services. Additionally, the MOU provides for transportation and other regional improvements.

The administrative address for Jamul Indian Village is:

Mailing Address: P.O. Box 612, Jamul, CA 91935

Physical Address: 14191 Hwy. 94, Jamul, CA 91935

Offices Phone: (619) 669-4785

Casino Security

Emergency 24/7: Security Dispatch (619) 315-2400

Emergency Medical Technician (EMT) on site 24/7

San Diego County Deputy Sheriff on site 40 hours/week

10-18 Security Officers on at a time.

Bob Schmitt/Director of Security, Hollywood Casino Jamul
Office: (619) 315-2294 Cell: (619) 832-6752

Security phone/Contacts: Shift Supervisors: (619) 832-6340, (619) 832-3485

Security Shifts: 1st Shift, 0630 - 1500 (off Wednesday/Thursday)
2nd Shift, 1430 - 2300 (off Monday/Tuesday)
3rd Shift, 2230 - 0700 (off Monday/Tuesday)

Facility Engineers

Emergency-24/7: Contact via Security

Automatic External Defibrillators (AED's)

AED's are located throughout the casino. See maps for locations.

Floor C1 (4)

Floor C3 (2)

Floor P6 (1)

Section II. STRUCTURE FIRE ALARM AND RESPONSE PROCEDURE

1. STRUCTURE FIRE ALARM REPORT and INITIAL DISPATCH

DISPATCH

A. The first alarm for an automatic ringing alarm (smoke, fire and waterflow) at the Hollywood Casino with no additional human confirmation of smoke or fire condition shall receive the following:
   2 Engines (a Truck may be substituted for one Engine)
   Battalion Chief notification (response discretionary)

B. The first alarm for a reported structure fire incident, defined as an automatic fire alarm with human confirmation of smoke or fire, or a verbal report of a fire at Hollywood Casino shall include:
   5 Engines
   1 Truck
   2 Chief Officers (DC/BC)
   1 Ambulance

C. A reported "system trouble" alarm, without evidence of fire by any other electronic or human report, is considered a maintenance issue rather than an emergency. Should Security report a "system trouble" only condition prior to fire department arrival, the emergency response should be terminated, with non-emergency follow up only by the first due company to determine system operational integrity and false-alarm incident report information.

2. AUTOMATIC ALARM WITH NO VERBAL CONFIRMATION OF FIRE

INITIAL ACTIONS

A. Actions by the first arriving resources shall include:
   1. Initiate command from the Fire Command Center (Fire Control Room) and establish immediate liaison with Casino Security.

   2. Provide prompt investigation of the alarms displayed and assign Firefighters to investigate the alarm location.

   3. First arriving engine (type 1 preferred) lay dry lines to the Fire Department Connection and fire hydrant supply.

   4. If an actual fire or smoke condition is found after arrival, or

alarm conditions in the Fire Command Center suggest an actual fire may be occurring (multiple fire, smoke, and water flow alarms for the fire floor), command shall immediately upgrade the response to a full fire response.

5. Investigation Team: A team investigating a single form of automatic alarm (smoke, fire, water flow), that is unconfirmed by human report, will be composed of a minimum of two personnel. This team will respond to the reported source of alarm for investigation. The team will carry the following equipment:

    a. Equipped with:
        - Full protective equipment and SCBA
        - Pressurized water fire extinguisher
        - Forcible entry tool
        - Hand lights
        - Thermal imaging equipment (if available)
        - 800Mhz Radio(s)
        - Building master/elevator keys (obtained from Fire Command Center)

    The Investigation Team shall remain in constant contact with the Fire Command Center in order to obtain updates, and will check-in with the Incident Commander prior to entry onto the alarm floor. Should the Investigation Team discover a fire or heavy smoke condition, they will discontinue entry and await additional resources until 2-in-2-out staffing and hose lines can be achieved.

B. For single Automatic Alarm incidents where fire or a smoke condition is discovered on arrival:

    1. Start immediate rescue/evacuation of affected areas and initiate fire attack (when 2-in-2-out compliant), while ensuring responder safety.

    2. Establish a water supply, and pump fire sprinklers and standpipes.

    3. From the Fire Command Center, ensure building fire protection systems are operational, including:
        - Elevator recall (recalls to floor P8, or P7 if P8 is in alarm mode)
        - Fire Sprinklers
        - Stairwell pressurization (Stairs 1,2,9)
        - Fire Alarms

- Emergency Messaging
- Emergency Lighting (as required)
- Distribute building master keys to crews on arrival

4. Assign Security to crowd control and evacuation as appropriate (Non-IDLH areas only).

5. Provide for rescue, and initiate treatment of the injured, as required.

6. Report on conditions and order additional/greater alarm resources as appropriate.

7. Exercise property conservation or environmental protection as conditions allow.

MANUAL MANIPULATION OF FIRE ALARMS - FIRE COMMAND CENTER

A. Active fire alarms may be SILENCED by Security staff prior to fire department arrival when they have reason to suspect a false alarm, but NOT RESET. Manual resetting of the alarms may eliminate vital alarm panel indications, requiring a search of the greater facility to rule out a fire incident.

B. Once the Fire Officer has confirmed and recorded active alarms, an attempt may be made to RESET the fire alarm system by either the Fire Officer or Security staff. A system reset, with no secondary or recurring alarms may indicate a false alarm, however inspection of the origin of the alarm will still be required. A system reset activation with additional fire alarm occurrence may indicate the presence of a working fire, and should be assumed as such until proven otherwise. After a system reset, a presence in the Fire Command Center should be maintained for a period of time to ensure immediate notice of any additional fire alarms.

3. CONFIRMED WORKING FIRE

Confirmation of a working fire condition occurs through one of the following means:

A. Arriving firefighters report smoke or fire coming from the structure.

B. Casino Security updates an initial automatic report with confirmation of fire or smoke.

C. ECC receives multiple human reports of fire or smoke prior to the arrival

of firefighters.

INITIAL FIRE ATTACK – FIRST ALARM

A. The following *minimum* core functions shall be implemented and staffed with the first alarm resources:

1. Command: Established within the Fire Command Center by the first arriving company officer.

a. Determine origin and status of all alarms.

b. Establish Incident Objectives to include:
- Confine the fire to the floor/zone of origin
- Evacuate the fire floor, and any location with smoke

contamination or subject to potential fire migration
- Isolate and deny entry of civilians to fire alarm areas

c. Assign incoming resources, distribute facility keys.

d. Establish liaison with Casino Security. Assign to evacuation and crowd control functions.

e. Activate manually any fire system required that is not automatically operating.
- Elevator recall (recalls to floor P8, or P7 if P8 is in alarm mode)
- Fire Sprinklers
- Stairwell pressurization (Stairs 1, 2, 9)
- Fire Alarms
- Emergency messaging
- Emergency lighting

f. Consult pre-fire plans as required.

2. Fire Attack Team: To the fire floor (crews from first two arriving companies combined as a single attack team) to conduct initial firefighting and rescue. Priorities include holding or extinguishment of the fire, rescue, protection of primary escape routes, and prevention of fire extension.

a. Equipped with:
- Full protective equipment and SCBA

- 100’ 2.5-inch hose and 150’ of 1.5-inch hose (bundles)
- Forcible entry tools
- Hand lights
- Thermal imaging equipment (if available)
- Spare air bottles (3)
- 800Mhz Radio(s)
- Building master/elevator keys (obtained from Fire Command Center)

b. The Fire Attack Team will proceed to a single point of entry nearest the reported fire via Stairwell 1, 2, or 9. Investigate and attack fire, conduct rescue as required. (Note: Crews may use Stairwell 3 or 8 or an exterior ladder truck for roof access). The Fire Attack Team will have enough initial hose to stretch across half the floor area, and relief air supplies to enable a 20-minute attack. The team shall check-in with the Incident Commander prior to entry onto the fire floor from the primary attack stairwell.

c. The Fire Attack team must expect IDLH breathing conditions on the fire floor.

d. If a significant fire is discovered, the Fire Attack Team shall establish “2-in-2-out” safety procedures from the attack stairwell. If less personnel are available than required for this procedure, the crew shall await the arrival of additional resources prior to engaging in fire attack. (The “rescue exception” may be applied for temporary conditions).

3. Water Supply/Sprinkler & Standpipes: Support by an early arriving engine, type 1 preferred. (assignment staffed by the engine operator).

   a. Connect to multiple discharges for fire hydrant supply to ensure greatest available volume.

   b. Pump all four Fire Department Connection intakes.

4. Crowd Control: To block public access to fire areas. (staffed by Casino Security initially and supplemented by local Law Enforcement).

   a. Block access to the parking garage from the casino and

street, if fire is located within the garage.

b. Evacuate fire area of the casino, as required or directed.

c. Investigate/monitor non-involved floors as requested.

d. Casino staff shall only operate in Non-IDLH areas.

5. Control Utilities: Within the fire area. Shutoff domestic water, gas, and electric power. (assign to Building Engineers).

6. Establish Medical function: To treat civilians as required. (staffed initially by ambulance staff).

7. Fire Attack Augmentation: Assign third arriving unit to fire attack/rescue or to the floor above the main fire, if extending, reinforce attack on the fire floor, or initiate salvage.

8. 4th arriving unit: Assign to one of the following tasks, depending on immediate need:

a. Medical or rescue augmentation.

b. Rapid Intervention Crew/Backup fire attack.

9. Second Chief Officer:
   a. One Chief officer shall retain command, the second will assume responsibility for fire attack on the primary fire floor, or alternatively, assume responsibility for medical, evacuation, or other most critical needs.

B. The Incident Commander has the authority to assign units to other tasks or priorities as required by emergency conditions, however they retain the overall responsibility to establish all listed functions.

C. For any response, a Security Supervisor should be immediately requested to coordinate with fire commanders in the Fire Command Center. For working fires, a Facility Engineer should also be requested. If Security Offices on floor C3 are not compromised by fire, security cameras there may be an asset for monitoring fire and evacuation conditions. Coordinate observation with the Security Liaison in the Fire Command Center.

4. EXTENDED ATTACK AND MAJOR FIRE

A. Ordering Additional Resources

Second, (or greater up to 4) alarms should be immediately ordered for confirmed working fires, including breathing air (light and air) support. A second alarm should be in addition to the full initial assignment. Guidelines for extended attack conditions include:

1. Smoke showing from the casino or parking garage on arrival.

2. Presence of sequential and multiple detector alarms, including smoke, fire, and water flow for the reported fire floor in the Fire Command Center.

3. Confirmation of a working fire by Security staff.

4. Multiple civilian reports confirming a general location.

5. Determination of the presence of an active fire condition by fire personnel.

Resources assigned to greater alarms will be consistent with the San Diego Unit Standard Response Plan.

B. Responsibilities for greater alarm resources

1. Expand/reinforce the Medical, Fire Attack/Rescue functions - 50% of the second and third alarm resources. Establish at least one additional attack point from a second stairwell, when possible.

2. Establish Lobby Control and consider fire service controlled elevator use.

3. Establish Staging, Firefighter Rehabilitation, and Incident Base. Staging shall be within 2 floors of the fire and include equipment and firefighters. Base shall be outside the fire building and include apparatus staging. Additional ambulance or paramedic units may be needed for Firefighter Rehabilitation.

4. Establish Stairwell Support as required for logistics and supply.

5. Establish Firefighter Rehabilitation in a safe location.

C. Key guidance for support of major incidents

1. Order breathing support and additional air bottles early.

2. Consider a full medical/multi-victim incident response if mass casualties develop. Establish medical as an “Incident-within an-incident” for high complexity situations.

3. Contact Otay Water District to support fire flows with additional pressure and supply.

4. Consider closure of Highway 94 for fire service access.

5. Consider that an active fire burning beyond the second alarm will likely require 100+ firefighters.

6. Continue fire apparatus supported pumping of fire sprinklers and standpipes beyond initial knockdown, until such time as the fire is confirmed out.

7. Consider that IDLH smoke concentrations may form in the parking garage quickly, potentially on multiple floors. Consider use of Haz Mat resources for air monitoring prior to discontinuance of IDLH respiratory protections.

5. SMOKE MANAGEMENT, SALVAGE AND WATER REMOVAL

A. Smoke Management - Casino

1. Provide structure fire ventilation through openable bar/deck windows, vertical shafts, via mechanical ventilation, or breach of roof, windows, or walls. Use caution to avoid creation of ventilation openings on the windward side of the building.

2. Ventilation using Stairwells 1, 2 or 9 will require manual deactivation of stairwell pressurization fans. Use of other stairwells will be preferred or consult with facility engineering.

3. The building HVAC systems or parking garage exhaust systems may be required for use in smoke ventilation. Ensure facilities staff close doors to patios in the Beer Garden and Steak House.

B. Smoke Management - Parking Garage

1. Ensure stairwell pressurization in Stairs 1, 2 and 9 are active to prevent extension of smoke into casino prior to use of any other air handling system.

2. Achieve fire knockdown prior to manual activation of exhaust fan systems.

3. Activate P6 parking garage exhaust fans manually to vacate smoke. (see facility description for instructions).

4. Expect 1-2 hours to vacate smoke effectively, monitor for carbon monoxide accumulations and ensure non-IDLH even when atmosphere appears clear.

C. Use of Gas Powered Smoke Ejection Fans

1. When considering use of fire service fuel-powered smoke ejectors in confined spaces, consider that they introduce hazardous levels of carbon monoxide from motor operation. These fans are also generally too small to move required air volumes within the parking garage. (This may require the casino to contract needed resources).

D. Water Management & Salvage

1. Limited drainage exists in the casino for fire suppression water. Potential methods include use of kitchen floor drains, removal of toilets for plumbing pipe access, use of stairwells and elevator shafts, or use of water vacuum equipment. Channelization of water using salvage covers, plastic sheeting, or other equipment may assist in water management.

2. Limited drainage exists for the parking garage. Parking levels P4 through P8 have access to driveways where water may be manually moved. Parking levels P2 and P3 have no floor drains. Parking level P1 has a single floor drain in the northwest corner of the garage for drainage of floors P1-3. (See facility description for instructions).

3. The elevator shafts in all floors of the casino and parking garage may be used to remove water. *Shut off electrical power to elevators used for this purpose in the elevator control room. Notify building engineers of water input so that controls for waste water may be managed*. Water directed here will accumulate in the shafts where it is pumped out to the waste water control plant.
4. Consider diking drain discharges leading to creek.

6. INCIDENT COMMAND SYSTEM POSITIONS FOR MAJOR FIRE

The following Incident Command System functions and positions are intended for implementation for second and greater alarm fires.

A. Lobby Control

An assigned company from second alarm assignment will establish Lobby Control. Lobby Control may be located at, or near to the Fire Command Center.

Lobby Control reports to the Incident Commander or Logistics Officer. Lobby Control responsibilities include:

1. Initial accountability.
    a. Lobby Control will record company identification as a crew enters the building and their initial assignment.

2. Control elevators.
    a. Lobby Control will control all elevators and will designate specific elevators to be used with assigned fire department operators under “firefighter service”.

3. Control ingress, egress and ascent locations.
    a. Lobby Control will designate all entry and exit locations from the building.

    b. Determine the safest travel route that will protect personnel from falling glass and other items from the building.

    c. Direct firefighters to appropriate route of ascent.

    d. Facilitate movement of equipment and supplies to Staging. Spare SCBA bottles and drinking water should be prioritized very early on in the incident

    e. Equipment movement can be facilitated by elevators

deemed safe to use in “fireman service”. Consider exterior access via driveways to floors P3-P8.

f. Companies enroute to Staging should assist in the movement of supplies and equipment.

g. Assume responsibility for building systems in the Fire

h Command Center, including:
-Built-in fire protection systems
-HVAC/smoke management systems
-Communications and public address system
-Electrical power, gas, and domestic water systems
-Manage access keys and ensure access doors are open.
-Liaison with building engineers

B. Staging

Two forms of staging are utilized in high rise incidents:

1. Incident Base: A location for mass vehicle and crew assemblage. Incident Base works for the Incident Commander or Logistics Section Chief. The Base management function should be assigned during early multiple alarm arrival.

2. Staging: A location near the fire floor to assemble relief crews, air bottles, and firefighting equipment. This location is usually 1-2 floors below the active fire floor, in a clean air area. *Firefighters will need to seek a location offering safety for fires below grade in the parking garage. The Staging Area M*anager works for the Fire Attack Team Supervisor or the Operations Section Chief.

3. Individuals or crews assigned to manage Staging areas shall manage all assets and staff arriving, and deploy resources from staging as requested. The Staging Area Manager shall ensure that adequate reserves have been ordered and are available, as directed by their supervisor, and shall ensure crews and equipment staged are maintained in a ready state.

C. Other Specialized Functions

Additional ICS organizational positions may be established based upon critical need during a high-rise incident. These positions are discretionary, and include:

1. Stairwell Support: Is established when manual movement of supplies and resources via stairwells is necessary to support the fire floor(s). This is a staff-intensive function, and is only recommended when elevator “fireman service” cannot be established. Stairwell Support works for Logistics. (Consider use of fire hand crews for this assignment when stairwells can be isolated from IDLH and other fire threats).

2. Ventilation, Rescue, Medical, Water Removal/Salvage or other Groups: May be established to provide directed support to critical and incident specific needs. They may be established as necessary to improve operational emphasis, or command and control.

3. Helicopter Operations: May be considered for rescue operations for civilians who have fled working fires to roof top spaces. It is not a recommended method for firefighter insertion to fires on floors below the roof level. Air ambulance services may also be needed for critically injured persons.

Section III. Wildland-Urban Interface Fire Response Plan

Wildland Exposure

The entire property is within the High and Very-High Fire Hazard Severity Zone, and has been developed on sovereign lands with little clearance or defensible space to adjacent wildlands. Adjacent wildlands are under State and other reserve ownership, and include grass, coastal sage, and chaparral fuels. Large oak trees are immediately adjacent to the casino and water treatment plant on the facility’s west side. Wildland fires are frequent in the area, and the Highway 94 pathway is within an historical major fire corridor. Past major fires have included the Laguna (1970), and Harris (2007). Wildfires may pose a direct threat to the development, which is of fire-resistive construction, but is subject to ember intrusion via horizontal openings on the east and south sides at restaurant/bar patio decks, in the parking garage/casino access openings on floors P4-8, along the roofline, at ventilation/HVAC air intakes, and in other locations. The need for active structural defense, evacuation, and/or occupant protection-in-place requiring multiple fire and law resources should be anticipated in the event of a threatening wildfire.

The attached Wildland-Urban Interface Fire Response Plan affects the southwest side of the community of Jamul, including the Jamul Indian Village and Hollywood Casino.

WUI Name: JAMUL WEST

Location: Hwy. 94 corridor, S/W Jamul

Public Safety Grids: 1536-1838 **WUI Grid No.:** 13-24 **Thomas Guide Grids:** 1292

SDF09W

Insp'd Date: 3/14/2016
By: Rohde & Assoc.

Risk Assessment | Tactical Plan | Tactical Map | Area Map | Aerial Map | Additional Info

RISK ASSESSMENT MATRIX

Jamul West *RISK ASSESSMENT MATRIX*		
SAFETY	***STATIC***	***ATTACK***
FF Safety 2	Fuels 1	Access 2
Civ.Safety 2	Topography 2	Water 2
Air Safety 2	Clearance 2	Comms 1
Hazmat 2	Construct 2	Tac Air 1
Entrapment Risks- 1	Density 2	

SAFETY	FF Safety	FF Safe	No Safety Zones	Marginal Safety Zones	Adequate Safety Zones
	Civilian Safety	Civ Safe	Mandatory Evacuation	Evacuate if Time Permits	Shelter in Place
	Air Safety	Clear	Restrictions, Steep Cyns	30' to 70'	More than 70'
	HazMat	HazMat	Bulk LPG, Chemicals	Hazards in Barn	None
STATIC	Fuels	Fuels	Heavy or Dead Trees, Brush	Moderate	Light
	Topography	Topog	Steep	Medium Slope	Flat
	Clearance	Clear	30' or Less	30' to 70'	More than 70'
	Construction	Const	Abundant Combustable	Some Combustable	Non-Combustable
	Structural Spacing	Density	Dense Spacing	Subdivision Tracts	Rural, dispersed
ATTACK	Access	Access	Narrow, Dirt Rds No turnarounds	1 Ln, paved, 1-way in/out	2-Lane Rds. Good Ingress/ Egress
	Water	Water	No Water Source	Ponds, pools, low flow hyds	Good Hydrants
	Communications	Comm	Poor Radio, Cell Coverage	Some Weak Spots	Good Coverage
	Tac Air Support	Tac Air	20+ Min Re-load, No LZs	10-15 Min Re-load, No LZs	5 Min re-load, LZs

CRITICAL INFORMATION

Response Safety
Furthest S/W areas (in canyons) are high risk. Aerial fuels run through the community. Traffic on Hwy. 94 can be impacted with smoke.. Be prepared to shelter population in safe locations in intense fast moving fires. Some deep canyon areas may have compromised cell or radio reception, Use MVU 1-T5, CDF C1 T13 or CDF C2 T14. 10-A on 800 Mhz. Hollywood Casino is fire resistive construction but little defensible space.

Aviation Hazards
Sunrise transmission powerlines along the west side of Jamul. Be aware of numerous Border Patrol aircraft S/O SR94. Radio towers on most high peaks. Harbison Canyon to the west is a military aircraft low level flight training area. Area is in flight path to Lindberg Field.

Potential Choke Points/Entrapments
All streets off Vista Sage Ln. and Vista Diego from Hwy. 94. and Pioneer Way off of Proctor Valley Rd. have significant entrapment potential. West section of Hwy. 94 E/O Steele Canyon has significant funneling potential. Use the dirt Proctor Valley Rd. only for emergency evacuation, and only after ensuring it will not be compromised by fire movement.

BRIEFING INFORMATION

Fuels	Heavy mixed chaparral and coastal sage on slopes, some grass-oak woodlands in valley floors. 100 ft. defensible space around most homes.
Last Year(s) Burned	1970 Laguna Fire (100%). Harris Fire (2007) with some structural loss.
Expected Fire Behavior	This area includes one of the most hazardous contiguous fuel beds in San Diego County. Under critical fire weather, fires will burn with extreme fire behavior, explosive fire growth/high rates of spread, and long range spotting (Up to 2 miles). This is a historic corridor for fire and high winds. High risk for civilian entrapment and major structural loss. Aerial canopy and narrowing topography to the west may cause spread rate to accelerate and pose significant threat to life and structures just south of Hwy 94.
Topography	Rural community below on ridges and in canyons, some with limited access, many in alignment with Santa Ana winds. Many homes atop steep slopes and in canyon draws causing winds to accelerate as they funnel through. Elevations range from 885' in Jamul to 2,565' on San Miguel Mtn.
Access	Paved access is east from Hwy. 94 from Rancho San Diego, north via Lyons Vly. Rd. or Jamul Dr., south from Chula Vista from Proctor Vly. Rd. (some unpaved) and east from Dulzura on Hwy. 94. Mostly accessible to Type 1's, but Type 3 recommended southwest of Hwy. 94 along Proctor Vly. Rd. and Vista Sage Ln.
Special Hazards	1. Hollywood Casino, SR94, across from FS36- up to 5,500 guests. Security: (619) 315.2400. 2. Area of frequent travel for illegal immigration. (Use caution when firing.) 3. Many equine and other large animals in area; one of the highest concentrations in the county.
Safety Zones/ Temporary Safe Refuge Areas	

SZ	St. Pius X Church, Lyons Valley Rd. at Hwy. 94	Large animals + locals
SZ	Holiday Casino/Jamul Indian Village, 14191 Campo Rd. (Hwy. 94)	Notify Tribal Security
TSRA	Horse Riding Arena, 15186 Lyons Valley Rd. x-Rocky Mtn. Rd.	Large animals + locals

Water Supply	Most hydrants in Jamul supplied by Otay Water Dist. Wells only for rural homes. 10,000 gal. tanks for fire protection on some rural properties noted by blue metal street signs. Water pump stations on Hwy. 94 btw. Steele Cyn. and Lyons Vly. Rd.

UNIFIED COMMAND

Potential Incident Command Post Location	Initial ICP- 1. Jamul Elem./Intermediate Schools,14545 Lyons Valley Rd Major Fire- 2. Gillespie Field, 1960 Joe Crosson Dr, El Cajon
Unified Command Participants	Cal FIRE, USFWS, SDCo Sheriff, CHP, Border Patrol, SDG&E
Staging Areas	1. Jamul Elem./Intermediate Schools, 15145 Lyons Valley Rd. 2. Jamul Community Church, 14058 Jamul Dr. 3. Shopping Center, Jamacha Rd. at Hwy. 94, El Cajon

LARGE FIRE DEVELOPMENT FACTORS

Weather

Temperature	< 80 deg. F.
Relative Humidity	< 10%
Wind Speed	Avg.: 20-35 MPH Gusts: 35-60 MPH
	Seasonally dry or long term drought
Rate of Spread	13,200 - 16,170 ft./hr.

WUI ARRANGEMENT

Interface: Y Intermix: N Urban: N
Suburban: Y Rural: Y Other: N

N W E S

WUI Name: **JAMUL WEST**

Location: Hwy. 94 corridor, S/W Jamul

Public Safety Grids: 1536-1838 **WUI Grid No.:** 13-24 **Thomas Guide Grids:** 1292

SDF09W

Insp'd Date: 3/14/2016
By: Rohde & Assoc.

Risk Assessment | Tactical Plan | Tactical Map | Area Map | Aerial Map | Additional Info

Primary Plan (Offensive)

Offensive and aggressive attack on flanks, with aircraft holding fire at ridge lines or other appropriate locations. Hold fire from structures. Limited evacuation of fire perimeter homes.

Alternate Plan (Offensive)

Consider early evac, due to history of rapid fire spread. Be aware of potential choke points for traffic flow. Select prep-and-defend homes for structural defense & expect good results in developed community areas. Use caution during maneuver, especially on Hwy. 94 west of Lyons Valley Rd. & all streets off Vista Sage Ln. and Pioneer Way. Watch for spotting along roads and in fuel islands or stringer canyons. Do not maneuver through heavy fuels until fire has passed. Use fire-front-following tactics for unreachable structures. Stay maneuverable when safe to protect dispersed structures. Use indirect or fire-on-fire firing tactics around structures or at base of slopes with IC approval only. Defend Hollywood Casino and guests in-place.

Contingency Plan (Defensive - Responder Safety)

Firefighters and law enforcement seek temporary refuge around homes with good defensible space. Select Safety Zones/Tactical Refuge Areas well in advance of fire front. Shelter trapped civilians in place with you. Remain in Safety Zones until it is safe to resume travel on roads. Escort civilians from area only when safe to maneuver, Lyons Valley Rd., Jamul Dr., Proctor Valley Rd. and Hwy 94. Some isolated structures may not be defensible or accessible. Hwy. 94 corridor may be hazardous due to fire movement. Use fire-front following tactics for remote homes or those without defensible space.

Emergency Plan (Defensive)

Defend evacuated populations within SZ/TRA's. Do not attempt to access properties off Vista Sage Ln. and Pioneer Way. Conduct check-and-go for all accessible properties. If possible, remove all civilians from plan area well before fire or seek shelter in Jamul. Prioritize evac. over fire control. Be vigilant for long-range spotting that may spread fire from planning area. Expect all travel routes from Jamul to be hazardous, including Hwy. 94. Be vigilant for development of fire whirls or other extreme fire behavior that may compromise safety. Remain in TRA's until it is safe for travel. Use anchor-and-hold tactics in Jamul where appropriate, more isolated structures may not be defensible.

Perimeter Control Plan: Protect evacuation routes along Hwy. 94 and Proctor Valley Rd. as long as feasible. Protect water pump stations along Hwy. 94 to ensure water supply. For Vista Sage Ln., Vista Diego, Pioneer Way, Proctor Valley Whispering Meadows Ln. use defensive firing to shepherd fire back up into hills and off of homes, but with IC permission only. Restrict large firing in accordance with immigration concerns and evacuation corridors. Consider dozer along Proctor Valley Rd. (see map). Hold fire N/O Proctor Valley Rd./Melody Ln., S/O Lyons Valley Rd./Hwy. 94, E/O Vista Sage Ln./Pioneer Way., and W/O Hwy 94.

EVACUATION PLAN

Primary Evacuation Plan

Activate "Alert SD". Prioritize evacuation of homes and camps along Vista Sage Ln. and Pioneer Way. Evac. Hollywood Casino early or shelter-in-place. Evacuate moving west towards El Cajon for Santa Ana wind driven fires, but cease evacuation for fires crossing west from Honey Springs Rd. For on-shore wind driven fire, cease evacuation when fire crosses Proctor Valley Rd./McGinty Mtn or Steel Cyn. Rd. and seek shelter. Be prepared to shelter-in-place. Typically heavy traffic on SR94- will be jammed during evacuation.

Evacuation Trigger Point

Initiate evacuation plan area early for Santa Ana wind driven fire crossing S/O Sloan Canyon in the Japatul/Dehesa area or Dulzura to the east. For onshore wind driven fires, evacuate when fire crosses Jamacha Rd. x-Hwy. 94. Do not use Proctor Valley Rd. for evacuation after onshore fire crosses Millar Ranch Rd.

Temp. Evacuation Assembly Points (Human & Animal)

1. Steel Canyon High School, 12440 Campo Road, Spring Valley
2. St. Pius X Church, 14107 Lyons Valley Rd x-Jamul Dr., Jamul
3. Target Store, 2911 Jamacha Rd., El Cajon

POPULATION & STRUCTURES AT-RISK

Population	2,196 residents +Hollywood Casino 5,500
Planning Unit Acreage	4,439
Structures	736

STRUCTURAL TRIAGE

Threatened/ Non-Defensible	20% Vista Sage Ln. & Pioneer Way
Threatened/Defensible	80%
Non-Threatened	0%
W/ Defensible Space	65%

Fire Ordering Point: Cal-Fire MVU (619) 401-7787/(619) 593-2271 (UOP)
USFWS (619) 557-5262

Law Enforcement Ordering Point: SDCo. Sheriff (858) 565-5030

Engines: The number range reflects the number of "minimum" to "preferred" resources.

Type 1 Strike Teams:	Type 3 Strike Teams:	Water Tenders:
2-4	6-8	8-10
Crews Single: 8 STs: 0	0	Overhead: 5-6 Div. Sup.: 3-4

1 1
3

Law Enforcement:

100 SDCoSO deputies, CHP Officers and Border Patrol. CHP and Border Patrol to traffic management, 40-60 deputies to evacuation. IC- Lt. or Capt. (Limited radio communications with Border Patrol.) Execute traffic control at Hwy. 94 x-Lyons Valley, x-Honey Springs x-Rancho Jamul, Four Corners, Jamul Dr. x-Lyons Valley, x-Steele Canyon, Proctor Val Rd x-Chula Vista city limit.

Logistics

Open County EOC (858-688-9970) to support aggressive fire and large evacuation need. Consider responder fuel, water, and food needs. File F-MAG application with CAL-OES. Notify Security at Holiday Casino/Jamul Indian Village (619) 315.2400.

WUI Engine Deployment - High Risk

1 engine/2-4 perimeter structures, 1 engine/isolated structures 2 engines/ multi-family structures

WUI Engine Deployment - Moderate Risk

1 engine/2-4 perimeter structures, 1 engine/isolated structure, 2 engines/multi-family structure

Other

Notify public works to assist in traffic management, Red Cross and Animal Control to assist in evacuation. Notify Otay Water District to boost water pressure as needed (619) 670-2207.

WUI Name: JAMUL WEST

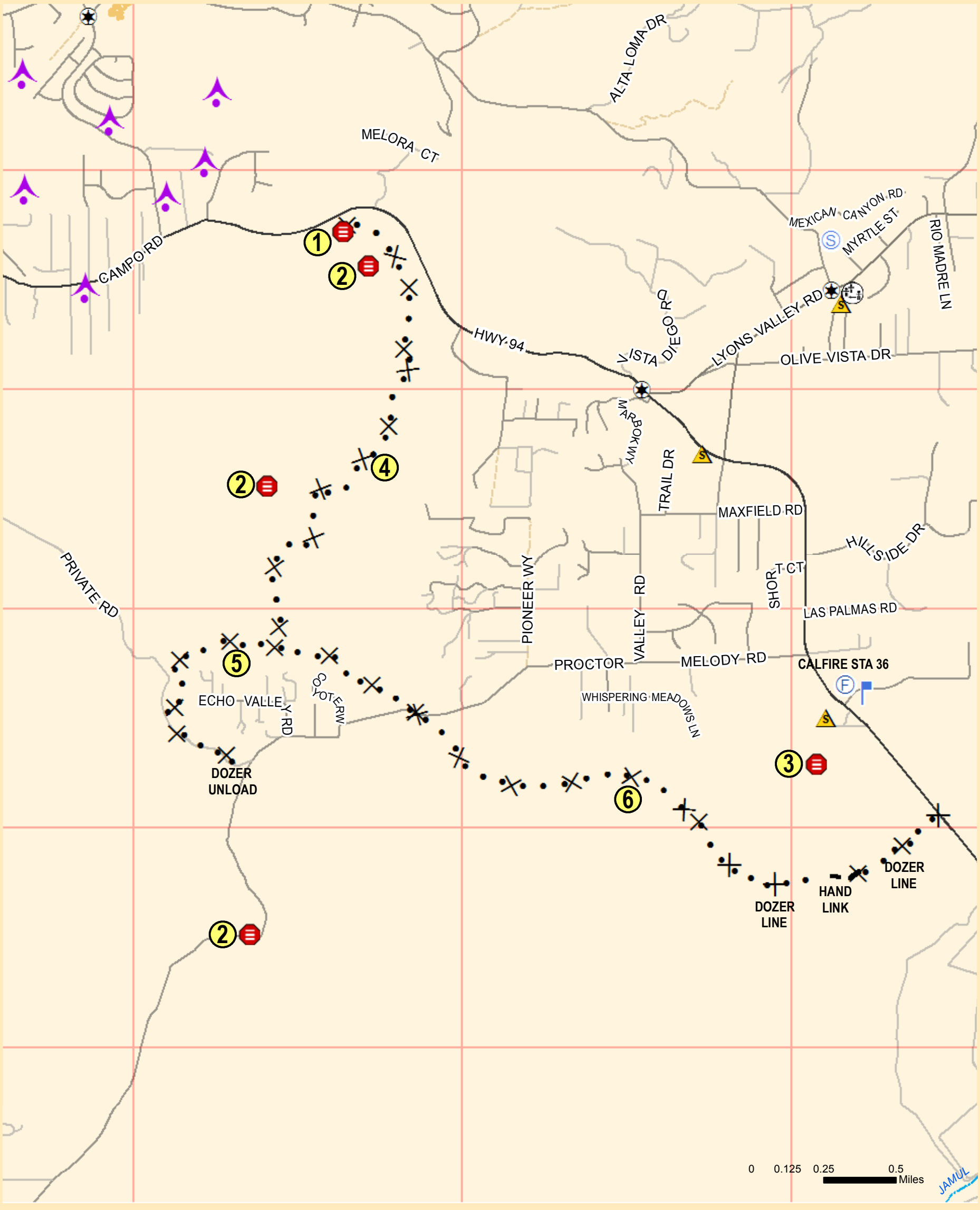
Location: Hwy. 94 corridor, S/W Jamul

Public Safety Grids: 1536-1838 **WUI Grid No.:** 13-24 **Thomas Guide Grids:** 1292

SDF09W

Insp'd Date: 3/14/2016
By: Rohde & Assoc.

Risk Assessment | Tactical Plan | Tactical Map | Area Map | Addtional Info



CRITICAL INFORMATION:

1. Pump station
2. Erratic fire behavoir
3. Heavy fuel
4. Dozer line. 2.6 miles. 2 D6-C dozers and 4 hand crews. 6 hours to construct.
5. Dozer line. 1.6 miles. 2 D6-C dozers and 2 hand crews. 3 hours to construct.
6. Dozer line. 2.4 miles to Hwy 94 from Proctor Vly. Rd. 2 D6-C dozers and 2 hand crews. 4 hours to construct.

Legend

- Access
- Aerial Hazard
- Aerial Ignition
- Base Camp
- Drop Point
- Evacuation Direction
- Fire Station
- Hazmat
- Helibase
- Incident Command Post
- Law Enforcement Control Point
- Life Safety Hazard
- Lookout
- Safety Zone
- Staging Area
- Temporary Assembly Point
- Temporary Safe Refuge Area
- Water Source
- Evacuation Route - Primary
- Fuel Break
- Management Action Point
- Planned Fire Line
- Proposed Dozer Line

N
W E
S

WUI Name: JAMUL WEST

0 0.25 0.5 Miles

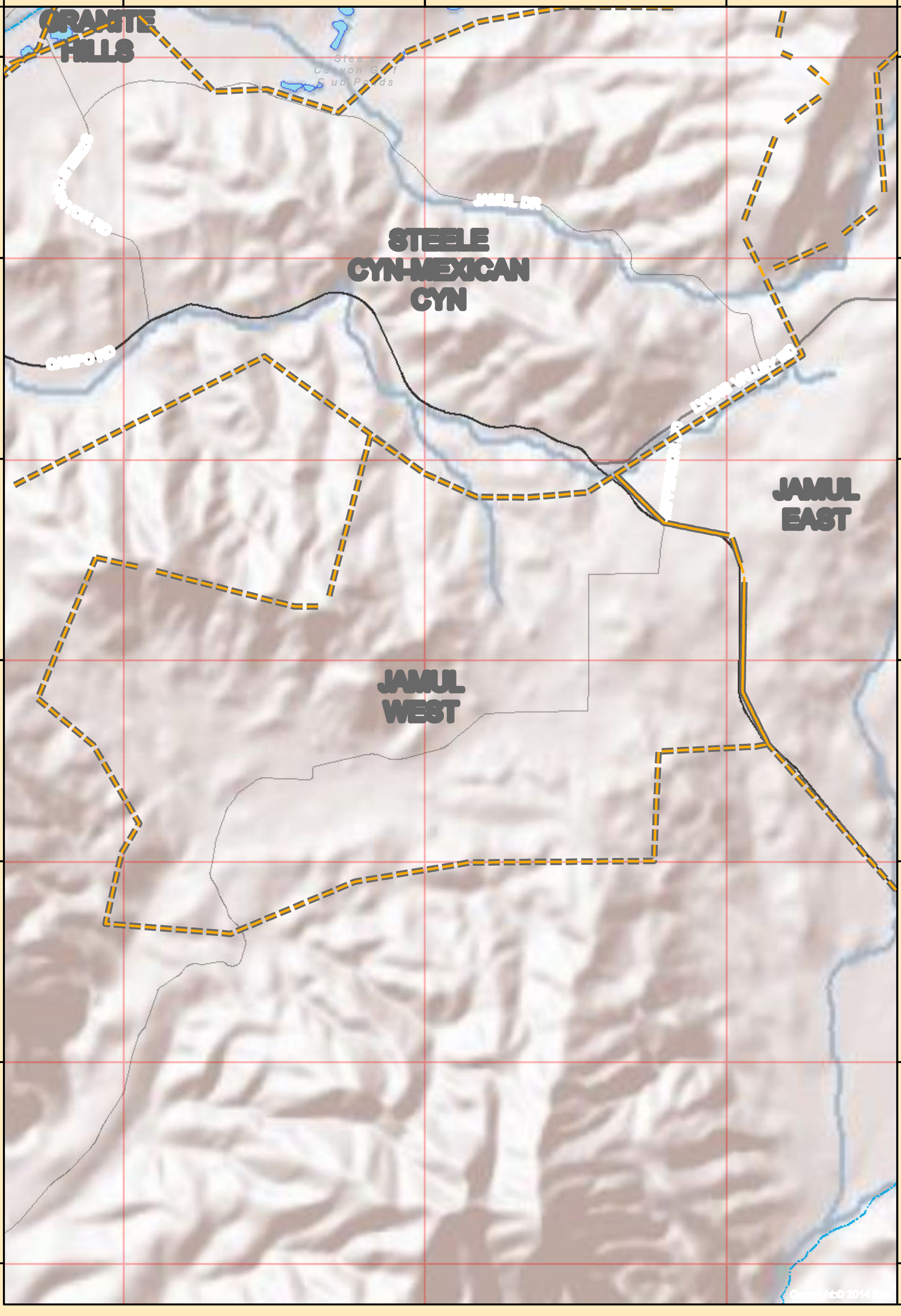
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Public Safety Grids: 1536-1838 **WUI Grid No.:** 13-24 **Thomas Guide Grids:** 1292

SDF09W

Insp'd Date: 3/14/2016
By: Rohde & Assoc.

Tactical Map | Area Map



WUI Name: JAMUL WEST

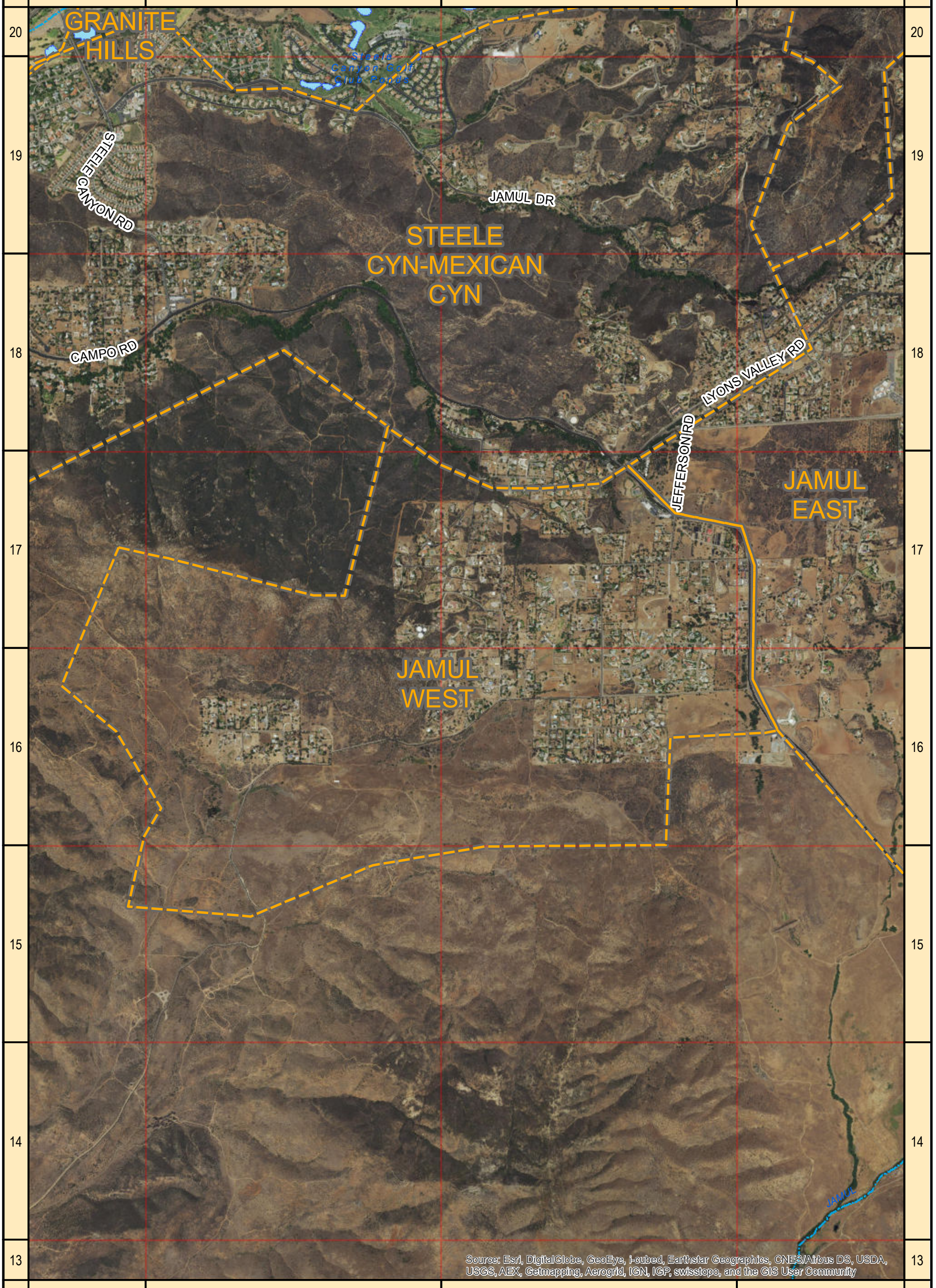
0 0.25 0.5 Miles

Location: Hwy. 94 corridor, S/W Jamul

Public Safety Grids: 1536-1838 **WUI Grid No.:** 13-24 **Thomas Guide Grids:** 1292

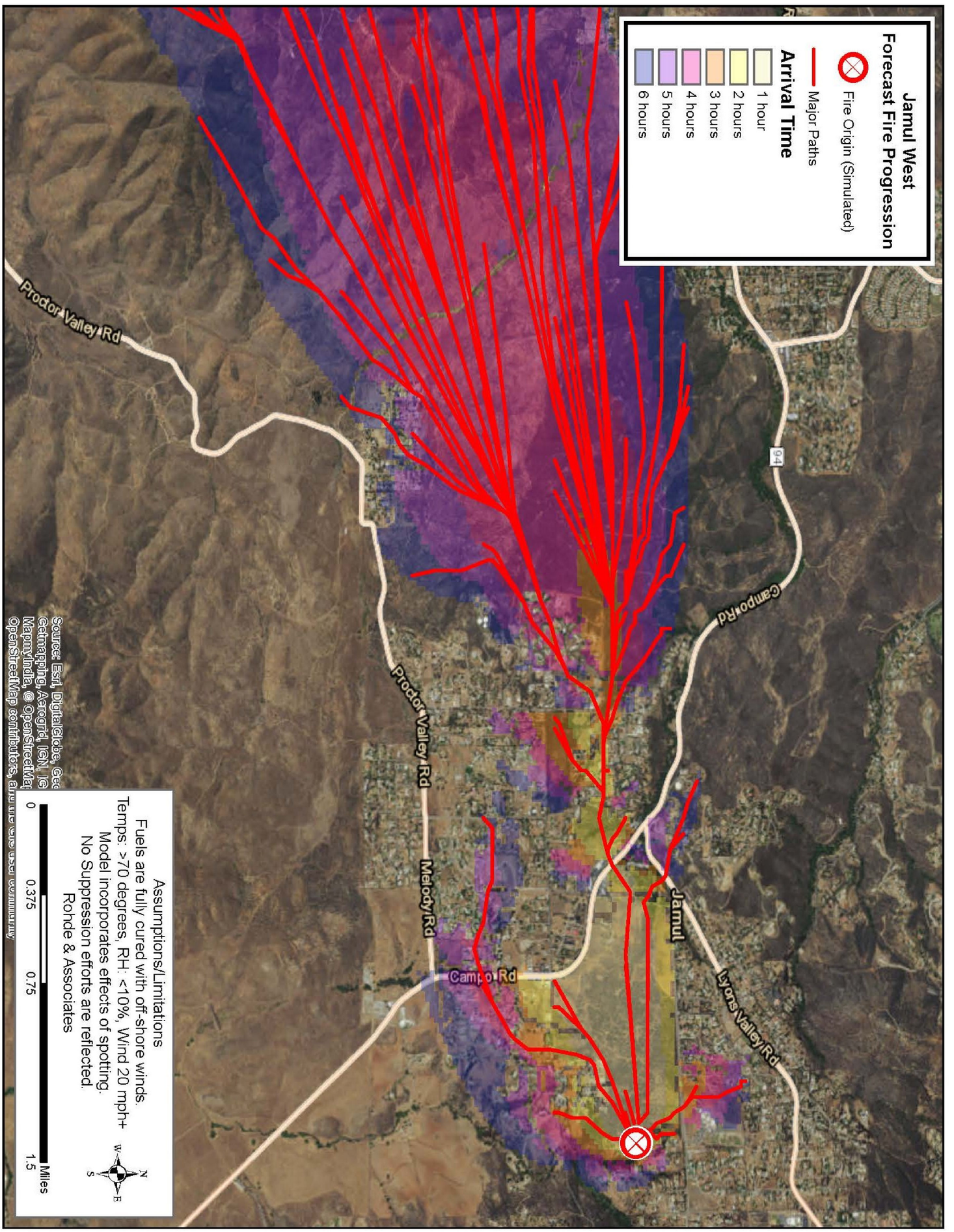
SDF09W

Insp'd Date: 3/14/2016
By: Rohde & Assoc.



WUI Name:	**JAMUL WEST**		**SDF09W**
Location:	Hwy. 94 corridor, S/W Jamul		Insp'd Date: 3/14/2016
Public Safety Grids:	1536-1838	**WUI Grid No.:** 13-24	**Thomas Guide Grids:** 1292 By: Rohde & Assoc.

Fire Trajectory



Section IV. Public Safety and Supporting Agency Resources

1. EMERGENCY SERVICES

Cal-Fire/San Diego County Fire Authority

Dispatch: (619) 401-7787, (619) 593-2271

Facility/Station locations

Station 36 14024 Peaceful Valley Ranch Rd Jamul, CA 91935 (619) 669-6580	Distance: 0.1 miles 103 ft. Truck/aerial ladder (4.0 staffed) Type 1 medic/engine (3.0 staffed) Patrol/Type 6 engine (cross-staffed)
Station 37 2383 Honey Springs Rd. Jamul, CA (Deerhorn Valley)	Distance: 9 miles Type 1 engine (2.0 staffed) Tactical Water Tender (cross staffed)
Station 22 11501 Via Rancho San Diego El Cajon, CA	Type I Engine 3.0 staffed
Station 65 2850 Via Orange Way Spring Valley, CA	105 ft. Truck/aerial ladder (3.0 staffed) Type I Engine (cross-staffed) Light & Air Rescue (cross-staffed)
Station 61 10105 Vivera Wy. La Mesa, CA	Type I Engine (3.0 staffed)
Station 32 17759 Skyline Truck Trail Jamul, CA (Lyons Valley)	Type III Engine 3-4.0 staffed

San Diego County Sheriff

Dispatch: (858)565-5200

A deputy is assigned to the Hollywood Casino 40 hours per week.

Substation: 11486 Campo Rd Spring Valley, CA 91978 (619) 660-7090	Substation: 1135 Community Building Rd Dulzura, CA 91917 (619) 468-1404	Substation: 2751 Alpine Blvd Alpine, CA 91901 (619) 659-2600

Bomb Squad- Contact San Diego County Sheriff

SDSO Bomb/Arson Unit
1745 N. Marshall Ave.
El Cajon, CA 92020
Dispatch: (858)565-2000 Office: (619)956-4980

***All resources listed below- contact via Cal Fire Dispatch for emergency response**

Urban Search and Rescue (USAR) Teams

San Diego City Fire Dept.
USAR Task Force 8
Equipment at NTC
* Requires dispersed personnel mobilization
Contact: Louise Harkness (619) 533-4313

Chula Vista City Fire Dept.
USAR 53, Fire Sta. 3
1410 Brandywine

Haz. Mat. Teams

San Diego City Fire Dept.
SDFD Fire Station 45
9366 Friars Rd.
San Diego 92108
(858)-573-5015

2 Type 1 Haz Mat Units (4.0 staffed)

San Diego County Health Haz. Mat,
619-533-4380

Ground Ambulance

San Miguel Station 14
AMR M254

San Miguel Station 15
AMR M256

San Miguel Station 22
AMR M411 (12 hour M-Sun)

Air Ambulance-Contact Via Cal Fire Dispatch

San Diego Fire & Rescue
Montgomery Field
San Diego, CA
(858) 636-4871

Mercy Air Ambulance
9745 Prospect Avenue
Santee, CA 92071
(619) 448-3457

Reach Air Ambulance
Vejas Indian Casino
5000 Willows
Alpine, CA 91901
(800) 338-4045

Mass Casualty Units

Chula Vista Fire Sta. 4
820 Paseo Ranchero
8844 Dallas St.
Chula Vista, CA 91910

Lakeside Fire Sta. 3
14008 I-8 Business
Lakeside, CA 92040

Alpine Fire Sta. 17
1364 Tavern Rd.
Alpine, CA 91901

La Mesa Fire Sta. 12
La Mesa, CA 91942

2. HOSPITALS

Receiving Hospitals

Grossmont Hospital
5555 Grossmont Center Dr.
La Mesa, CA 91942
(619) 740-6000

Alvarado Hospital
6655 Alvarado Rd,
San Diego, CA 92120
(619) 287-3270

Trauma Centers

Scripps Mercy Hospital
4020 Fifth Ave.
San Diego, CA 92103
(619) 260-7022

Sharp Memorial Hospital
7901 Frost St,
San Diego, CA 92123
(858) 939-3400

3. ADJOINING LANDS

U.S. Fish and Wildlife Services
14024 Peaceful Valley Ranch Rd
Jamul, CA.
Dispatch: (619)557-5262

Type 3 Engine 56
Type 3 Engine 58

Admin. Offices: 14715 Campo Rd., Jamul, CA 91935
(619) 669-6580, (619) 468-9245

4. PUBLIC UTILITIES

Otay Water District:
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978-2096
(619) 670-2222

San Diego Gas and Electric Co, (SDG&E)
On duty Emergency Fire Coordinator (858) 503-5152
General Emergency Information 800-411-7343

Section V. All Hazards Response

1. EARTHQUAKE PROCEDURE

Employee and Guest Responsibilities:

Immediate Action:

- Remain Calm. By staying calm, yourself; you will be better able to assess damage and assist others.
- Take Cover.
    - If you are inside a building:
        - stay there;
        - move under a sturdy table, desk, or bed and stay there;
        - brace yourself in an inside corner, or doorway;
        - stay away from windows;
        - protect your head and face with any available material.
    - If you are outdoors:
        - stay there;
        - move away from tall buildings, structures, and trees;
        - stay away from fallen power lines, as they may appear to be “dead” but may suddenly re-energize as automatic restoration of power is attempted;
        - proceed if possible to an open area.
        - Do not lift or raise any power lines
    - If you are in a vehicle:
        - pull over and stop;
        - remain clear of overpasses, tall buildings, structures, and trees;
        - make certain your seat belt is fastened;
        - stay in your vehicle, as it will provide some protection from falling and flying debris.

Security and Staff Initial Actions:

- Inspect all areas of the casino, parking garage, and water-treatment facility for damage. Flag-off areas of collapse. Report immediately any smoke or chemical odor.
- Ensure a complete inspection of the facility is performed prior to commitment of all Security resources to a single incident. A worse situation may be waiting to be discovered than the one that has been found!
- Determine if a building evacuation is required. Initiate if conditions warrant.
- Request fire assistance if emergency conditions are identified.

After a damaging earthquake:

All Occupants:

- Do not rush outdoors immediately. Many people are injured in this way when struck by falling debris. Visually inspect (look up and around) for hazards prior to building departure.
- Do not use the elevator, and warn others not to use it, because a power outage may occur after the quake has stopped in your immediate area.
- Check for injuries or people who are trapped.
- Follow emergency medical procedures.
- Assist staff and guests in leaving the building if it is safe to leave.
- Follow procedures for building evacuation.

Security, Facilities Engineering, and General Staff Emergency Actions:

- Evacuate staff and guests via stairwells, when determined safe to move outside.
- Direct guests away from areas of collapse, fire, chemical spill, or utility hazard.
- Do not attempt evacuation of people by cars from the parking garage until determined to be safe. Include bridges and exit routes in the safety inspection.
- In an immediately threatening condition- activate the casino fire alarm system for automatic evacuation messaging by pulling the manual pull station in the Fire Command Center.
- Take initial action on small fires with fire extinguishers, if safe to do so.
- Liaison and team with fire and law responders to address building and occupant emergencies.
- Be prepared to remain self-sustained if evacuation is impossible and guests must be retained onsite.
- Consider shut-off of main water, electrical, or propane utility services as required. Use caution to not shut-off fire sprinklers, even if no fire is initially present. Isolate broken fire sprinklers using plugs or sectional valves.

Fire and Law Actions

- Be prepared to initiate full fire and medical/mass casualty response as required.

2. FLOODING

Natural flooding may occur in low drainage areas such as the creek on the immediate west end of the casino.

Flooding may also occur as a result of water introduction to garage areas, or in casino areas where fire sprinklers may activate, plumbing systems overflow, or water pipes may break.

Dangerous accumulations of water may occur in the below grade parking garage space, or adjacent to the creek on the west end of the property under extreme rainfall conditions.

Response to Minor Flooding

Security will assist as necessary to direct guests away from flooded areas and Facilities staff will clean up the discharge. Bio-hazard protection should be utilized as needed.

Facilities staff must secure utilities serving the flooded area as required to maintain safety.

Response to Major Flooding

Security must exclude access to the flooded area by all pedestrians and vehicles. Access should be allowed to emergency responders only. Rescue should be initiated for any trapped occupants.

The Fire Department should be called to assist in rescue and water management.

Facilities engineers should turn-off and secure utilities and elevators within the flooded area.

The flow of water should be directed away from/ or out of structural areas, if possible.

Water or fire sprinkler pipes contributing to the flooding should be shut off. Fire sprinklers should be controlled by wedges or sectional valves when possible to maintain fire protection for other portions of the building.

Contracting of services may be required to remove large volumes of water.

3. HAZARDOUS MATERIALS/SUBSTANCE RELEASE

Chemical threats within the facility are limited to household chemicals and agents, and chemicals used at the water-treatment facility.

The moist significant potential for release of hazardous substances is from either malicious or criminal intent, and generally involves dispersal of agents harmful to humans through either airborne inhalation, or skin-dermal contact. These agents could range from common pepper spray to toxic or explosive agents used in terrorism related events. Typically, haz. mat. releases may be initially difficult to determine, and may involve substances which cannot be observed visually. Frequently, signs and symptoms of injured people are the primary signs of a release.

The following procedure should apply to suspected hazardous materials releases:

SECURITY, FACILITIES, OR OTHER STAFF RESPONSIBILITIES:

1. Isolate the area. Deny entry to all except protected emergency responders. Notify Security.

2. Evacuate injured r exposed persons, but isolate them from contact with others.

3. In the event of symptomatic response to exposure, immediately remove victim's clothes and shower, preferably in an area where runoff may be contained. Bag and retain all clothes in a safe area.

4. Notify fire and law enforcement for response.

5. Provide medical care to support critical patients. Rescuers decontaminate prior to leaving the area.

6. Isolate HVAC and exhaust systems to prevent migration of hazardous substances, as required.

7. Identify containers or methods of agent dispersal, if present. Do not remove from the scene unless necessary to control agent emissions and safe to do so. Dike area to retain liquids, if present.

8. Be prepared to evacuate casino or parking areas to protect people from exposure, or to protect against incident expansion.

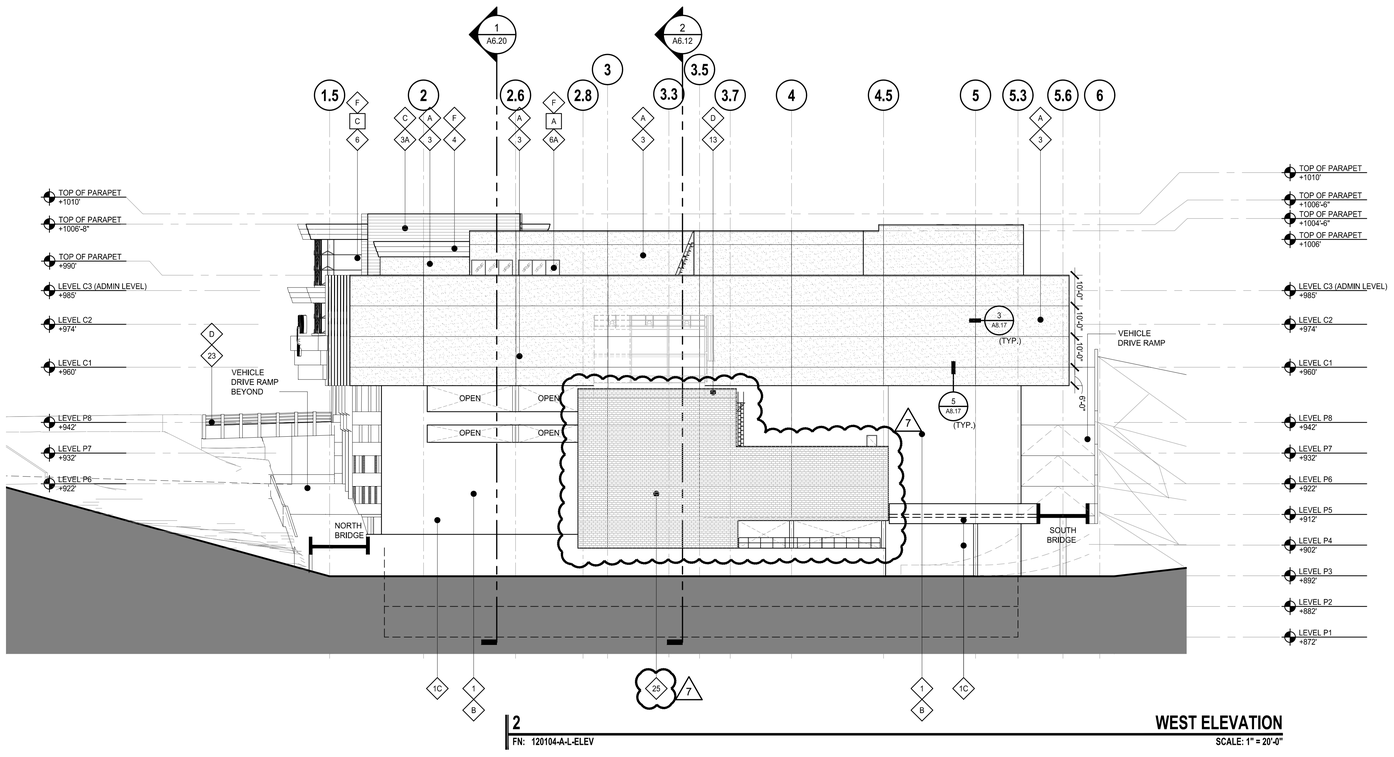
9. Do not take aggressive or direct-contact actions against suspected chemicals, agents, or containers unless specifically trained and equipped to do so.

FIRE AND LAW RESPONSIBILITIES

1. Implement Haz Mat response protocols per OSHA, fire training, and medical requirements.

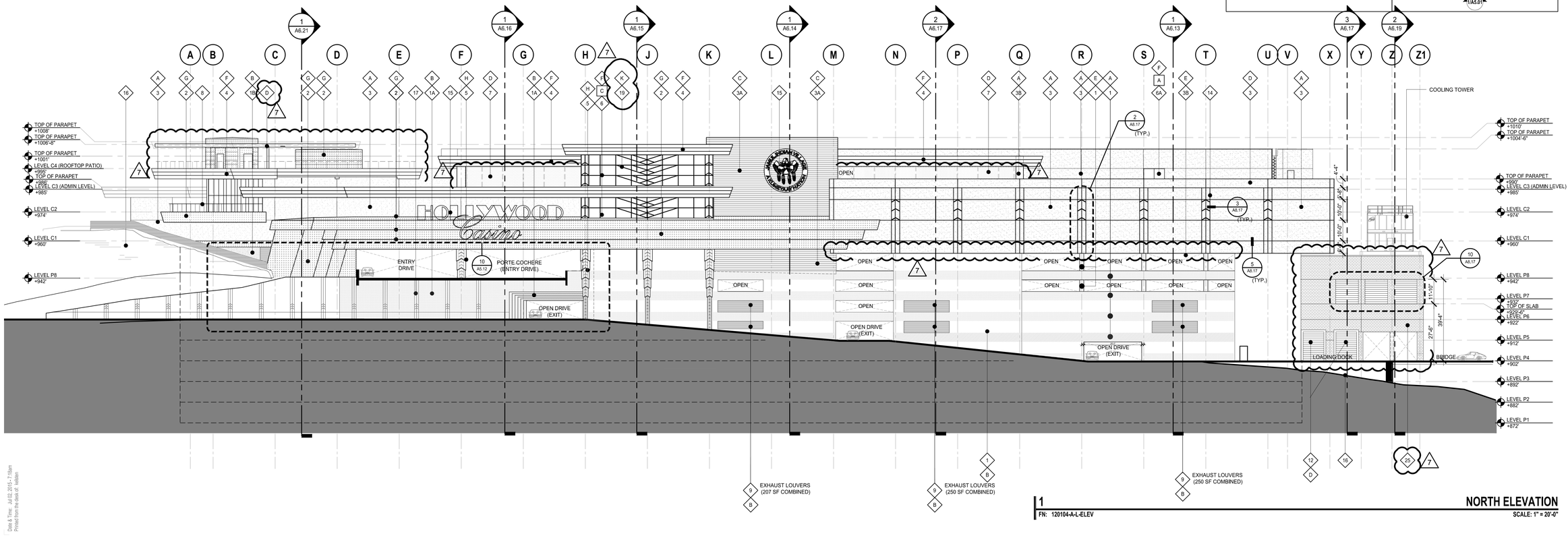
2. Use full protective equipment and monitoring to determine hazards and extent present.

Section VI. Facility Maps and Drawings



2 **WEST ELEVATION**

FN: 120104-A-L-ELEV — SCALE: 1" = 20'-0"



1 **NORTH ELEVATION**

FN: 120104-A-L-ELEV — SCALE: 1" = 20'-0"

FINISH LEGEND

- A — SW 7536 BITTERSWEET STEM
- B — SW 6088 NUTHATCH
- C — SW 7503 STICKS AND STONES
- D — SW 2808 ROCKWOOD DARK BROWN
- E — SW 7551 GREEK VILLA
- F — PPG DURANAR SUNSTORM- LEXUS BRONZE
- G — THERMOCROMEX FINISH ID #1355.33
- H — MATCH ARCHITECT'S SAMPLE- CHOCOLATE.
- I — NOT USED
- K — PRISMATIC POWDERS "LE REVE BRONZE" UMB 5376 / METALLIC

GLASS TYPES

- A — 1" INSULATING GLASS "GUARDIAN" SUNGUARD SUPER NEUTRAL LOW-E 62/27 #2 ON CRYSTAL GRAY
- B — 1" INSULATING GLASS "GUARDIAN" SUNGUARD SUPER NEUTRAL LOW-E 62/27 #2 ON GRAY
- C — 1" INSULATING GLASS "PANELITE" CLEARSHADE CS-TAT-12.7
- D — 1" INSULATING GLASS "GUARDIAN" SUNGUARD SUPER NEUTRAL LOW-E 62/27 #2 ON CLEAR
- E — 1 5 /8"" INSULATING GLASS UNIT "PILKINGTON" PYROSTOP # 60-261

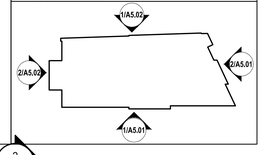
ELEVATION NOTES

1. PAINT COLOR TRANSITION SHALL TERMINATE ON INSIDE CORNERS ONLY .
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING INFORMATION.
3. ALL CONCRETE TO BE FINISHED WITH 2 COATS SW "LOXON" VERTICAL OPAQUE STAIN A31 SERIES U.N.O
4. ALL EXPOSED STRUCTURAL STEEL /FERROUS METAL SHALL BE FINISHED AS FOLLOWS:
   - PREPARATION - BLAST CLEAN SSPC-SP7
   - PREPARATION - GALVANIZED SSPC-SP1 SOLVENT CLEAN
   - PRIMER - SHERWIN WILLIAMS PRO INDUSTRIAL PROCRYL
   - TOPCOAT - SHERWIN WILLIAMS SHERCRYL HPA (HIGH PERFORMANCE ACRYLIC)
5. ORNAMENTAL STEEL TO BE POWDER COATED.

ELEVATION REFERENCE NOTES

- 1 — CAST-IN-PLACE CONCRETE - OPAQUE STAIN FINISH
- 1A — CAST-IN-PLACE CONCRETE W/ SCORED GROOVES - OPAQUE STAIN FINISH
- 1B — CAST-IN-PLACE CONCRETE W/ FORM LINER "FITZGERALD" LARGE RUSTIC PLANK PATTERN 16920 (VERTICAL APPLICATION) - OPAQUE STAIN FINISH
- 1C — CAST-IN-PLACE CONCRETE (NO FINISH)
- 2 — 1/2" THK "THERMOCROMEX" ON 1/2" BASE COAT ON METAL LATHE ON SUBSTRATE AS SHOWN IN ARCH. DWG'S.
- 3 — EIFS "DRYVIT" PRESSURE EQUALIZED RAINSCREEN SAND BLAST TEXTURE, INTEGRAL COLOR
- 3A — EIFS "DRYVIT" PRESSURE EQUALIZED RAINSCREEN, PROFILED AS SHOWN IN ARCHITECTURAL DWGS., SAND BLAST TEXTURE, INTEGRAL COLOR
- 3B — EIFS "DRYVIT" DIRECT APPLIED ACRYLIC, SAND BLAST TEXTURE, INTEGRAL COLOR
- 4 — "HIGH IMPACT" EIFS "DRYVIT" DIRECT APPLIED ACRYLIC, SAND BLAST TEXTURE, INTEGRAL COLOR
- 5 — .060 ALUMINUM FASCIA, KYNAR FINISH
- 6 — GFRC COLUMN COVER. INTEGRAL FINISH AND COLOR
- 6A — GFRC BEAM WRAP. INTEGRAL FINISH AND COLOR
- 7 — ALUMINUM CURTAINWALL SYSTEM- "EFCO" SYSTEM 5500, KYNAR FINISH.
- 8 — ALUMINUM STOREFRONT/RIBBON SYSTEM- "EFCO" SYSTEM 955, KYNAR FINISH.
- 8A — TGP FIRE-RATED STEEL CURTAINWALL SYSTEM - POWDER COAT FINISH
- 9 — (FUTURE) FABRIC WRAPPED STEEL EQUIPMENT SCREEN. FABRIC TO BE "SERGE FERRAI" PRCONSTRAINT 502-2013 COLOR GUARDRAIL STEEL FRAME TO BE PAINTED
- 9A — EXHAUST /INTAKE ACOUSTICAL LOUVER-"GREENHECK" MODEL # AFJ-6001
- 10 — FIXED FABRIC ROOF SYSTEM - "SHADEFX" W/ "SERGE FERRARI" SOLTIS W96-8102 FABRIC.
- 11 — EXTERIOR LIGHTING. SEE LIGHTING DWGS.
- 12 — ROLL-UP DOOR - PAINT FINISH.
- 13 — STEEL PIPE GUARDRAIL. PAINT FINISH.
- 14 — EIFS REVEAL - SEE DETAIL 5/A8.17
- 15 — SIGNAGE
- 16 — FINISH GRADE
- 17 — GROOVES TO MATCH SHOTCRETE WALL
- 18 — HOLLOW METAL DOORS
- 19 — ALUMINUM MUNTIN
- 20 — ORNAMENTAL STEEL MUNTINS
- 21 — HOLLOW METAL DOG1"X1" CORRUGATED ALUMINUM FASCIA AND FLAT A.060 ALUMINUM CEILING PANELS.
- 22 — ORNAMENTAL STAINLESS STEEL AND STONE COLUMN COVER.
- 23 — STEEL CRASH BARRIER
- 24 — ACCESSIBLE PARKING SIGN MOUNTED ON DOOR. SEE DETAIL 5 / A8.42 FOR SIGN INFORMATION.
- 25 — SPLIT FACE CMU BLOCK - "RCP BLOCK & BRICK," COLOR PUEBLO

KEY PLAN



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HOLLYWOOD Casino

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ARCHITECT: MARNELL, AIA
DAVID S. MARNELL, AIA

DATE	02 MAR 2015
SCALE	AS NOTED
JOB NO.	MA 132037
REVISION	29 JUN 2015

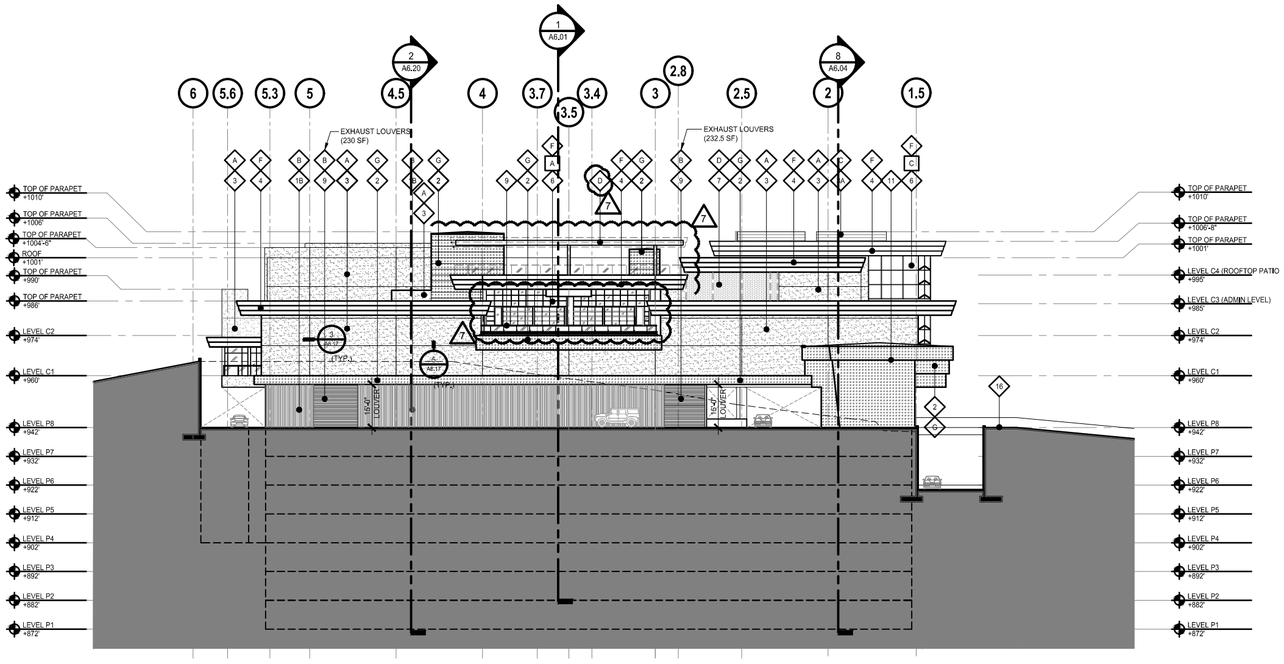
BUILDING ELEVATIONS

HOLLYWOOD CASINO
JAMUL, CA

SHEET
A5.02
OF

ISSUED FOR CONSTRUCTION

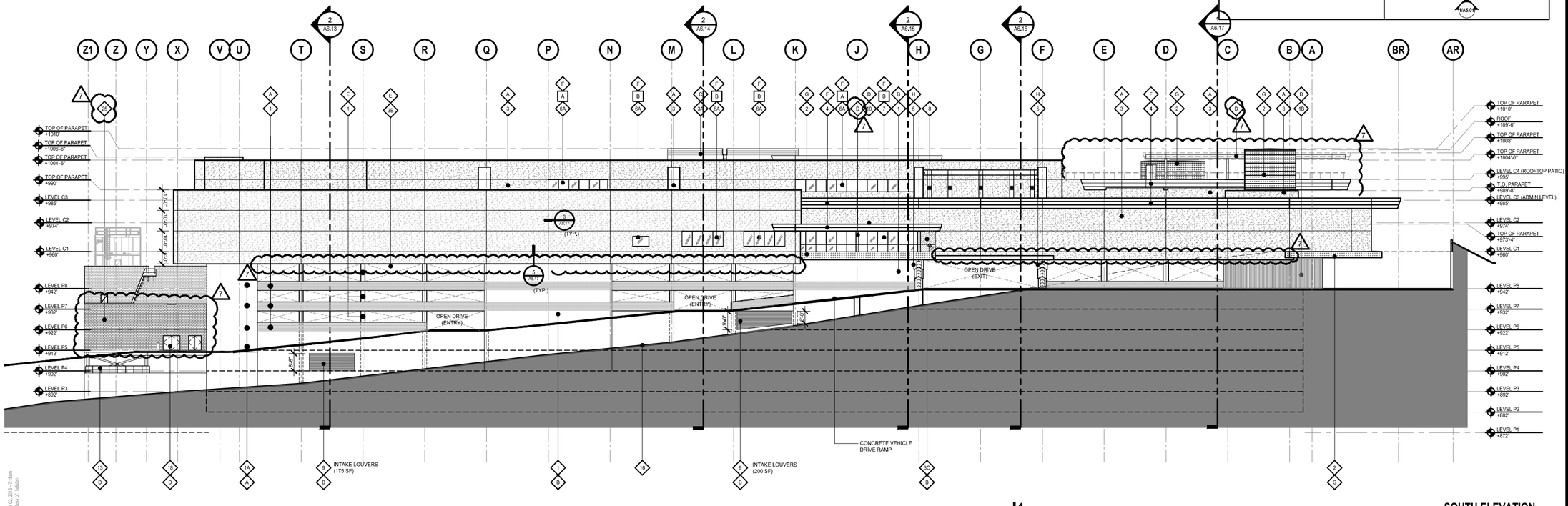
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Printed from the desk of: waldon



2 EAST ELEVATION

FN: 120104-A-L-ELEV

SCALE: 1" = 20'-0"



1 SOUTH ELEVATION

FN: 120104-A-L-ELEV

SCALE: 1" = 20'-0"

FINISH LEGEND

1. SW 7536 BITTERSWEET STEM
2. SW 6088 NUTHATCH
3. SW 7503 STICKS AND STONES
4. SW 2808 ROCKWOOD DARK BROWN
5. SW 7551 GREEK VILLA
6. PPG DURANAR SUNSTORM- LEXUS BRONZE
7. THERMOCROMEX FINISH ID #1355,33
8. MATCH ARCHITECT'S SAMPLE- CHOCOLATE.
9. NOT USED
10. PRISMATIC POWDERS "LE REVE BRONZE" UMB 5376 / METALLIC

GLASS TYPES

- A: 1" INSULATING GLASS "GUARDIAN" SUNGUARD SUPER NEUTRAL LOW-E 62/27 #2 ON CRYSTAL GRAY
- B: 1" INSULATING GLASS "GUARDIAN" SUNGUARD SUPER NEUTRAL LOW-E 62/27 #2 ON GRAY
- C: 1" INSULATING GLASS "PANELITE" CLEARSHADE CS-TA7-12.7
- D: 1" INSULATING GLASS "GUARDIAN" SUNGUARD SUPER NEUTRAL LOW-E 62/27 #2 ON CLEAR
- E: 1 5 /8"" INSULATING GLASS UNIT "PILKINGTON" PYROSTOP # 60-261

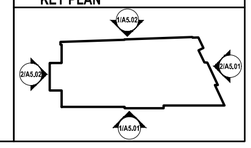
ELEVATION NOTES

1. PAINT COLOR TRANSITION SHALL TERMINATE ON INSIDE CORNERS ONLY.
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING INFORMATION.
3. ALL CONCRETE TO BE FINISHED WITH 2 COATS SW "LOXON" VERTICAL OPAQUE STAIN A31 SERIES U.N.O
4. ALL EXPOSED STRUCTURAL STEEL /FERROUS METAL SHALL BE FINISHED AS FOLLOWS.
   - PREPARATION - BLAST CLEAN SSPC-SP7
   - PREPARATION - GALVANIZED SSPC-SP1 SOLVENT CLEAN
   - PRIMER - SHERWIN WILLIAMS ZINC CLAD II HS (HIGH SOLIDS) PRIMER
   - TOPCOAT - SHERWIN WILLIAMS SHERCRYL HPA (HIGH PERFORMANCE ACRYLIC)
5. ORNAMENTAL STEEL TO BE POWDER COATED.

ELEVATION REFERENCE NOTES

1. CAST-IN-PLACE CONCRETE - OPAQUE STAIN FINISH
2. CAST-IN-PLACE CONCRETE W/ SCORED GROOVES - OPAQUE STAIN FINISH
3. CAST-IN-PLACE CONCRETE W/ FORM LINER "FITZGERALD" LARGE RUSTIC PLANK PATTERN 16920 (VERTICAL APPLICATION) - OPAQUE STAIN FINISH
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15. TOP FIRE-RATED STEEL CURTAINWALL SYSTEM - POWDER COAT FINISH
16. (FUTURE) FABRIC WRAPPED STEEL EQUIPMENT SCREEN. FABRIC TO BE "SERGE FERRAT PRCO/STRAIN" 502-20113
17. GLASS GUARDRAIL STEEL FRAME TO BE PAINTED
18. EXHAUST /INTAKE ACOUSTICAL LOUVER-"GREENHECK" MODEL # AF-34001
19. FIXED FABRIC ROOF SYSTEM - "SHADEFX" W/ "SERGE FERRAR" SOLTIS W96-H02 FABRIC.
20. EXTERIOR LIGHTING, SEE LIGHTING DWGS.
21. ROLL-UP DOOR - PAINT FINISH.
22. STEEL PIPE GUARDRAIL, PAINT FINISH.
23. EIFS REVEAL - SEE DETAIL 5/A8.17
24. SIGNAGE
25. FINISH GRADE
26. GROOVES TO MATCH SHOTCRETE WALL
27. HOLLOW METAL DOORS
28. ALUMINUM MUNTIN
29. ORNAMENTAL STEEL MUNTINS
30. PAN LOW METAL DOOT"X1" CORRUGATED ALUMINUM FASCIA AND FLAT A.060 ALUMINUM CEILING PANELS.
31. ORNAMENTAL STAINLESS STEEL AND STONE COLUMN COVER.
32. STEEL CRASH BARRIER
33. ACCESSIBLE PARKING SIGN MOUNTED ON DOOR. SEE DETAIL 5 / A5.42 FOR SIGN INFORMATION.
34. SPLIT FACE CMU BLOCK - "RCP BLOCK & BRICK" COLOR PUEBLO

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HOLLYWOOD Casino

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MICHAEL A. MARTIN, AIA
ANTHONY A. MARNELL III, AIA
DAVID E. MORFOLA, AIA

DATE	SCALE	DRAWING NO.	REVISION
02 MAR 2015	AS NOTED	MA 132037	29 JUN 2015

BUILDING ELEVATIONS

HOLLYWOOD CASINO
JAMUL, CA

SHEET
A5.01
OF
ISSUED FOR CONSTRUCTION

Date & Time: Jul/02 2015 - 01:58pm
Printed from Revit 2014 - Master



A: Casino/Parking Garage

B: Waste-Waer Treatment Facility

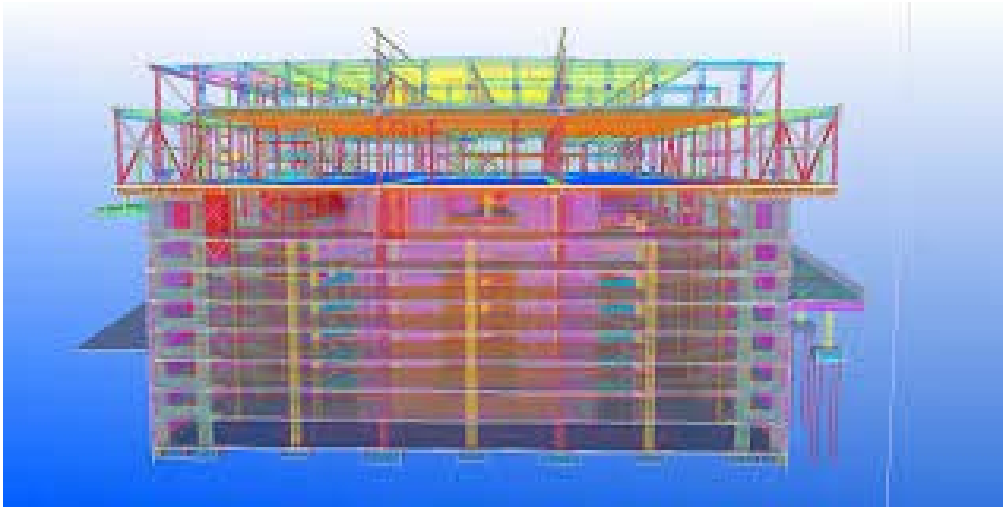
C. Tribal Community Building

D. Tribal Administration

E. Tribal Church

F. Historic Graveyard



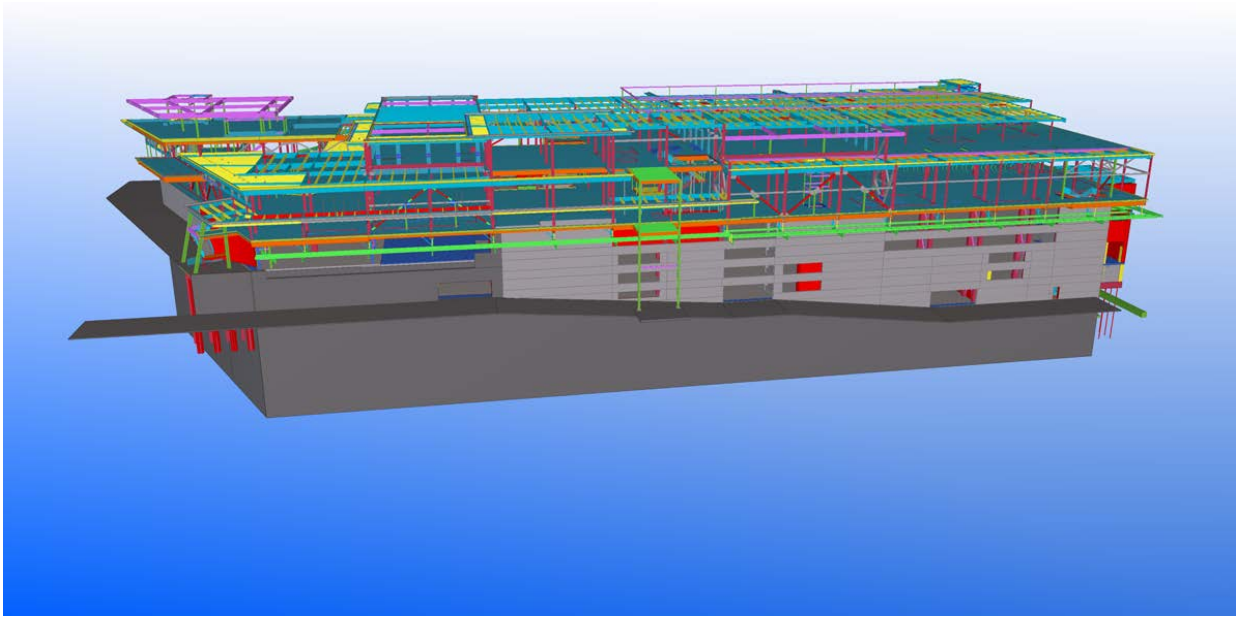


Floor C3

Floor C1/C2

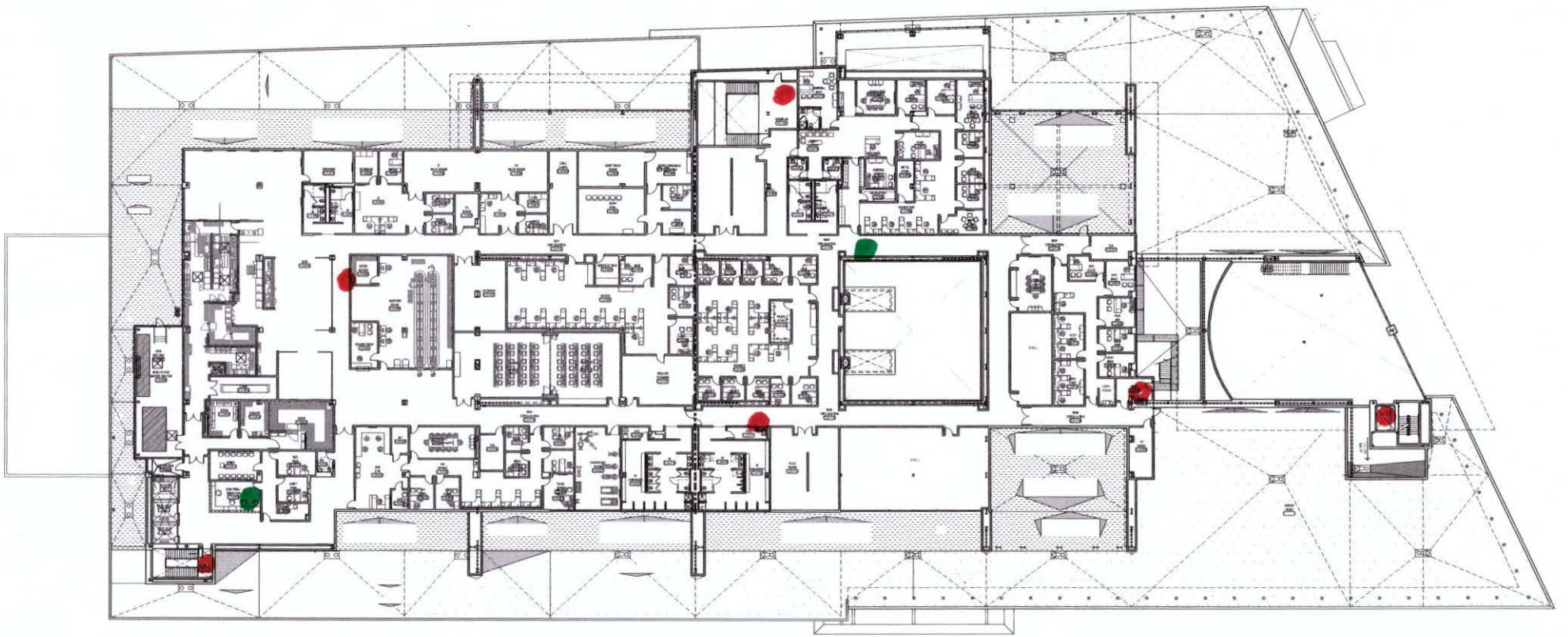
Floor P8 (entrance)
Floor P7
Floor P6
Floor P5
Floor P4 (ground level)
Floor P3
Floor P2
Floor P1

Casino schematic- Colored areas Floors C1, c2, and C3 Grey areas are parking garage, Floors P1-8 (Floors P1-3 are below ground)



N

ADMINISTRATIVE FLOOR



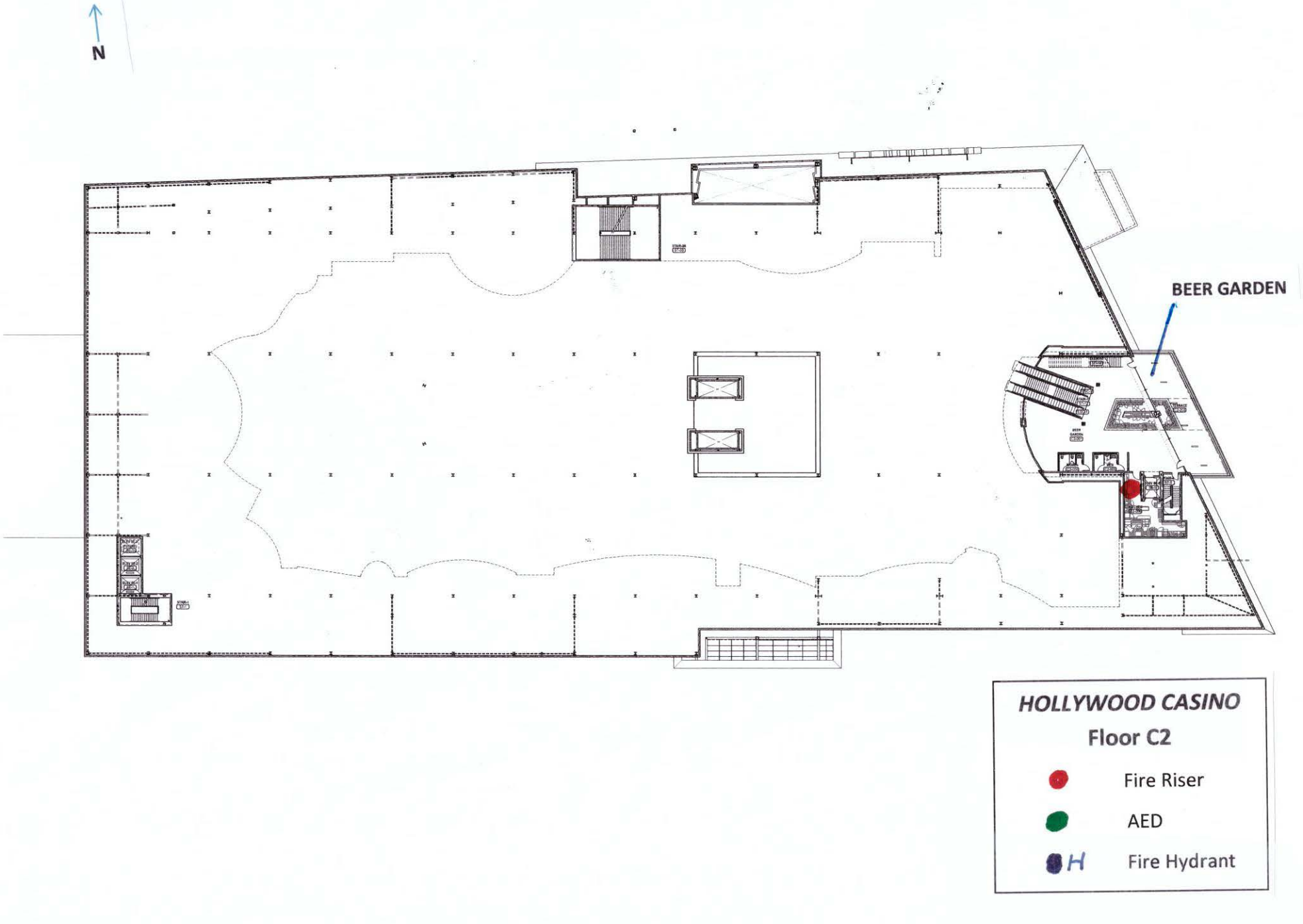
HOLLYWOOD CASINO

Floor C3

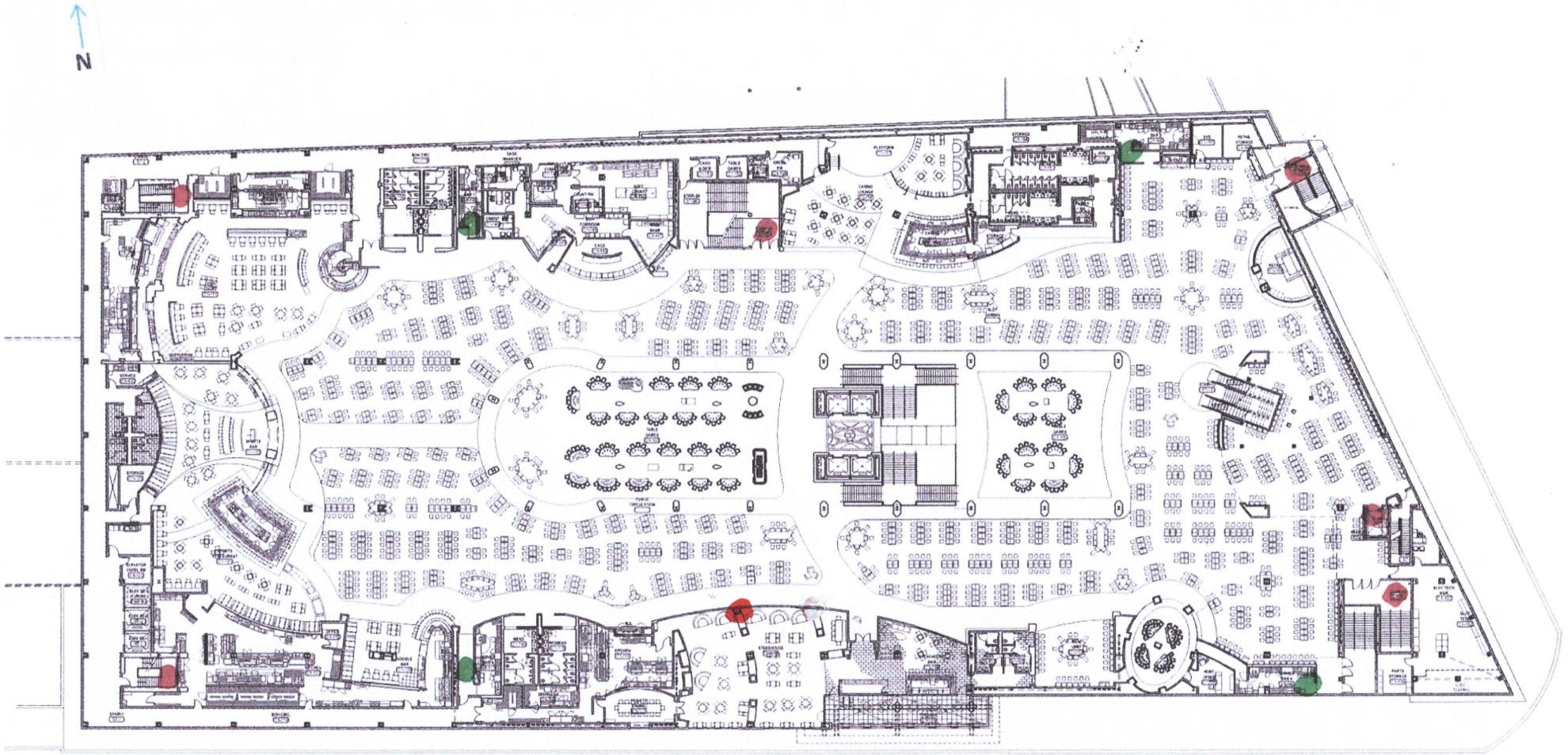
Fire Riser

AED

H Fire Hydrant


N
BEER GARDEN
HOLLYWOOD CASINO
Floor C2
Fire Riser
AED
H
Fire Hydrant

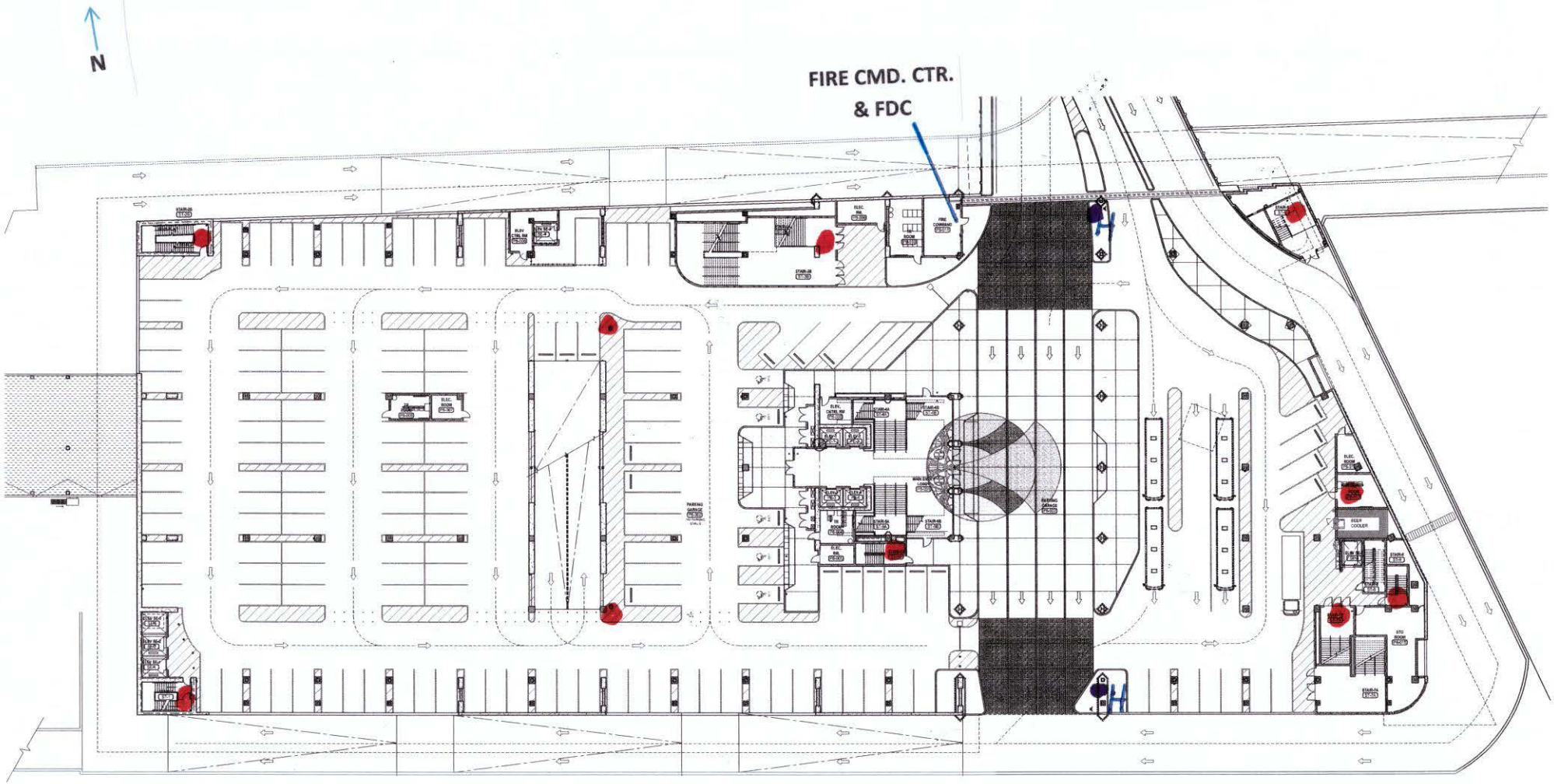
GAMING FLOOR



HOLLYWOOD CASINO

Floor C1

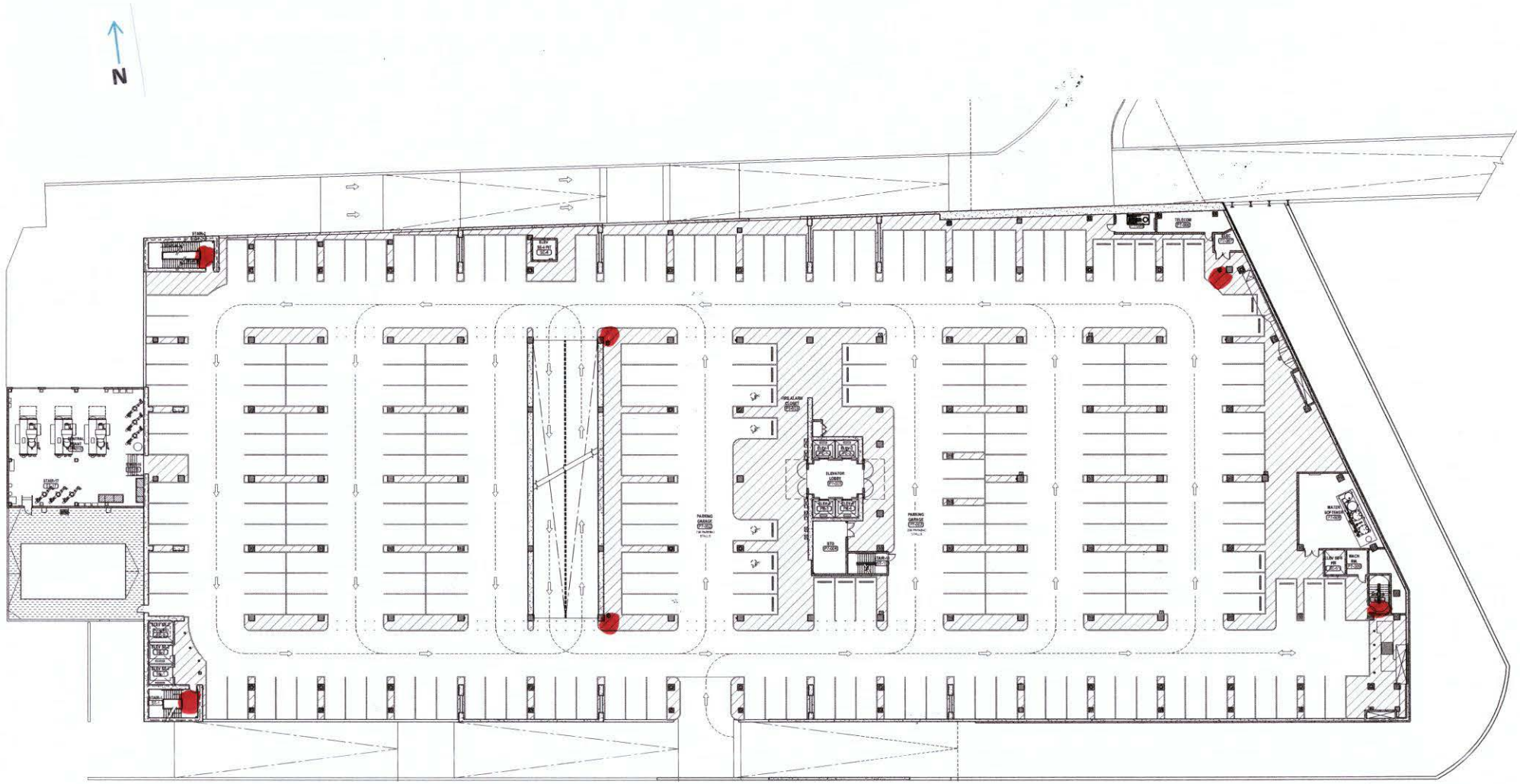
- Fire Riser
- AED
- H Fire Hydrant

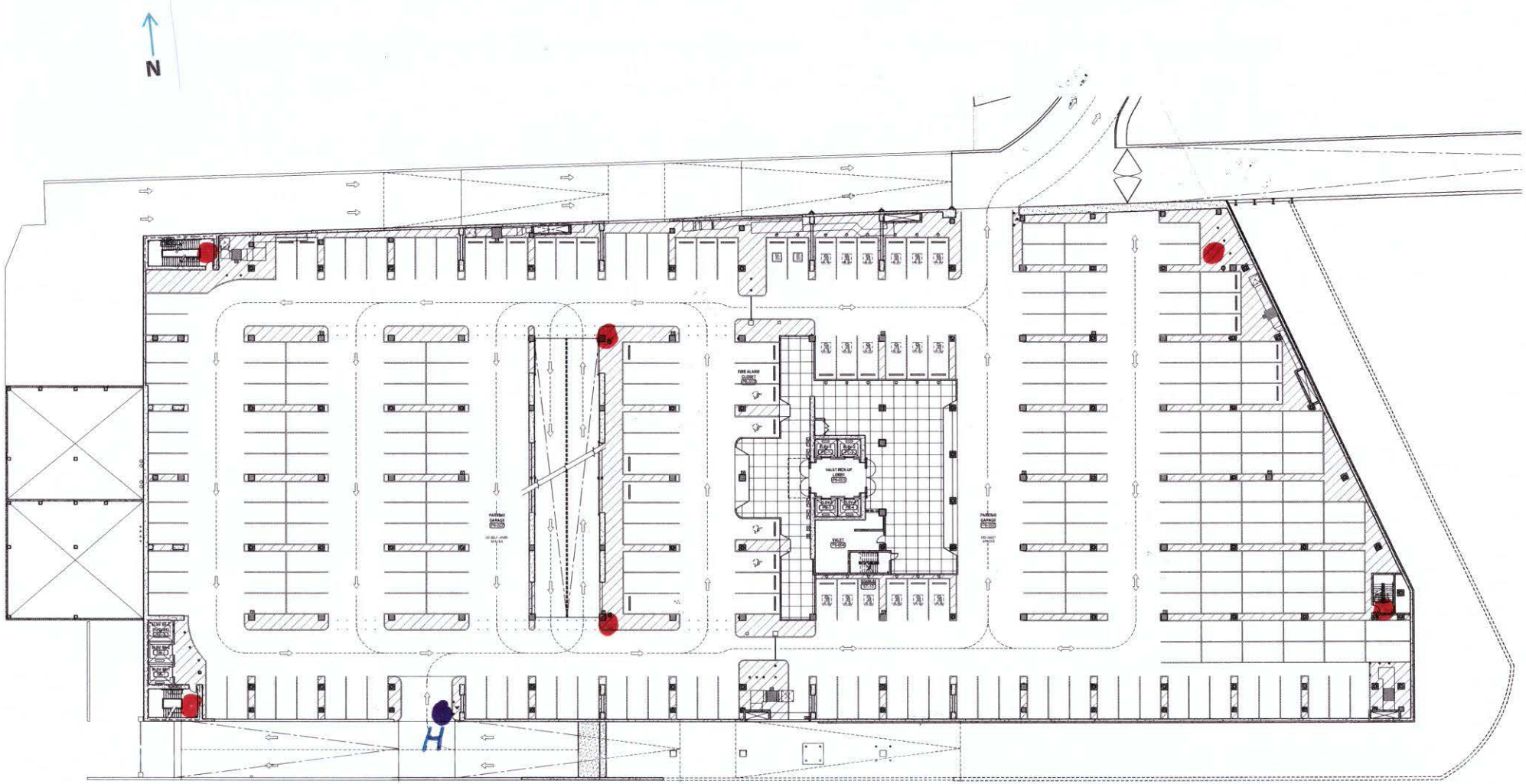


HOLLYWOOD CASINO

Floor P8

- Fire Riser
- AED
- H Fire Hydrant


N
HOLLYWOOD CASINO
Floor P7
Fire Riser
AED
H
Fire Hydrant



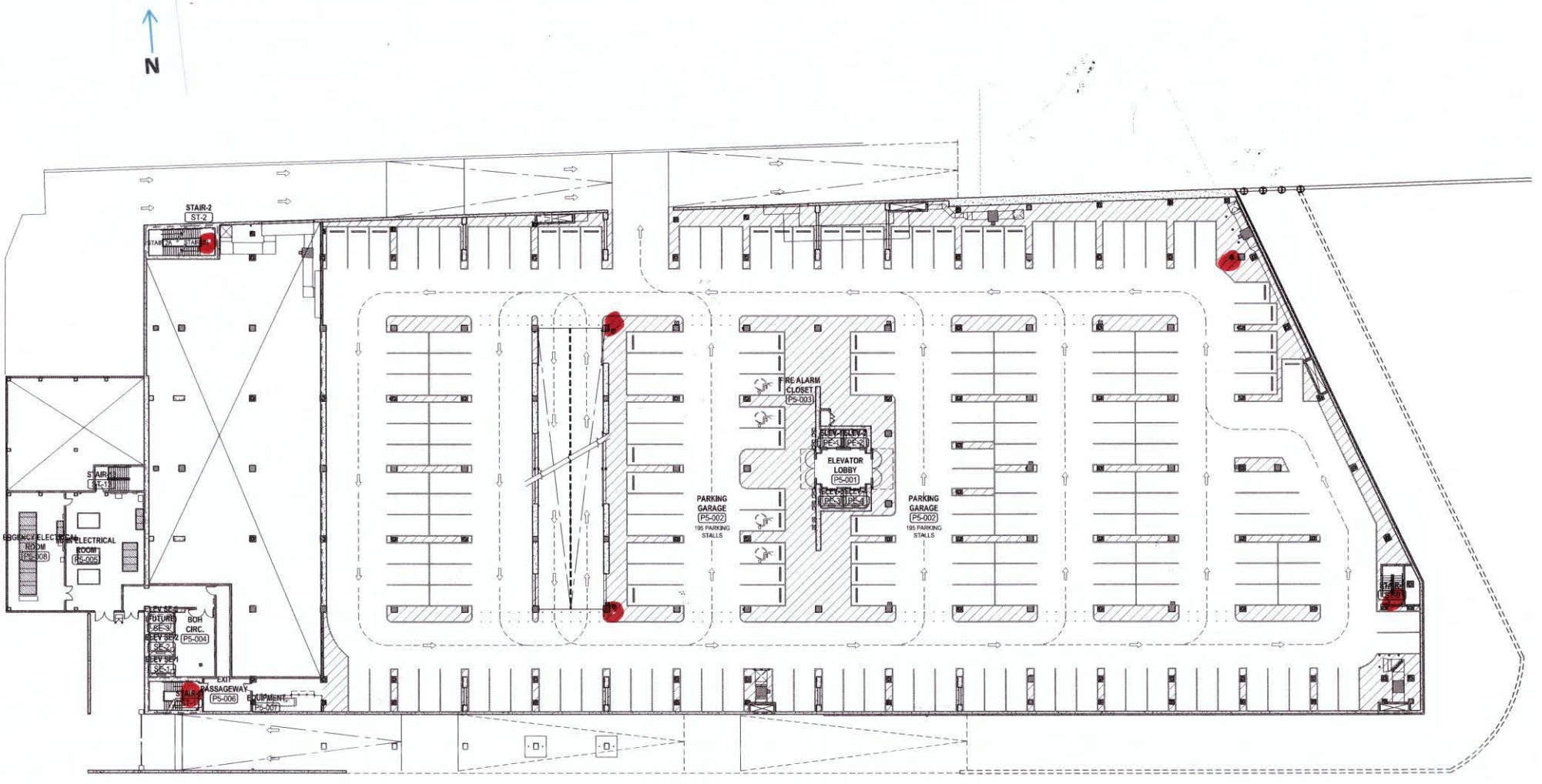
HOLLYWOOD CASINO

Floor P6

Fire Riser

AED

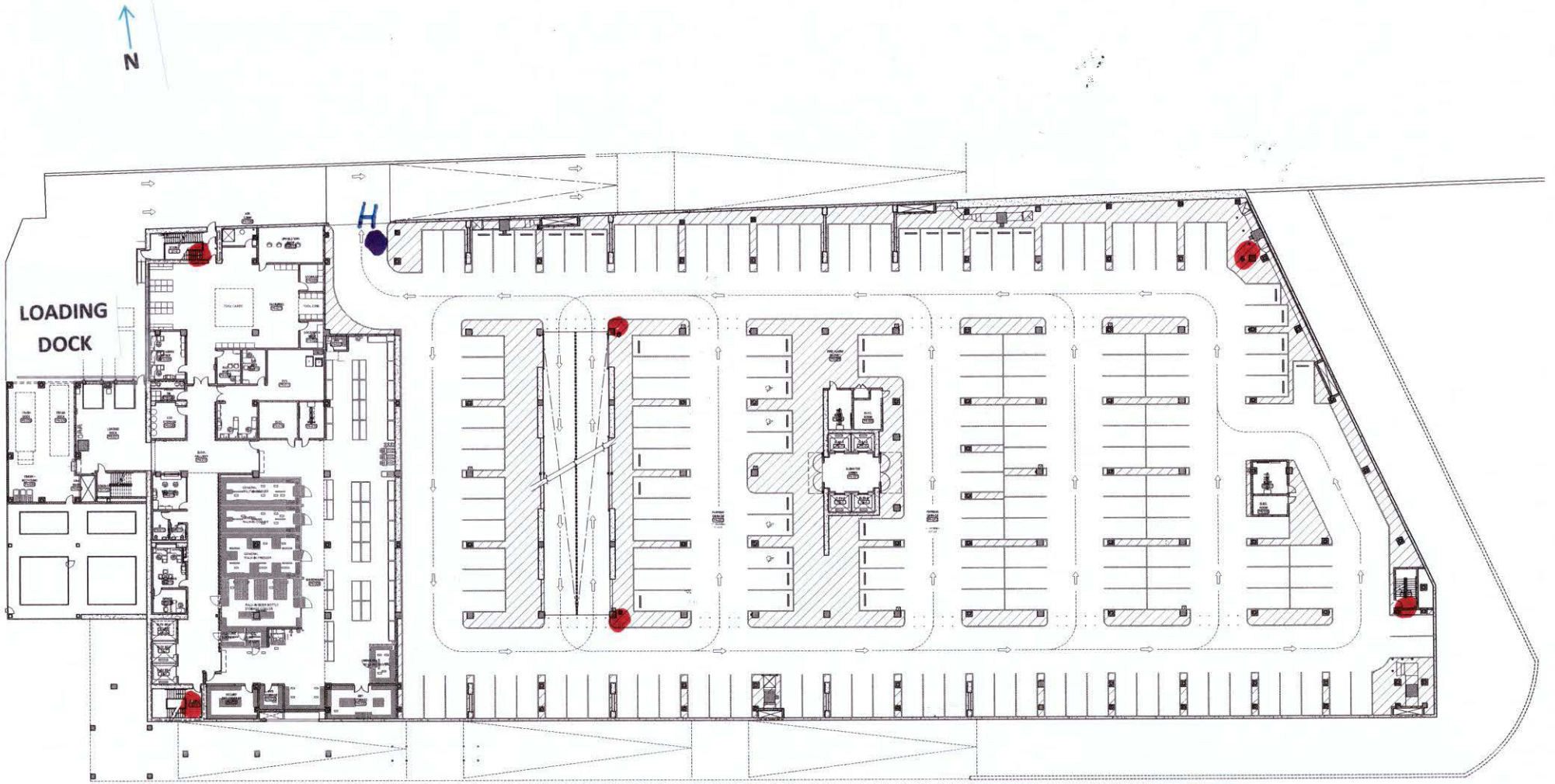
H Fire Hydrant



HOLLYWOOD CASINO

Floor P5

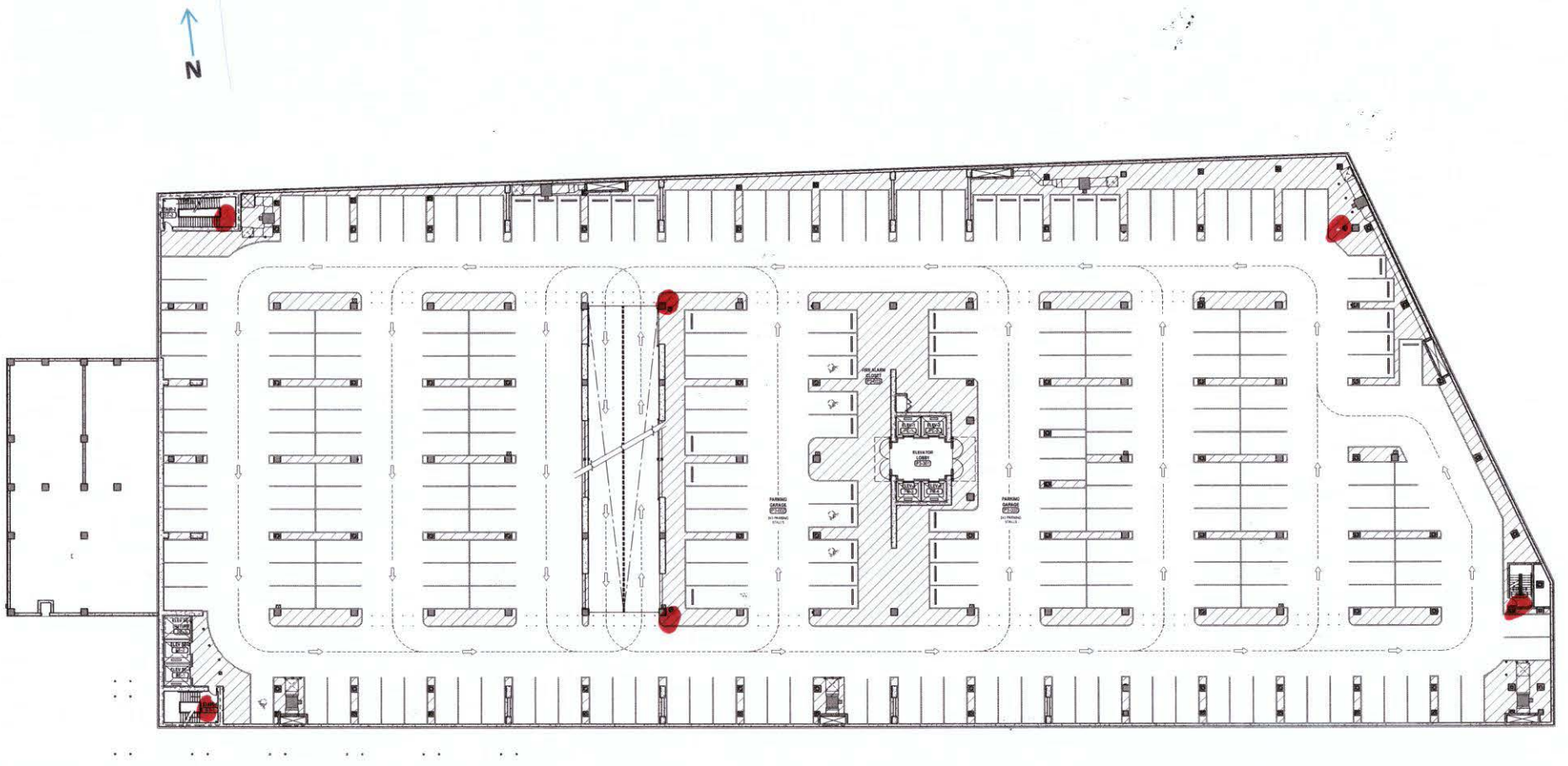
- Fire Riser
- AED
- H Fire Hydrant



HOLLYWOOD CASINO

Floor P4

- Fire Riser
- AED
- H Fire Hydrant



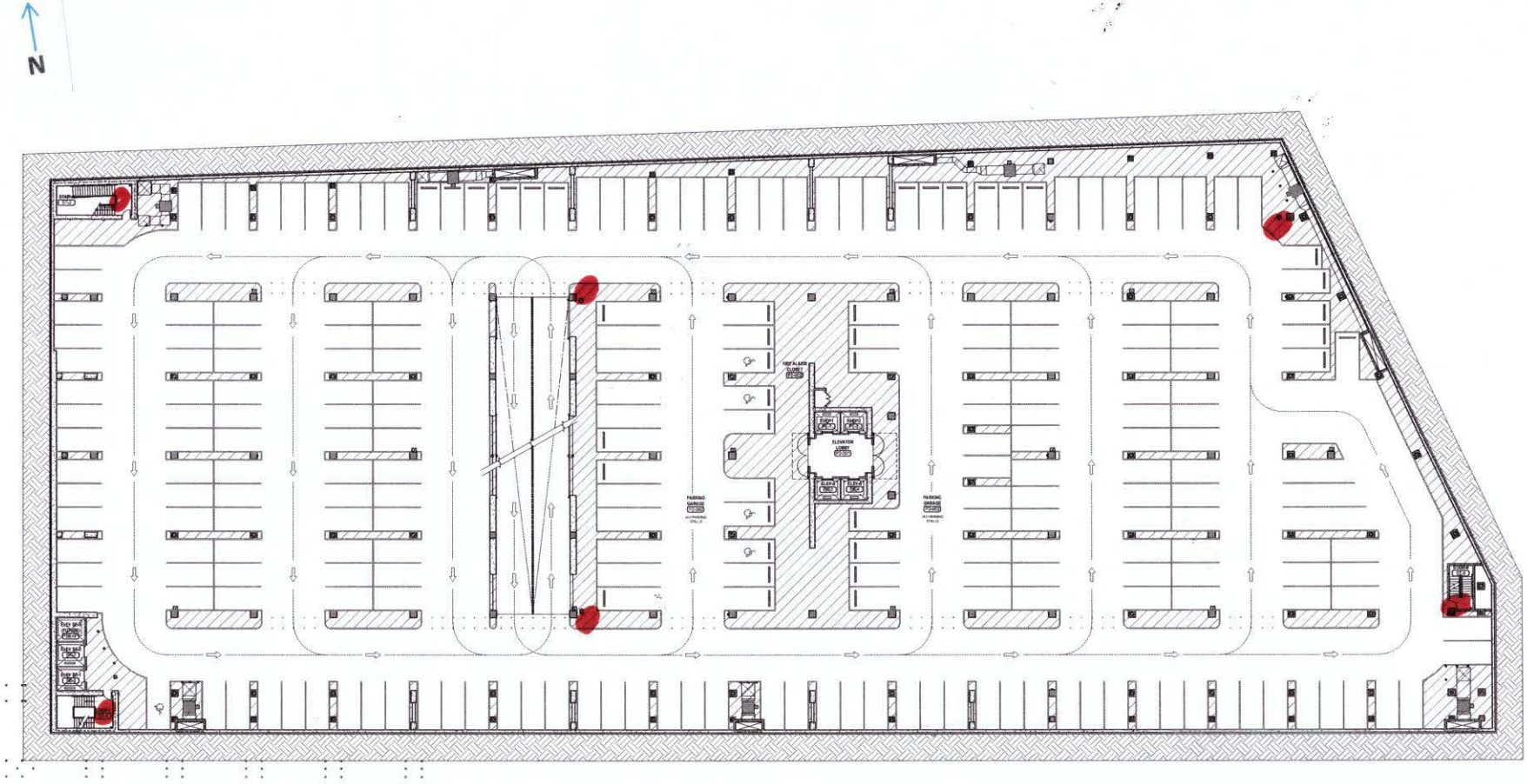
HOLLYWOOD CASINO

Floor P3

Fire Riser

AED

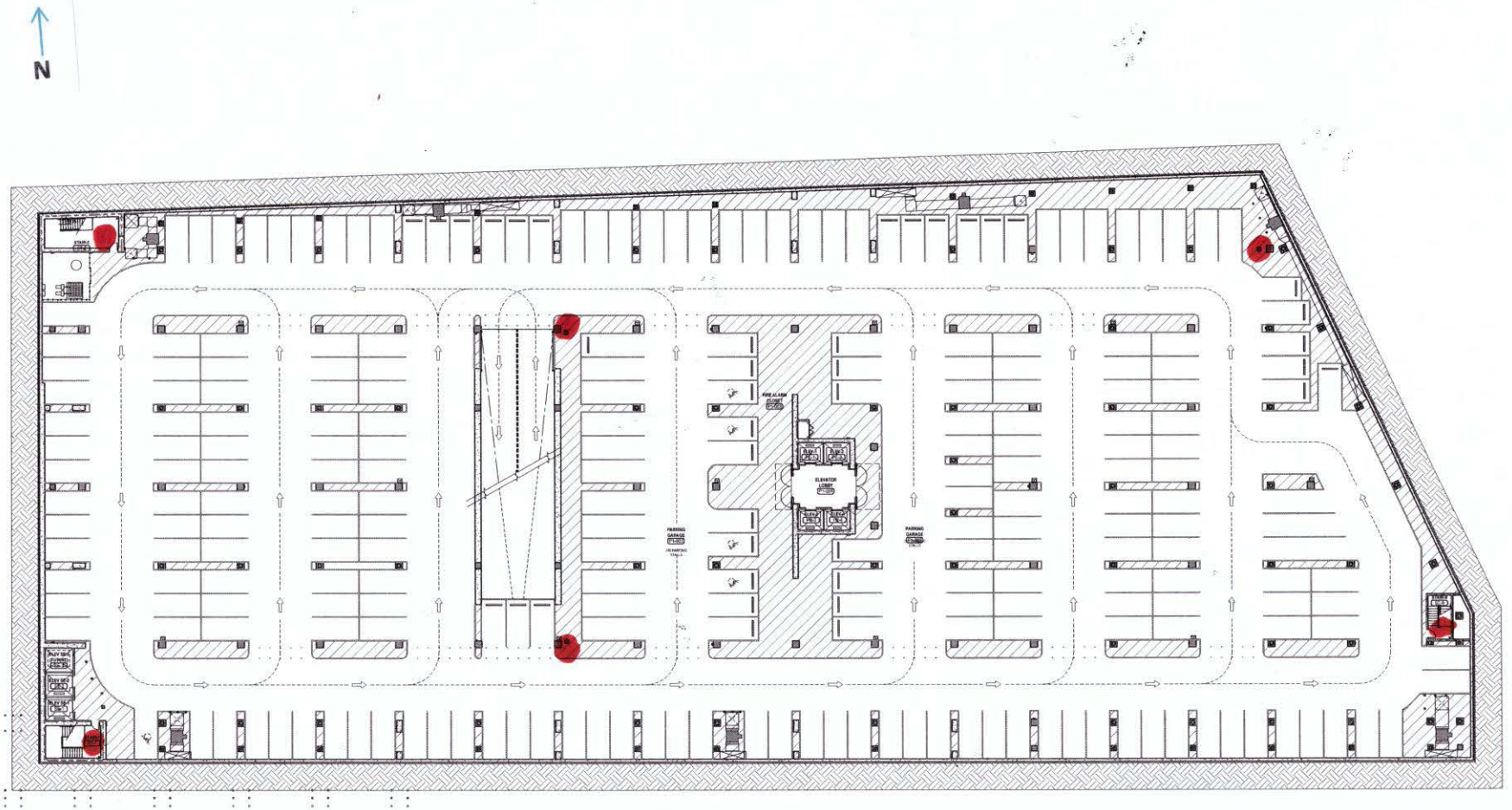
H Fire Hydrant



HOLLYWOOD CASINO

Floor P2

- Fire Riser
- AED
- H Fire Hydrant


N
HOLLYWOOD CASINO
Floor P1
Fire Riser
AED
H
Fire Hydrant

Appendix G

Air Quality and GHG Emissions Estimates

Project-Specific Inputs – Jamul Casino Hotel and Event Center Project

Input	Type of Input	Proposed Project	Source/Notes
Project Name	Project Name	Jamul Casino Hotel and Event Center Project	Project Description
Project Location	County	San Diego	Project Description
Climate zone	Climate Zone Number	4	Appendix F of CalEEMod User Guide
Land Use Setting	Urban or Rural	Rural	Site and Vicinity Figure
Start of Construction	Date	December 2022	Section 2 of the TEIR
Operational Year	1st year of operation after full buildout.	2024	Section 2 of the TEIR
Utility Company	Utility Company Name	San Diego Gas & Electric	SDG&E
Land Use Type and Subtype	Residential, Commercial, Recreation, etc.	See **Table 1**	See **Table 1**
Unit Amount	Size of Buildings or Number of units for each Land Use Type.	See **Table 1**	See **Table 1**
Lot Acreage	Acreage of each Land Use Type	See **Table 1**	See **Table 1**
Population	Population based on persons/household	Default	Default
Construction Phases	Type of construction phase (Demo, Site Prep, etc.) and beginning and ending dates	See **Table 2**	See **Table 2**
Off-Road Equipment	Type of equipment (Excavator, Dozer, etc.) and number of units per construction phase	See **Table 2**	See **Table 2**
Dust From Material Haul	Import/Export Material (Cu Yd or Tons)	20,000 CY export	Section 2 of the TEIR
	Total Acres Graded	1.25	Site plan
Demolition	Sq ft or tons of Demo (Tons or Sqft)	3,000 sq ft	Site plan
Construction Trip Gen Rate	Average number of one-way trips per day	Default	Defaults
Operational Trip Reductions	% reduction in trips.	See **Table 3**	See **Table 3**
Operational Trip Gen Rate and trip length	Trips and trip lengths	See **Table 3**	See **Table 3**
Area Sources	Hearths – # of wood-burning fireplaces, # of gas fireplaces, and # of units with no fireplace.	NA	No hearths are included in project design.

Project-Specific Inputs – Jamul Casino Hotel and Event Center Project (cont.)

Input	Type of Input	Proposed Project	Source/Notes
Energy Use	Project Specific Emission Factors.	See **Table 4**	See **Table 4**
Water and Wastewater	Indoor and outdoor water use for each Land Use Subtype in gallons per year.	See **Table 1**	See **Table 1**
Solid waste	Tons of solid waste generated per year	Hotel: Default Event Center (3.12 lbs/100 sf/day): 200	CalRecycle published waste generation rates for commercial facilities; Section 2 of the TEIR
	Land Fill No Gas Capture, Landfill Capture Gas Flare Rate	Default	CalEEMod 2020.4.0 Default
Operational off-road equipment	Excavator, Dozer, etc.	--	--
Stationary Sources	Emergency Generators	Two 500-KW (670 HP) emergency gen/sets operating 500 hours per year	Section 2 of the TEIR
Land Use Change	Vegetation land use type (cropland, etc.) and initial and final acreage	No change	GIS analysis
Sequestration	Type and net number of new trees added	Not Applicable	Insignificant increase in the number of trees on project site for modeling purposes

Table 1: Land Use Inputs

Land Use Inputs						
Land Use Type	**Land Use Subtype[1]**	**Unit Amount**	**Size Metric**	**Lot Acreage**	**Square Feet**	**Water Demand (gal/yr)[2]**
Recreational	Hotel	225	rooms	0.5	253,390	29,560,255
Commercial	User Defined (Event Center)	51	ksf	0	50,983	
Commercial	General Office Building	3	ksf	0.25	3,000	
Parking	Unenclosed Parking Structure with Elevator	290	spaces	0.5	111,415	

Notes:
ksf = 1,000 square feet
1 - Source: Section 2, Project Description.
2 - Source: Wastewater and Water Report, Appendix C.

Table 2: Construction Phases and Equipment

Equipment	**Construction Phase Activities**					
	Demolition (12/15/22 – 1/11/23)	**Site Preparation (1/12/23 – 1/25/23)**	**Grading (1/26/23 – 5/10/23)**	**Construction (5/11/23 – 7/31/24)**	**Paving (8/1/23 –8/21/23)**	**Architectural Coating (5/1/24 – 7/30/24)**
All Heavy Equipment	Default	Default	Default	Default	Default	Default
Worker Trips	Default	Default	Default	Default	Default	Default
Soil Haul Trips	Default	Default	Default	Default	Default	Default
Soil Haul	Default	Default	Default	Default	Default	Default
Total Days	20	10	75	320	15	65

Table 3: Trip Generation

Land Use Subtype	Daily Trip Generation Rate[1]		Average Trip Length (miles)[2]			Trip Type (%)			Trip Purpose (%)[3]		
	Weekday	Saturday/ Sunday	Commercial-Customer Trips (C-C)	Commercial - Work Trips (C-W)	Commercial-Nonwork Trips (C-NW)	Primary	Diverted	Pass-By	Commercial-Customer Trips(C-C)	Commercial-Work Trips (C-W)	Commercial-Nonwork Trips (C-NW)
Recreational Hotel	3	3	15	Default	15	Default	Default	Default	Default	Default	Default
Commercial User Defined (Event Center)	11.5	11.5	15	Default	15	Default	Default	Default	61.6	19.4	19
Commercial General Office Building	0	0	Default	Default	Default	Default	Default	Default	Default	Default	Default

Notes:
1 Trip Generation Rates for Casino and Event Center adjusted for consistency with Trip Generation Analysis (Kimley-Horn, 2022).
2 Average trip length for customer and non-work trips based on distance from San Diego metro area to project site.
3 All Trip Purpose percentages, with exception of the Event Center, are CalEEMod default values. The Event Center Trip Purpose is based on default hotel values.

Table 4: Energy Use

Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Intensity (KBtu/size/yr)	Non-title-24 Natural Gas Intensity (KBtu/size/yr)
Recreational Hotel	Default	Default	Default	Default	Default
Commercial User Defined (Event Center)	7.35	23.69	6.78	35.56	138.46
Commercial General Office Building	Default	Default	Default	Default	Default

Notes: Event Center energy use based on CalEEMod default values for quality restaurant energy use.

Table 5: Off-Road Equipment Mitigation Inputs

Equipment Type	Engine Tier	Number of Equipment Mitigated	Diesel Particulate Filter (DPF) Level 2014
All Equipment	Default	Default	Default

Mitigation Inputs – Jamul Casino Hotel and Event Center Project

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Off-Road Equipment	C-1	Yes	Engine Type, DPF Level, and Oxidation Catalyst	See **Table 5.**	See **Table 5.**
Soil Stabilizer for Unpaved Roads	N/A	Yes	PM_{10} (% Reduction)	10%	Default % Reduction.
	N/A		$PM_{2.5}$ (% Reduction)	10%	Default % Reduction.
Water Exposed Area	N/A	Yes	Frequency (per day)	2 times per day	Section 2 of the TEIR
	N/A		PM_{10} (% Reduction)	55%	Default % Reduction.
	N/A		$PM_{2.5}$ (% Reduction)	55%	Default % Reduction.
Replace Ground Cover of Area Disturbed	N/A	No	PM_{10} (% Reduction)	--	
	N/A		$PM_{2.5}$ (% Reduction)	--	
Unpaved Road Mitigation	N/A	No	Moisture Content (%)	--	--
	N/A	Yes	Vehicle Speed (mph)	15 mph	Section 2 of the TEIR
Type of Residential	N/A	No	Type of Residential	--	--
Increased Density	LUT-1	No	Dwelling Units/Acre	--	--
			Job/Job Acre	--	--
Increased Diversity	LUT-3	No	Yes or No	--	--
Improved Walkability Design	LUT-9	No	Intersections/Square Miles	--	--
Improve Destination Accessibility	LUT-4	No	Distance to Downtown/Job Ctr	--	
Increased Transit Accessibility	LUT-5	No	Average Distance to Transit Station (miles)	--	
Integrated Below Market Rate Housing	LUT-6	No	# Dwelling Units Below Market Rate	--	
Improve Pedestrian Network	SDT-1	No	Yes or No; Project Site, Project Site and Connecting off-site, and Rural	--	--

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Mitigation Inputs – Jamul Casino Hotel and Event Center Project (cont.)

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Provide Traffic Calming Measures	SDT-2	No	% Streets with Improvement	--	--
		No	% Intersections with Improvement	--	
Implement Neighborhood Electric Vehicle (NEV) Network	SDT-3	No	% of streets equipped with NEV network.	--	
Limit Parking Supply	PDT-1	No	% Reduction in Spaces	--	
Unbundled Parking Costs	PDT-2	No	Monthly Parking Costs ($)	--	
On-Street Market Pricing	PDT-3	No	% Increase in Price	--	
Provide a Bus Rapid Transit System	TST-1	No	% Lines BRT	--	--
Expand Transit Network	TST-3	No	% Increase Transit Coverage	--	
Increase Transit Frequency	TST-4	No	Level of Implementation	--	
		No	% Reduction in Headways	--	
Implement Trip Reduction Program	TRT-1, TRT-2	No	% employee eligible	--	
		No	Program Type	--	--
Transit Subsidy	TRT-4	No	% employee eligible	--	
		No	Daily Transit Subsidy Amount ($)	--	
Implement Employee Parking "Cash-Out"	TRT-15	No	% employee eligible	--	
Workplace Parking Charge	TRT-14	No	% employee eligible	--	
		No	Daily Parking Charge ($)	--	--
Encourage Telecommuting and Alternative Work Schedules	TRT-6	No	% employee work 9/80	--	
		No	% employee work 4/40	--	
		No	% employee telecommute 1.5 days	--	

Mitigation Inputs – Jamul Casino Hotel and Event Center Project (cont.)

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Market Commute Trip Reduction Option	TRT-7	No	% employee eligible	--	--
Employee Vanpool/Shuttle	TRT-11	No	% employee eligible	--	--
		No	% vanpool mode share	--	--
Provide Ride Sharing Program	TRT-3	No	% employee eligible	--	--
Implement School Bus Program	TRT-13	No	% family using	--	--
Only Natural Gas Hearth	N/A	No	Yes or No	--	--
No hearth	N/A	No	Yes or No	--	--
Use of Low VOC Cleaning Supplies	N/A	No	Yes or No	--	--
Use low VOC Paint (Residential Interior)	N/A	Yes	Emission Factor (EF) (g/l)	50	San Diego APCD Rule 67.0.1
Use low VOC Paint (Residential Exterior)	N/A	Yes	EF (g/l)	50	San Diego APCD Rule 67.0.1
Use low VOC Paint (Non-residential Interior)	N/A	Yes	EF (g/l)	50	San Diego APCD Rule 67.0.1
Use low VOC Paint (Non-residential Exterior)	N/A	Yes	EF (g/l)	50	San Diego APCD Rule 67.0.1
Electric Lawnmower	A-1	No	Percent of equipment type that will be electric.	--	
Electric Leafblower	A-1	No	Percent of equipment type that will be electric.	--	
Electric Chainsaw	A-1	No	Percent of equipment type that will be electric.	--	
Exceed Title 24	BE-1	No	Percentage improvement selected for the Project.	--	

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Mitigation Inputs – Jamul Casino Hotel and Event Center Project (cont.)

Mitigation Input Category	CAPCOA Mitigation Number	Include in Model? (yes/no)	Type of Input / Unit	Project Specific Inputs	
				Inputs	Source/Notes
Install High Efficiently Lighting	LE-1	Yes	% Lighting Energy Reduction	16	CAPCOA, 2010.
On-site Renewable Energy	E-1, AE-2, AE-3	No	kWh Generated	--	--
		No	% of Electricity Use Generated	--	--
Energy Efficient Appliances	BE-4	Yes	Appliance Type, Land Use Subtype, % Improvement	Use Default Values	Defaults
Apply Water Conservation Strategy	WUW-2	No	% Reduction Indoor	--	--
		No	% Reduction Outdoor	--	--
Use Reclaimed Water	WSW-1	No	% Indoor Water Use	--	Recycled water use incorporated in project (Section 2 of the TEIR)
		No	% Outdoor Water Use	--	--
Use Grey Water	WSW-2	No	% Indoor Water Use	--	--
		No	% Outdoor Water Use	--	--
Install Low-Flow Bathroom Faucet	WUW-1	Yes	% Reduction in flow	32%	Default % reduction.
Install Low-flow Kitchen Faucet	WUW-1	Yes	% Reduction in flow	18%	Default % reduction.
Install Low-flow Toilet	WUW-1	Yes	% Reduction in flow	20%	Default % reduction.
Install Low-flow Shower	WUW-1	Yes	% Reduction in flow	20%	Default % reduction.
Turf Reduction	WUW-5	No	Turf Reduction Area (sqft)	--	--
		No	% Reduction turf	--	--
Use Water-Efficient Irrigation Systems	WUW-4	No	% Reduction	--	--
Water Efficient Landscape	WUW-3	No	Maximum Applied Water Allowance (MAWA) (gal/yr)	--	
		No	Estimated Total Water Use (ETWU) (gal/yr)	--	--
Institute Recycling and Composting Service	SW-1	Yes	% Reduction in Waste Disposal	50%	Tribe will use County facilities which are required to divert 50 percent of waste from landfills

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Jamul Casino Hotel and Event Center Project

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.00	1000sqft	0.25	3,000.00	0
User Defined Commercial	51.00	User Defined Unit	0.00	50,983.00	0
Unenclosed Parking with Elevator	290.00	Space	0.50	111,415.00	0
Hotel	225.00	Room	0.50	253,900.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See input tables for assumptions.

Construction Phase - See input tables for assumptions.

Trips and VMT - Export of fill to Chula Vista.

Demolition -

Grading - See input tables for assumptions.

Architectural Coating - Compliance with San Diego APCD Rule 67.0.1

Vehicle Trips - See input tables for assumptions.

Area Coating - Compliance with San Diego APCD Rule 67.0.1

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Energy Use - See input tables for assumptions.

Water And Wastewater - See input tables for assumptions.

Solid Waste - See input tables for assumptions.

Construction Off-road Equipment Mitigation - See input tables for assumptions.

Area Mitigation - San Diego APCD Rule 67.0.1

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Process Boilers -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	4.00	75.00
tblConstructionPhase	NumDays	200.00	320.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	1/13/2023	1/25/2023
tblConstructionPhase	PhaseEndDate	1/19/2023	5/10/2023
tblConstructionPhase	PhaseEndDate	10/26/2023	7/31/2024
tblConstructionPhase	PhaseEndDate	11/9/2023	8/21/2023
tblConstructionPhase	PhaseEndDate	11/23/2023	7/30/2024

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tblConstructionPhase	PhaseStartDate	1/14/2023	1/26/2023
tblConstructionPhase	PhaseStartDate	1/20/2023	5/11/2023
tblConstructionPhase	PhaseStartDate	10/27/2023	8/1/2023
tblConstructionPhase	PhaseStartDate	11/10/2023	5/1/2024
tblEnergyUse	LightingElect	0.00	6.78
tblEnergyUse	NT24E	0.00	23.69
tblEnergyUse	NT24NG	0.00	138.46
tblEnergyUse	T24E	0.00	7.35
tblEnergyUse	T24NG	0.00	35.56
tblGrading	AcresOfGrading	75.00	1.50
tblGrading	AcresOfGrading	9.38	1.50
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	0.00	50,983.00
tblLandUse	LandUseSquareFeet	116,000.00	111,415.00
tblLandUse	LandUseSquareFeet	326,700.00	253,900.00
tblLandUse	LotAcreage	0.07	0.25
tblLandUse	LotAcreage	2.61	0.50
tblLandUse	LotAcreage	7.50	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	200.00
tblStationaryBoilersUse	AnnualHeatInput	0.00	730.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	2.00
tblStationaryBoilersUse	DailyHeatInput	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	500.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	CC_TL	6.60	15.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CC_TL	6.60	15.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TL	6.60	15.00
tblVehicleTrips	CNW_TL	6.60	15.00
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	3.00
tblVehicleTrips	ST_TR	0.00	11.50
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	3.00
tblVehicleTrips	SU_TR	0.00	11.50
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	3.00
tblVehicleTrips	WD_TR	0.00	11.50
tblWater	IndoorWaterUseRate	0.00	23,319,531.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	0.0105	0.1007	0.0867	1.6000e-004	1.9400e-003	5.0400e-003	6.9800e-003	4.1000e-004	4.7100e-003	5.1200e-003	0.0000	13.6971	13.6971	3.2600e-003	6.0000e-005	13.7971
2023	0.2548	2.0602	2.1346	5.9500e-003	0.4862	0.0762	0.5625	0.2012	0.0722	0.2734	0.0000	534.0038	534.0038	0.0636	0.0252	543.0875
2024	0.9199	1.1358	1.5245	4.2100e-003	0.2086	0.0386	0.2472	0.0562	0.0373	0.0934	0.0000	376.1650	376.1650	0.0295	0.0170	381.9638
Maximum	**0.9199**	**2.0602**	**2.1346**	**5.9500e-003**	**0.4862**	**0.0762**	**0.5625**	**0.2012**	**0.0722**	**0.2734**	**0.0000**	**534.0038**	**534.0038**	**0.0636**	**0.0252**	**543.0875**

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					
2022	0.0105	0.1007	0.0867	1.6000e-004	1.4500e-003	5.0400e-003	6.4900e-003	3.4000e-004	4.7100e-003	5.0500e-003	0.0000	13.6971	13.6971	3.2600e-003	6.0000e-005	13.7971
2023	0.2548	2.0602	2.1346	5.9500e-003	0.3455	0.0762	0.4218	0.1247	0.0722	0.1969	0.0000	534.0035	534.0035	0.0636	0.0252	543.0872
2024	0.9199	1.1358	1.5245	4.2100e-003	0.2086	0.0386	0.2472	0.0562	0.0373	0.0934	0.0000	376.1649	376.1649	0.0295	0.0170	381.9636
Maximum	**0.9199**	**2.0602**	**2.1346**	**5.9500e-003**	**0.3455**	**0.0762**	**0.4218**	**0.1247**	**0.0722**	**0.1969**	**0.0000**	**534.0035**	**534.0035**	**0.0636**	**0.0252**	**543.0872**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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**	**20.26**	**0.00**	**17.29**	**29.70**	**0.00**	**20.59**	**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	**12-15-2022**	**3-14-2023**	0.5606	0.5606
2	**3-15-2023**	**6-14-2023**	0.5886	0.5886
3	**6-15-2023**	**9-14-2023**	0.6133	0.6133
4	**9-15-2023**	**12-14-2023**	0.5613	0.5613
5	**12-15-2023**	**3-14-2024**	0.5399	0.5399
6	**3-15-2024**	**6-14-2024**	0.9320	0.9320
7	**6-15-2024**	**9-14-2024**	0.6787	0.6787
		Highest	0.9320	0.9320

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.2854	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0102	0.0102	3.0000e-005	0.0000	0.0108
Energy	0.1274	1.1585	0.9731	6.9500e-003		0.0880	0.0880		0.0880	0.0880	0.0000	2,569.4815	2,569.4815	0.1041	0.0328	2,581.8629
Mobile	0.5321	0.5393	4.4840	8.7800e-003	0.9274	7.0500e-003	0.9344	0.2475	6.5700e-003	0.2541	0.0000	811.8995	811.8995	0.0653	0.0403	825.5462
Stationary	0.5557	1.5486	1.5070	3.2900e-003		0.0890	0.0890		0.0890	0.0890	0.0000	372.0029	372.0029	0.0380	0.0000	372.9531
Waste						0.0000	0.0000		0.0000	0.0000	66.1710	0.0000	66.1710	3.9106	0.0000	163.9358
Water						0.0000	0.0000		0.0000	0.0000	9.3781	96.8898	106.2680	0.9691	0.0235	137.4880
Total	**2.5005**	**3.2465**	**6.9693**	**0.0190**	**0.9274**	**0.1841**	**1.1115**	**0.2475**	**0.1837**	**0.4312**	**75.5491**	**3,850.2838**	**3,925.8329**	**5.0872**	**0.0966**	**4,081.7969**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.2854	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0102	0.0102	3.0000e-005	0.0000	0.0108
Energy	0.1274	1.1585	0.9731	6.9500e-003		0.0880	0.0880		0.0880	0.0880	0.0000	2,503.0711	2,503.0711	0.1001	0.0323	2,515.2045
Mobile	0.5321	0.5393	4.4840	8.7800e-003	0.9274	7.0500e-003	0.9344	0.2475	6.5700e-003	0.2541	0.0000	811.8995	811.8995	0.0653	0.0403	825.5462
Stationary	0.5557	1.5486	1.5070	3.2900e-003		0.0890	0.0890		0.0890	0.0890	0.0000	372.0029	372.0029	0.0380	0.0000	372.9531
Waste						0.0000	0.0000		0.0000	0.0000	33.0855	0.0000	33.0855	1.9553	0.0000	81.9679
Water						0.0000	0.0000		0.0000	0.0000	7.5025	78.0349	85.5374	0.7754	0.0188	110.5154
Total	**2.5005**	**3.2465**	**6.9693**	**0.0190**	**0.9274**	**0.1841**	**1.1115**	**0.2475**	**0.1837**	**0.4312**	**40.5880**	**3,765.0185**	**3,805.6064**	**2.9341**	**0.0914**	**3,906.1979**

	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**	**46.28**	**2.21**	**3.06**	**42.32**	**5.36**	**4.30**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/15/2022	1/11/2023	5	20	
2	Site Preparation	Site Preparation	1/12/2023	1/25/2023	5	10	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3	Grading	Grading	1/26/2023	5/10/2023	5	75	
4	Building Construction	Building Construction	5/11/2023	7/31/2024	5	320	
5	Paving	Paving	8/1/2023	8/21/2023	5	15	
6	Architectural Coating	Architectural Coating	5/1/2024	7/30/2024	5	65	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 461,825; Non-Residential Outdoor: 153,942; Striped Parking Area: 6,685 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Demolition	5	13.00	0.00	14.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,500.00	16.80	6.60	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	171.00	69.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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3.2 Demolition -2022

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					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.0997	0.0838	1.4000e-004		5.0300e-003	5.0300e-003		4.7000e-003	4.7000e-003	0.0000	12.6466	12.6466	3.2200e-003	0.0000	12.7272
Total	**0.0101**	**0.0997**	**0.0838**	**1.4000e-004**	**9.0000e-004**	**5.0300e-003**	**5.9300e-003**	**1.4000e-004**	**4.7000e-003**	**4.8400e-003**	**0.0000**	**12.6466**	**12.6466**	**3.2200e-003**	**0.0000**	**12.7272**

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	2.0000e-005	7.1000e-004	1.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2633	0.2633	1.0000e-005	4.0000e-005	0.2760
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	3.0000e-004	2.3000e-004	2.7500e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.8000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7873	0.7873	2.0000e-005	2.0000e-005	0.7939
Total	**3.2000e-004**	**9.4000e-004**	**2.9200e-003**	**1.0000e-005**	**1.0400e-003**	**2.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**1.0505**	**1.0505**	**3.0000e-005**	**6.0000e-005**	**1.0699**

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3.2 Demolition -2022

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					4.0000e-004	0.0000	4.0000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.0997	0.0838	1.4000e-004		5.0300e-003	5.0300e-003		4.7000e-003	4.7000e-003	0.0000	12.6466	12.6466	3.2200e-003	0.0000	12.7272
Total	**0.0101**	**0.0997**	**0.0838**	**1.4000e-004**	**4.0000e-004**	**5.0300e-003**	**5.4300e-003**	**6.0000e-005**	**4.7000e-003**	**4.7600e-003**	**0.0000**	**12.6466**	**12.6466**	**3.2200e-003**	**0.0000**	**12.7272**

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	2.0000e-005	7.1000e-004	1.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2633	0.2633	1.0000e-005	4.0000e-005	0.2760
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	3.0000e-004	2.3000e-004	2.7500e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.8000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.7873	0.7873	2.0000e-005	2.0000e-005	0.7939
Total	**3.2000e-004**	**9.4000e-004**	**2.9200e-003**	**1.0000e-005**	**1.0400e-003**	**2.0000e-005**	**1.0600e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**1.0505**	**1.0505**	**3.0000e-005**	**6.0000e-005**	**1.0699**

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3.2 Demolition -2023

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					6.0000e-004	0.0000	6.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8900e-003	0.0573	0.0538	1.0000e-004		2.7100e-003	2.7100e-003		2.5300e-003	2.5300e-003	0.0000	8.4346	8.4346	2.1400e-003	0.0000	8.4881
Total	**5.8900e-003**	**0.0573**	**0.0538**	**1.0000e-004**	**6.0000e-004**	**2.7100e-003**	**3.3100e-003**	**9.0000e-005**	**2.5300e-003**	**2.6200e-003**	**0.0000**	**8.4346**	**8.4346**	**2.1400e-003**	**0.0000**	**8.4881**

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	1.0000e-005	3.8000e-004	1.0000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1680	0.1680	1.0000e-005	3.0000e-005	0.1762
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	1.8000e-004	1.4000e-004	1.6900e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5083	0.5083	1.0000e-005	1.0000e-005	0.5123
Total	**1.9000e-004**	**5.2000e-004**	**1.7900e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.0000e-004**	**1.8000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6763**	**0.6763**	**2.0000e-005**	**4.0000e-005**	**0.6886**

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3.2 Demolition -2023

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					2.7000e-004	0.0000	2.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8900e-003	0.0573	0.0538	1.0000e-004		2.7100e-003	2.7100e-003		2.5300e-003	2.5300e-003	0.0000	8.4346	8.4346	2.1400e-003	0.0000	8.4881
Total	**5.8900e-003**	**0.0573**	**0.0538**	**1.0000e-004**	**2.7000e-004**	**2.7100e-003**	**2.9800e-003**	**4.0000e-005**	**2.5300e-003**	**2.5700e-003**	**0.0000**	**8.4346**	**8.4346**	**2.1400e-003**	**0.0000**	**8.4881**

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	1.0000e-005	3.8000e-004	1.0000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1680	0.1680	1.0000e-005	3.0000e-005	0.1762
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	1.8000e-004	1.4000e-004	1.6900e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5083	0.5083	1.0000e-005	1.0000e-005	0.5123
Total	**1.9000e-004**	**5.2000e-004**	**1.7900e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.0000e-004**	**1.8000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6763**	**0.6763**	**2.0000e-005**	**4.0000e-005**	**0.6886**

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3.3 Site Preparation - 2023

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					0.0271	0.0000	0.0271	0.0146	0.0000	0.0146	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6700e-003	0.0621	0.0332	9.0000e-005		2.5400e-003	2.5400e-003		2.3300e-003	2.3300e-003	0.0000	7.5571	7.5571	2.4400e-003	0.0000	7.6182
Total	**5.6700e-003**	**0.0621**	**0.0332**	**9.0000e-005**	**0.0271**	**2.5400e-003**	**0.0297**	**0.0146**	**2.3300e-003**	**0.0169**	**0.0000**	**7.5571**	**7.5571**	**2.4400e-003**	**0.0000**	**7.6182**

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	1.4000e-004	1.1000e-004	1.3000e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3910	0.3910	1.0000e-005	1.0000e-005	0.3941
Total	**1.4000e-004**	**1.1000e-004**	**1.3000e-003**	**0.0000**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3910**	**0.3910**	**1.0000e-005**	**1.0000e-005**	**0.3941**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					0.0122	0.0000	0.0122	6.5600e-003	0.0000	6.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6700e-003	0.0621	0.0332	9.0000e-005		2.5400e-003	2.5400e-003		2.3300e-003	2.3300e-003	0.0000	7.5571	7.5571	2.4400e-003	0.0000	7.6182
Total	**5.6700e-003**	**0.0621**	**0.0332**	**9.0000e-005**	**0.0122**	**2.5400e-003**	**0.0148**	**6.5600e-003**	**2.3300e-003**	**8.8900e-003**	**0.0000**	**7.5571**	**7.5571**	**2.4400e-003**	**0.0000**	**7.6182**

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	1.4000e-004	1.1000e-004	1.3000e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3910	0.3910	1.0000e-005	1.0000e-005	0.3941
Total	**1.4000e-004**	**1.1000e-004**	**1.3000e-003**	**0.0000**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3910**	**0.3910**	**1.0000e-005**	**1.0000e-005**	**0.3941**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					0.2280	0.0000	0.2280	0.1244	0.0000	0.1244	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0500	0.5425	0.3264	7.7000e-004		0.0227	0.0227		0.0209	0.0209	0.0000	67.8897	67.8897	0.0220	0.0000	68.4386
Total	**0.0500**	**0.5425**	**0.3264**	**7.7000e-004**	**0.2280**	**0.0227**	**0.2507**	**0.1244**	**0.0209**	**0.1453**	**0.0000**	**67.8897**	**67.8897**	**0.0220**	**0.0000**	**68.4386**

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	2.0000e-003	0.0964	0.0318	3.9000e-004	0.0107	7.0000e-004	0.0114	2.9500e-003	6.7000e-004	3.6200e-003	0.0000	39.0864	39.0864	1.9300e-003	6.2100e-003	40.9867
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	1.3300e-003	9.9000e-004	0.0122	4.0000e-005	4.6800e-003	2.0000e-005	4.7000e-003	1.2400e-003	2.0000e-005	1.2600e-003	0.0000	3.6652	3.6652	9.0000e-005	9.0000e-005	3.6947
Total	**3.3300e-003**	**0.0974**	**0.0440**	**4.3000e-004**	**0.0154**	**7.2000e-004**	**0.0161**	**4.1900e-003**	**6.9000e-004**	**4.8800e-003**	**0.0000**	**42.7516**	**42.7516**	**2.0200e-003**	**6.3000e-003**	**44.6814**

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3.4 Grading - 2023

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					0.1026	0.0000	0.1026	0.0560	0.0000	0.0560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0500	0.5425	0.3264	7.7000e-004		0.0227	0.0227		0.0209	0.0209	0.0000	67.8896	67.8896	0.0220	0.0000	68.4385
Total	**0.0500**	**0.5425**	**0.3264**	**7.7000e-004**	**0.1026**	**0.0227**	**0.1253**	**0.0560**	**0.0209**	**0.0768**	**0.0000**	**67.8896**	**67.8896**	**0.0220**	**0.0000**	**68.4385**

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	2.0000e-003	0.0964	0.0318	3.9000e-004	0.0107	7.0000e-004	0.0114	2.9500e-003	6.7000e-004	3.6200e-003	0.0000	39.0864	39.0864	1.9300e-003	6.2100e-003	40.9867
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	1.3300e-003	9.9000e-004	0.0122	4.0000e-005	4.6800e-003	2.0000e-005	4.7000e-003	1.2400e-003	2.0000e-005	1.2600e-003	0.0000	3.6652	3.6652	9.0000e-005	9.0000e-005	3.6947
Total	**3.3300e-003**	**0.0974**	**0.0440**	**4.3000e-004**	**0.0154**	**7.2000e-004**	**0.0161**	**4.1900e-003**	**6.9000e-004**	**4.8800e-003**	**0.0000**	**42.7516**	**42.7516**	**2.0200e-003**	**6.3000e-003**	**44.6814**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2023

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	0.1272	0.9778	1.0530	1.8400e-003		0.0430	0.0430		0.0415	0.0415	0.0000	151.6353	151.6353	0.0258	0.0000	152.2790
Total	**0.1272**	**0.9778**	**1.0530**	**1.8400e-003**		**0.0430**	**0.0430**		**0.0415**	**0.0415**	**0.0000**	**151.6353**	**151.6353**	**0.0258**	**0.0000**	**152.2790**

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	6.4500e-003	0.2378	0.0867	1.0800e-003	0.0346	1.3700e-003	0.0360	9.9900e-003	1.3100e-003	0.0113	0.0000	105.3283	105.3283	3.1900e-003	0.0153	109.9595
Worker	0.0507	0.0376	0.4651	1.5200e-003	0.1780	9.4000e-004	0.1790	0.0473	8.7000e-004	0.0482	0.0000	139.5577	139.5577	3.2600e-003	3.4900e-003	140.6801
Total	**0.0572**	**0.2754**	**0.5518**	**2.6000e-003**	**0.2126**	**2.3100e-003**	**0.2150**	**0.0573**	**2.1800e-003**	**0.0595**	**0.0000**	**244.8859**	**244.8859**	**6.4500e-003**	**0.0188**	**250.6396**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2023

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	0.1272	0.9778	1.0530	1.8400e-003		0.0430	0.0430		0.0415	0.0415	0.0000	151.6351	151.6351	0.0258	0.0000	152.2788
Total	**0.1272**	**0.9778**	**1.0530**	**1.8400e-003**		**0.0430**	**0.0430**		**0.0415**	**0.0415**	**0.0000**	**151.6351**	**151.6351**	**0.0258**	**0.0000**	**152.2788**

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	6.4500e-003	0.2378	0.0867	1.0800e-003	0.0346	1.3700e-003	0.0360	9.9900e-003	1.3100e-003	0.0113	0.0000	105.3283	105.3283	3.1900e-003	0.0153	109.9595
Worker	0.0507	0.0376	0.4651	1.5200e-003	0.1780	9.4000e-004	0.1790	0.0473	8.7000e-004	0.0482	0.0000	139.5577	139.5577	3.2600e-003	3.4900e-003	140.6801
Total	**0.0572**	**0.2754**	**0.5518**	**2.6000e-003**	**0.2126**	**2.3100e-003**	**0.2150**	**0.0573**	**2.1800e-003**	**0.0595**	**0.0000**	**244.8859**	**244.8859**	**6.4500e-003**	**0.0188**	**250.6396**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2024

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	0.1086	0.8464	0.9576	1.6900e-003		0.0345	0.0345		0.0333	0.0333	0.0000	138.9326	138.9326	0.0231	0.0000	139.5111
Total	**0.1086**	**0.8464**	**0.9576**	**1.6900e-003**		**0.0345**	**0.0345**		**0.0333**	**0.0333**	**0.0000**	**138.9326**	**138.9326**	**0.0231**	**0.0000**	**139.5111**

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	5.7000e-003	0.2163	0.0776	9.7000e-004	0.0317	1.2600e-003	0.0330	9.1600e-003	1.2000e-003	0.0104	0.0000	94.8175	94.8175	2.9900e-003	0.0138	98.9890
Worker	0.0437	0.0309	0.3970	1.3500e-003	0.1631	8.2000e-004	0.1639	0.0433	7.6000e-004	0.0441	0.0000	123.6704	123.6704	2.7100e-003	2.9800e-003	124.6267
Total	**0.0494**	**0.2472**	**0.4746**	**2.3200e-003**	**0.1948**	**2.0800e-003**	**0.1969**	**0.0525**	**1.9600e-003**	**0.0545**	**0.0000**	**218.4879**	**218.4879**	**5.7000e-003**	**0.0167**	**223.6157**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2024

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	0.1086	0.8464	0.9576	1.6900e-003		0.0345	0.0345		0.0333	0.0333	0.0000	138.9325	138.9325	0.0231	0.0000	139.5109
Total	**0.1086**	**0.8464**	**0.9576**	**1.6900e-003**		**0.0345**	**0.0345**		**0.0333**	**0.0333**	**0.0000**	**138.9325**	**138.9325**	**0.0231**	**0.0000**	**139.5109**

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	5.7000e-003	0.2163	0.0776	9.7000e-004	0.0317	1.2600e-003	0.0330	9.1600e-003	1.2000e-003	0.0104	0.0000	94.8175	94.8175	2.9900e-003	0.0138	98.9890
Worker	0.0437	0.0309	0.3970	1.3500e-003	0.1631	8.2000e-004	0.1639	0.0433	7.6000e-004	0.0441	0.0000	123.6704	123.6704	2.7100e-003	2.9800e-003	124.6267
Total	**0.0494**	**0.2472**	**0.4746**	**2.3200e-003**	**0.1948**	**2.0800e-003**	**0.1969**	**0.0525**	**1.9600e-003**	**0.0545**	**0.0000**	**218.4879**	**218.4879**	**5.7000e-003**	**0.0167**	**223.6157**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

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	4.8300e-003	0.0468	0.0660	1.0000e-004		2.3100e-003	2.3100e-003		2.1300e-003	2.1300e-003	0.0000	8.8293	8.8293	2.8000e-003	0.0000	8.8993
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8300e-003**	**0.0468**	**0.0660**	**1.0000e-004**		**2.3100e-003**	**2.3100e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**8.8293**	**8.8293**	**2.8000e-003**	**0.0000**	**8.8993**

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	2.6000e-004	3.1800e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9530	0.9530	2.0000e-005	2.0000e-005	0.9606
Total	**3.5000e-004**	**2.6000e-004**	**3.1800e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9530**	**0.9530**	**2.0000e-005**	**2.0000e-005**	**0.9606**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving -2023

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	4.8300e-003	0.0468	0.0660	1.0000e-004		2.3100e-003	2.3100e-003		2.1300e-003	2.1300e-003	0.0000	8.8293	8.8293	2.8000e-003	0.0000	8.8993
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8300e-003**	**0.0468**	**0.0660**	**1.0000e-004**		**2.3100e-003**	**2.3100e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**8.8293**	**8.8293**	**2.8000e-003**	**0.0000**	**8.8993**

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	2.6000e-004	3.1800e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9530	0.9530	2.0000e-005	2.0000e-005	0.9606
Total	**3.5000e-004**	**2.6000e-004**	**3.1800e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9530**	**0.9530**	**2.0000e-005**	**2.0000e-005**	**0.9606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating -2024

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	0.7523					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**0.7581**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

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	3.6900e-003	2.6100e-003	0.0335	1.1000e-004	0.0138	7.0000e-005	0.0139	3.6600e-003	6.0000e-005	3.7200e-003	0.0000	10.4465	10.4465	2.3000e-004	2.5000e-004	10.5273
Total	**3.6900e-003**	**2.6100e-003**	**0.0335**	**1.1000e-004**	**0.0138**	**7.0000e-005**	**0.0139**	**3.6600e-003**	**6.0000e-005**	**3.7200e-003**	**0.0000**	**10.4465**	**10.4465**	**2.3000e-004**	**2.5000e-004**	**10.5273**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating -2024

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	0.7523					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**0.7581**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

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	3.6900e-003	2.6100e-003	0.0335	1.1000e-004	0.0138	7.0000e-005	0.0139	3.6600e-003	6.0000e-005	3.7200e-003	0.0000	10.4465	10.4465	2.3000e-004	2.5000e-004	10.5273
Total	**3.6900e-003**	**2.6100e-003**	**0.0335**	**1.1000e-004**	**0.0138**	**7.0000e-005**	**0.0139**	**3.6600e-003**	**6.0000e-005**	**3.7200e-003**	**0.0000**	**10.4465**	**10.4465**	**2.3000e-004**	**2.5000e-004**	**10.5273**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.5321	0.5393	4.4840	8.7800e-003	0.9274	7.0500e-003	0.9344	0.2475	6.5700e-003	0.2541	0.0000	811.8995	811.8995	0.0653	0.0403	825.5462
Unmitigated	0.5321	0.5393	4.4840	8.7800e-003	0.9274	7.0500e-003	0.9344	0.2475	6.5700e-003	0.2541	0.0000	811.8995	811.8995	0.0653	0.0403	825.5462

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Hotel	675.00	675.00	675.00	2,479,043	2,479,043
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	586.50	586.50	586.50		
Total	1,261.50	1,261.50	1,261.50	2,479,043	2,479,043

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
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Hotel	14.70	15.00	15.00	19.40	61.60	19.00	58	38	4
Unenclosed Parking with Elevator	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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
User Defined Commercial	14.70	15.00	15.00	19.40	61.60	19.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Hotel	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Unenclosed Parking with Elevator	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
User Defined Commercial	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	1,241.9263	1,241.9263	0.0759	9.2000e-003	1,246.5653
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,308.3367	1,308.3367	0.0800	9.6900e-003	1,313.2237
NaturalGas Mitigated	0.1274	1.1585	0.9731	6.9500e-003		0.0880	0.0880		0.0880	0.0880	0.0000	1,261.1448	1,261.1448	0.0242	0.0231	1,268.6392
NaturalGas Unmitigated	0.1274	1.1585	0.9731	6.9500e-003		0.0880	0.0880		0.0880	0.0880	0.0000	1,261.1448	1,261.1448	0.0242	0.0231	1,268.6392

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Office Building	60090	3.2000e-004	2.9500e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.2066	3.2066	6.0000e-005	6.0000e-005	3.2257
Hotel	1.47008e+007	0.0793	0.7206	0.6053	4.3200e-003		0.0548	0.0548		0.0548	0.0548	0.0000	784.4912	784.4912	0.0150	0.0144	789.1530
Unenclosed Parking with Elevator	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
User Defined Commercial	8.87206e+006	0.0478	0.4349	0.3653	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.4470	473.4470	9.0700e-003	8.6800e-003	476.2605
Total		**0.1274**	**1.1585**	**0.9731**	**6.9500e-003**		**0.0880**	**0.0880**		**0.0880**	**0.0880**	**0.0000**	**1,261.1448**	**1,261.1448**	**0.0242**	**0.0231**	**1,268.6392**

Jamul Casino Hotel and Event Center Project - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

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					
General Office Building	60090	3.2000e-004	2.9500e-003	2.4700e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.2066	3.2066	6.0000e-005	6.0000e-005	3.2257
Hotel	1.47008e+007	0.0793	0.7206	0.6053	4.3200e-003		0.0548	0.0548		0.0548	0.0548	0.0000	784.4912	784.4912	0.0150	0.0144	789.1530
Unenclosed Parking with Elevator	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
User Defined Commercial	8.87206e+006	0.0478	0.4349	0.3653	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.4470	473.4470	9.0700e-003	8.6800e-003	476.2605
Total		**0.1274**	**1.1585**	**0.9731**	**6.9500e-003**		**0.0880**	**0.0880**		**0.0880**	**0.0880**	**0.0000**	**1,261.1448**	**1,261.1448**	**0.0242**	**0.0231**	**1,268.6392**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	38820	9.5082	5.8000e-004	7.0000e-005	9.5437
Hotel	3.15852e+006	773.6179	0.0473	5.7300e-003	776.5076
Unenclosed Parking with Elevator	216145	52.9406	3.2400e-003	3.9000e-004	53.1383
User Defined Commercial	1.92818e+006	472.2700	0.0289	3.5000e-003	474.0341
Total		**1,308.3367**	**0.0800**	**9.6900e-003**	**1,313.2237**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	36991.2	9.0603	5.5000e-004	7.0000e-005	9.0941
Hotel	2.97571e+006	728.8426	0.0445	5.4000e-003	731.5650
Unenclosed Parking with Elevator	184949	45.2997	2.7700e-003	3.4000e-004	45.4689
User Defined Commercial	1.87287e+006	458.7237	0.0280	3.4000e-003	460.4372
Total		**1,241.9263**	**0.0759**	**9.2100e-003**	**1,246.5653**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	1.2854	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0102	0.0102	3.0000e-005	0.0000	0.0108
Unmitigated	1.2854	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0102	0.0102	3.0000e-005	0.0000	0.0108

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	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2096					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0102	0.0102	3.0000e-005	0.0000	0.0108
Total	**1.2854**	**5.0000e-005**	**5.2200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0102**	**0.0102**	**3.0000e-005**	**0.0000**	**0.0108**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2096					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0102	0.0102	3.0000e-005	0.0000	0.0108
Total	**1.2854**	**5.0000e-005**	**5.2200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0102**	**0.0102**	**3.0000e-005**	**0.0000**	**0.0108**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.5374	0.7754	0.0188	110.5154
Unmitigated	106.2680	0.9691	0.0235	137.4880

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.533201 / 0.326801	2.7590	0.0175	4.3000e-004	3.3252
Hotel	5.70752 / 0.634169	21.7391	0.1872	4.5400e-003	27.7717
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	23.3195 / 0	81.7699	0.7644	0.0185	106.3911
Total		**106.2680**	**0.9691**	**0.0235**	**137.4880**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.426561 / 0.326801	2.3850	0.0140	3.4000e-004	2.8387
Hotel	4.56602 / 0.634169	17.7364	0.1498	3.6300e-003	22.5638
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	18.6556 / 0	65.4159	0.6115	0.0148	85.1129
Total		**85.5374**	**0.7754**	**0.0188**	**110.5154**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.0855	1.9553	0.0000	81.9679
Unmitigated	66.1710	3.9106	0.0000	163.9358

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	2.79	0.5663	0.0335	0.0000	1.4031
Hotel	123.19	25.0065	1.4778	0.0000	61.9524
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	200	40.5982	2.3993	0.0000	100.5803
Total		**66.1710**	**3.9106**	**0.0000**	**163.9358**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	1.395	0.2832	0.0167	0.0000	0.7016
Hotel	61.595	12.5032	0.7389	0.0000	30.9762
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
User Defined Commercial	100	20.2991	1.1996	0.0000	50.2902
Total		**33.0855**	**1.9553**	**0.0000**	**81.9679**

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
Emergency Generator	2	0	500	670	0.73	Diesel

Boilers

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	2	730	2	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (2 - 5 MMBTU)	5.9000e-003	0.0121	0.1052	6.4000e-004		8.1600e-003	8.1600e-003		8.1600e-003	8.1600e-003	0.0000	116.8687	116.8687	2.2400e-003	0.0000	116.9247
Emergency Generator - Diesel (600 -750 HP)	0.5498	1.5366	1.4018	2.6400e-003		0.0809	0.0809		0.0809	0.0809	0.0000	255.1341	255.1341	0.0358	0.0000	256.0284
Total	**0.5557**	**1.5486**	**1.5070**	**3.2800e-003**		**0.0890**	**0.0890**		**0.0890**	**0.0890**	**0.0000**	**372.0029**	**372.0029**	**0.0380**	**0.0000**	**372.9531**

11.0 Vegetation

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Jamul Casino Hotel and Event Center Project

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.00	1000sqft	0.25	3,000.00	0
User Defined Commercial	51.00	User Defined Unit	0.00	50,983.00	0
Unenclosed Parking with Elevator	290.00	Space	0.50	111,415.00	0
Hotel	225.00	Room	0.50	253,900.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See input tables for assumptions.

Construction Phase - See input tables for assumptions.

Trips and VMT - Export of fill to Chula Vista.

Demolition -

Grading - See input tables for assumptions.

Architectural Coating - Compliance with San Diego APCD Rule 67.0.1

Vehicle Trips - See input tables for assumptions.

Area Coating - Compliance with San Diego APCD Rule 67.0.1

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - See input tables for assumptions.

Water And Wastewater - See input tables for assumptions.

Solid Waste - See input tables for assumptions.

Construction Off-road Equipment Mitigation - See input tables for assumptions.

Area Mitigation - San Diego APCD Rule 67.0.1

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Process Boilers -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	4.00	75.00
tblConstructionPhase	NumDays	200.00	320.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	1/13/2023	1/25/2023
tblConstructionPhase	PhaseEndDate	1/19/2023	5/10/2023
tblConstructionPhase	PhaseEndDate	10/26/2023	7/31/2024
tblConstructionPhase	PhaseEndDate	11/9/2023	8/21/2023
tblConstructionPhase	PhaseEndDate	11/23/2023	7/30/2024

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseStartDate	1/14/2023	1/26/2023
tblConstructionPhase	PhaseStartDate	1/20/2023	5/11/2023
tblConstructionPhase	PhaseStartDate	10/27/2023	8/1/2023
tblConstructionPhase	PhaseStartDate	11/10/2023	5/1/2024
tblEnergyUse	LightingElect	0.00	6.78
tblEnergyUse	NT24E	0.00	23.69
tblEnergyUse	NT24NG	0.00	138.46
tblEnergyUse	T24E	0.00	7.35
tblEnergyUse	T24NG	0.00	35.56
tblGrading	AcresOfGrading	75.00	1.50
tblGrading	AcresOfGrading	9.38	1.50
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	0.00	50,983.00
tblLandUse	LandUseSquareFeet	116,000.00	111,415.00
tblLandUse	LandUseSquareFeet	326,700.00	253,900.00
tblLandUse	LotAcreage	0.07	0.25
tblLandUse	LotAcreage	2.61	0.50
tblLandUse	LotAcreage	7.50	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	200.00
tblStationaryBoilersUse	AnnualHeatInput	0.00	730.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	2.00
tblStationaryBoilersUse	DailyHeatInput	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	500.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	CC_TL	6.60	15.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CC_TL	6.60	15.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TL	6.60	15.00
tblVehicleTrips	CNW_TL	6.60	15.00
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	3.00
tblVehicleTrips	ST_TR	0.00	11.50
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	3.00
tblVehicleTrips	SU_TR	0.00	11.50
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	3.00
tblVehicleTrips	WD_TR	0.00	11.50
tblWater	IndoorWaterUseRate	0.00	23,319,531.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	1.7412	16.7703	14.4794	0.0261	0.3278	0.8399	1.1677	0.0700	0.7848	0.8548	0.0000	2,523.5548	2,523.5548	0.5980	0.0112	2,541.8490
2023	2.8977	21.1358	28.8644	0.0691	6.5004	0.8514	7.1241	3.4321	0.8082	4.0066	0.0000	6,769.1296	6,769.1296	0.8389	0.2479	6,863.9616
2024	25.5048	15.4528	21.9927	0.0598	3.0412	0.5408	3.5819	0.8161	0.5233	1.3393	0.0000	5,890.0343	5,890.0343	0.4383	0.2461	5,974.3314
Maximum	**25.5048**	**21.1358**	**28.8644**	**0.0691**	**6.5004**	**0.8514**	**7.1241**	**3.4321**	**0.8082**	**4.0066**	**0.0000**	**6,769.1296**	**6,769.1296**	**0.8389**	**0.2479**	**6,863.9616**

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					
2022	1.7412	16.7703	14.4794	0.0261	0.2456	0.8399	1.0855	0.0576	0.7848	0.8423	0.0000	2,523.5548	2,523.5548	0.5980	0.0112	2,541.8490
2023	2.8977	21.1358	28.8644	0.0691	3.1559	0.8514	3.7796	1.6071	0.8082	2.1816	0.0000	6,769.1296	6,769.1296	0.8389	0.2479	6,863.9616
2024	25.5048	15.4528	21.9927	0.0598	3.0412	0.5408	3.5819	0.8161	0.5233	1.3393	0.0000	5,890.0343	5,890.0343	0.4383	0.2461	5,974.3314
Maximum	**25.5048**	**21.1358**	**28.8644**	**0.0691**	**3.1559**	**0.8514**	**3.7796**	**1.6071**	**0.8082**	**2.1816**	**0.0000**	**6,769.1296**	**6,769.1296**	**0.8389**	**0.2479**	**6,863.9616**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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**	**34.72**	**0.00**	**28.86**	**42.55**	**0.00**	**29.63**	**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	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Energy	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593
Mobile	3.0803	2.7652	24.2025	0.0502	5.2187	0.0388	5.2574	1.3902	0.0362	1.4263		5,108.9625	5,108.9625	0.3774	0.2338	5,188.0567
Stationary	0.0324	0.0660	0.5765	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.8944	705.8944	0.0135		706.2327
Total	**10.8566**	**9.1796**	**30.1692**	**0.0918**	**5.2187**	**0.5661**	**5.7848**	**1.3902**	**0.5635**	**1.9537**		**13,432.3744**	**13,432.3744**	**0.5373**	**0.3734**	**13,557.0813**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Area	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Energy	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593
Mobile	3.0803	2.7652	24.2025	0.0502	5.2187	0.0388	5.2574	1.3902	0.0362	1.4263		5,108.9625	5,108.9625	0.3774	0.2338	5,188.0567
Stationary	0.0324	0.0660	0.5765	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.8944	705.8944	0.0135		706.2327
Total	**10.8566**	**9.1796**	**30.1692**	**0.0918**	**5.2187**	**0.5661**	**5.7848**	**1.3902**	**0.5635**	**1.9537**		**13,432.3744**	**13,432.3744**	**0.5373**	**0.3734**	**13,557.0813**

	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**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/15/2022	1/11/2023	5	20	
2	Site Preparation	Site Preparation	1/12/2023	1/25/2023	5	10	
3	Grading	Grading	1/26/2023	5/10/2023	5	75	
4	Building Construction	Building Construction	5/11/2023	7/31/2024	5	320	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Paving	Paving	8/1/2023	8/21/2023	5	15	
6	Architectural Coating	Architectural Coating	5/1/2024	7/30/2024	5	65	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 461,825; Non-Residential Outdoor: 153,942; Striped Parking Area: 6,685 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Demolition	5	13.00	0.00	14.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,500.00	16.80	6.60	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	171.00	69.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2022

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					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.1495**	**0.8379**	**0.9874**	**0.0226**	**0.7829**	**0.8055**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.1400e-003	0.1137	0.0276	4.4000e-004	0.0122	1.1000e-003	0.0133	3.3600e-003	1.0500e-003	4.4000e-003		48.3574	48.3574	2.3300e-003	7.6800e-003	50.7047
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
Worker	0.0491	0.0349	0.4913	1.5000e-003	0.1661	9.0000e-004	0.1670	0.0440	8.3000e-004	0.0449		151.7805	151.7805	3.5500e-003	3.5400e-003	152.9253
Total	**0.0522**	**0.1486**	**0.5189**	**1.9400e-003**	**0.1783**	**2.0000e-003**	**0.1803**	**0.0474**	**1.8800e-003**	**0.0493**		**200.1379**	**200.1379**	**5.8800e-003**	**0.0112**	**203.6299**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2022

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					0.0673	0.0000	0.0673	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.0673**	**0.8379**	**0.9052**	**0.0102**	**0.7829**	**0.7931**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.1400e-003	0.1137	0.0276	4.4000e-004	0.0122	1.1000e-003	0.0133	3.3600e-003	1.0500e-003	4.4000e-003		48.3574	48.3574	2.3300e-003	7.6800e-003	50.7047
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
Worker	0.0491	0.0349	0.4913	1.5000e-003	0.1661	9.0000e-004	0.1670	0.0440	8.3000e-004	0.0449		151.7805	151.7805	3.5500e-003	3.5400e-003	152.9253
Total	**0.0522**	**0.1486**	**0.5189**	**1.9400e-003**	**0.1783**	**2.0000e-003**	**0.1803**	**0.0474**	**1.8800e-003**	**0.0493**		**200.1379**	**200.1379**	**5.8800e-003**	**0.0112**	**203.6299**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2023

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					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	1.4725	14.3184	13.4577	0.0241		0.6766	0.6766		0.6328	0.6328		2,324.3959	2,324.3959	0.5893		2,339.1278
Total	**1.4725**	**14.3184**	**13.4577**	**0.0241**	**0.1495**	**0.6766**	**0.8261**	**0.0226**	**0.6328**	**0.6554**		**2,324.3959**	**2,324.3959**	**0.5893**		**2,339.1278**

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	1.5900e-003	0.0916	0.0252	4.2000e-004	0.0122	7.8000e-004	0.0130	3.3600e-003	7.4000e-004	4.1000e-003		46.2894	46.2894	2.3300e-003	7.3600e-003	48.5414
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
Worker	0.0460	0.0311	0.4541	1.4500e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		146.9631	146.9631	3.2100e-003	3.2900e-003	148.0224
Total	**0.0476**	**0.1226**	**0.4793**	**1.8700e-003**	**0.1783**	**1.6400e-003**	**0.1799**	**0.0474**	**1.5300e-003**	**0.0489**		**193.2525**	**193.2525**	**5.5400e-003**	**0.0107**	**196.5638**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2023

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					0.0673	0.0000	0.0673	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	1.4725	14.3184	13.4577	0.0241		0.6766	0.6766		0.6328	0.6328	0.0000	2,324.3959	2,324.3959	0.5893		2,339.1278
Total	**1.4725**	**14.3184**	**13.4577**	**0.0241**	**0.0673**	**0.6766**	**0.7439**	**0.0102**	**0.6328**	**0.6430**	**0.0000**	**2,324.3959**	**2,324.3959**	**0.5893**		**2,339.1278**

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	1.5900e-003	0.0916	0.0252	4.2000e-004	0.0122	7.8000e-004	0.0130	3.3600e-003	7.4000e-004	4.1000e-003		46.2894	46.2894	2.3300e-003	7.3600e-003	48.5414
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
Worker	0.0460	0.0311	0.4541	1.4500e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		146.9631	146.9631	3.2100e-003	3.2900e-003	148.0224
Total	**0.0476**	**0.1226**	**0.4793**	**1.8700e-003**	**0.1783**	**1.6400e-003**	**0.1799**	**0.0474**	**1.5300e-003**	**0.0489**		**193.2525**	**193.2525**	**5.5400e-003**	**0.0107**	**196.5638**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					5.4284	0.0000	5.4284	2.9136	0.0000	2.9136			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668		1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**5.4284**	**0.5074**	**5.9358**	**2.9136**	**0.4668**	**3.3804**		**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

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	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
Worker	0.0283	0.0191	0.2795	8.9000e-004	0.1022	5.3000e-004	0.1027	0.0271	4.9000e-004	0.0276		90.4389	90.4389	1.9800e-003	2.0200e-003	91.0907
Total	**0.0283**	**0.0191**	**0.2795**	**8.9000e-004**	**0.1022**	**5.3000e-004**	**0.1027**	**0.0271**	**4.9000e-004**	**0.0276**		**90.4389**	**90.4389**	**1.9800e-003**	**2.0200e-003**	**91.0907**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					2.4428	0.0000	2.4428	1.3111	0.0000	1.3111			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668	0.0000	1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**2.4428**	**0.5074**	**2.9502**	**1.3111**	**0.4668**	**1.7779**	**0.0000**	**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

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	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
Worker	0.0283	0.0191	0.2795	8.9000e-004	0.1022	5.3000e-004	0.1027	0.0271	4.9000e-004	0.0276		90.4389	90.4389	1.9800e-003	2.0200e-003	91.0907
Total	**0.0283**	**0.0191**	**0.2795**	**8.9000e-004**	**0.1022**	**5.3000e-004**	**0.1027**	**0.0271**	**4.9000e-004**	**0.0276**		**90.4389**	**90.4389**	**1.9800e-003**	**2.0200e-003**	**91.0907**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					6.0808	0.0000	6.0808	3.3182	0.0000	3.3182			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**6.0808**	**0.6044**	**6.6851**	**3.3182**	**0.5560**	**3.8742**		**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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	0.0553	2.4794	0.8423	0.0104	0.2919	0.0187	0.3106	0.0800	0.0179	0.0979		1,148.0432	1,148.0432	0.0569	0.1825	1,203.8605
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
Worker	0.0354	0.0239	0.3493	1.1200e-003	0.1277	6.6000e-004	0.1284	0.0339	6.1000e-004	0.0345		113.0486	113.0486	2.4700e-003	2.5300e-003	113.8634
Total	**0.0907**	**2.5033**	**1.1916**	**0.0115**	**0.4196**	**0.0194**	**0.4389**	**0.1139**	**0.0185**	**0.1324**		**1,261.0918**	**1,261.0918**	**0.0594**	**0.1851**	**1,317.7239**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					2.7364	0.0000	2.7364	1.4932	0.0000	1.4932			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560	0.0000	1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**2.7364**	**0.6044**	**3.3407**	**1.4932**	**0.5560**	**2.0492**	**0.0000**	**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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	0.0553	2.4794	0.8423	0.0104	0.2919	0.0187	0.3106	0.0800	0.0179	0.0979		1,148.0432	1,148.0432	0.0569	0.1825	1,203.8605
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
Worker	0.0354	0.0239	0.3493	1.1200e-003	0.1277	6.6000e-004	0.1284	0.0339	6.1000e-004	0.0345		113.0486	113.0486	2.4700e-003	2.5300e-003	113.8634
Total	**0.0907**	**2.5033**	**1.1916**	**0.0115**	**0.4196**	**0.0194**	**0.4389**	**0.1139**	**0.0185**	**0.1324**		**1,261.0918**	**1,261.0918**	**0.0594**	**0.1851**	**1,317.7239**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2023

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	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**		**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

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	0.0000
Vendor	0.0788	2.7501	1.0236	0.0129	0.4227	0.0163	0.4390	0.1217	0.0156	0.1373		1,389.5604	1,389.5604	0.0422	0.2014	1,450.6170
Worker	0.6051	0.4086	5.9732	0.0191	2.1842	0.0113	2.1955	0.5792	0.0104	0.5896		1,933.1304	1,933.1304	0.0423	0.0432	1,947.0640
Total	**0.6839**	**3.1587**	**6.9968**	**0.0320**	**2.6069**	**0.0276**	**2.6345**	**0.7009**	**0.0260**	**0.7269**		**3,322.6908**	**3,322.6908**	**0.0844**	**0.2446**	**3,397.6810**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2023

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	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**	**0.0000**	**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

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	0.0000
Vendor	0.0788	2.7501	1.0236	0.0129	0.4227	0.0163	0.4390	0.1217	0.0156	0.1373		1,389.5604	1,389.5604	0.0422	0.2014	1,450.6170
Worker	0.6051	0.4086	5.9732	0.0191	2.1842	0.0113	2.1955	0.5792	0.0104	0.5896		1,933.1304	1,933.1304	0.0423	0.0432	1,947.0640
Total	**0.6839**	**3.1587**	**6.9968**	**0.0320**	**2.6069**	**0.0276**	**2.6345**	**0.7009**	**0.0260**	**0.7269**		**3,322.6908**	**3,322.6908**	**0.0844**	**0.2446**	**3,397.6810**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
Total	**1.4200**	**11.0639**	**12.5172**	**0.0221**		**0.4506**	**0.4506**		**0.4348**	**0.4348**		**2,001.9214**	**2,001.9214**	**0.3334**		**2,010.2563**

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	0.0000
Vendor	0.0760	2.7313	1.0003	0.0126	0.4227	0.0164	0.4391	0.1217	0.0157	0.1374		1,365.3309	1,365.3309	0.0431	0.1978	1,425.3618
Worker	0.5688	0.3661	5.5597	0.0185	2.1842	0.0107	2.1949	0.5792	9.8800e-003	0.5891		1,869.6005	1,869.6005	0.0383	0.0403	1,882.5591
Total	**0.6448**	**3.0974**	**6.5600**	**0.0311**	**2.6069**	**0.0272**	**2.6340**	**0.7009**	**0.0256**	**0.7265**		**3,234.9314**	**3,234.9314**	**0.0814**	**0.2381**	**3,307.9209**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
Total	**1.4200**	**11.0639**	**12.5172**	**0.0221**		**0.4506**	**0.4506**		**0.4348**	**0.4348**	**0.0000**	**2,001.9214**	**2,001.9214**	**0.3334**		**2,010.2563**

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	0.0000
Vendor	0.0760	2.7313	1.0003	0.0126	0.4227	0.0164	0.4391	0.1217	0.0157	0.1374		1,365.3309	1,365.3309	0.0431	0.1978	1,425.3618
Worker	0.5688	0.3661	5.5597	0.0185	2.1842	0.0107	2.1949	0.5792	9.8800e-003	0.5891		1,869.6005	1,869.6005	0.0383	0.0403	1,882.5591
Total	**0.6448**	**3.0974**	**6.5600**	**0.0311**	**2.6069**	**0.0272**	**2.6340**	**0.7009**	**0.0256**	**0.7265**		**3,234.9314**	**3,234.9314**	**0.0814**	**0.2381**	**3,307.9209**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6446**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**		**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

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	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
Worker	0.0460	0.0311	0.4541	1.4500e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		146.9631	146.9631	3.2100e-003	3.2900e-003	148.0224
Total	**0.0460**	**0.0311**	**0.4541**	**1.4500e-003**	**0.1661**	**8.6000e-004**	**0.1669**	**0.0440**	**7.9000e-004**	**0.0448**		**146.9631**	**146.9631**	**3.2100e-003**	**3.2900e-003**	**148.0224**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6446**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**	**0.0000**	**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

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	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
Worker	0.0460	0.0311	0.4541	1.4500e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		146.9631	146.9631	3.2100e-003	3.2900e-003	148.0224
Total	**0.0460**	**0.0311**	**0.4541**	**1.4500e-003**	**0.1661**	**8.6000e-004**	**0.1669**	**0.0440**	**7.9000e-004**	**0.0448**		**146.9631**	**146.9631**	**3.2100e-003**	**3.2900e-003**	**148.0224**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating -2024

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	23.1462					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**23.3270**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1131	0.0728	1.1054	3.6800e-003	0.4343	2.1300e-003	0.4364	0.1152	1.9600e-003	0.1171		371.7334	371.7334	7.6100e-003	8.0100e-003	374.3100
Total	**0.1131**	**0.0728**	**1.1054**	**3.6800e-003**	**0.4343**	**2.1300e-003**	**0.4364**	**0.1152**	**1.9600e-003**	**0.1171**		**371.7334**	**371.7334**	**7.6100e-003**	**8.0100e-003**	**374.3100**

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating -2024

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	23.1462					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**23.3270**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1131	0.0728	1.1054	3.6800e-003	0.4343	2.1300e-003	0.4364	0.1152	1.9600e-003	0.1171		371.7334	371.7334	7.6100e-003	8.0100e-003	374.3100
Total	**0.1131**	**0.0728**	**1.1054**	**3.6800e-003**	**0.4343**	**2.1300e-003**	**0.4364**	**0.1152**	**1.9600e-003**	**0.1171**		**371.7334**	**371.7334**	**7.6100e-003**	**8.0100e-003**	**374.3100**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.0803	2.7652	24.2025	0.0502	5.2187	0.0388	5.2574	1.3902	0.0362	1.4263		5,108.9625	5,108.9625	0.3774	0.2338	5,188.0567
Unmitigated	3.0803	2.7652	24.2025	0.0502	5.2187	0.0388	5.2574	1.3902	0.0362	1.4263		5,108.9625	5,108.9625	0.3774	0.2338	5,188.0567

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Hotel	675.00	675.00	675.00	2,479,043	2,479,043
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	586.50	586.50	586.50		
Total	1,261.50	1,261.50	1,261.50	2,479,043	2,479,043

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
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Hotel	14.70	15.00	15.00	19.40	61.60	19.00	58	38	4
Unenclosed Parking with Elevator	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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
User Defined Commercial	14.70	15.00	15.00	19.40	61.60	19.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Hotel	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Unenclosed Parking with Elevator	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
User Defined Commercial	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	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	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593
NaturalGas Unmitigated	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Office Building	164.63	1.7800e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003		19.3683	19.3683	3.7000e-004	3.6000e-004	19.4834
Hotel	40276.2	0.4344	3.9487	3.3169	0.0237		0.3001	0.3001		0.3001	0.3001		4,738.3755	4,738.3755	0.0908	0.0869	4,766.5333
Unenclosed Parking with Elevator	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
User Defined Commercial	24307	0.2621	2.3830	2.0018	0.0143		0.1811	0.1811		0.1811	0.1811		2,859.6492	2,859.6492	0.0548	0.0524	2,876.6427
Total		**0.6983**	**6.3478**	**5.3322**	**0.0381**		**0.4824**	**0.4824**		**0.4824**	**0.4824**		**7,617.3930**	**7,617.3930**	**0.1460**	**0.1397**	**7,662.6593**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

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					
General Office Building	0.16463	1.7800e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003		19.3683	19.3683	3.7000e-004	3.6000e-004	19.4834
Hotel	40.2762	0.4344	3.9487	3.3169	0.0237		0.3001	0.3001		0.3001	0.3001		4,738.3755	4,738.3755	0.0908	0.0869	4,766.5333
Unenclosed Parking with Elevator	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
User Defined Commercial	24.307	0.2621	2.3830	2.0018	0.0143		0.1811	0.1811		0.1811	0.1811		2,859.6492	2,859.6492	0.0548	0.0524	2,876.6427
Total		**0.6983**	**6.3478**	**5.3322**	**0.0381**		**0.4824**	**0.4824**		**0.4824**	**0.4824**		**7,617.3930**	**7,617.3930**	**0.1460**	**0.1397**	**7,662.6593**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Unmitigated	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3600e-003	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Total	**7.0457**	**5.3000e-004**	**0.0580**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1245**	**0.1245**	**3.3000e-004**		**0.1327**

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3600e-003	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Total	**7.0457**	**5.3000e-004**	**0.0580**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1245**	**0.1245**	**3.3000e-004**		**0.1327**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Jamul Casino Hotel and Event Center Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Emergency Generator	2	0	500	670	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	2	730	2	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Boiler - CNG (2 - 5 MMBTU)	0.0324	0.0660	0.5765	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.8944	705.8944	0.0135		706.2327
Emergency Generator - Diesel (600 - 750 HP)	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	**0.0324**	**0.0660**	**0.5765**	**3.5300e-003**		**0.0447**	**0.0447**		**0.0447**	**0.0447**		**705.8944**	**705.8944**	**0.0135**		**706.2327**

11.0 Vegetation

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Jamul Casino Hotel and Event Center Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.00	1000sqft	0.25	3,000.00	0
User Defined Commercial	51.00	User Defined Unit	0.00	50,983.00	0
Unenclosed Parking with Elevator	290.00	Space	0.50	111,415.00	0
Hotel	225.00	Room	0.50	253,900.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See input tables for assumptions.

Construction Phase - See input tables for assumptions.

Trips and VMT - Export of fill to Chula Vista.

Demolition -

Grading - See input tables for assumptions.

Architectural Coating - Compliance with San Diego APCD Rule 67.0.1

Vehicle Trips - See input tables for assumptions.

Area Coating - Compliance with San Diego APCD Rule 67.0.1

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - See input tables for assumptions.

Water And Wastewater - See input tables for assumptions.

Solid Waste - See input tables for assumptions.

Construction Off-road Equipment Mitigation - See input tables for assumptions.

Area Mitigation - San Diego APCD Rule 67.0.1

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Process Boilers -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	4.00	75.00
tblConstructionPhase	NumDays	200.00	320.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	1/13/2023	1/25/2023
tblConstructionPhase	PhaseEndDate	1/19/2023	5/10/2023
tblConstructionPhase	PhaseEndDate	10/26/2023	7/31/2024
tblConstructionPhase	PhaseEndDate	11/9/2023	8/21/2023
tblConstructionPhase	PhaseEndDate	11/23/2023	7/30/2024

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseStartDate	1/14/2023	1/26/2023
tblConstructionPhase	PhaseStartDate	1/20/2023	5/11/2023
tblConstructionPhase	PhaseStartDate	10/27/2023	8/1/2023
tblConstructionPhase	PhaseStartDate	11/10/2023	5/1/2024
tblEnergyUse	LightingElect	0.00	6.78
tblEnergyUse	NT24E	0.00	23.69
tblEnergyUse	NT24NG	0.00	138.46
tblEnergyUse	T24E	0.00	7.35
tblEnergyUse	T24NG	0.00	35.56
tblGrading	AcresOfGrading	75.00	1.50
tblGrading	AcresOfGrading	9.38	1.50
tblGrading	MaterialExported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	0.00	50,983.00
tblLandUse	LandUseSquareFeet	116,000.00	111,415.00
tblLandUse	LandUseSquareFeet	326,700.00	253,900.00
tblLandUse	LotAcreage	0.07	0.25
tblLandUse	LotAcreage	2.61	0.50
tblLandUse	LotAcreage	7.50	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	0.00	200.00
tblStationaryBoilersUse	AnnualHeatInput	0.00	730.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	2.00
tblStationaryBoilersUse	DailyHeatInput	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	3.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	500.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	CC_TL	6.60	15.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CC_TL	6.60	15.00
tblVehicleTrips	CC_TTP	0.00	61.60
tblVehicleTrips	CNW_TL	6.60	15.00
tblVehicleTrips	CNW_TL	6.60	15.00
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	19.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	3.00
tblVehicleTrips	ST_TR	0.00	11.50
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	3.00
tblVehicleTrips	SU_TR	0.00	11.50
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	3.00
tblVehicleTrips	WD_TR	0.00	11.50
tblWater	IndoorWaterUseRate	0.00	23,319,531.00

2.0 Emissions Summary

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	1.7466	16.7789	14.4435	0.0260	0.3278	0.8399	1.1677	0.0700	0.7848	0.8548	0.0000	2,515.1403	2,515.1403	0.5981	0.0115	2,533.5228
2023	2.9704	21.3072	28.4298	0.0679	6.5004	0.8515	7.1241	3.4321	0.8083	4.0067	0.0000	6,656.0205	6,656.0205	0.8403	0.2521	6,752.1403
2024	25.5835	15.6236	21.5486	0.0586	3.0412	0.5409	3.5820	0.8161	0.5233	1.3394	0.0000	5,768.2966	5,768.2966	0.4397	0.2504	5,853.9188
Maximum	**25.5835**	**21.3072**	**28.4298**	**0.0679**	**6.5004**	**0.8515**	**7.1241**	**3.4321**	**0.8083**	**4.0067**	**0.0000**	**6,656.0205**	**6,656.0205**	**0.8403**	**0.2521**	**6,752.1403**

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					
2022	1.7466	16.7789	14.4435	0.0260	0.2456	0.8399	1.0855	0.0576	0.7848	0.8424	0.0000	2,515.1403	2,515.1403	0.5981	0.0115	2,533.5228
2023	2.9704	21.3072	28.4298	0.0679	3.1559	0.8515	3.7797	1.6071	0.8083	2.1817	0.0000	6,656.0205	6,656.0205	0.8403	0.2521	6,752.1403
2024	25.5835	15.6236	21.5486	0.0586	3.0412	0.5409	3.5820	0.8161	0.5233	1.3394	0.0000	5,768.2965	5,768.2965	0.4397	0.2504	5,853.9188
Maximum	**25.5835**	**21.3072**	**28.4298**	**0.0679**	**3.1559**	**0.8515**	**3.7797**	**1.6071**	**0.8083**	**2.1817**	**0.0000**	**6,656.0205**	**6,656.0205**	**0.8403**	**0.2521**	**6,752.1403**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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**	**34.72**	**0.00**	**28.86**	**42.55**	**0.00**	**29.63**	**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	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Energy	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593
Mobile	2.9837	3.0021	25.2381	0.0480	5.2187	0.0388	5.2575	1.3902	0.0362	1.4263		4,890.7469	4,890.7469	0.4045	0.2471	4,974.4834
Stationary	0.0324	0.0660	0.5765	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.8944	705.8944	0.0135		706.2327
Total	**10.7600**	**9.4165**	**31.2048**	**0.0896**	**5.2187**	**0.5662**	**5.7848**	**1.3902**	**0.5635**	**1.9537**		**13,214.1588**	**13,214.1588**	**0.5644**	**0.3867**	**13,343.5080**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	lb/day										lb/day					
Area	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Energy	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593
Mobile	2.9837	3.0021	25.2381	0.0480	5.2187	0.0388	5.2575	1.3902	0.0362	1.4263		4,890.7469	4,890.7469	0.4045	0.2471	4,974.4834
Stationary	0.0324	0.0660	0.5765	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.8944	705.8944	0.0135		706.2327
Total	**10.7600**	**9.4165**	**31.2048**	**0.0896**	**5.2187**	**0.5662**	**5.7848**	**1.3902**	**0.5635**	**1.9537**		**13,214.1588**	**13,214.1588**	**0.5644**	**0.3867**	**13,343.5080**

	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**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/15/2022	1/11/2023	5	20	
2	Site Preparation	Site Preparation	1/12/2023	1/25/2023	5	10	
3	Grading	Grading	1/26/2023	5/10/2023	5	75	
4	Building Construction	Building Construction	5/11/2023	7/31/2024	5	320	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5	Paving	Paving	8/1/2023	8/21/2023	5	15	
6	Architectural Coating	Architectural Coating	5/1/2024	7/30/2024	5	65	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 461,825; Non-Residential Outdoor: 153,942; Striped Parking Area: 6,685 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Demolition	5	13.00	0.00	14.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,500.00	16.80	6.60	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	171.00	69.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2022

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					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.1495**	**0.8379**	**0.9874**	**0.0226**	**0.7829**	**0.8055**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.0600e-003	0.1180	0.0281	4.4000e-004	0.0122	1.1000e-003	0.0133	3.3600e-003	1.0500e-003	4.4100e-003		48.3779	48.3779	2.3200e-003	7.6900e-003	50.7261
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
Worker	0.0546	0.0392	0.4549	1.4200e-003	0.1661	9.0000e-004	0.1670	0.0440	8.3000e-004	0.0449		143.3456	143.3456	3.6700e-003	3.8300e-003	144.5776
Total	**0.0576**	**0.1572**	**0.4830**	**1.8600e-003**	**0.1783**	**2.0000e-003**	**0.1803**	**0.0474**	**1.8800e-003**	**0.0493**		**191.7234**	**191.7234**	**5.9900e-003**	**0.0115**	**195.3037**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2022

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					0.0673	0.0000	0.0673	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.0673**	**0.8379**	**0.9052**	**0.0102**	**0.7829**	**0.7931**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	3.0600e-003	0.1180	0.0281	4.4000e-004	0.0122	1.1000e-003	0.0133	3.3600e-003	1.0500e-003	4.4100e-003		48.3779	48.3779	2.3200e-003	7.6900e-003	50.7261
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
Worker	0.0546	0.0392	0.4549	1.4200e-003	0.1661	9.0000e-004	0.1670	0.0440	8.3000e-004	0.0449		143.3456	143.3456	3.6700e-003	3.8300e-003	144.5776
Total	**0.0576**	**0.1572**	**0.4830**	**1.8600e-003**	**0.1783**	**2.0000e-003**	**0.1803**	**0.0474**	**1.8800e-003**	**0.0493**		**191.7234**	**191.7234**	**5.9900e-003**	**0.0115**	**195.3037**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2023

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					0.1495	0.0000	0.1495	0.0226	0.0000	0.0226			0.0000			0.0000
Off-Road	1.4725	14.3184	13.4577	0.0241		0.6766	0.6766		0.6328	0.6328		2,324.3959	2,324.3959	0.5893		2,339.1278
Total	**1.4725**	**14.3184**	**13.4577**	**0.0241**	**0.1495**	**0.6766**	**0.8261**	**0.0226**	**0.6328**	**0.6554**		**2,324.3959**	**2,324.3959**	**0.5893**		**2,339.1278**

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	1.4900e-003	0.0953	0.0255	4.2000e-004	0.0122	7.8000e-004	0.0130	3.3600e-003	7.4000e-004	4.1000e-003		46.3344	46.3344	2.3300e-003	7.3700e-003	48.5884
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
Worker	0.0513	0.0349	0.4211	1.3700e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		138.8185	138.8185	3.3200e-003	3.5500e-003	139.9585
Total	**0.0528**	**0.1302**	**0.4466**	**1.7900e-003**	**0.1783**	**1.6400e-003**	**0.1799**	**0.0474**	**1.5300e-003**	**0.0489**		**185.1529**	**185.1529**	**5.6500e-003**	**0.0109**	**188.5470**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition -2023

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					0.0673	0.0000	0.0673	0.0102	0.0000	0.0102			0.0000			0.0000
Off-Road	1.4725	14.3184	13.4577	0.0241		0.6766	0.6766		0.6328	0.6328	0.0000	2,324.3959	2,324.3959	0.5893		2,339.1278
Total	**1.4725**	**14.3184**	**13.4577**	**0.0241**	**0.0673**	**0.6766**	**0.7439**	**0.0102**	**0.6328**	**0.6430**	**0.0000**	**2,324.3959**	**2,324.3959**	**0.5893**		**2,339.1278**

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	1.4900e-003	0.0953	0.0255	4.2000e-004	0.0122	7.8000e-004	0.0130	3.3600e-003	7.4000e-004	4.1000e-003		46.3344	46.3344	2.3300e-003	7.3700e-003	48.5884
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
Worker	0.0513	0.0349	0.4211	1.3700e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		138.8185	138.8185	3.3200e-003	3.5500e-003	139.9585
Total	**0.0528**	**0.1302**	**0.4466**	**1.7900e-003**	**0.1783**	**1.6400e-003**	**0.1799**	**0.0474**	**1.5300e-003**	**0.0489**		**185.1529**	**185.1529**	**5.6500e-003**	**0.0109**	**188.5470**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					5.4284	0.0000	5.4284	2.9136	0.0000	2.9136			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668		1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**5.4284**	**0.5074**	**5.9358**	**2.9136**	**0.4668**	**3.3804**		**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

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	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
Worker	0.0316	0.0215	0.2591	8.5000e-004	0.1022	5.3000e-004	0.1027	0.0271	4.9000e-004	0.0276		85.4268	85.4268	2.0400e-003	2.1800e-003	86.1283
Total	**0.0316**	**0.0215**	**0.2591**	**8.5000e-004**	**0.1022**	**5.3000e-004**	**0.1027**	**0.0271**	**4.9000e-004**	**0.0276**		**85.4268**	**85.4268**	**2.0400e-003**	**2.1800e-003**	**86.1283**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					2.4428	0.0000	2.4428	1.3111	0.0000	1.3111			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668	0.0000	1,666.0573	1,666.0573	0.5388		1,679.5282
Total	**1.1339**	**12.4250**	**6.6420**	**0.0172**	**2.4428**	**0.5074**	**2.9502**	**1.3111**	**0.4668**	**1.7779**	**0.0000**	**1,666.0573**	**1,666.0573**	**0.5388**		**1,679.5282**

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	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
Worker	0.0316	0.0215	0.2591	8.5000e-004	0.1022	5.3000e-004	0.1027	0.0271	4.9000e-004	0.0276		85.4268	85.4268	2.0400e-003	2.1800e-003	86.1283
Total	**0.0316**	**0.0215**	**0.2591**	**8.5000e-004**	**0.1022**	**5.3000e-004**	**0.1027**	**0.0271**	**4.9000e-004**	**0.0276**		**85.4268**	**85.4268**	**2.0400e-003**	**2.1800e-003**	**86.1283**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					6.0808	0.0000	6.0808	3.3182	0.0000	3.3182			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**6.0808**	**0.6044**	**6.6851**	**3.3182**	**0.5560**	**3.8742**		**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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	0.0508	2.5893	0.8583	0.0104	0.2919	0.0188	0.3106	0.0800	0.0180	0.0980		1,150.1870	1,150.1870	0.0567	0.1829	1,206.1010
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
Worker	0.0395	0.0269	0.3239	1.0600e-003	0.1277	6.6000e-004	0.1284	0.0339	6.1000e-004	0.0345		106.7834	106.7834	2.5600e-003	2.7300e-003	107.6604
Total	**0.0903**	**2.6162**	**1.1822**	**0.0115**	**0.4196**	**0.0194**	**0.4390**	**0.1139**	**0.0186**	**0.1325**		**1,256.9705**	**1,256.9705**	**0.0592**	**0.1856**	**1,313.7614**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					2.7364	0.0000	2.7364	1.4932	0.0000	1.4932			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560	0.0000	1,995.6147	1,995.6147	0.6454		2,011.7503
Total	**1.3330**	**14.4676**	**8.7038**	**0.0206**	**2.7364**	**0.6044**	**3.3407**	**1.4932**	**0.5560**	**2.0492**	**0.0000**	**1,995.6147**	**1,995.6147**	**0.6454**		**2,011.7503**

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	0.0508	2.5893	0.8583	0.0104	0.2919	0.0188	0.3106	0.0800	0.0180	0.0980		1,150.1870	1,150.1870	0.0567	0.1829	1,206.1010
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
Worker	0.0395	0.0269	0.3239	1.0600e-003	0.1277	6.6000e-004	0.1284	0.0339	6.1000e-004	0.0345		106.7834	106.7834	2.5600e-003	2.7300e-003	107.6604
Total	**0.0903**	**2.6162**	**1.1822**	**0.0115**	**0.4196**	**0.0194**	**0.4390**	**0.1139**	**0.0186**	**0.1325**		**1,256.9705**	**1,256.9705**	**0.0592**	**0.1856**	**1,313.7614**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2023

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	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**		**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

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	0.0000
Vendor	0.0763	2.8672	1.0563	0.0129	0.4227	0.0164	0.4391	0.1217	0.0157	0.1374		1,391.7297	1,391.7297	0.0420	0.2019	1,452.9308
Worker	0.6749	0.4591	5.5390	0.0181	2.1842	0.0113	2.1955	0.5792	0.0104	0.5896		1,825.9967	1,825.9967	0.0437	0.0467	1,840.9928
Total	**0.7512**	**3.3262**	**6.5953**	**0.0310**	**2.6069**	**0.0277**	**2.6346**	**0.7009**	**0.0261**	**0.7270**		**3,217.7264**	**3,217.7264**	**0.0856**	**0.2485**	**3,293.9236**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2023

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	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**	**0.0000**	**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

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	0.0000
Vendor	0.0763	2.8672	1.0563	0.0129	0.4227	0.0164	0.4391	0.1217	0.0157	0.1374		1,391.7297	1,391.7297	0.0420	0.2019	1,452.9308
Worker	0.6749	0.4591	5.5390	0.0181	2.1842	0.0113	2.1955	0.5792	0.0104	0.5896		1,825.9967	1,825.9967	0.0437	0.0467	1,840.9928
Total	**0.7512**	**3.3262**	**6.5953**	**0.0310**	**2.6069**	**0.0277**	**2.6346**	**0.7009**	**0.0261**	**0.7270**		**3,217.7264**	**3,217.7264**	**0.0856**	**0.2485**	**3,293.9236**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
Total	**1.4200**	**11.0639**	**12.5172**	**0.0221**		**0.4506**	**0.4506**		**0.4348**	**0.4348**		**2,001.9214**	**2,001.9214**	**0.3334**		**2,010.2563**

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	0.0000
Vendor	0.0733	2.8479	1.0327	0.0127	0.4227	0.0165	0.4392	0.1217	0.0158	0.1375		1,367.5231	1,367.5231	0.0429	0.1983	1,427.6950
Worker	0.6366	0.4112	5.1622	0.0175	2.1842	0.0107	2.1949	0.5792	9.8800e-003	0.5891		1,766.2247	1,766.2247	0.0397	0.0435	1,780.1711
Total	**0.7100**	**3.2592**	**6.1949**	**0.0301**	**2.6069**	**0.0272**	**2.6341**	**0.7009**	**0.0257**	**0.7266**		**3,133.7479**	**3,133.7479**	**0.0826**	**0.2418**	**3,207.8662**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction -2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
Total	**1.4200**	**11.0639**	**12.5172**	**0.0221**		**0.4506**	**0.4506**		**0.4348**	**0.4348**	**0.0000**	**2,001.9214**	**2,001.9214**	**0.3334**		**2,010.2563**

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	0.0000
Vendor	0.0733	2.8479	1.0327	0.0127	0.4227	0.0165	0.4392	0.1217	0.0158	0.1375		1,367.5231	1,367.5231	0.0429	0.1983	1,427.6950
Worker	0.6366	0.4112	5.1622	0.0175	2.1842	0.0107	2.1949	0.5792	9.8800e-003	0.5891		1,766.2247	1,766.2247	0.0397	0.0435	1,780.1711
Total	**0.7100**	**3.2592**	**6.1949**	**0.0301**	**2.6069**	**0.0272**	**2.6341**	**0.7009**	**0.0257**	**0.7266**		**3,133.7479**	**3,133.7479**	**0.0826**	**0.2418**	**3,207.8662**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6446**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**		**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

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	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
Worker	0.0513	0.0349	0.4211	1.3700e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		138.8185	138.8185	3.3200e-003	3.5500e-003	139.9585
Total	**0.0513**	**0.0349**	**0.4211**	**1.3700e-003**	**0.1661**	**8.6000e-004**	**0.1669**	**0.0440**	**7.9000e-004**	**0.0448**		**138.8185**	**138.8185**	**3.3200e-003**	**3.5500e-003**	**139.9585**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6446**	**6.2357**	**8.8024**	**0.0136**		**0.3084**	**0.3084**		**0.2846**	**0.2846**	**0.0000**	**1,297.6880**	**1,297.6880**	**0.4114**		**1,307.9725**

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	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
Worker	0.0513	0.0349	0.4211	1.3700e-003	0.1661	8.6000e-004	0.1669	0.0440	7.9000e-004	0.0448		138.8185	138.8185	3.3200e-003	3.5500e-003	139.9585
Total	**0.0513**	**0.0349**	**0.4211**	**1.3700e-003**	**0.1661**	**8.6000e-004**	**0.1669**	**0.0440**	**7.9000e-004**	**0.0448**		**138.8185**	**138.8185**	**3.3200e-003**	**3.5500e-003**	**139.9585**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating -2024

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	23.1462					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**23.3270**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1266	0.0818	1.0264	3.4700e-003	0.4343	2.1300e-003	0.4364	0.1152	1.9600e-003	0.1171		351.1792	351.1792	7.8900e-003	8.6400e-003	353.9522
Total	**0.1266**	**0.0818**	**1.0264**	**3.4700e-003**	**0.4343**	**2.1300e-003**	**0.4364**	**0.1152**	**1.9600e-003**	**0.1171**		**351.1792**	**351.1792**	**7.8900e-003**	**8.6400e-003**	**353.9522**

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating -2024

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	23.1462					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**23.3270**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	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
Worker	0.1266	0.0818	1.0264	3.4700e-003	0.4343	2.1300e-003	0.4364	0.1152	1.9600e-003	0.1171		351.1792	351.1792	7.8900e-003	8.6400e-003	353.9522
Total	**0.1266**	**0.0818**	**1.0264**	**3.4700e-003**	**0.4343**	**2.1300e-003**	**0.4364**	**0.1152**	**1.9600e-003**	**0.1171**		**351.1792**	**351.1792**	**7.8900e-003**	**8.6400e-003**	**353.9522**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.9837	3.0021	25.2381	0.0480	5.2187	0.0388	5.2575	1.3902	0.0362	1.4263		4,890.7469	4,890.7469	0.4045	0.2471	4,974.4834
Unmitigated	2.9837	3.0021	25.2381	0.0480	5.2187	0.0388	5.2575	1.3902	0.0362	1.4263		4,890.7469	4,890.7469	0.4045	0.2471	4,974.4834

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Hotel	675.00	675.00	675.00	2,479,043	2,479,043
Unenclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Commercial	586.50	586.50	586.50		
Total	1,261.50	1,261.50	1,261.50	2,479,043	2,479,043

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
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Hotel	14.70	15.00	15.00	19.40	61.60	19.00	58	38	4
Unenclosed Parking with Elevator	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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
User Defined Commercial	14.70	15.00	15.00	19.40	61.60	19.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Hotel	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Unenclosed Parking with Elevator	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
User Defined Commercial	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	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	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593
NaturalGas Unmitigated	0.6983	6.3478	5.3322	0.0381		0.4824	0.4824		0.4824	0.4824		7,617.3930	7,617.3930	0.1460	0.1397	7,662.6593

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
General Office Building	164.63	1.7800e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003		19.3683	19.3683	3.7000e-004	3.6000e-004	19.4834
Hotel	40276.2	0.4344	3.9487	3.3169	0.0237		0.3001	0.3001		0.3001	0.3001		4,738.3755	4,738.3755	0.0908	0.0869	4,766.5333
Unenclosed Parking with Elevator	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
User Defined Commercial	24307	0.2621	2.3830	2.0018	0.0143		0.1811	0.1811		0.1811	0.1811		2,859.6492	2,859.6492	0.0548	0.0524	2,876.6427
Total		**0.6983**	**6.3478**	**5.3322**	**0.0381**		**0.4824**	**0.4824**		**0.4824**	**0.4824**		**7,617.3930**	**7,617.3930**	**0.1460**	**0.1397**	**7,662.6593**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

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					
General Office Building	0.16463	1.7800e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003		19.3683	19.3683	3.7000e-004	3.6000e-004	19.4834
Hotel	40.2762	0.4344	3.9487	3.3169	0.0237		0.3001	0.3001		0.3001	0.3001		4,738.3755	4,738.3755	0.0908	0.0869	4,766.5333
Unenclosed Parking with Elevator	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
User Defined Commercial	24.307	0.2621	2.3830	2.0018	0.0143		0.1811	0.1811		0.1811	0.1811		2,859.6492	2,859.6492	0.0548	0.0524	2,876.6427
Total		**0.6983**	**6.3478**	**5.3322**	**0.0381**		**0.4824**	**0.4824**		**0.4824**	**0.4824**		**7,617.3930**	**7,617.3930**	**0.1460**	**0.1397**	**7,662.6593**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Unmitigated	7.0457	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3600e-003	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Total	**7.0457**	**5.3000e-004**	**0.0580**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1245**	**0.1245**	**3.3000e-004**		**0.1327**

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	0.4122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6282					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.3600e-003	5.3000e-004	0.0580	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1245	0.1245	3.3000e-004		0.1327
Total	**7.0457**	**5.3000e-004**	**0.0580**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1245**	**0.1245**	**3.3000e-004**		**0.1327**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Jamul Casino Hotel and Event Center Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Emergency Generator	2	0	500	670	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	3	2	730	2	CNG

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Boiler - CNG (2 - 5 MMBTU)	0.0324	0.0660	0.5765	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.8944	705.8944	0.0135		706.2327
Emergency Generator - Diesel (600 - 750 HP)	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	**0.0324**	**0.0660**	**0.5765**	**3.5300e-003**		**0.0447**	**0.0447**		**0.0447**	**0.0447**		**705.8944**	**705.8944**	**0.0135**		**706.2327**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Appendix H

Biological Database Searches

CNDDB Species Occurrences within 5-Mile Radius of Project

SNAME	CNAME	TAXONGROUP	FEDLIST	CALLIST	RPLANTRANK	CDFWSTATUS
Anaxyrus californicus	arroyo toad	Amphibians	Endangered	None		SSC
Spea hammondii	western spadefoot	Amphibians	None	None		SSC
Artemisiospiza belli belli	Bell's sage sparrow	Birds	None	None		WL
Eremophila alpestris actia	California horned lark	Birds	None	None		WL
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	Birds	None	None		SSC
Polioptila californica californica	coastal California gnatcatcher	Birds	Threatened	None		SSC
Accipiter cooperii	Cooper's hawk	Birds	None	None		WL
Nannopterum auritum	double-crested cormorant	Birds	None	None		WL
Vireo bellii pusillus	least Bell's vireo	Birds	Endangered	Endangered		
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	None	None		WL
Buteo swainsoni	Swainson's hawk	Birds	None	Threatened		
Agelaius tricolor	tricolored blackbird	Birds	None	Threatened		SSC
Setophaga petechia	yellow warbler	Birds	None	None		SSC
Icteria virens	yellow-breasted chat	Birds	None	None		SSC
Sphaerocarpos drewiae	bottle liverwort	Bryophytes	None	None	1B.1	
Branchinecta sandiegonensis	San Diego fairy shrimp	Crustaceans	Endangered	None		
Quercus cedrosensis	Cedros Island oak	Dicots	None	None	2B.2	
Fraxinus parryi	chaparral ash	Dicots	None	None	2B.2	
Senecio aphanactis	chaparral ragwort	Dicots	None	None	2B.2	
Astragalus deanei	Dean's milk-vetch	Dicots	None	None	1B.1	
Isocoma menziesii var. decumbens	decumbent goldenbush	Dicots	None	None	1B.2	
Clarkia delicata	delicate clarkia	Dicots	None	None	1B.2	
Monardella hypoleuca ssp. lanata	felt-leaved monardella	Dicots	None	None	1B.2	
Lepechinia ganderi	Gander's pitcher sage	Dicots	None	None	1B.3	
Packera ganderi	Gander's ragwort	Dicots	None	Rare	1B.2	
Streptanthus bernardinus	Laguna Mountains jewelflower	Dicots	None	None	4.3	
Ceanothus cyaneus	Lakeside ceanothus	Dicots	None	None	1B.2	
Myosurus minimus ssp. apus	little mousetail	Dicots	None	None	3.1	
Fremontodendron mexicanum	Mexican flannelbush	Dicots	Endangered	Rare	1B.1	
Ribes canthariforme	Moreno currant	Dicots	None	None	1B.3	
Salvia munzii	Munz's sage	Dicots	None	None	2B.2	
Quercus dumosa	Nuttall's scrub oak	Dicots	None	None	1B.1	
Arctostaphylos otayensis	Otay manzanita	Dicots	None	None	1B.2	
Ceanothus otayensis	Otay Mountain ceanothus	Dicots	None	None	1B.2	

Deinandra conjugens	Otay tarplant	Dicots	Threatened	Endangered	1B.1	
Ericameria palmeri var. palmeri	Palmer's goldenbush	Dicots	None	None	1B.1	
Harpagonella palmeri	Palmer's grapplinghook	Dicots	None	None	4.2	
Tetracoccus dioicus	Parry's tetracoccus	Dicots	None	None	1B.2	
Stemodia durantifolia	purple stemodia	Dicots	None	None	2B.1	
Horkelia truncata	Ramona horkelia	Dicots	None	None	1B.3	
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	None	None	4.3	
Ambrosia pumila	San Diego ambrosia	Dicots	Endangered	None	1B.1	
Ferocactus viridescens	San Diego barrel cactus	Dicots	None	None	2B.1	
Eryngium aristulatum var. parishii	San Diego button-celery	Dicots	Endangered	Endangered	1B.1	
Iva hayesiana	San Diego marsh-elder	Dicots	None	None	2B.2	
Artemisia palmeri	San Diego sagewort	Dicots	None	None	4.2	
Acanthomintha ilicifolia	San Diego thorn-mint	Dicots	Threatened	Endangered	1B.1	
Clinopodium chandleri	San Miguel savory	Dicots	None	None	1B.2	
Ambrosia monogyra	singlewhorl burrobrush	Dicots	None	None	2B.2	
Cylindropuntia californica var. californica	snake cholla	Dicots	None	None	1B.1	
Atriplex pacifica	south coast saltscale	Dicots	None	None	1B.2	
Comarostaphylis diversifolia ssp. diversifolia	summer holly	Dicots	None	None	1B.2	
Dudleya variegata	variegated dudleya	Dicots	None	None	1B.2	
Southern Interior Cypress Forest	Southern Interior Cypress Forest	Forest	None	None		
Hesperocyparis forbesii	Tecate cypress	Gymnosperms	None	None	1B.1	
Bombus crotchii	Crotch bumble bee	Insects	None	None		
Lycaena hermes	Hermes copper butterfly	Insects	Threatened	None		
Deltaspis ivae	marsh-elder long-horned beetle	Insects	None	None		
Euphydryas editha quino	quino checkerspot butterfly	Insects	Endangered	None		
Callophrys thornei	Thorne's hairstreak	Insects	None	None		
Taxidea taxus	American badger	Mammals	None	None		SSC
Nyctinomops macrotis	big free-tailed bat	Mammals	None	None		SSC
Lasiurus cinereus	hoary bat	Mammals	None	None		
Myotis evotis	long-eared myotis	Mammals	None	None		
Antrozous pallidus	pallid bat	Mammals	None	None		SSC
Nyctinomops femorosaccus	pocketed free-tailed bat	Mammals	None	None		SSC
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Mammals	None	None		
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	None	None		SSC
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	None	None		SSC
Eumops perotis californicus	western mastiff bat	Mammals	None	None		SSC
Lasiurus blossevillii	western red bat	Mammals	None	None		SSC

Myotis ciliolabrum	western small-footed myotis	Mammals	None	None		
Myotis yumanensis	Yuma myotis	Mammals	None	None		
Nolina interrata	Dehesa nolina	Monocots	None	Endangered	1B.1	
Calochortus dunnii	Dunn's mariposa-lily	Monocots	None	Rare	1B.2	
Brodiaea orcuttii	Orcutt's brodiaea	Monocots	None	None	1B.1	
Bloomeria clevelandii	San Diego goldenstar	Monocots	None	None	1B.1	
Carex obispoensis	San Luis Obispo sedge	Monocots	None	None	1B.2	
Masticophis fuliginosus	Baja California coachwhip	Reptiles	None	None		SSC
Phrynosoma blainvillii	coast horned lizard	Reptiles	None	None		SSC
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	None	None		SSC
Plestiodon skiltonianus interparietalis	Coronado skink	Reptiles	None	None		WL
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	None	None		WL
Crotalus ruber	red-diamond rattlesnake	Reptiles	None	None		SSC
Diadophis punctatus similis	San Diego ringneck snake	Reptiles	None	None		
Anniella stebbinsi	Southern California legless lizard	Reptiles	None	None		SSC
Thamnophis hammondii	two-striped gartersnake	Reptiles	None	None		SSC
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	Riparian	None	None		

SanBio Sensitive Species Occurrences within 2.5 mile Radius of Project

Scientific Name	Common Name	Status	LifeForm
Spea hammondii	Western spadefoot toad	Sensitive	Animal - Amphibian
Amphispiza belli	Bell's sage sparrow	Sensitive	Animal - Bird
Artemisiospiza belli	Bell's Sparrow	Sensitive	Animal - Bird
Polioptila californica	California gnatcatcher	Sensitive	Animal - Bird
Accipiter cooperii	Cooper's hawk	Sensitive	Animal - Bird
Aquila chrysaetos canadensis	Golden eagle	Sensitive	Animal - Bird
Ammodramus savannarum parpallidus	Grasshopper sparrow	Sensitive	Animal - Bird
Vireo bellii pusillus	Least Bell's vireo	Sensitive	Animal - Bird
Circus cyaneus hudsonius	Northern harrier	Sensitive	Animal - Bird
Cnemidophorus hyperythrus	Orange throated whiptail	Sensitive	Animal - Bird
Aimophila ruficeps canescens	Southern California rufous crowned sparrow	Sensitive	Animal - Bird
Cathartes aura meridionalis	Turkey vulture	Sensitive	Animal - Bird
Sialia mexicana	Western bluebird	Sensitive	Animal - Bird
Euphydryas editha quino	Quino checkerspot butterfly	Sensitive	Animal - Invertebrate
Nyctinomops macrotis	Big free tailed bat	Sensitive	Animal - Mammal
Lepus californicus	Black tailed jackrabbit	Sensitive	Animal - Mammal
Lynx rufus	Bobcat	Sensitive	Animal - Mammal
Dipodomys simulans	Dulzura kangaroo rat	Sensitive	Animal - Mammal
Eumops perotis californicus	Greater western mastiff bat	Sensitive	Animal - Mammal
Myotis evotis	Long eared myotis	Sensitive	Animal - Mammal
Felis concolor	Mountain lion	Sensitive	Animal - Mammal
Odocoileus hemionus	Mule deer	Sensitive	Animal - Mammal
Nyctinomops femorosaccus	Pocketed free tailed bat	Sensitive	Animal - Mammal
Lepus californicus bennettii	San Diego black tailed jackrabbit	Sensitive	Animal - Mammal
Myotis ciliolabrum	Western small footed myotis	Sensitive	Animal - Mammal
Myotis yumanensis	Yuma myotis	Sensitive	Animal - Mammal
Phrynosoma coronatum	Coast horned lizard	Sensitive	Animal - Reptile
Salvadora hexalepis virgultea	Coast patch nosed snake	Sensitive	Animal - Reptile
Eumeces skiltonianus interparietalis	Coronado skink	Sensitive	Animal - Reptile

Crotalus ruber	Red diamond rattlesnake	Sensitive	Animal - Reptile
Diadophis punctatus	Ringneck snake	Sensitive	Animal - Reptile
Lichanura trivirgata	Rosy boa	Sensitive	Animal - Reptile
Coleonyx variegatus abbottii	San Diego banded gecko	Sensitive	Animal - Reptile
Thamnophis hammondii	Two stripe garter snake	Sensitive	Animal - Reptile
Aspidoscelis tigris	Western whiptail	Sensitive	Animal - Reptile
Selaginella cinerascens	Ashy spike moss	Sensitive	Plant
Ophioglossum californicum	California adder's tongue fern	Sensitive	Plant
Calochortus dunnii	Dunn's mariposa lily	Sensitive	Plant
Quercus engelmannii	Engelmann oak	Sensitive	Plant
Lepechinia ganderi	Gander's pitcher sage	Sensitive	Plant
Achnatherum diegoensis	San Diego County needlegrass	Sensitive	Plant
Viguiera laciniata	San Diego County viguiera	Sensitive	Plant
Satureja chandleri	San Miguel savory	Sensitive	Plant
Juncus acutus leopoldii	Southwestern spiny rush	Sensitive	Plant

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

San Diego County, California



Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

NOT FOR CONSULTATION

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8193	Endangered
Coastal California Gnatcatcher Polioptila californica californica Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6749	Endangered

Insects

NAME	STATUS
Hermes Copper Butterfly Lycaena hermes Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/4379	Threatened

NOT FOR CONSULTATION

Monarch Butterfly Danaus plexippus — Candidate
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Quino Checkerspot Butterfly Euphydryas editha quino (=E. e. wrighti) — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/5900

Flowering Plants

NAME	STATUS

Mexican Flannelbush Fremontodendron mexicanum — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/7495

Otay Tarplant Deinandra (=Hemizonia) conjugens — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/5687

San Diego Ambrosia Ambrosia pumila — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8287

San Diego Thornmint Acanthomintha ilicifolia — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/351

Critical habitats

NOT FOR CONSULTATION

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird *Selasphorus sasin* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black-chinned Sparrow *Spizella atrogularis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Bullock's Oriole *Icterus bullockii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Thrasher *Toxostoma redivivum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

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Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

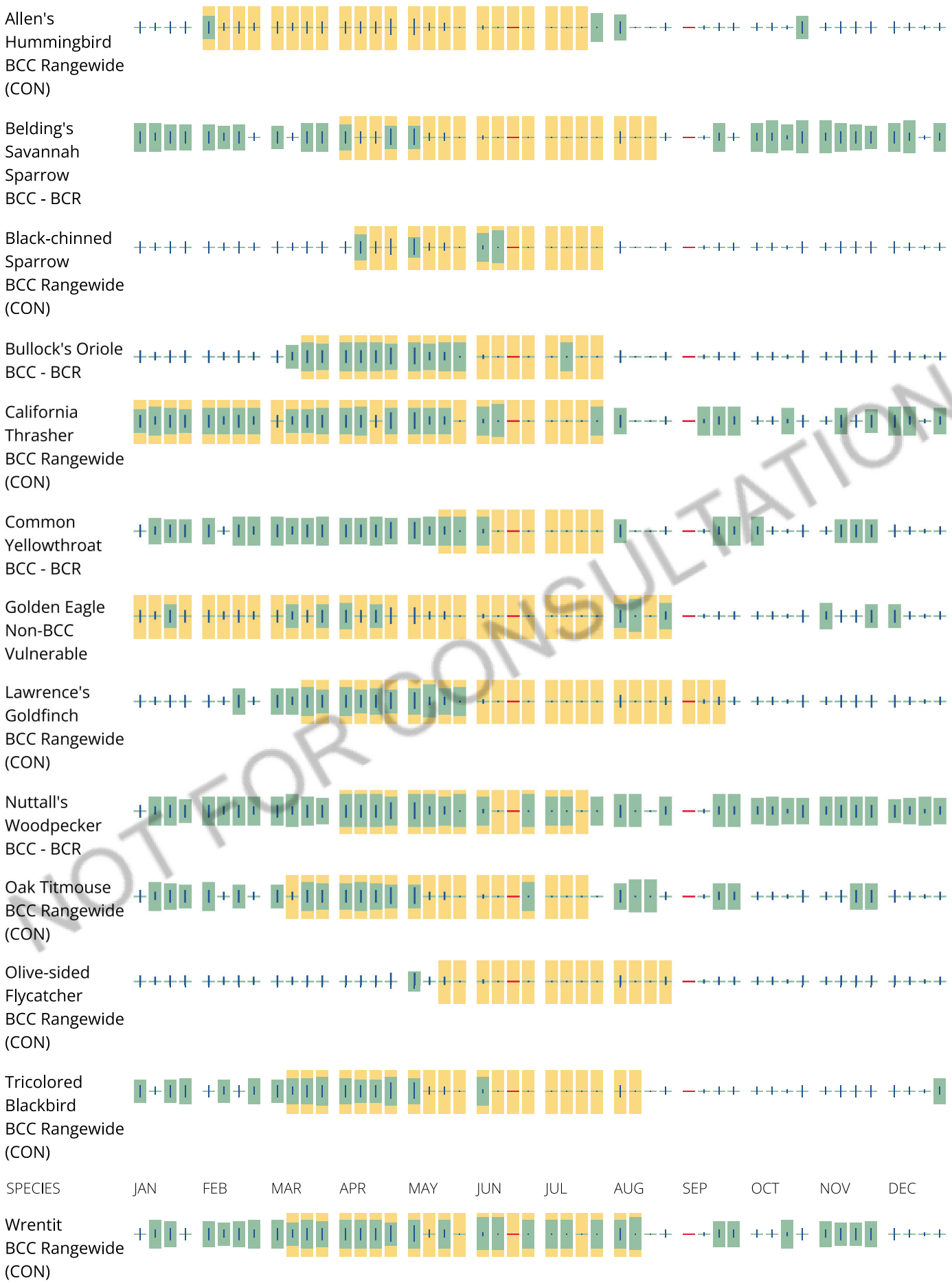
No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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■ probability of presence ■ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

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1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn

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more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and

nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Appendix I

Geotechnical Investigation

GEOTECHNICAL INVESTIGATION

Proposed Jamul Casino Expansion

14145 Campo Road, Jamul, California



Prepared for:
Jamul Indian Village Development Corporation
Jamul Casino, 14145 Campo Road
Jamul, CA 91935

NOVA Project No. 2022087
July 29, 2022

NOVA Services

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Erica M. Pinto, Chairwoman
c/o Steve Davis, Project Director, Summit Project Management
Jamul Indian Village Development Corporation
14145 Campo Road
Jamul, CA 91935

July 29, 2022
NOVA Project No. 2022087

Subject: Geotechnical Investigation
Proposed Jamul Casino Expansion
14145 Campo Road, Jamul, California

Dear Ms. Pinto:

NOVA Services, Inc. (NOVA) is pleased to present our report describing the geotechnical investigation performed for the proposed Jamul Casino Expansion. The geotechnical investigation was conducted in general conformance with the scopes of work presented in our proposals dated April 22 and June 29 and authorized on April 29 and July 5, respectively.

This site is considered geotechnically suitable for the proposed development provided the recommendations within this report are followed.

NOVA appreciates the opportunity to be of service to the Jamul Indian Village Development Corporation on this project. If you have any questions regarding this report, please call us at 858.292.7575 x 406.

Sincerely,
NOVA Services, Inc.

Tom Canady, PE 50057
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
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Exp.6/30/2023
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GEOTECHNICAL INVESTIGATION

Proposed Jamul Casino Expansion

14145 Campo Road, Jamul, California

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1. INTRODUCTION

This report presents the results of the geotechnical investigation NOVA performed for the Proposed Jamul Casino Expansion project. We understand the project will consist of design and construction of a 14-level hotel and a 6-level parking garage west of the existing casino. Development of the proposed structures will include construction of a permanent soil nail wall along the north, west, and south perimeter of the site. The purpose of NOVA's work is to provide conclusions and recommendations regarding the geotechnical aspects of the project.

Figure 1-1 presents a site vicinity map. Figure 1-2 presents a site location map.

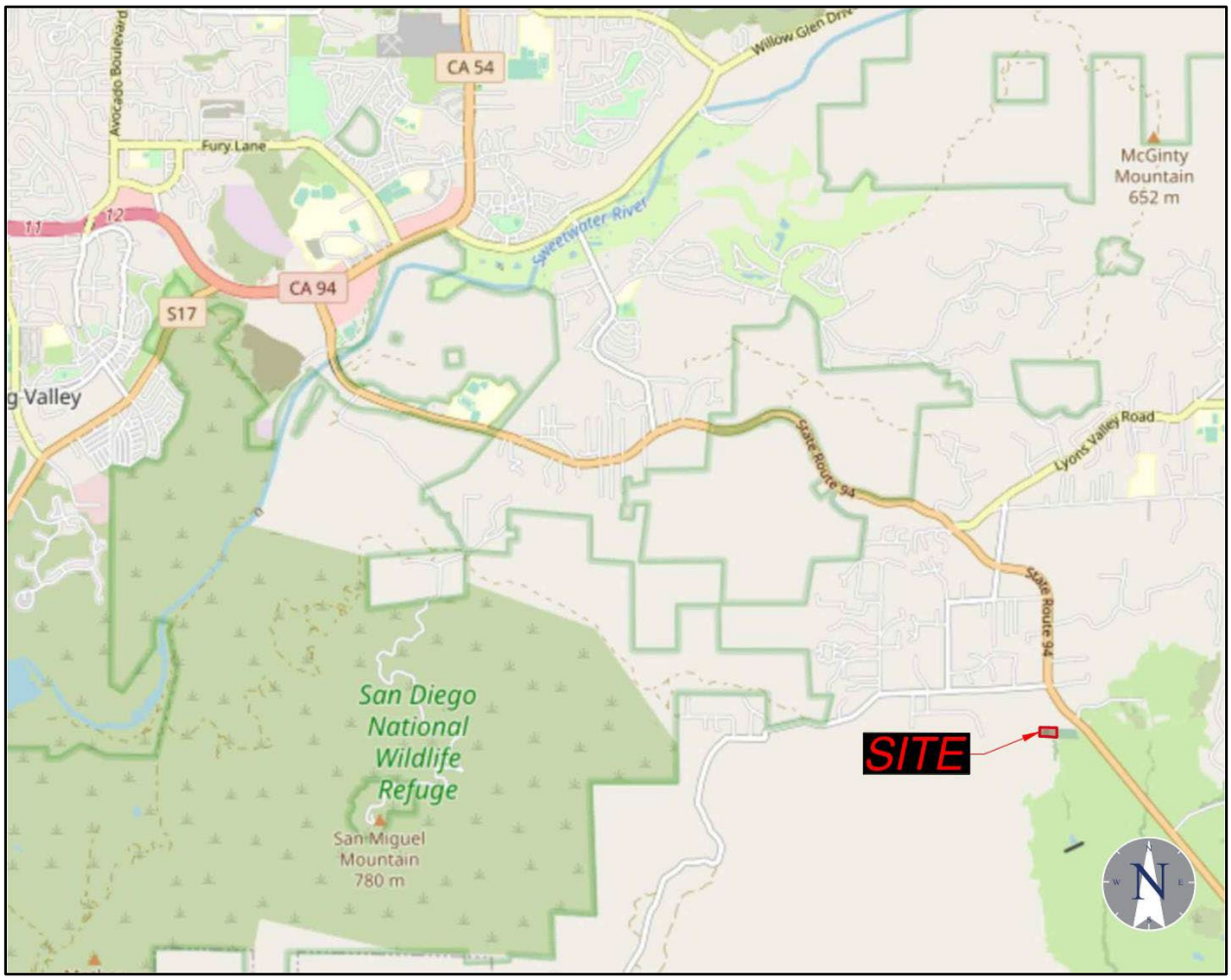


Figure 1-1. Site Vicinity Map
(Source: OpenStreetMap, 2022)



Figure 1-2. Site Location Map
(Source: Google Earth, 2022)

2. SCOPE OF WORK

2.1. Field Investigation

NOVA's field investigation consisted of drilling four geotechnical borings (B-1 through B-4) to depths between about 10 and 29½ feet below the ground surface (bgs) using a truck-mounted drill rig equipped with hollow-stem auger. Geophysical surveys consisting of three p-wave seismic refraction traverses (S-1 through S-3) and one shear-wave traverse (SW-1) were also performed. Additionally, we utilized subsurface data from previous geotechnical reports that we were provided (LC, 2001 and CTE, 2011, 2013, and 2014). Figure 2-1 presents the approximate locations of the current and previous subsurface explorations.

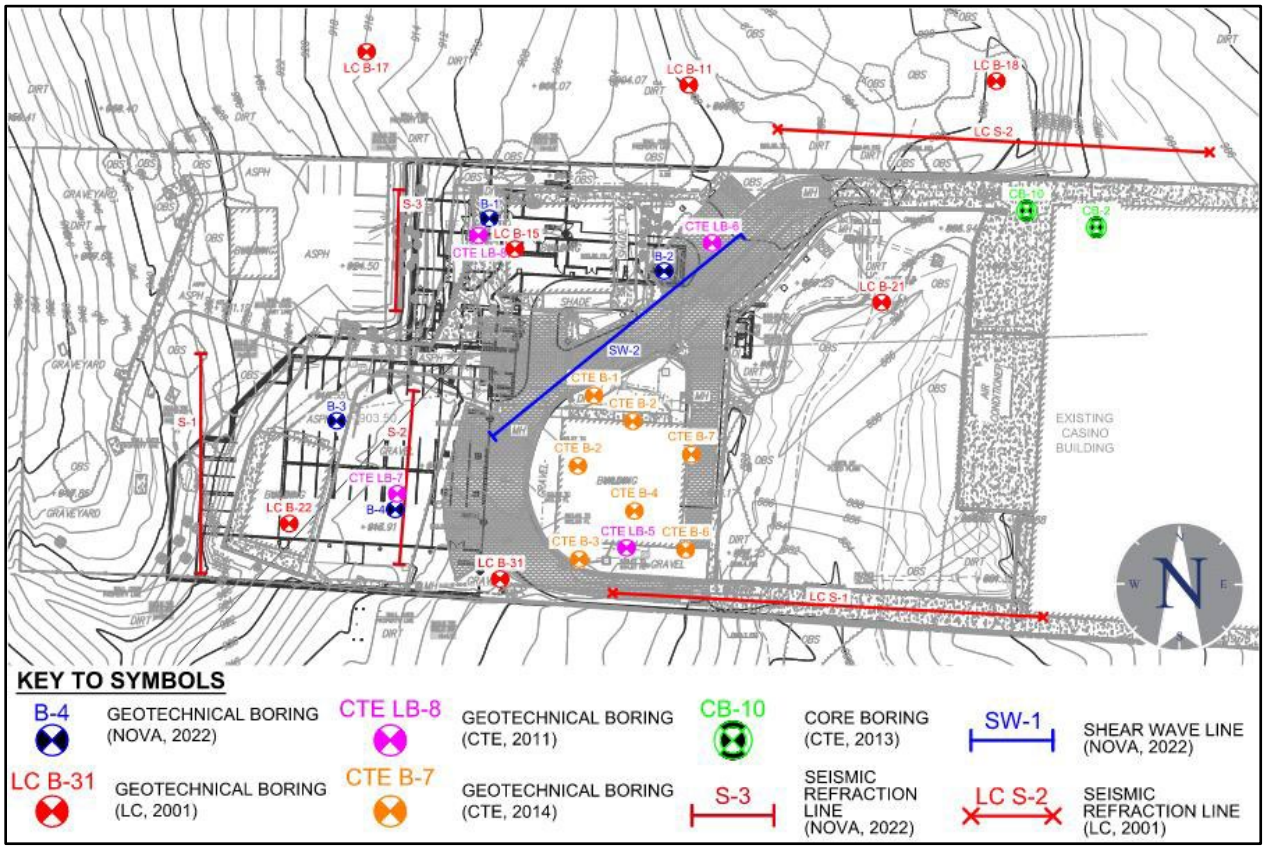


Figure 2-1. Locations of Subsurface Explorations

A NOVA geologist logged the current borings and collected samples of the materials encountered for laboratory testing. Relatively undisturbed samples were obtained using a modified California (CAL) sampler, a ring-lined split tube sampler with a 3-inch outer diameter and a 2½-inch inner diameter. Standard Penetration Tests (SPT) were performed in the borings using a 2-inch outer diameter and 1⅜-inch inner diameter split tube sampler. The CAL and SPT samplers were driven using an automatic hammer with a calibrated Energy Transfer Ratio (ETR) of 70.6%. The number of blows needed to drive the sampler the final 12 inches of an 18-inch drive is noted on the logs. Sampler refusal was encountered when 50 blows were applied during any one of the three 6-inch

intervals, a total of 100 blows was applied, or there was no discernible sampler advancement during the application of 10 successive blows. The field blow counts, N, were corrected to a standard hammer (cathead and rope) with a 60% ETR. The corrected blow counts are noted on the boring logs as N_{60}. Disturbed bulk samples were obtained from the SPT sampler and the drill cuttings. Logs of the current and previous borings are presented in Appendix B. Soils are classified according to the Unified Soil Classification System.

2.2. Laboratory Testing

NOVA tested select samples to evaluate soil classification and engineering properties and develop geotechnical conclusions and recommendations. The laboratory tests consisted of in situ moisture and density, particle-size distribution, Atterberg limits, expansion index, R-value, corrosivity, and direct shear. The results of the laboratory tests and brief explanations of the test procedures are presented in Appendix C. Laboratory test results from previous geotechnical reports are also presented in Appendix C.

2.3. Geophysical Surveys

NOVA subcontracted with Terra Geosciences, a California-licensed geophysicist, to perform geophysical surveys. Three p-wave seismic refraction traverses were performed on May 7 and July 3, 2022 to estimate rippability of the subsurface materials beneath the site in the areas of anticipated excavations for the proposed parking structure and hotel buildings. A shear-wave traverse was performed on July 3, 2022 to estimate the average shear-wave velocity (v_s) of the upper 100 feet of the soil and rock underlying the site. The testing is used to determine (i) stiffness of the materials and (ii) Site Class in accordance with ASCE 7-16, Table 20.3-1. Additionally, we utilized two previous p-wave seismic refraction traverses (LC, 2001). The approximate alignments of the survey lines are shown in Figure 2-1 and Plate 1. Results of the geophysical surveys are presented in Appendix D.

2.4. Analysis and Report Preparation

The results of the field and laboratory testing were evaluated to develop conclusions and recommendations regarding the geotechnical aspects of the proposed construction. This report presents our findings, conclusions, and recommendations.

3. SITE AND PROJECT DESCRIPTION

3.1. Site Description and Current Use

The site of the proposed hotel and parking structure is located to the west of the existing Jamul Casino. The site is currently occupied by several smaller structures, including a community center, a wastewater treatment plant, and tribal offices. The site is bordered by undeveloped land on the north and south, Willow Creek on the east, and the Saint Francis Xavier Cemetery on the west. The site slopes downward to the east with elevations ranging from about +940 feet mean sea level (msl) at the southwestern corner of the site to about +887 feet msl in Willow Creek.

Available historic topography and historic aerial photos indicate the site has supported development since at least 1953, the date of the earliest available historic imagery. Prior to the 1990s, when the Saint Francis Xavier Cemetery was constructed, the site supported light development including small structures and unpaved roadways. The current site grades were made during about the last 10 years using cuts and fills to develop pads supporting the existing structures. By 2012, the community center had been constructed, and by 2016, the wastewater treatment plant was completed. The site has existed in its current configuration since that time.

3.2. Proposed Development

Based on the provided structural plans (kpff, 2022), we understand the proposed development will consist of design and construction of a 14-story hotel building and a 6-level parking structure. According to Shaun Walters of kpff, typical column loads for the hotel building will be 700 to 1,500 kips dead load and 200 to 400 kips live load; column loads for the eastern tower will be 3,500 kips dead load and 600 kips live load. As currently planned, the hotel building will have a finished floor elevation of 903½ feet and will be supported on a mat foundation in the western portion of the building and cast-in-drill-hole (CIDH) concrete piles in the eastern portion of the building. The parking structure will be supported on shallow spread footings. Permanent soil nail retaining walls up to about 15 and 45 feet in height will be constructed west of the hotel building and parking structure, respectively. Site improvements will include new vehicular pavements, pedestrian hardscape, and landscaping.

3.3. Anticipated Earthwork

Based on review of the provided preliminary grading plans (HWL, 2022), we understand the proposed grading will include cuts up to about 15 and 45 feet for the western portions of the hotel building and parking structure, respectively. Other anticipated earthwork will include site preparation, remedial grading, fine grading, placement and compaction of fill and backfill, temporary excavations for underground utilities, and preparation of subgrade soils beneath hardscape and pavements.

4. GEOLOGY AND SUBSURFACE CONDITIONS

4.1. Regional Geology

The project site is within the Peninsular Ranges Geomorphic Province of California, which stretches from the Los Angeles basin to the tip of Baja California in Mexico. In general, the province consists of northwest-trending mountains underlain by Tertiary sedimentary rocks, Cretaceous igneous rocks of the Peninsular Ranges batholith, and Mesozoic meta-volcanic and metasedimentary rocks (CGS, 2002). The Peninsular Ranges Province is traversed by a group of sub-parallel faults and fault zones trending roughly northwest. Several of these faults are considered active. The Elsinore, San Jacinto, and San Andreas Fault Zones are active systems located east of the project area and the Newport-Inglewood, Agua Blanca-Coronado Bank, and San Clemente Fault Zones are active systems located offshore, west of the site. The majority of these faults have right-lateral, strike-slip movement. Uplift associated with these faults has created a diverse topographic environment that has also brought hazards such as landslides, mudslides, and hillside creep (gradual downhill soil movement).

Regional geologic maps of the subject property and vicinity (USGS, 2004) indicate the subject property is underlain by early Cretaceous granitic rock (Kgr) consisting of undivided tonalite and granodiorite. Figure 4-1 presents the regional geology in the vicinity of the site.

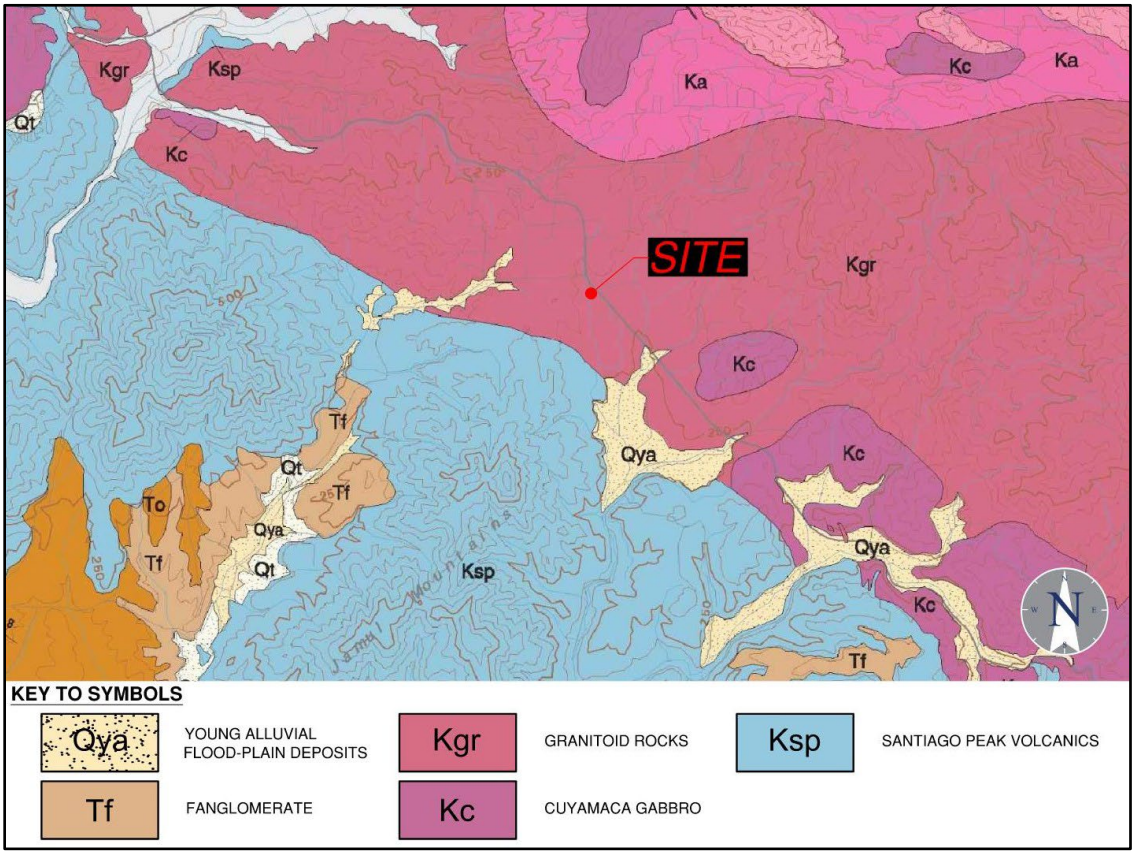


Figure 4-1. Regional Geology Map

4.2. Site-Specific Geology

The site is underlain by fill, alluvium, and granitic rock. Descriptions of the materials encountered are presented below. The Geotechnical Map (Plate 1) and Geologic Cross-Sections (Plate 2) present the site-specific geology.

Fill (af): Fill was encountered in three of our four borings (B-2 through B-4) to depths between about 4 and 13 feet bgs. As encountered in our borings, the fill consisted of loose to medium dense silty and clayey sand with varying amounts gravel-sized rock fragments. NOVA has no records regarding the placement and compaction of the fill; therefore, it is considered undocumented and at risk for wide variations in quality. Figure 4-2 presents a photograph of undocumented fill encountered in B-2.



Figure 4-2. Fill in Boring B-2

Alluvium (Qal): Alluvium was encountered in previous borings LC B-18 and LC B-21 to a depth of about 8 feet bgs (LC, 2001). The alluvium is associated with Willow Creek. As encountered in the borings, the alluvium consisted of loose to medium dense silty sand.

Granitic Rock (Kgr): Granitic rock was encountered beneath the concrete driveway in boring B-1 and beneath the fill in borings B-2 through B-4. As encountered in our borings, the granitic rock was generally decomposed to intensely weathered and broke down to dense to very dense silty and clayey sand during drilling. Figure 4-3 presents a photograph of the granitic rock encountered in Boring B-4.



Figure 4-3. Granitic Rock in Boring B-4

Groundwater: Groundwater was not encountered in our borings. However, standing water and wet soil conditions were observed in the area of Willow Creek. Perched groundwater seepage may occur in the future due to rainfall, irrigation, broken pipes, or changes in site drainage. Because perched groundwater conditions are difficult to predict, such conditions are typically mitigated if and when they occur.

5. GEOLOGIC HAZARDS

5.1. Faulting and Surface Rupture

The site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion is considered significant during the design life of the proposed structure. Major known active faults in the region consist generally of en echelon, northwest striking, right-lateral, strike-slip faults. These include the San Andreas, Elsinore, and San Jacinto Faults located northeast of the site, and the San Clemente, San Diego Trough, and Agua Blanca-Coronado Bank Faults located to the west of the site.

5.1.1 Faulting in the Site Vicinity

The site is not located in an Alquist-Priolo Earthquake Fault Zone. The nearest active fault is located about 16.2 miles west of the site within the San Diego section of the Newport-Inglewood-Rose Canyon Fault Zone (NIRC), which is recognized to have the potential for a Magnitude 6.99 seismic event. Evidence of active faulting was not observed at the site during our field investigation. The probability of fault rupture is considered very low.

Figure 5-1 shows the locations of known faults in the region of the site. Active faults are presented in orange, potentially active faults with displacement dating between 11,700 years and 700,000 years b.p. are presented in green, and undifferentiated Quaternary faults are presented in purple.

5.1.2 Strong Ground Motion

The site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion is considered significant during the design life of the proposed structure. The fault zone with the most potential for strong ground motion at the site is the NIRC. This fault zone is estimated to be able to generate earthquakes of M_W = 6.99.

The seismicity of the site was evaluated utilizing a web-based tool (SEAOC, 2022). The evaluation indicates that the site may be subject to site-adjusted Peak Ground Accelerations (PGA_M) of 0.366g.

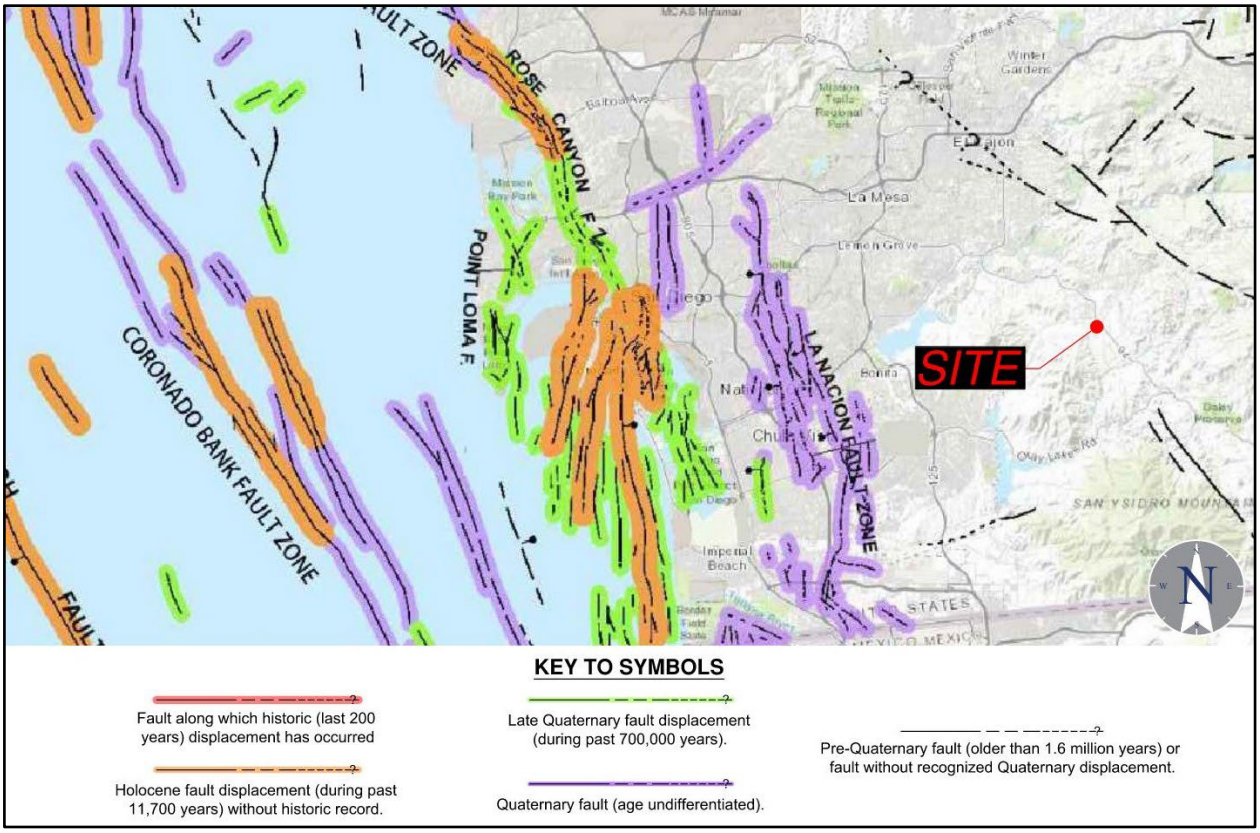


Figure 5-1. Fault Map
(Source: CGS, 2022)

5.2. Site Class

Site Class is determined by the weighted average of shear-wave velocity or Standard Penetration Test (SPT) resistance values (N-values) of the upper 100 feet of the soil and rock underlying a site. Materials displaying an average shear-wave velocity between 1,200 and 2,500 feet/second and SPT N-value greater than 50 blows/foot in the upper 100 feet are considered Site Class C. Based on the average shear-wave velocity of about 1,300 feet/second and the average N-values in the borings exceeding 50 blows/foot, the Site Class is C in accordance with ASCE 7-16 (Table 20.3-1).

5.3. California Building Code (CBC) Seismic Design Parameters

A geologic hazard likely to affect the project is ground shaking as a result of movement along an active fault zone in the vicinity of the subject site. Table 5-1 provides the site coefficients and maximum considered earthquake (MCE_R) spectral response acceleration parameters in accordance with the 2019 CBC and ASCE 7-16.

Table 5-1. 2019 CBC and ASCE 7-16 Seismic Design Parameters

Site Coordinates	
Latitude: 32.70323°	Longitude: -116.87092°
Site Coefficients and Spectral Response Acceleration Parameters	**Value**
Site Class	C
Site Coefficients, F_a	1.216
Site Coefficients, F_v	1.500
Mapped Spectral Response Acceleration at Short Period, S_s	0.709g
Mapped Spectral Response Acceleration at 1-Second Period, S_1	0.264g
Mapped Design Spectral Acceleration at Short Period, S_{DS}	0.575g
Design Spectral Acceleration at 1-Second Period, S_{D1}	0.264g
Site Peak Ground Acceleration, PGA_M	0.366g

5.4. Landslides and Slope Stability

Evidence of landslides, deep-seated landslides, or slope instabilities was not observed at the time of NOVA's field evaluation. Additionally, there are no mapped landslides in the vicinity of the project site. The potential for landslides or slope instabilities to occur at the site is considered very low given the flat topography and shallow granitic rock beneath the site.

5.5. Liquefaction and Dynamic Settlement

Liquefaction occurs when loose, saturated, generally fine sands and silts are subjected to strong ground shaking. The soils lose shear strength and become liquid, resulting in large total and differential ground surface settlements, as well as possible lateral spreading during an earthquake. Due to the lack of shallow groundwater and given the relatively dense nature of the materials beneath the site, the potential for liquefaction and dynamic settlement to occur is considered low.

5.6. Flooding, Tsunamis, and Seiches

The site is mapped within Zone X (FEMA, 2012), which are areas of minimal flood hazard. As such, the probability for a flood to affect the site is considered low. The site is not located within a mapped area on the State of California Tsunami Inundation Maps (Cal EMA, 2009); therefore, damage due to tsunamis is considered negligible. Seiches are periodic oscillations in large bodies of water such as lakes, harbors, bays, or reservoirs. The site is not located adjacent to any lakes or confined bodies of water; therefore, the potential for a seiche to affect the site is considered negligible.

5.7. Subsidence

The site is not located in an area of known subsidence associated with fluid withdrawal (groundwater or petroleum); therefore, the potential for subsidence due to the extraction of fluids is considered negligible.

5.8. Hydro-Consolidation

Hydro-consolidation can occur in recently deposited sediments (less than 10,000 years old) that were deposited in a semi-arid environment. Examples of such sediments are eolian sands, alluvial fan deposits, and mudflow sediments deposited during flash floods. The pore spaces between the particle grains can re-adjust when inundated by groundwater, causing the material to consolidate. The relatively dense materials underlying the site are not considered susceptible to hydro-consolidation.

6. CONCLUSIONS

Based on the results of our investigation, we consider the proposed construction feasible from a geotechnical standpoint provided the recommendations contained in this report are followed. Geotechnical conditions exist that should be addressed prior to construction. Geotechnical design and construction considerations include the following.

- There are no known active or potentially active faults underlying the site. The primary seismic hazard at the site is the potential for moderate to severe ground shaking in response to large-magnitude earthquakes generated during the lifetime of the proposed construction. The risk of strong ground motion is common to all construction in southern California and is typically mitigated through building design in accordance with the CBC. While strong ground motion could affect the site, the risk of liquefaction is considered negligible.

- The site is underlain by fill, alluvium, and granitic rock. The granitic rock is considered suitable for support of the proposed hotel and parking structure. The fill and alluvium, however, are potentially compressible and unsuitable for support of the proposed structures. Foundations for the proposed structures will extend through the fill and alluvium and into granitic rock. Some remedial grading will need to be performed in areas to receive hardscape, pavements, site walls, and site retaining walls to reduce the potential for distress. Recommendations for compressible soils are provided in this report.

- The on-site silty and clayey sand (fill, alluvium, and weathered granitic rock) are anticipated to have a very low expansion potential and are suitable for reuse as compacted fill.

- Excavations in fill and decomposed to intensely weathered granitic rock are anticipated to be generally achievable using standard heavy earthmoving equipment in good-working order with experienced operators. However, excavations in less weathered rock will require extra effort such as ripping, rock breaking, and/or blasting. Excavations may also generate oversized material that will require extra effort to screen, crush, or export from the site.

- The hotel building can be supported on a mat foundation bearing entirely on competent granitic rock in the western portion of the building and on CIDH piles embedded into granitic rock in the eastern portion. The parking structure can be supported on shallow spread footings with bottom levels bearing entirely on competent granitic rock. To accommodate bearing on competent granitic rock in areas of deeper fill/alluvium, 3-sack sand/cement slurry can be placed between the bottom of shallow foundations (mat/spread footing) and the underlying granitic rock. Recommendations for foundations are provided in this report.

- Groundwater was not encountered in our borings. However, standing water and wet soil conditions were observed in Willow Creek, and we anticipate that groundwater will be encountered during installation of CIDH piles. Additionally, groundwater seepage may be encountered due to rainfall, irrigation, broken pipes, or changes in site drainage. Because perched groundwater conditions are difficult to predict, such conditions are typically mitigated if and when they occur.

7. RECOMMENDATIONS

The remainder of this report presents recommendations regarding earthwork construction as well as preliminary geotechnical recommendations for the design of the proposed improvements. These recommendations are based on empirical and analytical methods typical of the standard-of-practice in southern California. If these recommendations appear not to address a specific feature of the project, please contact our office for additions or revisions to the recommendations. The recommendations presented herein may need to be updated once final plans are developed.

7.1. Earthwork

Grading and earthwork should be conducted in accordance with the CBC and the recommendations of this report. The following recommendations are provided regarding specific aspects of the proposed earthwork construction. These recommendations should be considered subject to revision based on field conditions observed by a NOVA representative during grading.

7.1.1 Site Preparation

Site preparation should begin with the removal of existing improvements, vegetation, and debris. Subsurface improvements that are to be abandoned should be removed, and the resulting excavations should be backfilled and compacted in accordance with the recommendations of this report. Pipeline abandonment can consist of capping or rerouting at the project perimeter and removal within the project perimeter. If appropriate, abandoned pipelines can be filled with grout or slurry as recommended by and observed by the geotechnical consultant.

7.1.2 Compressible Soils

Compressible soils are anticipated to consist of existing fill and alluvium. Remedial grading of compressible soils should be performed beneath structures, hardscape, settlement-sensitive improvements, and wherever the existing soils are dry or disturbed. The planned excavations are anticipated to remove compressible soils beneath the parking structure and the western portion of the hotel building, and deep foundations extending through the compressible soils and into the underlying granitic rock will be used to support the eastern portion of the hotel building. However, we recommend that some remedial excavations to remove compressible soils be performed beneath proposed hardscape, pavements, site walls, and site retaining walls to reduce the potential for distress. Beneath proposed pedestrian hardscape, the existing soils should be excavated to a depth of at least 2 feet below existing grade or planned subgrade elevation, whichever is deeper. Beneath proposed vehicular pavement areas, the existing soils should be excavated to a depth of at least 1 foot below existing grade or planned subgrade elevation, whichever is deeper. Beneath site walls and retaining walls not connected to buildings, the existing soils should be excavated to a depth of at least 2 feet below bottom of footing. Horizontally, excavations should extend at least at least 2 feet outside the planned improvement or up to existing improvements or the limits of grading, whichever is less. NOVA should observe the conditions exposed in the bottom of excavations to evaluate whether additional excavation is recommended. The excavation should be filled with material suitable for reuse as compacted fill.

7.1.3 Cut/Fill Transitions

The proposed hotel building and parking structure should not be supported on cut/fill transitions. To mitigate such conditions and reduce the potential for adverse settlement, the structures should be supported on foundations bearing entirely in competent granitic rock, as currently planned.

7.1.4 Expansive Soil

The on-site soils tested have expansion indexes (EIs) ranging from 0 to 16, classified as very low expansion potential. To reduce the potential for expansive heave, the top 2 feet of material beneath pedestrian hardscape and site wall and site retaining wall footings should have an EI of 50 or less. Horizontally, the soils having an EI of 50 or less should extend at least 2 feet outside hardscape and wall footings or up to existing improvements or the limits of grading, whichever is less. We anticipate that the on-site silty and clayey sand will meet the EI criteria. Clays, if encountered, are not expected to meet the EI criteria.

7.1.5 Compacted Fill

Excavated soils free of organic matter, construction debris, rocks greater than 6 inches, and expansive soil as described above should generally be suitable for reuse as compacted fill. Areas to receive fill should be scarified to a depth of 6 to 8 inches, moisture conditioned to near optimum moisture content, and compacted to at least 90% relative compaction. If competent granitic rock is exposed, scarification and recompaction need not be performed. Fill and backfill should be placed in 6- to 8-inch-thick loose lifts, moisture conditioned to near optimum moisture content, and compacted to at least 90% relative compaction. The top 12 inches of subgrade beneath pavements should be compacted to at least 95% relative compaction. The maximum density and optimum moisture content for the evaluation of relative compaction should be determined in accordance with ASTM D1557.

7.1.6 Imported Soil

Imported soil should consist of predominately granular soil, free of organic matter and rocks greater than 6 inches. Imported soil should be observed and, if appropriate, tested by NOVA prior to transport to the site to evaluate suitability for the intended use.

7.1.7 Subgrade Stabilization

Excavation bottoms should be firm and unyielding prior to placing fill. In areas of saturated or yielding subgrade, a reinforcing geogrid such as Tensar® Triax® TX-5 or equivalent can be placed on the excavation bottom, and then at least 12 inches of aggregate base placed and compacted. Once the surface of the aggregate base is firm enough to achieve compaction, then the remaining excavation should be filled to finished pad grade with suitable material.

7.1.8 Excavation Characteristics

Excavation characteristics were estimated based on the seismic refraction topographic models presented in Appendix D and the Caterpillar D9 Ripper Performance Chart (Caterpillar, 2017) provided in Figure 7-1 below for reference. The estimated depths to the different rippability classifications (rippable, marginally rippable, and non-rippable) are based on the seismic

velocities in the topographic models and the rippability ranges for granite (igneous rocks) provided in the chart. For granite, seismic velocities less than about 6,800 feet per second (ft/sec) are generally considered rippable. Seismic velocities ranging from about 6,800 to 8,000 ft/sec are generally considered marginally rippable. Seismic velocities greater than about 8,000 ft/sec are generally considered non-rippable.

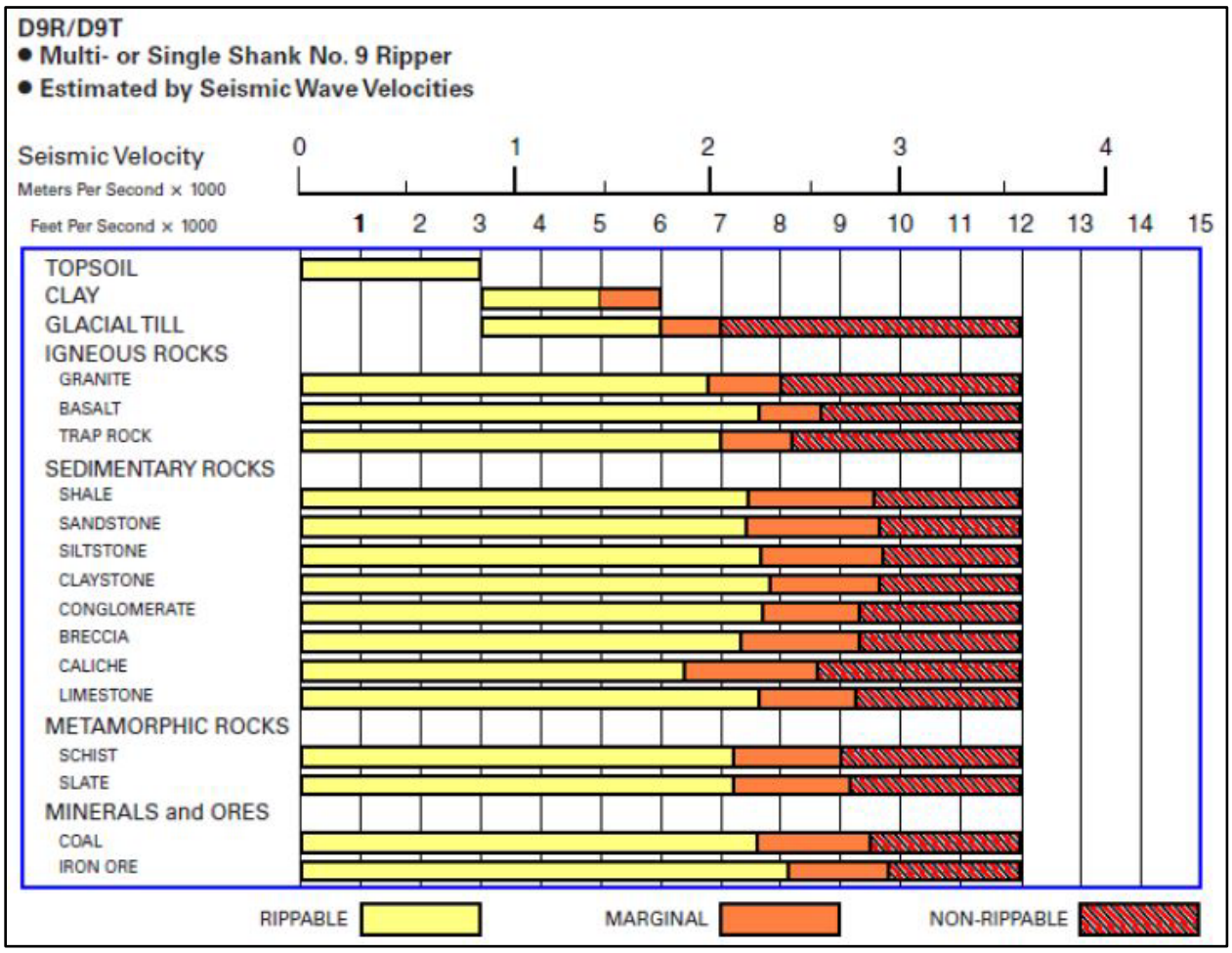


Figure 7-1. Caterpillar D9 Ripper Performance Chart

The existing fills are anticipated to be rippable utilizing conventional heavy-duty earth moving equipment. The upper weathered granitic rock to depths of about 15 feet the beneath the hotel site and about 35 feet beneath the parking structure site are anticipated to be rippable as well utilizing heavy duty conventional earth moving equipment. Below these zones, the granitic rock is anticipated to be marginally rippable and non-rippable at depth. Blasting will likely be required. Blasting will most likely produce oversized material, requiring special handling.

Please note that the velocity ranges of these classifications are approximate and that rock characteristics, including jointing and fracturing, spacing, and orientation, are a major factor in determining rippability. Localized zones of potentially non-rippable bedrock, such as core stones, should be anticipated to be encountered above the estimated non-rippable bedrock depths. It is

recommended that contractors review the provided subsurface data and independently estimate potential heavy ripping/blasting quantities based on their experience.

7.1.9 Oversized Material

Excavations are anticipated to generate oversized material, particularly excavations in granitic rock. Oversized material is defined as rocks greater than 6 inches in largest dimension. Oversized material should be broken down to no greater than 6 inches in largest dimension for use in fill, use as landscape material, or disposed of off-site.

7.1.10 Temporary Excavations

Temporary excavations 3 feet deep or less can be made vertically. Deeper temporary excavations in fill should be laid back no steeper than 1:1 (horizontal:vertical) (h:v). Deeper temporary excavations in granitic rock should be laid back no steeper than ½:1 (h:v). The faces of temporary slopes should be inspected daily by the contractor's Competent Person before personnel are allowed to enter the excavation. Any zones of potential instability, sloughing, or raveling should be brought to the attention of the engineer and corrective action implemented before personnel begin working in the excavation. Excavated soils should not be stockpiled behind temporary excavations within a distance equal to the depth of the excavation. NOVA should be notified if other surcharge loads are anticipated so that lateral load criteria can be developed for the specific situation.

If temporary slopes are to be maintained during the rainy season, berms are recommended along the tops of slopes to prevent runoff water from entering the excavation and eroding the slope faces. Slopes steeper than those described above will require shoring. Soldier piles and lagging, internally braced shoring, or trench boxes could be used. If trench boxes are used, the soil immediately adjacent to the trench box is not directly supported. Ground surface deformations immediately adjacent to the pit or trench could be greater where trench boxes are used compared to other methods of shoring.

7.1.11 Slopes

Permanent slopes should be constructed no steeper than 2:1 (h:v). Faces of fill slopes should be compacted either by rolling with a sheepsfoot roller or other suitable equipment, or by overfilling and cutting back to design grade. Fills should be benched into sloping ground inclined steeper than 5:1 (h:v). In NOVA's opinion, slopes constructed no steeper than 2:1 (h:v) will possess an adequate factor of safety. An engineering geologist should observe cut slopes during grading to ascertain that no unforeseen adverse geologic conditions are encountered that require revised recommendations. Slopes are susceptible to surficial slope failure and erosion. Water should not be allowed to flow over the top of slope. Additionally, slopes should be planted with vegetation that will reduce the potential for erosion.

7.1.12 Groundwater Seepage

Seepage from perched groundwater is anticipated to occur locally in excavations. If dewatering is necessary, the dewatering method should be evaluated and implemented by an experienced dewatering subcontractor.

7.1.13 Surface Drainage

Final surface grades around structures should be designed to collect and direct surface water away from structures, including retaining walls, and toward appropriate drainage facilities. The ground around the structure should be graded so that surface water flows rapidly away from the structure without ponding. In general, we recommend that the ground adjacent to the structure slope away at a gradient of at least 2%. Densely vegetated areas where runoff can be impaired should have a minimum gradient of at least 5% within the first 5 feet from the structure. Roof gutters with downspouts that discharge directly into a closed drainage system are recommended on structures. Drainage patterns established at the time of fine grading should be maintained throughout the life of the proposed structures. Site irrigation should be limited to the minimum necessary to sustain landscape growth. Should excessive irrigation, impaired drainage, or unusually high rainfall occur, saturated zones of perched groundwater can develop.

7.1.14 Grading Plan Review

NOVA should review the grading plans and earthwork specifications to ascertain whether the intent of the recommendations contained in this report have been implemented, and that no revised recommendations are needed due to changes in the development scheme.

7.2. Foundations

The foundation recommendations provided herein are considered generally consistent with methods typically used in southern California. Other alternatives may be available. Our recommendations are only minimum criteria based on geotechnical factors and should not be considered a structural design, or to preclude more restrictive criteria of governing agencies or by the structural engineer. The design of the foundation system should be performed by the project structural engineer, incorporating the geotechnical parameters described herein and the requirements of applicable building codes.

The proposed hotel building and parking structure should be supported on foundations bearing entirely on competent granitic rock. As previously mentioned, the hotel building will be supported on a mat foundation bearing entirely on competent granitic rock in the western portion of the building and on CIDH piles embedded into granitic rock in the eastern portion. The parking structure will be supported on shallow spread footings with bottom levels bearing entirely on competent granitic rock. To accommodate bearing on granitic rock in areas of deeper fill/allluvium, 3-sack sand/cement slurry can be placed between the bottom of shallow foundations (mat/spread footing) and the underlying granitic rock. Site walls and site retaining walls not connected to buildings can be supported on shallow spread footings with bottom levels bearing on compacted fill or granitic rock.

7.2.1 Spread Footings

Footings should extend at least 24 inches below lowest adjacent finished grade. A minimum width of 36 inches is recommended for column footings and 24 inches for continuous or retaining footings. An allowable bearing capacity of 15,000 psf can be used for spread footings supported on competent granitic rock or on 3-sack sand/cement slurry extending down to competent rock.

An allowable bearing capacity of 2,500 psf can be used for footings supported on compacted fill. The bearing value can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. Footings located adjacent to or within slopes should be extended to a depth such that a minimum horizontal distance of 10 feet exists between the lower outside footing edge and the face of slope.

Lateral loads will be resisted by friction between the bottoms of footings and passive pressure on the faces of footings and other structural elements below grade. An allowable coefficient of friction of 0.50 can be used for competent granitic rock. An allowable coefficient of friction of 0.35 can be used for compacted fill. An allowable passive pressure of 500 psf per foot of depth below the ground surface can be used for granitic rock. An allowable passive pressure of 350 psf per foot of depth below the ground surface can be used for compacted fill. The passive pressure values assume level ground conditions where the ground is horizontal for a distance of at least 10 feet or three times the height generating the passive pressure. The allowable passive pressures should be reduced for sloping ground conditions. The passive pressure can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. The upper 1 foot of soil should not be relied on for passive support unless the ground is covered with pavements or slabs.

7.2.2 Mat Foundation

An allowable bearing capacity of 15,000 psf can be used for mat foundations supported on competent granitic rock. The bearing capacity can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. Thickness and reinforcement of the mat foundation should be designed by the project structural engineer. Mat foundations typically experience some deflection due to loads placed on the mat and the reaction of the soils underlying the mat. A design modulus of subgrade reaction, K, of 350 pounds per cubic inch (pci) can be used for the subgrade soils in evaluating such deflections. This value is based on an area of 1 square foot and should be adjusted for larger mats. Adjusted values of the modulus of subgrade reaction, K_v, can be obtained from the following equation for square mats of various widths:

$$K_V = K\left[\frac{B+1}{2B}\right]^2 (pci)$$

Where, B is the width of the mat in feet.

Adjusted values of the modulus of subgrade reaction, K', can be obtained from the following equation for rectangular mats:

$$K' = \frac{K_v\left(1+0.5\left(\frac{B}{L}\right)\right)}{1.5} (pci)$$

Where, B is width the and L is the length of the mat in feet.

7.2.3 CIDH Piles

The net allowable axial downward and uplift capacities of a 24-, 30-, and 36-inch diameter CIDH pile were estimated using the computer program All-Pile v7. We assumed that downward support would be obtained from sidewall friction and end bearing in weathered granitic rock using a factor of safety of 2.0, and that uplift resistance would be obtained by sidewall friction and the weight of the pile using factors of safety of 3.0 and 1.1 for sidewall friction and the weight of the pile, respectively. Frictional and end bearing capacity was ignored in the fill and alluvium. The pile capacities are based on the strength of the soils; the strength of the pile section itself should be checked to verify the structural capacity of the pile. Piles should be spaced at least three pile diameters, center to center. Piles should be embedded at least 10 feet into competent granitic rock. Appendix E presents the recommended axial downward and uplift capacities.

Lateral loads can be resisted by passive pressure on the piles and pile caps. An allowable passive pressure of 350 psf per foot of embedment acting on twice the pile diameter up to a maximum of 5,000 psf can be used, based on a lateral deflection up to ½ inch at the ground surface and level ground conditions. The upper 1 foot of soil should not be relied on for passive support unless the ground is covered with pavements or slabs. NOVA can perform a more detailed lateral pile analysis, upon request, once boundary conditions (e.g., applied shear force/bending moment or allowable lateral deflection) are provided by the structural engineer. The axial and passive pressure values can be increased by ⅓ when considering the total of all loads, including wind or seismic forces.

Groundwater should be anticipated during pile construction. Installation of CIDH piles below groundwater will require special construction techniques and equipment, such as temporary casing and/or drilling slurry. Hard drilling conditions should be anticipated in granitic rock. Piles should be filled with concrete the same day drilled is completed. Drilled holes should not be left open overnight.

The portion of the hotel building supported on CIDH piles and underlain by the reinforced zone fill of the existing MSE retaining wall should incorporate a structural slab designed to span between the foundations without relying on support from the underlying soil.

7.2.4 Settlement Characteristics

Total foundation settlements are estimated to be less than 1 inch. Differential settlements are estimated to be less than ¾ inch between adjacent columns and across continuous footings over 40 feet. Settlements should be completed shortly after structural loads are applied.

7.2.5 Foundation Plan Review

NOVA should review the foundation plans to ascertain that the intent of the recommendations in this report has been implemented and that revised recommendations are not necessary as a result of changes after this report was completed.

7.2.6 Foundation Excavation Observations

A representative from NOVA should observe the foundation excavations prior to forming or placing reinforcing steel.

7.3. Interior Slabs-On-Grade

Interior concrete slabs-on-grade should be underlain by at least 2 feet of material with an EI of 50 or less. We recommend that conventional concrete slabs-on-grade floors be at least 5 inches thick and reinforced with at least No. 4 bars at 18 inches on center each way. To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or 'weakened plane' joints at frequent intervals. The project structural engineer should design on-grade building slabs and joint spacing.

Moisture protection should be installed beneath slabs where moisture-sensitive floor coverings will be used. The project architect should review the tolerable moisture transmission rate of the proposed floor covering and specify an appropriate moisture protection system. Typically, a plastic vapor barrier is used. Minimum 15-mil plastic is recommended. The plastic should comply with ASTM E1745. The vapor barrier installation should comply with ASTM E1643. The slab can be placed directly on the vapor barrier.

7.4. Hardscape

Hardscape should be underlain by at least 2 feet of material with an EI of 50 or less. Exterior concrete slabs should be at least 4 inches thick and reinforced with at least No. 3 bars at 18 inches on center each way. Slabs should be provided with weakened plane joints. Joints should be placed in accordance with the American Concrete Institute (ACI) guidelines. The project architect should select the final joint patterns. A 1-inch maximum size aggregate mix is recommended for concrete for exterior slabs. The corrosion potential of on-site soils with respect to reinforced concrete will need to be taken into account in concrete mix design. Coarse and fine aggregate in concrete should conform to the "Greenbook" Standard Specifications for Public Works Construction.

7.5. Conventional Retaining Walls

Conventional retaining walls can be supported on spread footings. The recommendations for spread footings provided in the foundation section of this report are also applicable to conventional retaining walls.

The active earth pressure for the design of unrestrained retaining walls with level backfill can be taken as equivalent to the pressure of a fluid weighing 35 pcf. The at-rest earth pressure for the design of restrained retaining wall with level backfill can be taken as equivalent to the pressure of a fluid weighing 55 pcf. These values assume a granular and drained backfill condition. Higher lateral earth pressures would apply if walls retain clay soils. An additional 20 pcf should be added to these values for walls with 2:1 (h:v) sloping backfill. An increase in earth pressure equivalent to an additional 2 feet of retained soil can be used to account for surcharge loads from light traffic.

The above values do not include a factor of safety. Appropriate factors of safety should be incorporated into the design. If any other surcharge loads are anticipated, NOVA should be contacted for the necessary increase in soil pressure.

The seismic earth pressure can be taken as equivalent to the pressure of a fluid pressure weighing 13 pcf. This value is for level backfill and does not include a factor of safety. Appropriate factors of safety should be incorporated into the design. This pressure is in addition to the un-factored, active earth pressure. The total equivalent fluid pressure can be modeled as a triangular pressure distribution with the resultant acting at a height of H/3 up from the base of the wall, where H is the retained height of the wall. The passive pressure and bearing capacity can be increased by ⅓ in determining the seismic stability of the wall.

Retaining walls should be provided with a backdrain to reduce the accumulation of hydrostatic pressure or be designed to resist hydrostatic pressure. Backdrains can consist of a 12-inch-wide zone of ¾-inch crushed rock. The crushed rock should be separated from the adjacent soils using a non-woven filter fabric, such as Mirafi 140N or equivalent. A perforated pipe should be installed at the base of the backdrain and sloped to discharge to a suitable storm drain facility, or weep holes should be provided. As an alternative, a geocomposite drainage system such as Miradrain 6000 or equivalent placed behind the wall and connected to a suitable storm drain facility can be used. The project architect should provide dampproofing/waterproofing specifications and details. Figure 7-2 presents a typical conventional retaining wall backdrain detail. Note that the guidance provided on Figure 7-2 is conceptual. A variety of options are available to drain retaining walls.

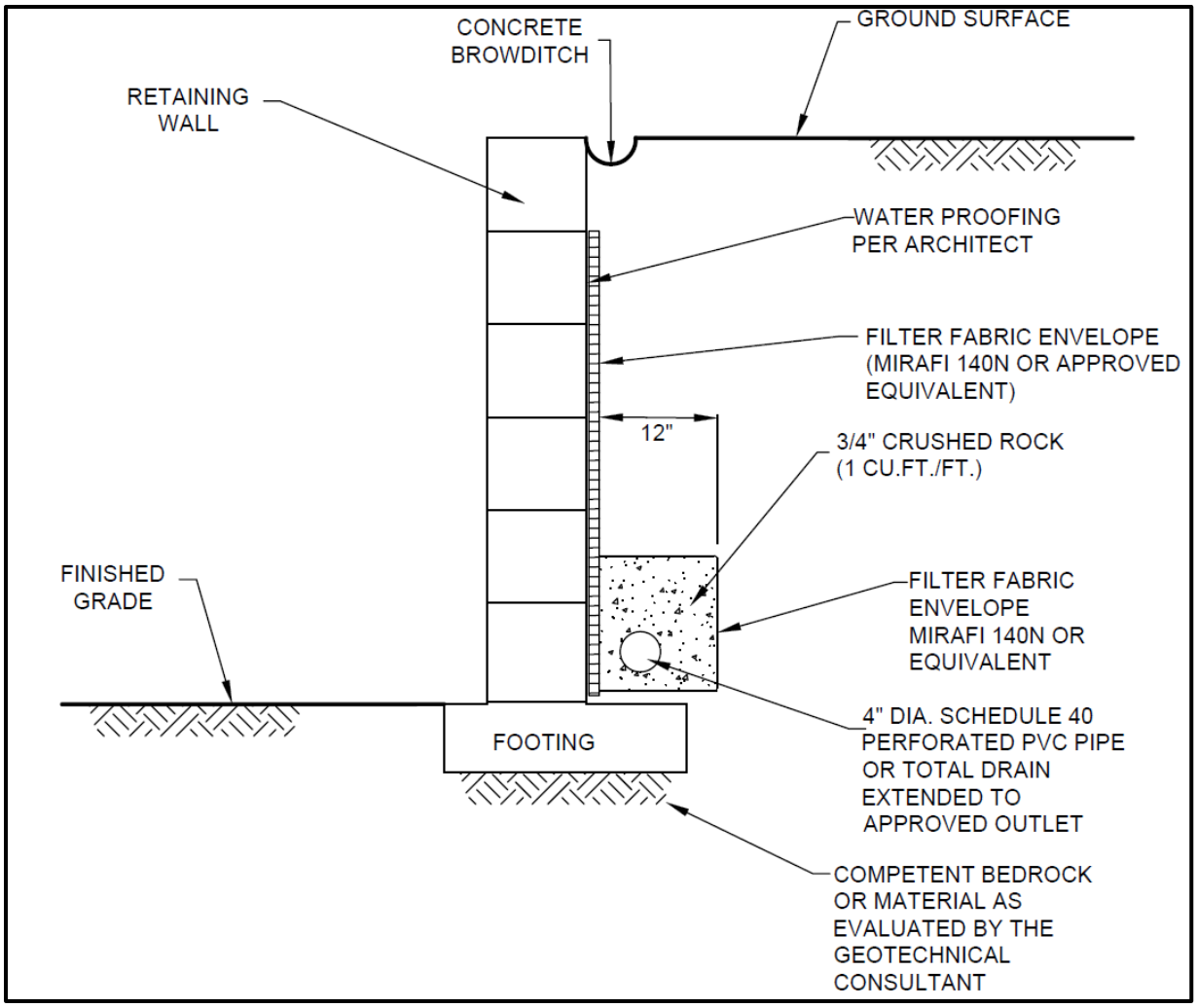


Figure 7-2. Typical Conventional Retaining Wall Backdrain Detail

Wall backfill should consist of granular, free-draining material having an expansion index of 20 or less. The backfill zone is defined by a 1:1 plane projected upward from the heel of the wall. Expansive or clayey soil should not be used. Additionally, backfill within 3 feet from the back of the wall should not contain rocks greater than 3 inches in dimension. Backfill should be compacted to at least 90% relative compaction. Backfill should not be placed until walls have achieved adequate structural strength. Compaction of wall backfill will be necessary to minimize settlement of the backfill and overlying settlement-sensitive improvements. However, some settlement should still be anticipated. Provisions should be made for some settlement of concrete slabs and pavements supported on backfill. Additionally, utilities supported on backfill should be designed to tolerate differential settlement.

7.6. Soil Nail Walls

NOVA anticipates that soil nails will be embedded in fill and weathered granitic rock. Table 7-1 summarizes the strength parameters and expected ultimate bond stresses of the materials.

Table 7-1. Soil Nail Wall Geotechnical Design Parameters

Material	Soil Design Parameters			Expected Ultimate Bond Stress (psf)
	Unit Weight (pcf)	Friction Angle (degrees)	Cohesion (psf)	
Fill	120	32	200	1000
Weathered Rock	125	45	400	5000

Expected bond stresses are an estimate. Bond stress capacity is influenced by soil and rock conditions, method of drilling, and grouting techniques. The soil nail designer should make an independent evaluation of bond stresses. The contractor should verify bond stress in the field prior to production nail installation. It is the contractor's responsibility to obtain the required bond stress.

Soil nail walls should be free draining. We recommend that minimum 2-foot wide vertical geocomposite drainage strips be placed over the face of cuts and be collected at the base of the wall and tight-lined to an appropriate outlet. Weep holes are feasible but may result in staining and algae growth on the wall face and in the street gutter.

7.7. Pipelines

For level ground conditions, a passive earth pressure of 350 psf per foot of depth below the lowest adjacent final grade can be used to compute allowable thrust block resistance. A value of 150 psf per foot should be used below groundwater level, if encountered.

A modulus of soil reaction (E') of 1,500 psi can be used to evaluate the deflection of buried flexible pipelines. This value assumes that granular bedding material is placed adjacent to the pipe and is compacted to at least 90% relative compaction.

Pipe bedding as specified in the "Greenbook" Standard Specifications for Public Works Construction can be used. Bedding material should consist of clean sand having a sand equivalent not less than 20 and should extend to at least 12 inches above the top of pipe. Alternative materials meeting the intent of the bedding specifications are also acceptable. Samples of materials proposed for use as bedding should be provided to the engineer for inspection and testing before the material is imported for use on the project. The on-site materials are not expected to meet "Greenbook" bedding specifications. The pipe bedding material should be placed over the full width of the trench. After placement of the pipe, the bedding should be brought up uniformly on both sides of the pipe to reduce the potential for unbalanced loads. No voids or uncompacted areas should be left beneath the pipe haunches. Ponding or jetting the pipe bedding should not be allowed.

Where pipeline inclinations exceed 15%, cutoff walls are recommended in trench excavations. Additionally, we do not recommend that open graded rock be used for pipe bedding or backfill because of the potential for piping erosion. The recommended bedding is clean sand having a sand equivalent not less than 20 or 2-sack sand/cement slurry. If sand/cement slurry is used for pipe bedding to at least 1 foot over the top of the pipe, cutoff walls are not considered necessary. The need for cutoff walls should be further evaluated by the project civil engineer designing the pipeline.

7.8. Pavement Section Recommendations

The pavement support characteristics of the soils encountered during our investigation are considered high. An R-value of 50 was assumed for design of preliminary pavement sections. The actual R-value of the subgrade soils should be determined after grading, and the final pavement sections provided. Based on an R-value of 50, the following preliminary pavement structural sections are provided for the assumed Traffic Indexes on Table 7-2.

Table 7-2. AC and PCC Pavement Sections

Traffic Type	Traffic Index	Asphalt Concrete (inches)	Portland Cement Concrete (inches)
Parking Stalls	4.5	3 AC / 4 AB	6 PCC
Driveways	6.0	4 AC / 4 AB	6½ PCC
Heavy Traffic Areas	7.5	5 AC / 4 AB	7 PCC

AC: Asphalt Concrete
AB: Aggregate Base
PCC: Portland Cement Concrete

Subgrade preparation should be performed immediately prior to placement of the pavement section. The upper 12 inches of subgrade should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 95% relative compaction. All soft or yielding areas should be stabilized or removed and replaced with compacted fill or aggregate base. Aggregate base and asphalt concrete should conform to the Caltrans Standard Specifications or the “Greenbook” and should be compacted to at least 95% relative compaction. Aggregate base should have an R-value of not less than 78. All materials and methods of construction should conform to good engineering practices and the minimum local standards.

7.9. Corrosivity

Representative samples of the on-site soils were tested to evaluate corrosion potential. The test results are presented in Appendix C. The project design engineer can use the sulfate results in conjunction with ACI 318 to specify the water/cement ratio, compressive strength, and cementitious material types for concrete exposed to soil. The project design engineer should review and consider the chloride content in the project design. A corrosion engineer should be contacted to provide specific corrosion control recommendations.

8. CLOSURE

NOVA should review project plans and specifications prior to bidding and construction to check that the intent of the recommendations in this report has been incorporated. Observations and tests should be performed during construction. If the conditions encountered during construction differ from those anticipated based on the subsurface exploration program, the presence of personnel from our offices during construction will enable an evaluation of the exposed conditions and modifications of the recommendations in this report or development of additional recommendations in a timely manner.

NOVA should be advised of changes in the project scope so that the recommendations contained in this report can be evaluated with respect to the revised plans. Changes in recommendations will be verified in writing. The findings in this report are valid as of the date of this report. Changes in the condition of the site can, however, occur with the passage of time, whether they are due to natural processes or work on this or adjacent areas. In addition, changes in the standards of practice and government regulations can occur. Thus, the findings in this report may be invalidated wholly or in part by changes beyond our control. This report should not be relied upon after a period of two years without a review by us verifying the suitability of the conclusions and recommendations to site conditions at that time.

In the performance of our professional services, we comply with that level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions and in the same locality. The client recognizes that subsurface conditions may vary from those encountered at the boring locations and that our data, interpretations, and recommendations are based solely on the information obtained by us. NOVA will be responsible for those data, interpretations, and recommendations, but shall not be responsible for interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty whatsoever, express or implied, is made or intended in connection with the work performed or to be performed by us, or by our proposal for consulting or other services, or by our furnishing of oral or written reports or findings.

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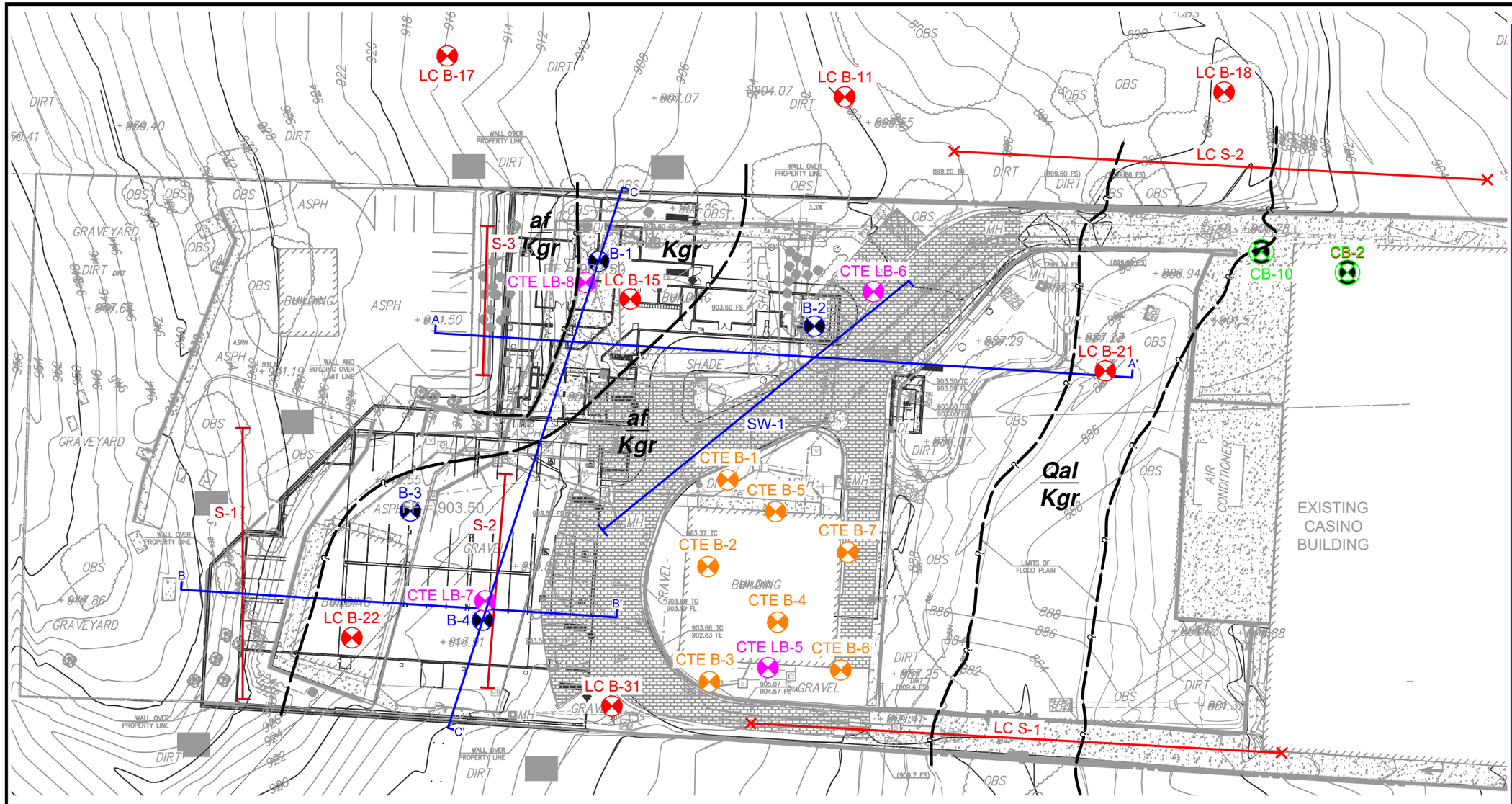
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PLATES



KEY TO SYMBOLS

af	FILL
Qal	ALLUVIUM
Kgr	GRANITIC ROCK
B-4	GEOTECHNICAL BORING (NOVA, 2022)
LC B-31	GEOTECHNICAL BORING (LC, 2001)
CTE LB-8	GEOTECHNICAL BORING (CTE, 2011)
CTE B-7	GEOTECHNICAL BORING (CTE, 2014)
CB-10	CORE BORING (CTE, 2013)
S-3	SEISMIC REFRACTION LINE (NOVA, 2022)
SW-1	SHEAR WAVE LINE (NOVA, 2022)
LC S-2	SEISMIC REFRACTION LINE (LC, 2001)
C — C'	GEOLOGIC CROSS-SECTION
—?—	GEOLOGIC CONTACT, QUERIED WHERE UNCERTAIN

0 50' 100'

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PROPOSED JAMUL CASINO EXPANSION

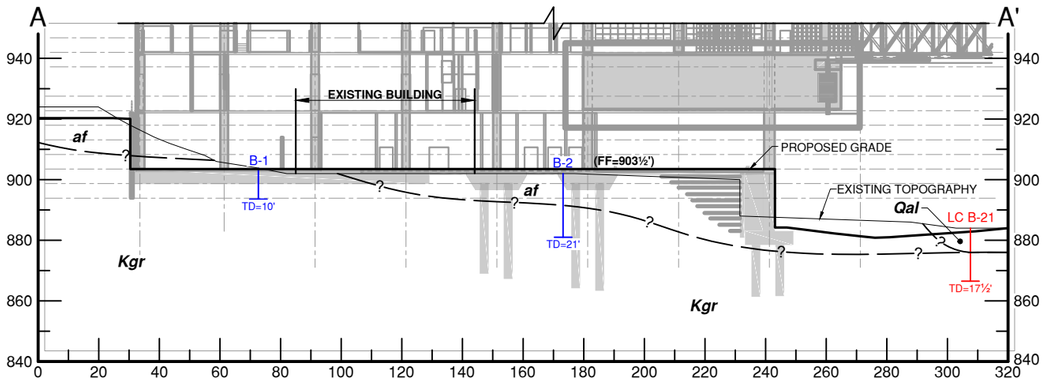
14145 CAMPO ROAD
JAMUL, CALIFORNIA

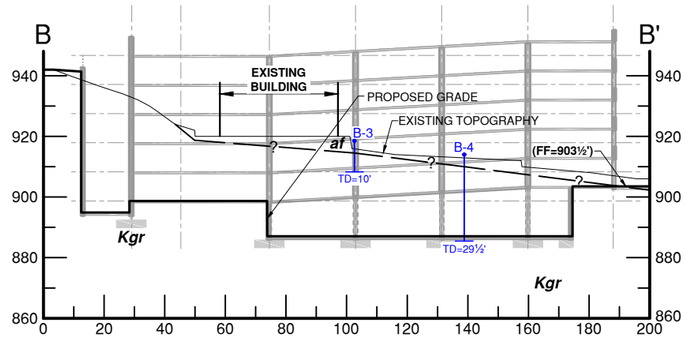
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REVIEWED BY:	WLV
SCALE:	1"=50'

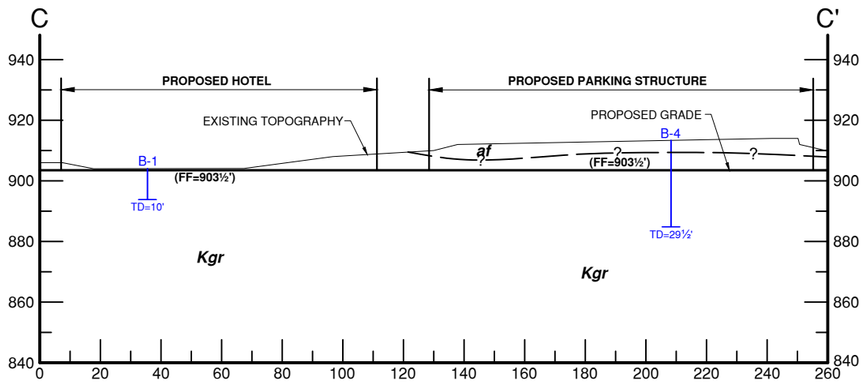
DRAWING TITLE:

GEOTECHNICAL MAP

PLATE NO. 1 OF 2







KEY TO SYMBOLS

af	FILL
Qal	ALLUVIUM
Kgr	GRANITIC ROCK
B-4 ⊥	GEOTECHNICAL BORING (NOVA, 2022)
LC B-21 ⊥	GEOTECHNICAL BORING (LC, 2001)
—?—	GEOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
———	EXISTING TOPOGRAPHY
———	PROPOSED GRADE

0 50' 100'

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PROPOSED JAMUL CASINO EXPANSION

14145 CAMPO ROAD
JAMUL, CALIFORNIA

PROJECT NO.:	2022087
DATE:	JULY 2022
DRAWN BY:	DTJ
REVIEWED BY:	MLV
SCALE:	1"=50'

DRAWING TITLE:

GEOLOGIC
CROSS-SECTIONS
A-A', B-B', & C-C'

Appendix I sub-appendices available upon request.

Appendix J

Environmental Noise Assessment

Environmental Noise Assessment

Jamul Casino Hotel and Event Center

Jamul Indian Village, California

September 23, 2022

Project #220407

Prepared for:

Jamul Indian Village Development Corporation
14191 Highway 94
Jamul, CA 91935

Prepared by:

Saxelby Acoustics LLC





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INTRODUCTION

Saxelby Acoustics was retained to perform a noise study for the proposed Jamul Casino Hotel and Event Center Project.

The Jamul Indian Village Development Corporation, a wholly owned subsidiary and instrumentality of the Jamul Indian Village of California (Tribe), owns and operates the Jamul Casino situated on federally owned land that is held in trust for the Tribe and located at 14145 Campo Road, Jamul, CA 91935 (Reservation). The Jamul Casino is operated pursuant to the Tribal-State Compact between the State of California and the Jamul Indian Village of California (Compact). Section 11 of the Compact requires that, before beginning the construction of any new "Project" (as defined in Section 2.22 of the Compact), the Tribe must prepare a Tribal Environmental Impact Report (TEIR) analyzing the potentially significant off-Reservation environmental impacts of that Project. That environmental analysis is to be conducted pursuant to the process described in the Compact.

The Tribe has authorized the preparation of a TEIR for a potential project on the Reservation that would remodel the existing Jamul Casino to include a new event center and 226-room hotel (Proposed Project). The Proposed Project is a "Project" under the Compact and, therefore, requires a TEIR. This study has been prepared to assist with the noise section of the TEIR.

PROJECT DESCRIPTION

The Proposed Project consists of remodeling the existing Jamul Casino to include a new event center, 225-room hotel, and associated parking and infrastructure. Currently, the Jamul Casino occupies four levels above an eight-level parking garage. The main casino floor is the first building floor and there are three floor levels above main casino floor. The second floor is a partial level that provides a restaurant with veranda and allows circulation between the main casino floor and the fourth floor. The third floor provides kitchen and administrative office space. The fourth floor is a partial level that provides a rooftop lounge terrace.

The proposed remodeling would eliminate the second floor and the fourth floor and expand the third floor to accommodate an approximately 25,500 square-foot (sf) outdoor, covered event venue and associated lounge areas; an approximately 9,250 sf enclosed multi-purpose/bingo hall; and associated back-of-house, restrooms, and circulation. The existing restaurant located on the second floor of the casino building would be relocated to the third floor with no changes in occupant capacity. Approximately 11,838 sf of existing office space on the eastern portion of the third floor would be relocated to an expanded area of the western portion of the third floor. The new event venue would result in a net increase of approximately 35,000 sf of enclosed, covered outdoor, and uncovered outdoor areas. No expansion of the gaming floor or increase in the number of slot machines or table games is proposed.

A new hotel and associated parking structure would be developed west of the existing casino building with pedestrian access to the casino building provided by a new bridge over Willow Creek, which bisects the Reservation immediately west of the existing casino building. The proposed 225-room hotel would consist of 16 stories including a banquet hall, a hotel lobby level with restaurant, a spa level with outdoor deck, 10 levels of guest rooms (Floors 5 through 14), a rooftop pool deck (Floor 16), and 2 levels of back-

of-house/mechanical (Floors 1 and 15). The height of the hotel tower would be at an elevation of approximately 1,128 feet above mean sea level (amsl), which is approximately 225 feet above ground level and 116 feet taller than the existing casino building. A new 6-story parking structure would be developed south of the new hotel building and would connect to the hotel lobby. The existing tribal community center and administration building would be removed to accommodate the footprint of the new hotel and parking structure. There are several options under consideration for relocation of the Tribal administration and community facilities, including utilizing space within the expanded third floor administrative areas of the casino, purchase of an off-site property with an existing building, or leasing existing office space within the region. The current administration building may be relocated to an existing concrete pad associated with a former fire department building on the 4-acre parcel north of the reservation and utilized for the tribal security department.

Construction activities associated with the Proposed Project are proposed to commence in 2023 and may take place over 18-24 months. Construction of the Proposed Project will take place in phases, with construction of the parking garage commencing first, followed by construction activities associated with the hotel tower. During the initial construction of the parking garage, equipment and materials staging will occur within the western area of the trust parcel, with the 4-acre parcel occasionally being utilized as a temporary staging area for deliveries and equipment. Following completion of 4-5 levels of the parking structure, construction of the hotel tower will commence, with the top level of the parking structure being utilized for equipment and materials laydown, and the lower levels of the garage being utilized for construction worker parking. If required, construction staging and employee parking may also occur within previously paved/disturbed off-reservation locations/parking lots, with shuttles potentially utilized to transport workers to the project site.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site and existing buildings.



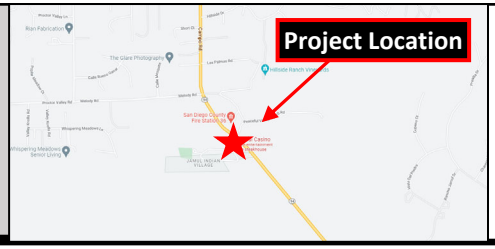
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Jamul Casino Hotel and Event Center

Jamul Indian Village, California

Figure 1

Project Site Plan



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Jamul Casino Hotel and Event Center

Jamul Indian Village, California

Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Long Term
- Noise Measurement Site - Short Term

125 ft 375 ft 625 ft 875 ft

Projection: UTM Zone 11 / WGS84 / meters
Rev. Date: 09/14/2022

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ENVIRONMENTAL SETTING

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family (zoned rural residential) uses located approximately 0.25 miles north and west of the project site and single-family (zoned agricultural) uses located approximately 0.25 miles northeast of the site.

EXISTING GENERAL AMBIENT NOISE LEVELS

EXISTING AMBIENT NOISE LEVELS

The existing noise environment in the project area is defined primarily by vehicle traffic on Campo Road (SR-94) and aircraft overflights to/from the San Diego International Airport. Occasional event noise from the existing Jamul Casino rooftop event center is also audible at times, primarily at locations east of the event center.

To quantify the existing ambient noise environment on the project site, Saxelby Acoustics conducted a continuous noise measurement survey. The noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a LDL Model CAL-200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Date	Average Measured Hourly Noise Levels, dBA						
			Daytime (7:00 am - 10:00 pm)			Nighttime (10:00 pm – 7:00 am)		
		L_{dn}	L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
Continuous 24-hour Noise Measurement Site								
LT-1	Saturday/Sunday April 16-17, 2022	52	53	38	72	40	28	67
LT-2	Saturday/Sunday April 16-17, 2022	64	61	58	79	57	48	72
LT-3	Saturday/Sunday April 16-17, 2022	49	48	42	63	40	34	57
ST-1	Saturday (4/16/22) 4:35 p.m.	N/A	50	41	68	N/A	N/A	N/A
	Saturday (4/16/22) 6:12 p.m.*	N/A	55	38	81	N/A	N/A	N/A
	Saturday (4/16/22) 8:18 p.m.*	N/A	50	33	71	N/A	N/A	N/A
ST-2	Saturday (4/16/22) 5:14 p.m.	N/A	46	41	59	N/A	N/A	N/A
	Saturday (4/16/22) 5:29 p.m.*	N/A	46	42	62	N/A	N/A	N/A
	Saturday (4/16/22) 8:37 p.m.*	N/A	42	39	58	N/A	N/A	N/A

*Data collected during concert event at existing rooftop event center. Concert ran from approximately 5:30 p.m. to 9:00 p.m. on Saturday, April 16, 2022.
Source: Saxelby Acoustics – 2022

FUTURE TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

Off-Site Traffic Noise Impact Assessment Methodology

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors with and without the proposed project for existing and cumulative traffic conditions.

Existing and cumulative noise levels due to traffic are calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the traffic engineer, truck usage was obtained from Caltrans, and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Existing and Cumulative conditions which would result from the project are provided in terms of L_{dn}.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment.

Table 3 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. **Appendix C** provides the complete inputs and results of the FHWA traffic modeling.

TABLE 3: PREDICTED EXTERIOR NOISE LEVEL (DBA CNEL/L_{DN}) AT CLOSEST SENSITIVE RECEPTORS

Condition	SR-94
Existing	64.5 dBA
Existing + Project	65.0 dBA
Change	+0.5 dBA
Cumulative	67.2 dBA
Cumulative + Project	67.5 dBA
Change	+0.3 dBA

Based upon the **Table 3** data, the proposed project is predicted to result in an increase in a maximum traffic noise level increase 0.5 dBA.

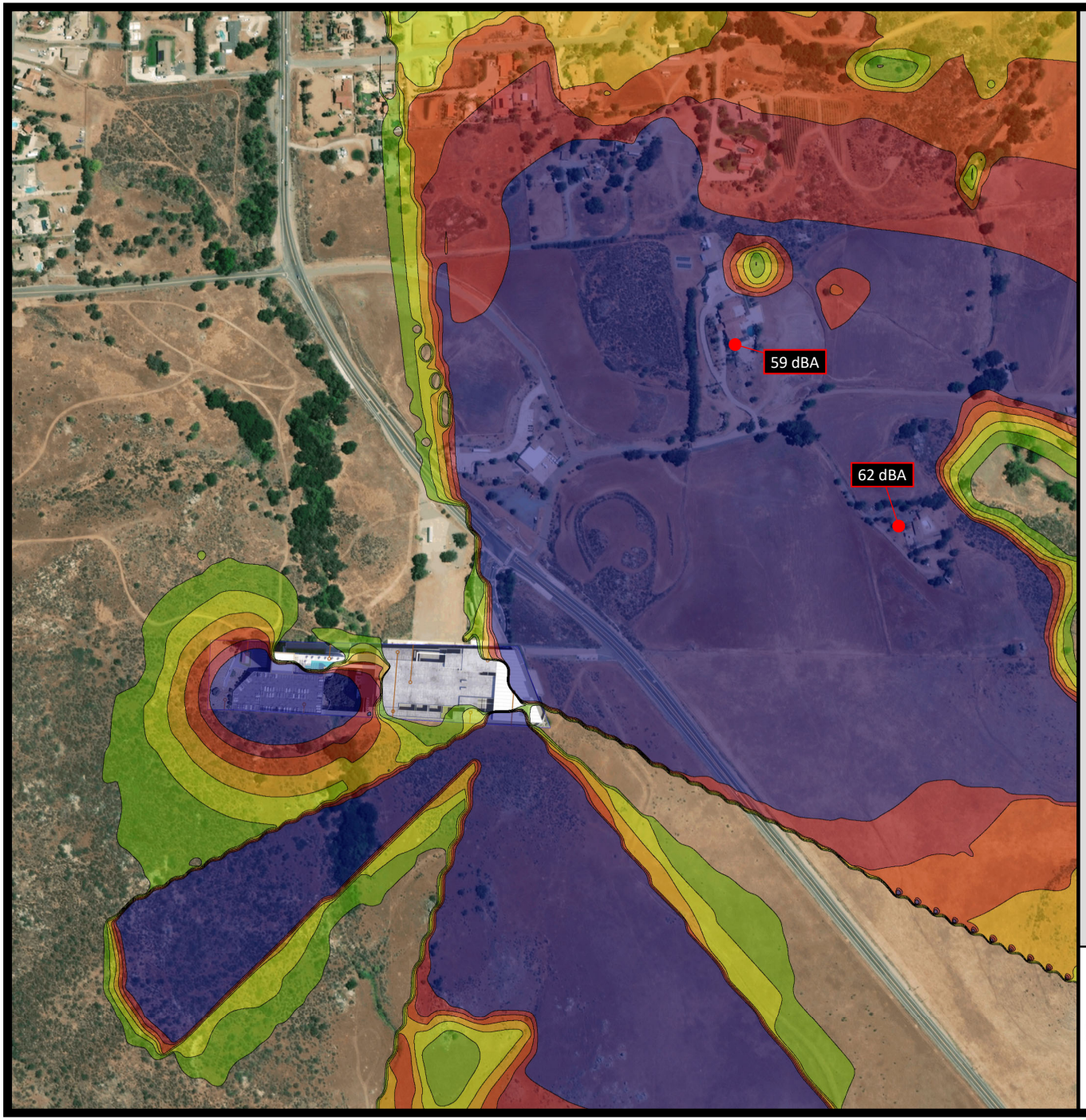
EVALUATION OF PROJECT-GENERATED NOISE AT RESIDENTIAL RECEPTORS

In addition to increased site traffic, the new hotel parking garage, hotel rooftop pool, and expanded event center are the primary noise sources for this project. This analysis considers each of these primary noise sources.

The following is a list of assumptions used for the noise modeling. The data used is based upon a combination of manufacturer's provided data and Saxelby Acoustics data from similar operations.

Rooftop Pool:	Saxelby Acoustics used data from a large (46,000 sf) pool deck to estimate noise generation by the proposed 14,608 sf rooftop pool deck located on the 16th floor of the hotel. The sound level for the 46,000 sf pool deck was 61 dBA L_{eq} at a distance of 200 feet.
Hotel Parking Garage:	Saxelby Acoustics modeled the noise level increase due to construction of the new 6-story 290 space parking lot. The analysis assumes that the parking garage could fill or empty in a peak hour.
Event Center:	Saxelby Acoustics assumed a sound system output of 90 dBA L_{eq} at 100 feet for the proposed covered outdoor event center to be located on the third floor. This level of sound is considered typical of a large concert event with an A-list type performer.

Saxelby Acoustics used the SoundPLAN noise prediction model. Inputs to the model included sound power levels for the proposed event center, existing and proposed mechanical equipment, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation. **Figure 3** shows the proposed project noise contours.



Jamul Casino Hotel and Event Center

Jamul Indian Village, California

Figure 3

Project Stationary Noise Contours (dBA L_{eq})

Noise Level, dB(A)

45 <		<=	47
47 <		<=	49
49 <		<=	51
51 <		<=	53
53 <		<=	55
55 <			

Scale 1:500

0 100 200 400 600 800 feet

N

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CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 4: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

Table 5 shows the typical vibration levels produced by construction equipment.

TABLE 5: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

REGULATORY CONTEXT

Relevant regulations for the off-Reservation environment are discussed below.

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project. Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The federal truck pass-by noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

STATE

There are no state regulations related to noise that apply to the Proposed Project. The California Code of Regulations has guidelines for evaluating the compatibility of various off-Reservation land uses as a function of community noise exposure. The State also establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by State and local law enforcement officials

LOCAL

San Diego County General Plan

The Noise Element of the General Plan identifies noise and land use compatibility standards for various land uses. The land use compatibility table is reproduced in **Table 6** below:

TABLE 6: NOISE COMPATIBILITY GUIDELINES (TABLE N-1)

	Land Use Category	Exterior Noise Level (CNEL)						
			55	60	65	70	75	80
A	Residential—single family residences, mobile homes, senior housing, convalescent homes							
B	Residential—multi-family residences, mixed-use (commercial/residential)							
C	Transient lodging—motels, hotels, resorts							
D*	Schools, churches, hospitals, nursing homes, child care facilities							
E*	Passive recreational parks, nature preserves, contemplative spaces, cemeteries							
F*	Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation							
G*	Office\professional, government, medical\dental, commercial, retail, laboratories							
H*	Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair							

ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table N-2, Noise Standards. If a project cannot mitigate noise to a level deemed Acceptable, the appropriate county decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.

UNACCEPTABLE—New construction or development shall not be undertaken.

* Denotes facilities used for part of the day; therefore, an hourly standard would be used rather than CNEL (refer to Table N-2).

The County's General Plan Noise Element also provides recommendations for maximum noise levels for various uses. These recommendations are reproduced in **Table 7** below:

TABLE 7: NOISE STANDARDS (TABLE N-2)

1. The exterior noise level (as defined in item 3) standard for Category A shall be 60 CNEL, and the interior noise level standard for indoor habitable room shall be 45 CNEL.
2. The exterior noise level standard for Categories B and C shall be 65 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
3. The exterior noise level standard Categories D and G shall be 65 CNEL and the interior noise level standard shall be 50 dBA L_{eq} (one hour average).
4. For single-family detached dwelling units, "exterior noise level" is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: (i) for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, (ii) for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; (iii) for lots over 10 acres in area, the exterior area shall include 1 acre.
5. For all other residential land uses, "exterior noise level" is defined as noise measured at exterior areas which

are provided for private or group usable open space purposes. “Private Usable Open Space” is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. “Group Usable Open Space” is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways.
6. For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use.
7. For noise sensitive land uses where people normally do not sleep at night, the exterior and interior noise standard may be measured using either CNEL or the one-hour average noise level determined at the loudest hour during the period when the facility is normally occupied.
8. The exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library.
9. For Categories E and F the exterior noise level standard shall not exceed the limit defined as “Acceptable” in Table N-1 or an equivalent one-hour noise standard.

Note: Exterior Noise Level computability guidelines for Land Use Categories A-H are identified in Table N-1, Noise Compatibility Guidelines.

Policy N-3.1 Groundborne Vibration. Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to groundborne vibration from trains, construction equipment, and other sources.

Policy N-4.6 Road Improvement Projects. For County road improvement projects, evaluate the proposed project against ambient noise levels to determine whether the project would increase ambient noise levels by more than three decibels. If so, apply the limits in the noise standards listed in Table N-2 for noise sensitive land uses that may be affected by the increased noise levels. For federally-funded roadway construction projects, use the limits in the applicable Federal Highway Administration Standards.

County of San Diego Municipal Code

The County of San Diego Municipal Code Section 36.404 establishes general sound limits for stationary noise sources. The relevant criteria are reproduced below:

Sec. 36.404. General Sound Level Limits.

(a) Except as provided in section 36.409 of this chapter, it shall be unlawful for any person to cause or allow the creation of any noise, which exceeds the one-hour average sound level limits in Table 36.404, when the one-hour average sound level is measured at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise.

TABLE 8: SOUND LEVEL LIMITS IN DECIBELS (DBA)

Zone	Time	One-Hour Average Sound Level Limits (dBA)
(1) RS, RD, RR, RMH, A70, A72, S80, S81, S90, S92, RV, and RU with a General Plan Land Use Designation density of less than 10.9 dwelling units per acre.	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
(2) RRO, RC, RM, S86, FB-V5, RV and RU with a General Plan Land Use Designation density of 10.9 or more dwelling units per acre.	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
(3) S94, FB-V4, AL-V2, AL-V1, AL-CD, RM-V5, RM-V4, RM-V3, RM-CD and all commercial zones.	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
(4) FB-V1, FB-V2, RM-V1, RM-V2	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
FB-V1, RM-V2	10 p.m. to 7 a.m.	55
FB-V2, RM-V1	10 p.m. to 7 a.m.	50
FB-V3	7 a.m. to 10 p.m.	70
	10 p.m. to 7 a.m.	65
(5) M50, M52, and M54	Anytime	70 70
(6) S82, M56, and M58.	Anytime	75
(7) S88 (see subsection (c) below)		

Source: County of San Diego Municipal Code Table 36.404

(c) S88 zones are Specific Planning Areas which allow different uses. The sound level limits in Table 36.404 above that apply in an S88 zone depend on the use being made of the property. The limits in Table 36.404, subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52 or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

(d) If the measured ambient noise level exceeds the applicable limit in Table 36.404, the allowable one-hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(e) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, however, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is located.

Sec. 36.408. Hours of Operation of Construction Equipment.

Except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment:

(a) Between 7 p.m. and 7 a.m.

(b) On a Sunday or a holiday. For purposes of this section, a holiday means January 1st, the last Monday in May, July 4th, the first Monday in September, the fourth Thursday in November and December 25th. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10 a.m. and 5 p.m. at the person's residence or for the purpose of constructing a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limitations in sections 36.409 and 36.410.

(Amended by Ord. No. 9962 (N.S.), effective 1-9-09; amended by Ord. No. 10364 (N.S.), effective 1-2-15)

Sec. 36.409. Sound Level Limitations on Construction Equipment.

Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 decibels for an eight-hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

(Amended by Ord. No. 9700 (N.S.), effective 2-4-05; amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.410. SOUND LEVEL LIMITATIONS ON IMPULSIVE NOISE.

In addition to the general limitations on sound levels in section 36.404 and the limitations on construction equipment in section 36.409, the following additional sound level limitations shall apply:

(a) Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410A, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410A are as described in the County Zoning Ordinance.

TABLE 9: MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY

Occupied Property Use	Decibels (dBA)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

Source: County of San Diego Municipal Code Table 36.410A

(b) Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410B, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as

described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410B are as described in the County Zoning Ordinance.

TABLE 10: MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY FOR PUBLIC ROAD PROJECTS

Occupied Property Use	Decibels (dBA)
Residential, village zoning or civic use	85
Agricultural, commercial or industrial use	90

Source: County of San Diego Municipal Code Table 36.410B

(c) The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

(Added by Ord. No. 9962 (N.S.), effective 1-9-09)

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 11**, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second. The **Table 11** data indicate that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 11: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" dam age and possibly minor structural damage

Source: *Transportation Related Earthborne Vibrations.* Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

The following checklist is used to evaluate off-Reservation environmental noise impacts.

Would the project result in:

a. Exposure of off-reservation persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Exposure of off-reservation persons to excessive groundborne vibration or groundborne noise levels?

c. A substantial permanent increase in ambient noise levels in the off-reservation vicinity of the project?

d. A substantial temporary or periodic increase in ambient noise levels in the off-reservation vicinity of the project?

Determination of a Significant Increase in Noise Levels

Temporary Construction Noise Impacts

For short-term noise associated with Project construction, Saxelby Acoustics recommends use of the Caltrans increase criteria of 12 dBA (Caltrans, 2020).

Operational Impacts

Policy N-4.6 of the San Diego County General Plan Noise Element establishes a 3 dBA ambient noise level increase as the threshold of significance of County road improvement projects. Therefore, this analysis will also apply a 3 dBA CNEL/L_{dn} test of significance to traffic noise increases associated with the proposed project. Additionally, the project should not cause traffic noise to exceed the San Diego County General Plan Noise Element 60 dBA CNEL exterior noise standard applied to residential uses.

For stationary (non-transportation) noise increases, the San Diego County General Plan and Noise Ordinance do not specify a threshold of significance. Considering that a 3 dBA change is typically considered to be barely perceptible, Saxelby Acoustics recommends 5 dBA as a threshold for evaluating non-transportation noise level increases. 5 dBA is typically accepted the point at which a noticeable change in human response would be expected. Additionally, the project should not cause stationary noise levels to exceed the San Diego County Noise Ordinance standards of 50 dBA hourly average (L_{eq}) during daytime (7am-10pm) hours and 45 dBA L_{eq} during nighttime (10 pm to 7 am) hours.

Vibration Impacts

Policy N-3.1 of the San Diego County General Plan Noise Element establishes the Federal Transit Administration and Federal Railroad Administration (FTA) guidelines for limiting groundborne vibration from trains, construction equipment, and other sources at sensitive receptors. The proposed project would not create substantial sources of operational ground vibration. However, construction activities could generate substantial groundborne vibrations. Therefore, the FTA construction vibration limit of 0.2 in/sec Peak Particle Velocity (PPV) for non-engineered timber and masonry buildings would be the most applicable standard for the nearby sensitive receptors. This is also consistent with the Caltrans guidelines outlined in **Table 11**.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 1: WOULD THE PROJECT RESULT IN EXPOSURE OFF-RESERVATION PERSONS TO NOISE LEVELS IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?

Traffic Noise Levels

The maximum increase is traffic noise at the nearest sensitive receptor is predicted to be 0.5 dBA CNEL/Ldn as shown in **Table 3**. This is less than the 3 dBA test of significance. Additionally, the proposed project is not predicted to cause existing receptors to be exposed to exterior noise levels exceeding 60 dBA CNEL.

It should be noted that existing receptors located along SR-94 are predicted to be exposed to exterior noise levels of 64.5 dBA under existing conditions and 67.2 dBA under cumulative conditions without the project. With the project, exterior noise exposure would increase to 65.0 dBA under existing conditions and 67.5 dBA under cumulative conditions with the proposed project. Therefore, the nearest receptors located along SR-94 are currently, and will remain, exposed to exterior noise levels exceeding the County's 60 dBA CNEL noise standard with and without the project. The project's contribution to increased noise levels is only 0.5 dBA which does not exceed the 3 dBA test of significance.

Therefore, this portion of the impact is less than significant.

Operational Noise at Sensitive Receptors

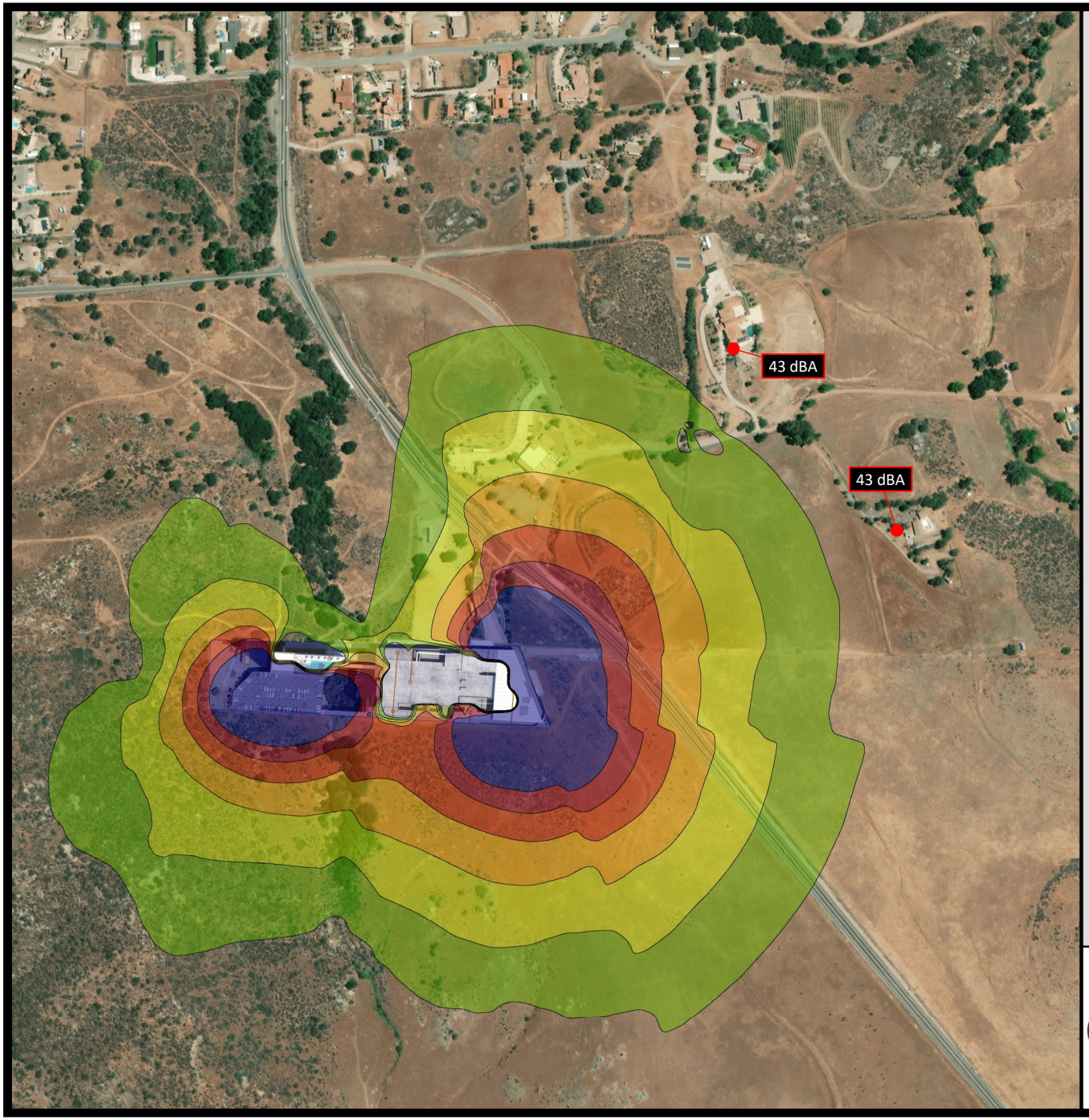
Based upon **Figure 3**, project-related noise levels are expected to be up to 62 dBA L_{eq} at the nearest sensitive receptors. This would exceed the County's daytime 50 dBA L_{eq} and nighttime 45 dBA L_{eq} noise standards. The noise levels are due primarily to special event noise from the expanded event center.

Therefore, impacts resulting from increased stationary noise would be considered ***significant***.

In order to reduce exterior noise levels from the proposed project to less than significant Saxelby Acoustics analyzes potential mitigation measures for the event center. As currently designed, the facility has a high roof deck with a glass wall around the perimeter. This design would do little to control noise from leaving the facility to the east. In order to achieve noise control during concert events, the gap between the roof deck and the floor of the event center needs to be enclosed. This could be accomplished by using an operable wall system that could be closed to concert events. An operable wall system, such as NanaWall would have dual pane window panels that could be slid into a closed position during concerts but left open during events without amplified sound. Acoustical curtains could potentially be used for this as well.

In order to model the event center as an enclosed facility, a minimum sound transmission class (STC) rating of 26 was assumed for all exterior roof/wall assemblies. As noted, this could be accomplished with the use of typical exterior wall/roof assemblies, glazing, operable walls (NanaWall, or similar), sound control curtains, etc. as long as the facility is enclosed during special events which include use of amplified sound. **Figure 4** shows the resulting noise levels with MM N-1.

It should be noted that a typical stucco wall assembly has an STC rating of approximately 40, a typical commercial roof deck has an STC rating of approximately 35-40, and a typical commercial dual glazed window or glass wall has an STC rating of 26, or higher, and the NanaWall operable wall system has STC ratings as high as 43. Therefore, achieving the STC 26 requirement would be feasible using typical building construction methods.



Jamul Casino Hotel and Event Center

Jamul Indian Village, California

Figure 4

Post Mitigation Project-Related Stationary Noise Contours (dBA L_{eq})

Noise Level, dB(A)

45 <		<=	47
47 <		<=	49
49 <		<=	51
51 <		<=	53
53 <		<=	55
55 <			

Scale 1:500

0 100 200 400 600 800 feet

N

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Mitigation Measure(s)

MM: N-1A *The event center should be designed to provide a minimum sound transmission class (STC) rating of 26 for all exterior wall/roof assemblies during special events which include use of amplified sound. This could be accomplished with the use of typical exterior wall/roof assemblies, glazing, operable walls, etc. The tribe shall engage a qualified acoustical engineer during the architectural design process to ensure that the acoustical requirements are achieved in the building design process.*

MM: N-1B *The tribe shall engage a qualified acoustic engineer during the first three concerts to verify that the facility is achieving compliance with the applicable exterior noise standards at the nearest residential uses.*

With implementation of MM N-1, this would be less than significant impact.

IMPACT 2: WOULD THE PROJECT RESULT IN EXPOSURE OF OFF-RESERVATION PERSONS TO EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORENE NOISE LEVELS?

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 5** data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from typical construction activities. At distances greater than 26 feet construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

This is a **less-than-significant** impact and no mitigation is required.

IMPACT 3: WOULD THE PROJECT RESULT IN A SUBSTANTIAL PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE OFF-RESERVATION VICINITY OF THE PROJECT?

Traffic Noise Levels

As noted in Impact 1, the maximum increase is traffic noise at the nearest sensitive receptor is predicted to be 0.4 dBA as shown in **Table 3**. This is less than the 3 dBA test of significance.

Operational Noise at Sensitive Receptors

With Mitigation Measures N-1, exterior noise levels due to the proposed project are expected to be limited to 43 dBA L_{eq} at the nearest residential uses. As shown in **Table 2**, the nearest residential uses are currently exposed to average nighttime noise levels of 40 dBA L_{eq} (Site LT-3). When combined with the existing ambient noise level, total existing plus project stationary noise levels would be 44.8 dBA L_{eq}. This would be a maximum increase of 4.8 dBA which is less than the 5 dBA test of significance.

This is a **less-than-significant** impact, and no additional mitigation is required.

IMPACT 4: WOULD THE PROJECT RESULT IN A SUBSTANTIAL TEMPORARY OR PERIODIC INCREASE IN AMBIENT NOISE LEVELS IN THE OFF-RESERVATION VICINITY OF THE PROJECT?

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

The nearest residential uses are located approximately 1,500 feet from the project site, as measured from the center of the closest construction area (hotel or event center). At this distance, maximum construction noise levels would be in the range of 35-49 dBA L_{eq} and 45-59 dBA L_{max} at the nearest residential uses. This would comply with the County's 75 dBA L_{eq} noise limit for 7 a.m. to 7 p.m. construction activity noise limit outlined in Section 36.409 of the Noise Ordinance. It should be noted that construction activity outside of these hours could exceed the County's 45 dBA L_{eq} nighttime noise standard. Therefore, this is a potentially significant impact.

Existing daytime ambient noise levels were found to be in the range of 48-53 dBA L_{eq} and 63-72 dBA L_{max}, as shown in **Table 2** for sites LT-1 and LT-3. Therefore, the predicted construction noise levels of 35-49 dBA L_{eq} and 45-59 dBA L_{max} would generally be less than existing ambient noise levels and would not cause an increase exceeding the 12 dBA test of significance for temporary construction noise.

Mitigation Measure(s)

MM (N-2) Construction activity should be limited to the hours of 7 a.m. to 7 p.m.

With implementation of MM N-2, this would be less than significant impact.

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Appendix J sub-appendices available upon request.

Appendix K

Trip Generation Analysis Memorandum

Kimley»Horn

MEMORANDUM

To: Ryan Sawyer, AICP
Project Director
Acorn Environmental

From: Leonardo Espelet, P.E., T.E.
Whitney DiGiantommaso, P.E.
Kimley-Horn and Associates, Inc.

Date: September 26, 2022

Subject: Jamul Casino Hotel and Event Center Environmental Impact Report (TEIR) Trip Generation Analysis

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This memorandum has been prepared to assist with the preparation of the Jamul Indian Village Tribal Environmental Impact Report (TEIR) in support of the proposed hotel and event center at the existing Jamul Casino. This memorandum includes a summary of the traffic data collected at the Jamul Casino's main access driveway and the trip generation potential of the proposed hotel and event center for comparison with the trip generation and distribution assumptions that were studied in the approved Jamul Indian Village Gaming Project Traffic Impact Study, dated November 2012 (Approved TIS). The Approved TIS was included as Appendix 10 of the January 2013 Final Tribal Environmental Evaluation (FTEE) prepared in accordance with the Tribal-State Gaming Compact for the Jamul Indian Village Gaming Development Project. The results of the trip generation potential are compared to the Approved TIS to determine if the mitigations established for the approved Casino project would be sufficient to mitigate the Casino with the hotel and event center development. The mitigations from the FTEE are listed in **Table 1** with mitigation status as of July 2022.

Traffic Data Collection

Driveway inbound/outbound vehicle counts were collected by National Data and Surveying Services (NDS) at the main Casino access driveway (SR-94 and Daisy Drive) for the following dates in 2022 to quantify the actual traffic being generated by the Jamul Casino.

- Saturday, April 16
- Tuesday, April 19 through Saturday, April 23
- Tuesday, April 26 through Saturday, April 30

Table 2 summarizes the vehicular counts for the average weekday (Tuesday – Thursday), Friday, and Saturday and includes the trip generation assumptions that were analyzed in the Approved TIS for comparison. For the purposes of this study, the AM and PM peak hours of the adjacent street were used for consistency with the Approved TIS. It should be noted that live entertainment (e.g., band and/or disc jockey) occurred on Thursday, Friday, and Saturday throughout the duration of the data collection period.

Table 1: Final Tribal Environmental Evaluation Mitigations and Status

SR 94 (Campo Rd) & Jamacha Blvd (intersection)	Restripe NB thru shared left-turn lane to a NB thru shared right-turn lane (Including required traffic signal modifications).	JIV is processing permit for construction
SR 94 (Campo Rd) & Jamacha Rd (intersection)	Add second EB right-turn lane. Extend NB left turn lane pocket.	JIV is processing permit for construction
SR 94 (Campo Rd) & Steele Canyon Rd (intersection)	Add a second EB and WB thru lane.	JIV is in the planning and right-of-way acquisition process
SR 94 (Campo Rd) & Lyons Valley Rd (intersection)	Install Traffic Signal	Completed
SR 94 (Campo Rd) & Melody Rd (intersection)	Install Traffic Signal	JIV is in the planning and right-of-way acquisition process
	Restripe NB shared left/through/right-turn lane to a NB thru shared right-turn lane and add a NB left-turn lane. Restripe SB shared left/through/right-turn lane to a SB thru shared right-turn lane and add a NB left-turn lane.	JIV is in the planning and right-of-way acquisition process
SR 94 (Campo Rd) & Daisy Drive (intersection)	Construct a new access point for the Project	Completed
SR 94 (Campo Rd) & Maxfield Rd (intersection)	Restripe NB and SB approaches along SR 94 to include a two-way left-turn acceleration lane	JIV is processing permit for construction
The Tribe shall pay its fair share of the traffic improvements identified as part of the Approved TIS and the agreed upon fees stated in the Intergovernmental Agreement between the County of San Diego and JIV, dated May 16, 2016		Completed
The Tribe shall pay its fair share of the traffic improvements identified as part of the Approved TIS and the agreed upon fees stated in the Intergovernmental Agreement between the County of San Diego and JIV, dated May 16, 2016		Completed
Note: JIV = Jamul Indian Village | NB = Northbound | SB = Southbound | EB = Eastbound | WB = Westbound		

Table 2: Casino Trip Generation Comparison

Weekday	Estimated	9,000	0.70 : 0.30	599	420	179	0.53 : 0.47	1,005	533	472
	Actual	9,885	0.67 : 0.33	263	176	87	0.57 : 0.43	640	365	275
Friday	Estimated	9,000					0.46 : 0.54	1,401	645	756
	Actual	10,811					0.59 : 0.41	663	392	271
Saturday	Estimated	9,000					0.46 : 0.54	1,401	645	756
	Actual	13,039					0.53 : 0.47	825	435	390

Note:
1. Difference is calculated as actual minus estimated
2. Used the following peak hours of the casino:
   - Weekday AM: 8:00 AM – 9:00 AM
   - Weekday PM: 5:00 PM – 6:00 PM
   - Friday PM: 5:00 PM – 6:00 PM
   - Saturday PM: 7:15 PM – 8:15 PM
3. Percent difference calculation

Based on the data collected, the Casino generated the following:

- **Weekday:** Average of 9,885 daily trips, with 263 (176 in, 87 out) trips during the AM peak hour and 640 (365 in, 275 out) during the PM peak hour. Volumes collected were 885 daily trips higher than what was analyzed in the Approved TIS. However, AM and PM peak hour volumes were 56 and 36 percent lower than what was previously assumed in the Approved TIS, respectively.
- **Friday:** Average of 10,811 daily trips, with 663 (392 in, 271 out) trips during the PM peak hour. Volumes collected were 1,811 daily trips higher than what was analyzed in the Approved TIS. However, PM peak hour volumes were 53 percent lower than what was previously assumed in the Approved TIS.
- **Saturday:** Average of 13,039 daily trips, with 825 (435 in, 390 out) trips during the PM peak hour. Volumes collected were 4,039 daily trips higher than what was analyzed in the Approved TIS. However, PM peak hour volumes were 41 percent lower than what was previously assumed in the Approved TIS.

Attachment A contains the traffic volume data sheets.

Proposed Trip Generation

Trip generation for tribal gaming facilities generally peaks on Saturday evenings. However, background traffic on adjacent streets is typically lower on Saturdays than during peak weekday periods. As a result, the overall number of vehicles on the road during the tribal gaming facilities peak periods is typically no worse than the traditional weekday peak-hour conditions. In addition, because these casino facilities are typically open 24 hours per day, 7 days per week, they do not experience pronounced peak periods like other land uses. Instead, casino traffic follows a smoother daily traffic profile that builds steadily from early morning until approximately 7:00 PM (19:00), after which traffic levels slowly decline, as shown in **Figure 1**, **Figure 2**, and **Figure 3** during an average weekday, Friday, and Saturday from the data collected for the existing casino, respectively.

Based on existing traffic volume information and expected trip generation, it was determined that the Friday and Saturday PM peak periods represent the worst-case periods during which to evaluate the expansion. It is during these periods that the combination of background traffic and casino traffic are anticipated to be at the highest levels. However, the weekday AM and PM peak hours were also included for comparison to the Approved TIS.

Figure 1: Existing Casino Weekday Inbound and Outbound Trips

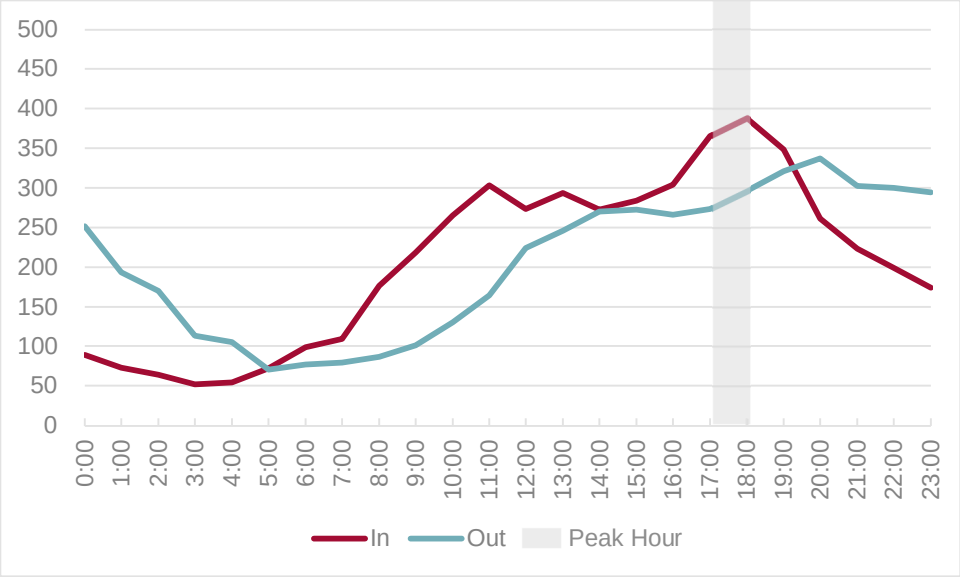


Figure 2: Existing Casino Friday Inbound and Outbound Trips

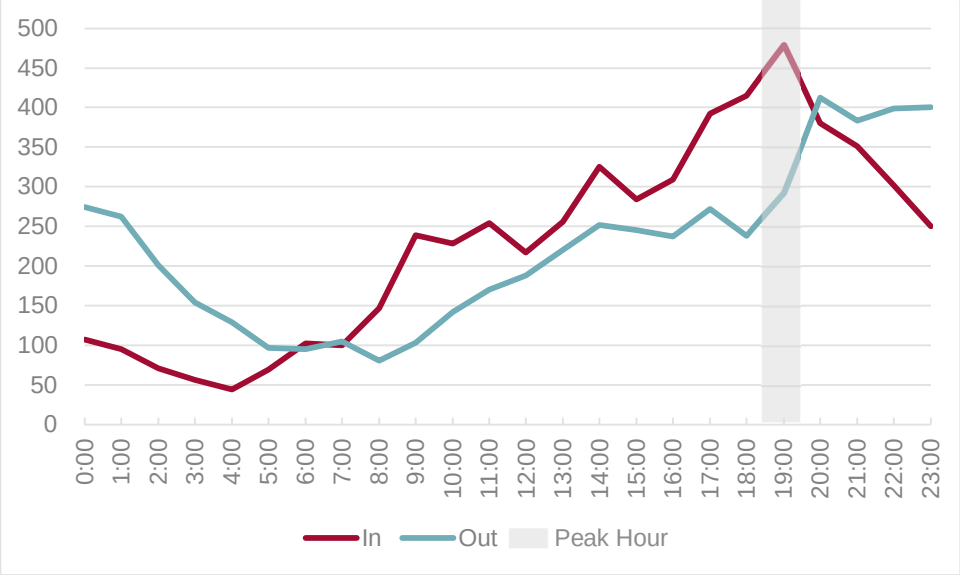
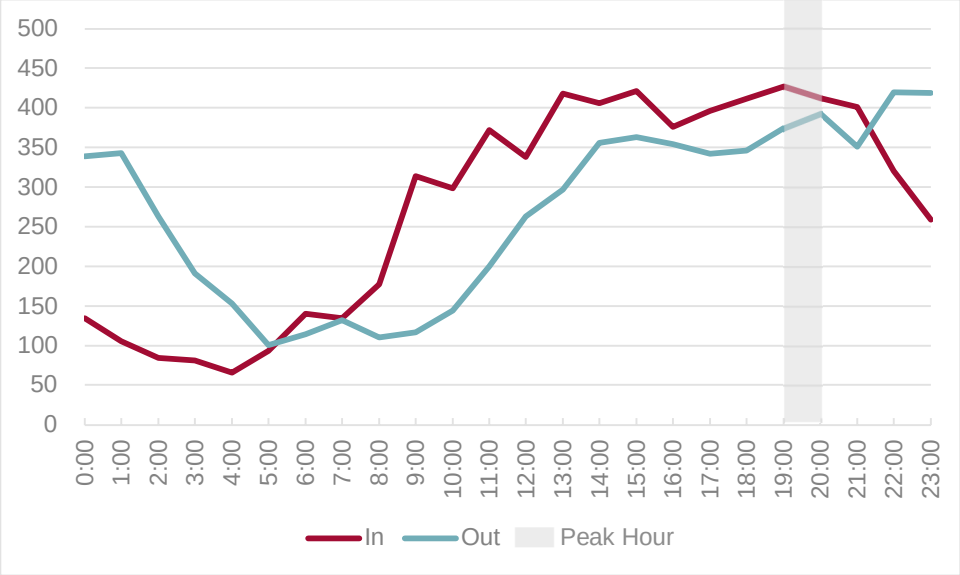


Figure 3: Existing Casino Saturday Inbound and Outbound Trips



The proposed addition to the Casino includes a new 253,500 SF (225 rooms) hotel and an approximate 35,000 square-foot (SF) expansion consisting of a 9,250 SF (465 seats) multi-purpose/bingo hall and a 25,500 SF event center. The hotel is anticipated to include dining, banquet, bar, pool, fitness center, and spa facilities. These hotel accessory uses are intended to provide support to the hotel and are not anticipated to generate additional traffic. **Attachment B** contains the detailed project description and site plan.

Trip generation for the new hotel, multi-purpose/bingo hall, and event center was determined using multiple sources based on availability and applicability of data. **Table 3** summarizes the trip generation potential of the proposed development.

The effects of the interaction between the casino gaming floor, event center/ballroom, and hotel are commonly captured in the casino trip generation rates. This is particularly true for hotel-casino-event facilities in rural locations, where patrons engage in relatively few "in-and-out" trips after arriving at the facility (as compared to standard hotels for which stand-alone trip generation rates are used).

Trip generation for the proposed hotel component (the new 225 rooms) was calculated using the trip generation rates published by the County of San Diego in the *Traffic Needs Assessment of Tribal Development Projects in the San Diego Region* (March 2003). Typically, casinos with on-site hotel facilities implement a pricing structure for the rooms that favors casino guests. Therefore, because casino hotels primarily accommodate casino patrons, they are not considered to generate a significant number of new vehicle trips. The used trip rate of 3 vehicular trips per room accounts for this interaction between the hotel and casino . As shown in **Table 3**, the hotel is anticipated to generate 675 new daily trips with 34 trips during the weekday AM peak hour, 47 trips during the weekday, Friday, and Saturday PM peak hours.

Like the proposed hotel, the trip generation for the multi-purpose/bingo hall was calculated using a standard rate with a reduction applied for the interaction between the casino and ancillary uses. For the multi-purpose/bingo hall, the ITE *Trip Generation Manual, 11th Edition* was used as this land use was not available in the SANDAG rates. The trip generation was calculated using the peak of the generator rates as the adjacent street rates were not available. A daily rate was not available; therefore, it was assumed that the casino will hold two bingo "sessions" a day with a duration of approximately 6 hour each. During these sessions, it is anticipated that all seats will be used resulting in a daily trip generation of 930 trips. The multi-purpose/bingo hall trip generation rate was conservatively reduced by 70% to account for internal capture to and from the casino. As shown in **Table 3**, the multi-purpose/bingo hall is anticipated to generate 279 trips daily, 21 trips during the weekday AM peak hour, and 67 trips during the weekday, Friday, and Saturday PM peak hours.

For the daily traffic generation for the event center, a 40 trips per 1,000 square foot rate was used based on the Approved TIS which references the *Updates on Impacts of Tribal Economic Development Project* in San Diego County, dated April 2003, study. For the peak-hour generation of the Event Center, it was assumed that approximately 10 percent of the traffic generated by this use would arrive to the facility during the afternoon peak-hour analyzed during only Fridays and Saturdays. The event center would not generate peak-hour volumes during the typical weekday. The 10 percent assumption was

based on most events would have a start time of 7:30 PM. In addition, a reduction of 70% was applied to the event center trip generation based on the internal capture to and from the casino. The 70% reduction factor was referenced from a similar tribal gaming facility, *Cache Creek Hotel Expansion Project Traffic Impact Study*, dated July 2016.

The Cache Creek Casino Resort is located near Brooks, California in Yolo County, which is a relatively rural and agricultural region outside the great Sacramento metropolitan area. The Cache Creek Casino Resort included 74,720 square feet of casino floor space, nine restaurants, and a 729-seat event center. The Cache Creek Hotel Expansion Project included 459 new hotel rooms, 178 new restaurant seats, and a new event facility with 596 seats. Extensive data collection was conducted as part of this Cache Creek study for the existing event center to determine the number of patrons visiting the event that were not there due to the casino activity. The Cache Creek Casino data collection demonstrated that approximately 70% of the event center patrons would have visited the casino without an event occurring. The remaining 30 percent of the patrons represented new trips that would not be expected to occur without the event venue. As shown in **Table 3**, using the same percentages, the proposed event center is anticipated to generate 306 daily trips with 31 trips during the Friday and Saturday PM peak hours.

In addition, approximately 16,000 SF of the casino will be relocated/remodeled in support of the expansion. However, no expansion of the gaming floor, number of slot machines, or table games is proposed. Therefore, no additional trips are anticipated to be generated from the remodel.

The proposed expansion is anticipated to generate a total of 1,260 daily trips with 55 trips during the weekday AM peak hour, 114 trips during the weekday PM peak hour, and 145 trips during the Friday and Saturday PM peak hours

Table 3: Proposed Expansion Trip Generation

Hotel [1,2]	225	Rooms	675	34	20	14	47	19	28	47	19	28	47	19	28
Multi-Purpose/Bingo Hall [3,4,6]	465	Seats	279	21	20	1	67	5	62	67	5	62	67	5	62
Event Center [5,6,7]	25,500	Square Feet	306	See note 7			See note 7			31	29	2	31	29	2

Note:
1. Used County of San Diego document titled *Traffic Needs Assessment of Tribal Development Projects in the San Diego Region*, dated *March 2003*
2. No Saturday trip generation information provided, used Weekday PM Peak Hour for Saturday PM Peak Hour
3. Used Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*
4. No daily trip generation information provided, only peak hour of the generator available, and used PM peak hour of the generator for Saturday PM Peak Hour
5. Used Jamul Indian Village Gaming Project Traffic Impact Study, dated November 2012
6. Trip generation rates reduced by 70% to account for internal capture to/from casino based on *Cache Creek Hotel Expansion Traffic Impact Study*, dated July 2016
7. Land use is not anticipated to generate peak hour trips during a weekday

Trip Generation Conclusion

Casino trip generation rates commonly include patrons to the slot machines and table games, hotel guests, event center attendees, as well as ancillary uses such as restaurants, bars, meeting spaces, back-of-house, employees arriving and departing on a shift change, and all of the general activities occurring at the facility during the peak hours. As such, separate calculations for the non-casino functions are typically not necessary. For this study however, as a conservative approach, a separate trip generation calculation was applied to capture the interactions of the ancillary uses (e.g., hotel, multi-purpose/bingo hall, and event center) with the casino.

Table 4 provides a comparison between the previously estimated casino trip generation versus the sum of the actual casino trip generation with the estimated traffic generation of the proposed expansion. As shown in the table, for the peak-hour operations, the sum of the actual trip generation with the estimated proposed expansion is less than the previously estimated trip generation for the Casino, as analyzed in the Approved TIS. Therefore, the mitigations identified in the Approved TIS would be sufficient and adequate to mitigate the potential transportation related impacts associated with the additional traffic from the proposed expansion.

Table 4: Proposed Expansion Trip Generation Comparison

Weekday	Estimated	599	420	179	1,005	533	472
	Actual + Proposed	318	216	102	754	389	365
Friday	Estimated				1,401	645	756
	Actual + Proposed				808	445	363
Saturday	Estimated				1,401	645	756
	Actual + Proposed				970	488	482

Note:
1. Difference is calculated as (actual plus proposed) minus estimated

Vehicle Miles Traveled (VMT) Analysis

In addition to the trip generation analysis, a qualitative vehicle mile traveled (VMT) analysis was conducted for the proposed expansion project. Similar to the trip generation analysis results, the expansion project is not anticipated to increase VMT due to the project location and characteristics. The JIV Casino is located within approximately 20 miles of the Regional's population center, and therefore, as being the closest casino to the population center, any new vehicular trip to the JIV casino would result in a VMT decrease as the new trip would be shorter than the patrons traveling to any other Casino option within the Region. The expansion project also includes the development of a hotel which

is anticipated to decreased VMT as it allows patrons to stay overnight at the hotel versus making multiple trips to the Casino. Therefore, the expansion is anticipated to decrease VMT within the region.

Attachments:

- A – Traffic Data Collection
- B – Project Description and Site Plan

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Appendix K sub-appendices available upon request.