

APPENDIX B

**BURTON AND HIGHLANDS PARKS PROJECT
INITIAL STUDY**

PUBLIC REVIEW DRAFT

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SCH NO. 2017052066

LSA

November 2017

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INITIAL STUDY**

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Submitted to:

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BURTON AND HIGHLANDS PARKS PROJECT INITIAL STUDY

The following is an Initial Study/Environmental Checklist for the Burton and Highlands Parks Project (proposed project). This checklist will be used to identify areas to be further discussed in an Environmental Impact Report (EIR). Topics needing further discussion (identified as Visual Resources, Noise, and Transportation and Circulation) are discussed in the Draft EIR. Copies of all materials referenced in this report are available for review in the project file during regular business hours at 600 Elm Street, San Carlos, California 94070.

1. Project Title: Burton and Highlands Parks Project

2. Lead Agency Name and Address:

City of San Carlos
600 Elm Street
San Carlos, CA 94070

3. Contact Person and Phone Number:

Kaveh Forouhi, PE, TE, QSD/QSP
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4. Project Sponsor's Name and Address:

City of San Carlos
600 Elm Street
San Carlos, CA 94070

5. General Plan Designation: Park

6. Zoning: Park

7. Project Location: Burton Park is located at 900 Chestnut Street in the City of San Carlos. The site is generally level and is bounded by Woodland Avenue and Chestnut Street to the north, Brittan Avenue to the east, and Cedar Street to the west. Highlands Park is located at 206 Aberdeen Drive.

8. Description of Project: The purpose of the proposed project is to install new field lighting on currently unlit fields at Burton and Highlands Parks and to upgrade the existing lighting at the parks with light-emitting diode (LED) lights. In addition, the project also involves changes in use of the fields at Highlands Park to make field use consistent with the rules governing all other City fields. Changes in use would affect the terms of the 2010 Settlement Agreement¹ between the City of San Carlos and Save San Carlos Parks (SSCP) regarding the use of Highlands Park. See Chapter III, Project Description, in the Draft EIR for a full project description.

9. Surrounding Land Uses and Setting: The project sites are located in a developed area and are surrounded primarily by residential uses within the City of San Carlos.

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement): The City of San Carlos is the only agency whose approval is required.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? California Native American tribes traditionally and culturally affiliated with the project site and area have been notified of the proposed project. No tribes have requested consultation.

¹ San Carlos, City of, 2010. Settlement Agreement. September 14.

Environmental Factors Potentially Affected:

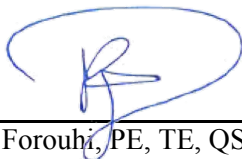
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

Determination. (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Kaveh Forouhi, PE, TE, QSD/QSP
Senior Engineer

11/16/2017

Date

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would involve the installation of new field lighting on currently unlit fields at Burton and Highlands Parks and the upgrade of the existing lighting at the parks with LED lights. Due to the potential for significant aesthetic impacts associated with the proposed project, the Draft EIR will analyze the potential for impacts related to aesthetics.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL AND FORESTRY RESOURCES.				
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) <i>Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use? (No Impact)</i>				

Both the Burton Park site and Highlands Park site are located within developed parks in a completely urban setting containing residential uses in the vicinity. There are no agricultural resources on or near

the project sites. The project sites are classified as “Urban and Built-Up Land” by the State Department of Conservation.² Therefore, implementation of the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a nonagricultural use. As such, development of the proposed project would not result in any impact to agricultural resources.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)

The project sites are currently zoned as Park on the City of San Carlos Zoning Map. The project sites are not subject to a Williamson Act contract.³ Therefore, development of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (No Impact)

The project sites are currently developed sports fields located in an urban area. The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, nor would it result in the loss of forest land or conversion of forest land to non-forest uses. As such, no impact to forest or timberland would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use? (No Impact)

Please refer to Section II.c. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? (No Impact)

Please refer to Sections II.a. and II.c. The project sites are located in an existing urban environment and would not involve other changes in the existing environment which, due to their location or nature, could result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur.

² California Department of Conservation, 2012. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. San Mateo County Important Farmland 2012 (map). Available online at: <ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/smt12.pdf> (accessed July 19, 2017)

³ California Department of Conservation, 2013. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Sonoma County Williamson Act Lands (map). Available online at: ftp.consrv.ca.gov/pub/dlrp/wa/SanMateo_06_07_WA.pdf (accessed August 8, 2017).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project focused on in this section is the installation of new field lights and upgrades for existing field lights at Burton Park and Highlands Park. The change in use of fields at Highlands Park per provisions in the Settlement Agreement would not result in any significant impacts related to air quality.

The proposed project sites are located in the City of San Carlos, and are within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In San Carlos, and the rest of the air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Within the BAAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM₁₀, PM_{2.5}), and lead (Pb) have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The BAAQMD is under State non-attainment status for ozone and particulate matter standards. The BAAQMD is classified as non-attainment for the federal ozone 8-hour standard and non-attainment for the federal PM_{2.5} 24-hour standard.

The following sections discuss the potential air quality impacts associated with implementation of the proposed project. Potential impacts are differentiated between Burton Park and Highlands Park, where applicable.

a) *Conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)*

The applicable air quality plan is the BAAQMD 2017 Clean Air Plan (Clean Air Plan), which was adopted on April 19, 2017.⁴ The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project does the following: 1) supports the goals of the Clean Air Plan; 2) includes applicable control measures from the Clean Air Plan; and 3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

The 2017 Clean Air Plan aims to lead the region to a post-carbon economy, to continue progress toward attaining all State and federal air quality standards, and to eliminate health risk disparities from exposure to air pollution among Bay Area communities. The 2017 Clean Air Plan also includes a wide range of proposed control measures to reduce combustion-related activities, decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of potent greenhouse gases.

Consistency with the 2017 Clean Air Plan is determined by whether or not the proposed project would result in significant and unavoidable air quality impacts or hinder implementation of control measures (e.g., excessive parking or preclude extension of transit lanes or bicycle paths). As indicated in the analysis that follows, the proposed project would result in less-than-significant operational and construction-period emissions. Therefore, the proposed project supports the goals of the Clean Air Plan and would not conflict with any of the control measures identified in the plan that are designed to bring the region into attainment. Additionally, the proposed project would not substantially increase the population, vehicle trips, or vehicle miles traveled.

Burton Park. As discussed above, the installation of new or improved lights at Burton Park fields would not hinder the region from attaining the goals outlined in the Clean Air Plan. Therefore, the proposed project would not hinder or disrupt implementation of any control measures from the Clean Air Plan and would be consistent with the Clean Air Plan.

Highlands Park. As discussed above, the installation of new or improved lights at Highlands Park fields would not hinder the region from attaining the goals outlined in the Clean Air Plan. Therefore, the proposed project would not hinder or disrupt implementation of any control measures from the Clean Air Plan and would be consistent with the Clean Air Plan.

⁴ Bay Area Air Quality Management District, 2017. *Final 2017 Clean Air Plan*. April 19. Website: <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>. (accessed August 2017).

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Potentially Significant Unless Mitigation Incorporated)*

Both State and federal governments have established health-based Ambient Air Quality Standards for six criteria air pollutants: CO, ozone (O₃), NO₂, SO₂, Pb, and suspended particulate matter (PM). These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. As identified above, the BAAQMD is under State non-attainment status for ozone, PM₁₀, and PM_{2.5} standards. The Air Basin is also classified as non-attainment for both the federal ozone 8-hour standard and the federal PM_{2.5} 24-hour standard.

Air quality standards for the proposed project are regulated by the BAAQMD CEQA Air Quality Guidelines.⁵ According to the BAAQMD CEQA Air Quality Guidelines, to meet air quality standards for operational-related criteria air pollutant and air precursor impacts, the project must not:

- Contribute to CO concentrations exceeding the State ambient air quality standards;
- Generate average daily construction emissions of Reactive Organic Gases (ROG), NO_x or PM_{2.5} greater than 54 pounds per day or PM₁₀ exhaust emissions greater than 82 pounds per day; or
- Generate operational emissions of ROG, NO_x or PM_{2.5} of greater than 10 tons per year or 54 pounds per day or PM₁₀ emissions greater than 15 tons per year or 82 pounds per day.

The following sections describe the proposed project's construction- and operation-related air quality impacts and CO impacts.

Construction Emissions. Air pollutant emissions associated with the proposed project would occur over the short term in association with construction activities such as minor excavation for the construction of the light poles and trenching for electrical connections. Construction vehicle traffic, the use of construction equipment, and wind blowing over exposed earth would emit exhaust and dust that affect local and regional air quality. Construction activities are also a source of organic gas emissions.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BAAQMD has established standard measures for reducing fugitive dust emissions (PM₁₀). With the implementation of these Basic Construction Mitigation Measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

⁵ Bay Area Air Quality Management District, 2017. *California Environmental Quality Act Air Quality Guidelines*. May. Website: <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>. (accessed August 2017).

Construction emissions were estimated for the proposed project using the California Emissions Estimator Model (CalEEMod) v.2016.3.1, consistent with BAAQMD recommendations. Construction-related emissions are presented in Table 1 (see Appendix A for calculation details).

Table 1: Project Construction Average Daily Emissions in Pounds Per Day

Project Construction	ROG	NO_x	Exhaust PM₁₀	Exhaust PM_{2.5}
Burton Park Emissions	1.0	9.4	0.3	0.3
Highlands Park Emissions	1.0	9.7	0.3	0.3
Total Emissions	2.0	19.1	0.6	0.6
BAAQMD Thresholds	54.0	54.0	82.0	54.0
Exceed Threshold?	No	No	No	No

Source: LSA Associates, Inc., 2017.

Burton Park. As indicated above, construction emissions were estimated for the Burton Park project using CalEEMod. The proposed project involves the installation of new light poles and lighting at Flanagan Field and replacement of existing lighting at Madsen Field. As such, emissions associated with the Burton Park project are primarily associated with the construction equipment and was estimated in the CalEEMod analysis. The construction schedule for all improvements was assumed to be approximately 3 months. Construction-related emissions for Burton Park are presented in Table 1.

As shown in Table 1, construction emissions associated with the Burton Park project would be less than significant for ROG, NO_x, and PM_{2.5} and PM₁₀ exhaust emissions. The BAAQMD requires the implementation of Basic Construction Mitigation Measures to reduce construction dust impacts to a less than significant level. Implementation of Mitigation Measure AIR-1 would reduce construction dust and NO_x emissions to a less than significant level.

Mitigation Measure AIR-1: Consistent with the Basic Construction Mitigation Measures required by the BAAQMD, the following actions shall be incorporated into construction contracts and specifications for the project:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City of San Carlos regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Highlands Park. As indicated above, construction emissions were estimated for the Highlands Park project using CalEEMod. The proposed project involves the installation of new light poles and lighting at Stadium Field and the replacement of the existing light poles and lighting at Highlands Field. The operation of construction equipment was estimated in the CalEEMod analysis. The construction schedule for all improvements was assumed to be approximately 3 months. Construction-related emissions for Highlands Park are presented in Table 1.

As shown in Table 1, construction emissions associated with the Highlands Park project would be less than significant for ROG, NO_x, and PM_{2.5} and PM₁₀ exhaust emissions. The BAAQMD requires the implementation of Basic Construction Mitigation Measures to reduce construction dust impacts to a less than significant level. Implementation of Mitigation Measure AIR-1, identified above, would reduce construction dust and NO_x emissions to a less than significant level.

Operation-Related Impacts. Long-term air emission impacts are those associated with area sources and mobile sources related to the proposed project. In addition to the short-term construction emissions, the project would also generate long-term air emissions, such as those associated with changes in permanent use of the project sites. These long-term emissions are primarily mobile source emissions that would result from vehicle trips associated with the proposed project. Energy-source emissions would be associated with energy used by the proposed lighting. Emission estimates for operation of the proposed project were calculated using CalEEMod. Model results are shown in Table 2.

Burton Park. Emission estimates for operation of the Burton Park project were calculated using CalEEMod. Model results are shown in Table 2. Trip generation rates for the Burton Park project were based on the project's transportation impact analysis, which estimates the proposed project would generate approximately 94 trips per day on weekdays and 123 trips per day on weekends. The CalEEMod analysis accounts for vehicle emissions associated with participant drop-off and pick-up and vehicle idling while waiting to park.

The primary emissions associated with the Burton Park project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the Air Basin. The daily and annual emissions associated with project operational trip generation, energy and area sources are identified in Table 2 for ROG, NO_x, PM₁₀, and PM_{2.5}. The results shown in Table 2 indicate the Burton Park project site would be well below the significance criteria for daily ROG, NO_x, PM₁₀ and PM_{2.5} emissions; therefore, the Burton Park project would not have a significant effect on regional air quality and mitigation would not be required.

Table 2: Project Operational Emissions

	ROG	NO _x	PM ₁₀	PM _{2.5}
Pounds Per Day				
Burton Park				
Area Source Emissions	0.0	0.0	0.0	0.0
Energy Source Emissions	0.0	0.0	0.0	0.0
Mobile Source Emissions	0.2	0.7	0.6	0.2
Total Burton Park Emissions	0.2	0.7	0.6	0.2
Highlands Park				
Area Source Emissions	0.0	0.0	0.0	0.0
Energy Source Emissions	0.0	0.0	0.0	0.0
Mobile Source Emissions	0.2	0.6	0.5	0.1
Total Highlands Park Emissions	0.2	0.6	0.5	0.1
Total Project Emissions	0.4	1.3	1.1	0.3
BAAQMD Significance Threshold	54.0	54.0	82.0	54.0
Exceed?	No	No	No	No
Tons Per Year				
Burton Park				
Area Source Emissions	0.0	0.0	0.0	0.0
Energy Source Emissions	0.0	0.0	0.0	0.0
Mobile Source Emissions	0.0	0.1	0.1	0.0
Total Burton Park Emissions	0.0	0.1	0.1	0.0
Highlands Park				
Area Source Emissions	0.0	0.0	0.0	0.0
Energy Source Emissions	0.0	0.0	0.0	0.0
Mobile Source Emissions	0.0	0.1	0.1	0.0
Total Burton Park Emissions	0.0		0.1	0.0
Total Project Emissions	0.0	0.2	0.2	0.0
BAAQMD Significance Threshold	10.0	10.0	15.0	10.0
Exceed?	No	No	No	No

Source: LSA Associates Inc., 2017.

Highlands Park. Emission estimates for operation of the Highlands Park project were calculated using CalEEMod. Model results are shown in Table 2. Trip generation rates for the Highlands Park project were based on the project’s transportation impact analysis, which estimates the Highlands Park project would generate approximately 87 trips per day on weekdays and 114 trips per day on weekends. The CalEEMod analysis accounts for vehicle emissions associated with participant drop-off and pick-up and vehicle idling while waiting to park.

The primary emissions associated with the Highlands Park project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the Air Basin. The daily and annual emissions associated with project operational trip generation, energy and area sources are identified in Table 2 for ROG, NO_x, PM₁₀, and PM_{2.5}. The results shown in Table 2 indicate the Highlands Park project would be well below the significance criteria for daily ROG, NO_x, PM₁₀ and PM_{2.5} emissions; therefore, the proposed project would not have a significant effect on regional air quality and mitigation would not be required.

Localized CO Impacts. The BAAQMD has established a screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD CEQA Guidelines, a proposed project would result in a less-than significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, and the regional transportation plan and local congestion management agency plans.
- Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The proposed project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

Burton Park. The proposed Burton Park project would not conflict with standards established by the San Mateo County Transportation Authority for designated roads and highways, a regional transportation plan, or other agency plans. The Burton Park project site is not located in an area where vertical or horizontal mixing of air is substantially limited. The Burton Park project's trip generation would be 48 weekday PM peak hour trips and 64 weekend PM peak hour trips. The intersection with the highest traffic volume adjacent to the site has peak hour traffic of approximately 751 vehicles per hour, therefore total intersection traffic volumes would be well below the screening criteria level of 44,000 vehicles per hour. Therefore, the proposed Burton Park project would not result in localized CO concentrations that exceed State or federal standards, and this impact would be less than significant.

Vehicle queuing and congestion associated with participant drop-off and pick-up has the potential to result in CO hotspots. The project would potentially increase queuing at intersections within the project area; however based on the traffic study prepared for the project, the addition of project-generated traffic would result in a significant impact at the intersection of Cedar Street/Brittan Avenue. All other study intersections in the project vicinity would continue operating acceptably with project-generated traffic. Although the project would increase additional participants, the arrivals would be spread out over four hours; and with short dwell times, vehicles would not be expected to idle for a considerable duration. PM Peak period conditions could be saturated at critical points of access resulting in some congestion and/or vehicle idling while searching for parking. However, traffic volumes would be well under the 44,000 vehicle per hour screening criteria the BAAQMD has established for potential CO hot-spot impacts. Additionally, the traffic study determined that there would be adequate parking capacity for the anticipated increase in parking demand. It is recognized that tournaments and other events result in higher parking demand on certain days. However, the frequency of these events is limited during the year, and the City implements parking management practices for these events (i.e., having buses and visitors park at nearby schools). Therefore, based on the short duration of idling expected to occur, the project would not be expected to result in a CO hotspot and would not result in localized CO concentrations that exceed State or federal standards.

Highlands Park. The proposed Highlands Park project would not conflict with standards established by the San Mateo County Transportation Authority for designated roads and highways, a regional transportation plan, or other agency plans. The Highlands Park project site is not located in an area where vertical or horizontal mixing of air is substantially limited. The Highlands Park project's trip generation would be 44 weekday PM peak hour trips and 58 weekend PM peak hour trips. The intersection with the highest traffic volume adjacent to the site has peak hour traffic of approximately 364 vehicles per hour, therefore total intersection traffic volumes would be well below the screening criteria level of 44,000 vehicles per hour. Therefore, the proposed Highlands Park project would not result in localized CO concentrations that exceed State or federal standards, and this impact would be less than significant.

Vehicle queuing and congestion associated with participant drop-off and pick-up has the potential to result in CO hotspots. The project would potentially increase queuing at intersections within the project area; however, based on the traffic study prepared for the project, all study intersections within the project vicinity would continue to operate acceptably with project-generated traffic. Although the project would increase the number of participants, the arrivals would be spread out over four hours; and with short dwell times, vehicles would not be expected to idle for a considerable duration. PM Peak period conditions could be saturated at critical points of access resulting in some congestion and/or vehicle idling while searching for parking. However, traffic volumes would be well under the 44,000 vehicle per hour screening criteria the BAAQMD has established for potential CO hot-spot impacts. Additionally, the traffic study determined that there would be adequate parking capacity for the anticipated increase in parking demand. It is recognized that tournaments and other events result in higher parking demand on certain days. However, the frequency of these events is limited during the year, and the City implements parking management practices for these events (i.e., having buses and visitors park at nearby schools). Therefore, based on the short duration of idling expected to occur, the project would not be expected to result in a CO hot-spot and would not result in localized CO concentrations that exceed State or federal standards.

- c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*
(Less-Than-Significant Impact)

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. According to the BAAQMD, air pollution is largely a cumulative impact and no single project is sufficient in size to itself result in nonattainment of ambient air quality standards. In developing the thresholds of significance for air pollutants used in the analysis above, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The BAAQMD CEQA Air Quality Guidelines indicate that if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. If daily average or annual emissions of operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the proposed project would result in a cumulatively significant impact.

As shown in Tables 1 and 2, above, implementation of the proposed project, with implementation of Mitigation Measure AIR-1, would generate less-than-significant construction and operational emissions. Additionally, other proposed projects within the air basin would be required to implement

BAAQMD Basic Construction Mitigation Measures as outlined in Mitigation Measure AIR-1. Therefore, the project would not make a cumulatively considerable contribution to regional air quality impacts.

d) *Expose sensitive receptors to substantial pollutant concentrations? (Less-Than-Significant Impact)*

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks.

According to the BAAQMD, a project would result in a significant impact if it would: individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10.0 in one million, increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient PM_{2.5} increase greater than 0.3 µg/m³. A significant cumulative impact would occur if the project in combination with other projects located within a 1,000-foot radius of the project site would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100.0 in one million, an increased non-cancer risk of greater than 10.0 on the hazard index (chronic), or an ambient PM_{2.5} increase greater than 0.8 µg/m³ on an annual average basis. Impacts from substantial pollutant concentrations are discussed below. As discussed below, this impact would be less than significant.

Burton Park. The closest sensitive receptors to Burton Park are the single-family residences located approximately 70 feet east, south, and west of the project site along Cedar Street, Brittan Avenue, and Woodland Avenue. As described in Section III.b, above, construction of the proposed Burton Park project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, project construction would be three months or less and construction contractors would be required to implement the Basic Construction Mitigation Measures required in Mitigation Measure AIR-1. With implementation of Mitigation Measure AIR-1, project construction emissions would be below the BAAQMD's significance thresholds and once the project is constructed, the project would not be a source of substantial emissions associated with vehicle emissions as shown on Table 2. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during construction or operation of the Burton Park project, and potential impacts would be considered less than significant.

Highlands Park. The closest sensitive receptors to Highlands Park include the single-family residences located approximately 65 feet north and east of the project site along Elston Court and Aberdeen Drive. As described in Section III.b, above, construction of the proposed Highlands Park project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, project construction would be three months or less and construction contractors would be required to implement the Basic Construction Mitigation Measures required in Mitigation Measure AIR-1. With implementation of Mitigation Measure AIR-1, project construction emissions would be below the BAAQMD's significance thresholds and once the project is constructed, the project would not be a source of substantial emissions associated with vehicle emissions as shown on Table 2.

Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during construction or operation of the Highlands Park project, and potential impacts would be considered less than significant.

e) *Create objectionable odors affecting a substantial number of people? (Less-Than-Significant Impact)*

Burton Park. During construction of the Burton Park project, the various diesel powered vehicles and equipment in use on site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. Additionally, the proposed lighting that would be constructed within the project site is not expected to produce any offensive odors that would result in frequent odor complaints. Therefore odor impacts from the project do not require further evaluation, and this impact would be less than significant.

Highlands Park. During construction, the various diesel powered vehicles and equipment in use on site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. Additionally, the proposed lighting that would be constructed within the project site is not expected to produce any offensive odors that would result in frequent odor complaints. Therefore odor impacts from the project do not require further evaluation, and this impact would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) <i>Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Less-Than-Significant Impact)</i>				

The proposed project focused on in this section is the installation of new field lights and upgrades for existing field lights at Burton Park and Highlands Park. The change in use of fields at Highlands Park per provisions in the Settlement Agreement would not result in any significant impacts related to biological resources.

The proposed project sites and surrounding areas are developed with urban land uses. Both fields at Burton Park are natural grass, and the fields at Highlands Park contain both grass (Stadium Field) and artificial turf (Highlands Field). Artificial night lighting is known to have adverse consequences on riparian corridors, urban-rural interfaces, natural habitats adjacent to urban communities, and open spaces. Artificial night lighting also can adversely affect wildlife species by disrupting the foraging behavior and predation risk for nocturnal rodents, for example, or by leading to increased mortality of migrating birds. However, such areas are also utilized by numerous wildlife species that are used to urban areas. No sensitive or plant species are known or expected to inhabit the project sites. The closest listed species are located west of I-280 and are unlikely to be discovered at the project sites.⁶

⁶ Lacy, Tim, 2017. Principal, Wildlife Biologist, LSA. Written correspondence with Judith Malamut. July 12.

Additionally, both Burton and Highlands Parks currently contain artificial night lighting in the form of street and parking lot lights, field lighting, and interior lighting at the San Carlos Youth Center in Burton Park. Although the proposed new field lighting at both parks would be designed to minimize the amount of light spilling over to the adjacent land uses, there would be an incremental increase in the amount of artificial light in limited areas surrounding the parks. However, the proposed replacement lighting systems would result in a decrease in light spillover in other areas surrounding the parks due to the improvements in the lighting design. Moreover, the wildlife species occurring on the sites are relatively common urban species that have adapted to artificial night lighting and new and replacement lights would be turned off at 10:00 p.m. For these reasons, the increase in ambient lighting would not substantially affect biological resources on or adjacent to the project sites. Therefore, impacts to special-status species would be considered less than significant.

- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (No Impact)*

Both Burton and Highlands Parks are developed with active uses and do not contain any riparian habitat or other sensitive natural communities. Therefore, the proposed project would have no impact on any riparian habitat or other sensitive natural communities.

- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means? (No Impact)*

The project sites are completely developed with active uses and are not located in areas that support any wetlands, drainages, or water bodies as defined by Section 404 of the Clean Water Act and would not result in the direct removal, filling, or hydrological interruption of such wetlands. Therefore, no impact would occur.

- 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? (Less-Than-Significant Impact)*

The project sites are developed active park sites that may be used by wildlife species typically associated with urban areas. Both parks are in densely populated urban areas that would support common species that are tolerant of human disturbance. Because the project sites are located in an urban environment, there are no major wildlife movement corridors that pass through the sites. Additionally, most of the birds and other wildlife species at the sites are characteristic of urban settings and would readily inhabit the surrounding area once installation of the new lighting is completed. At Highlands Park, there is a minor wildlife corridor through the open space areas to the east of the park to the hills to the west of the park along I-280.⁷ Although larger animals such as deer may move through this corridor, it is not a significant wildlife movement corridor and only allows for concealed movement through large backyard and open areas. In addition, this corridor does not connect natural open spaces but rather leads animals into the dense urban core of the City. Therefore,

⁷ Ibid

the proposed project would not substantially interfere with the movement of wildlife species or impede the use of native wildlife nursery sites. Implementation of the project would have a less-than-significant impact on wildlife corridors.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)*

The proposed project would not result in the removal of any trees on the project site, or otherwise be subject to any local policies or ordinances protecting biological resources. Therefore, the project would not conflict with local policies or ordinances, and no impact would occur.

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan? (No Impact)*

The project site is not within the boundaries of a habitat conservation plan or natural community conservation plan. This condition precludes the possibility of the proposed project conflicting with the provisions of such a plan and no impacts related to conflicts with the provisions of an adopted habitat conservation plan or other similar plan would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) <i>Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? (No Impact)</i>				

The proposed project focused on in this section is the installation of new field lights and upgrades for existing field lights at Burton Park and Highlands Park. The change in use of fields at Highlands Park

per provisions in the Settlement Agreement would not result in any significant impacts related to cultural resources.

The fields at Burton and Highlands Parks are not considered historical resources as defined by Section 15064.5 of the CEQA Guidelines. The project sites are both located in developed areas and soils at both Burton and Highlands Parks were previously disturbed during original construction of the fields. In addition, Highlands Field at Highlands Park was subsequently disturbed in 2011 to convert the grass field to synthetic turf. As a result, the potential for cultural resources to be present at the project sites is considered low and the likelihood of discovering resources during minor excavation required to install new light pole foundations is unlikely. Therefore, the installation of the new lighting systems at Flanagan Field in Burton Park and Stadium Field in Highlands Park and the installation of the replacement system at Highlands Field at Highlands Park would not cause a substantial adverse change in significance of a known historical resource.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (No Impact)*

The proposed project consists of installation of new and replacement field lighting at Burton and Highlands Parks. Minor excavation would occur as part of the installation of the new field lighting poles. Due to the developed nature of the two parks, it is not expected that the project would unearth artifacts or resources during installation of the new lighting systems. However, in the unlikely event that an archaeological resource is discovered, the City would implement standard conditions of approval that are required of all ground-disturbing development projects within the City. Specifically, if prehistoric or historical archeological resources are found during construction activities, all activities would be redirected off site and a qualified archaeologist would be notified to assess the situation. The City of San Carlos and a qualified archaeologist would evaluate the significance of the deposit and make recommendations regarding the treatment of the deposit in accordance with local and State regulations. Therefore, development of the proposed project would not cause a substantial adverse change in the significance of an archeological resource and there would be no impact.

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (No Impact)*

The project sites are located on developed land that is not known to contain paleontological resources. The proposed project consists of the installation of new field lighting and replacement field lighting at Burton and Highlands Parks. Minimal excavation would be necessary to install new lighting poles at each park. As a result, it is unlikely that construction activities could unearth previously undiscovered paleontological resources. However, in the event that paleontological resources are discovered during construction, the City would implement standard conditions of approval that are required of all ground-disturbing development projects within the City. Specifically, if paleontological resources are found during construction activities, all activities would be redirected off site and a qualified paleontologist would be notified to assess the situation. The City of San Carlos and a qualified paleontologist would evaluate the significance of the deposit and make recommendations regarding the treatment of the deposit in accordance with local and State regulations. Therefore, development of the proposed project would not cause a substantial adverse change in the significance of a paleontological resource and there would be no impact.

d) *Disturb any human remains, including those interred outside of formal cemeteries? (No Impact)*

The potential to uncover human remains exists at locations throughout the Bay Area. Due to the existing urban nature of the project sites, it is not expected that the project would unearth artifacts or resources during the installation of new and replacement lighting at Burton and Highlands Parks. However, as required by the San Carlos 2030 General Plan, Policy LU-12.5, the discovery of human remains shall be treated with respect and dignity and must fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws. In the unlikely event that artifacts are uncovered during the construction of the project the City would implement standard conditions of approval that are required of all ground-disturbing development projects within the City. Specifically, if human remains are encountered during construction activities, work would cease and the San Mateo County Coroner would be notified immediately. A qualified archaeologist would also be contacted to assess the situation in consultation with the appropriate agencies. If the human remains are of Native American origin, the Coroner would notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission would provide recommendations for the proper treatment of the remains and associated grave goods. The City of San Carlos would follow the recommendations from the Native American Heritage Commission or the archaeologist, as required. Therefore, no impacts to human remains interred outside of formal cemeteries would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; ii) Strong seismic groundshaking; iii) Seismic-related ground failure, including liquefaction; iv) Landslides? (Less-Than-Significant Impact)*

Fault Rupture. Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. Fault rupture is generally expected to occur along active fault traces. Areas susceptible to fault rupture are delineated by the California Geological Survey (CGS) Alquist-Priolo Earthquake Fault Zones and require specific geological investigations prior to development to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-induced ground failure. The project sites are not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone.⁸ Therefore, the project would have a less-than-significant impact on people and structures related to fault rupture.

Groundshaking. Seismic ground shaking generally refers to all aspects of motion of the earth’s surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. However, the San Andreas Fault and other fault

⁸ California Department of Conservation, 1974. California Geological Survey. Available online at gmw.consrv.ca.gov/shmp/download/ap/pdf/WOODSIDE.PDF (accessed June 1, 2017).

traces are located approximately 1.5 miles west of Highlands Park and 2.5 miles west of Burton Park. The City of San Carlos, including the project sites, is also susceptible to earthquakes originating from the Hayward and Valaveras Faults to the east of the City. Because the proposed project is located in a seismically active region, moderate to strong ground shaking could occur at the project site as a result of an earthquake on any of the faults described above. However, compliance with existing building codes would ensure that potential impacts associated with ground shaking would be less than significant.

Seismic-Ground Failure, Including Liquefaction. The potential for different types of ground failure to occur during a seismic event is discussed below.

Liquefaction. Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire “mobility” sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy. The CGS has mapped Seismic Hazard Zones that delineate areas susceptible to liquefaction that require additional investigation to determine the extent and magnitude of potential ground failure. According to CGS, the project sites are not located within a Seismic Hazard Zone for liquefaction. Therefore, potential impacts associated with liquefaction would be less than significant.

Lateral Spreading. Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surface soils are transported downslope or in the direction of a free face by earthquake and gravitational forces. The project sites are relatively flat and implementation of new or improved lighting would not exacerbate lateral spreading. Therefore, the proposed project would have a less-than-significant impact related to lateral spreading.

Landslides. Seismically-induced landslides occur as the rapid movement of large masses of soil on unstable slopes during an earthquake. The Seismic Hazard Zones mapped by CGS delineate areas susceptible to seismically-induced landslides that require additional investigation to determine the extent and magnitude of potential ground failure. According to CGS, the project site is not located within a Seismic Hazard Zone for seismically-induced landslides and no impact related to landslides would occur.

b) *Result in substantial soil erosion or the loss of topsoil? (Less-Than-Significant Impact)*

Installation of the new lighting poles and lights would occur on relatively flat ground and would not be subject to substantial soil erosion. With present construction techniques, agency requirements, and local regulations that limit soil erosion during construction, the potential for soil erosion on the project site would be reduced. Therefore, impacts related to soil erosion would be less than significant.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Less-Than-Significant Impact)*

Please refer to Section VI.a. As previously described, the project sites are located on level terrain and are already developed as athletic fields which have been graded to level playing surfaces. As such, on-site geologic and soils issues, such as on-site soil stability including landslides, lateral spreading, subsidence, liquefaction, and collapse are not significant due to the open nature of the athletic fields. Therefore, the proposed project would not result in impacts associated with unstable geologic conditions.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Less-Than-Significant Impact)*

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increase, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. Potential impacts related to expansive soil would be less than significant because only small areas would be soil affected due to installation of the pole bases and utility trenching.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (No Impact)*

The proposed project does not propose the use of septic tanks. Therefore, the proposed project would have no impact related to septic tanks or alternative waste water disposal systems.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO₂);
- Methane (CH₄);
- Nitrous oxide (N₂O);
- Hydrofluorocarbons (HFCs);

- Perfluorocarbons (PFCs); and
- Sulfur Hexafluoride (SF₆).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO₂, methane, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e).

The following sections discuss the potential greenhouse gas impacts associated with implementation of the proposed project. The proposed project focused on in this section is the installation of new field lights and upgrades for existing field lights at Burton Park and Highlands Park. The change in use of fields at Highlands Park per provisions in the Settlement Agreement would not result in any significant impacts related to greenhouse gas emissions. Potential impacts are differentiated between Burton Park and Highlands Park, where applicable.

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (**Less-Than-Significant Impact**)*

The following section describes the proposed project’s construction and operational related GHG emissions and contribution to global climate change. The BAAQMD has not addressed emission thresholds for construction in their CEQA Guidelines; however, the BAAQMD encourages quantification and disclosure. Thus, construction emissions are discussed in this section.

Construction Activities. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Burton Park. The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed Burton Park project would generate approximately 78 metric tons of CO₂e. Implementation of Mitigation Measure AIR-1 would reduce GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, project construction impacts associated with GHG emissions from the Burton Park project would be considered less than significant.

Highlands Park. The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed Highlands Park project would generate approximately 82 metric tons of CO₂e. Implementation of Mitigation Measure AIR-1 would reduce GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, project construction impacts associated with GHG emissions from the Highlands Park project would be considered less than significant.

Operational Emissions. Long-term operation of the proposed project would generate GHG emissions from area and mobile sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions would include project-generated vehicle trips associated with trips to the proposed project. Energy-source emissions would be associated with energy generated by the proposed lighting. Following guidance from the BAAQMD, GHG emissions were estimated using CalEEMod. Table 3 shows the calculated GHG emissions for the proposed project. Additional calculation details are included in Appendix A.

Table 3: GHG Emissions (Metric Tons Per Year)

Emissions Source	Operational Emissions				Percent of Total
	CO ₂	CH ₄	N ₂ O	CO ₂ e	
Burton Park					
Area Source Emissions	0.0	0.0	0.0	0.0	0
Energy Source Emissions	19.7	0.0	0.0	19.9	18
Mobile Source Emissions	87.0	0.0	0.0	87.1	76
Waste Source Emissions	0.2	0.0	0.0	0.4	0
Water Source Emissions	6.4	0.0	0.0	6.5	6
Total Burton Park Annual Emissions				113.9	100
Highlands Park					
Area Source Emissions	0.0	0.0	0.0	0.0	0
Energy Source Emissions	28.6	0.0	0.0	28.8	25
Mobile Source Emissions	80.5	0.0	0.0	80.6	69
Waste Source Emissions	0.2	0.0	0.0	0.5	0
Water Source Emissions	7.0	0.0	0.0	7.0	6
Total Highlands Park Annual Emissions				116.9	100
Total Project Annual Emissions				230.8	–
BAAQMD Threshold				1,100	–
Exceed?				No	–

Source: LSA Associates, Inc., 2017.

Burton Park. GHG emissions were estimated using CalEEMod. Table 3 shows the calculated GHG emissions for the proposed Burton Park project. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 76 percent of the total emissions. Energy use is the next largest category at 18 percent. Water is about 6 percent of the total emissions.

As shown in Table 3, the proposed Burton Park project would generate 113.9 metric tons of CO₂e which would be well below the BAAQMD's numeric threshold of 1,100 metric tons CO₂e. Operation of the proposed project would not generate significant GHG emissions and would have a less-than-significant impact related to operational GHG emissions.

Highlands Park. GHG emissions were estimated using CalEEMod. Table 3 shows the calculated GHG emissions for the proposed Highlands Park project. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 69 percent of the total emissions. Energy use is the next largest category at 25 percent. Water is about 6 percent of the total emissions.

As shown in Table 3, the proposed Highlands Park project would generate 116.9 metric tons of CO₂e which would be well below the BAAQMD's numeric threshold of 1,100 metric tons CO₂e. Operation of the proposed project would not generate significant GHG emissions and would have a less-than-significant impact related to operational GHG emissions.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less-Than-Significant Impact)*

The City of San Carlos Climate Action Plan (CAP)⁹ serves as a guiding document to identify ways in which the community and City can reduce greenhouse gas emissions and adapt to the inevitable effects of climate change. Specifically, the CAP does the following:

- Identifies sources of greenhouse gas emissions caused from actions within the City of San Carlos municipal boundary and estimates how these emissions may change over time;
- Provides energy use, transportation, land use, and solid waste strategies to bring San Carlos' greenhouse gas emissions levels to 15 percent below 2005 levels by 2020 and 35 percent below 2005 levels by 2030;
- Mitigates the impacts of San Carlos on climate change (by reducing greenhouse gas emissions consistent with the direction of the State of California via AB32 and Governor's Order S-03-05 and Public Resources Code section 21083.3). The CEQA Guidelines encourage the adoption of policies or programs as a means of addressing comprehensively the cumulative impacts of projects;
- Allows the greenhouse gas emissions inventory and CAP to be updated every five years and respond to changes in science, effectiveness of emission reduction measures and federal, state, regional or local policies to further strengthen the City's response to the challenges of climate change;
- Provides substantial evidence that the emission reductions estimated in the CAP are feasible;

⁹ San Carlos, City of. 2009. *City of San Carlos Climate Action Plan*. October.

- Serves as the programmatic tiering document for the purposes of CEQA within the City of San Carlos for climate change, by which applicable developments within the City will be reviewed. If a proposed development is consistent with the emission reduction and adaptation measures included in the CAP and the programs that are developed as a result of the CAP, the project would be considered to have a less than significant impact on climate change and emissions consistent with the direction of the California Attorney General and Public Resources Code 21083.3;
- Outlines ways in which the City can prepare for and adapt to the consequences of climate change; and,
- Discusses the various outcomes of reduction efforts and how these reduction efforts can be implemented and advertised.

The CAP strategies to reduce GHG emissions are organized into 21 reduction measures with various components to each reduction measure. The CAP strategies are specific to development and transportation projects and therefore are not applicable to the proposed project. The proposed project includes field lighting which would not conflict with the CAP goal of reducing GHG emissions. In addition, the proposed project would not result in a substantial increase in GHG emissions and would not generate emissions that would exceed the project-level significance criteria established by the BAAQMD. The project would be subject to all applicable permit and planning requirements in place or adopted by the City. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Therefore, this impact would be considered less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS.				
Would the project:				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) <i>Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less-Than-Significant Impact)</i>				

The proposed project focused on in this section is the installation of new field lights and upgrades for existing field lights at Burton Park and Highlands Park. The change in use of fields at Highlands Park per provisions in the Settlement Agreement would not result in any significant impacts related to hazards and hazardous materials.

The proposed field lighting systems would not include the routine transport, use, or disposal of hazardous waste. Although small quantities of commercially available hazardous material could be used during project construction activities (e.g., diesel fuels, oils, and lubricants) and for field maintenance within the project sites, these materials would not be used in sufficient quantities to pose

a threat to human or environmental health. The amount of these hazardous materials present during construction would be limited, would be in compliance with existing federal, State, and local regulations, and would not be considered a significant hazard. Therefore, development of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts associated with these activities would be considered less than significant.

- b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Less-Than-Significant Impact)*

The proposed project would not result in a significant hazard-related event through release of hazardous materials or the regular handling of hazardous waste because the proposed project would require minimal ground disturbance. Hazardous materials, including commercially-available fuels could be used temporarily during construction activities. The City would comply with all State, local and regulatory agency requirements when using hazardous materials. Therefore, potential impacts related to the release of hazardous materials would be less than significant.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less-Than-Significant Impact)*

Burton Park is located within one-quarter mile of Central Middle School and Arbor Bay School, and Highlands Park is located within one-quarter mile of Heather Elementary School. However, as explained in Section VIII.b, the use of hazardous materials such as commercially-available fuels during construction activities would not create conditions such that substantial hazardous emissions would be created. In addition, the proposed project would handle limited amounts of hazardous materials during construction activities at Burton and Highlands Parks. Therefore, the proposed project would have a less-than-significant impact related to hazardous emissions or materials within a quarter-mile of a school.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (No Impact)*

The project sites are not listed on the Regional Water Quality Control Board's Leaking Underground Tank Cleanup Site (LUST) or any other Cleanup Program Sites.¹⁰ These two components comprise the State Cortese List of known hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, implementation of the proposed project would not create a significant hazard to the public or the environment, and no impact would occur.

¹⁰ California State Water Resources Control Board, 2017. GeoTracker. Website: geotracker.waterboards.ca.gov (accessed June 1, 2017).

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (No Impact)*

The San Carlos Airport is the closest airport and is located approximately 1 mile northeast of Burton Park and 1.75 miles northeast of Highlands Park. However, the proposed project would consist of installation of new and replacement field lighting and would not increase the residential or working population at the project sites. Therefore, the proposed project would not expose people to safety hazards related to airports and no impact would occur.

- f) *For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (No Impact)*

The project site is not located in the vicinity of a private airstrip. Therefore, implementation of the proposed project would not result in a safety hazard to people working or residing in the area due to the proximity of a private airstrip and no impact would occur.

- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (No Impact)*

The installation of the new and proposed field lighting systems would not interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not alter any of the streets within, or adjacent to, the project site. Therefore, no impact would occur.

- h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (No Impact)*

The proposed project sites are located in urban settings within developed areas. The project site is located within the Moderate Threat to Development area in the San Carlos General Plan.¹¹ However, development of the project would not expose people or structures to a significant risk associated with wildland fires. Therefore, the proposed project would not result in an impact related to exposure of people or structures to a significant risk of loss, injury or death involving wildland fires.

¹¹ 

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Violate any water quality standards or waste discharge requirements? (Less-Than-Significant Impact)*

The State Water Resources Control Board and nine Regional Water Quality Control Boards regulate the water quality of surface water and groundwater bodies throughout California. Runoff water quality is regulated through the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act). The NPDES Program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is overseen by the San Francisco Bay Regional Water Quality Control Board (Water Board). The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) assists cities, towns, and unincorporated areas with coordination and consistency of approaches across the County in implementing the Water Board requirements. As with most communities, the City of San Carlos does not treat stormwater. Consequently, the City of San Carlos requires the implementation of Best Management Practices (BMPs) for new development and construction as part of its stormwater management program.

The proposed project consists of installation of new and replacement field lighting at Burton and Highlands Parks. Runoff from both project sites is eventually conveyed to the San Francisco Bay through the City’s stormwater system and these conditions would not be significantly altered with the proposed project. Therefore, impacts associated with water quality standards and waste discharge would be less than significant.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (No Impact)*

The proposed project would include minor excavation to install new field lighting poles at both Burton and Highlands Parks. However, the proposed project would not include the use of any groundwater supplies. Therefore, the proposed project would not result in an impact related to the depletion of groundwater supplies.

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (Less-Than-Significant Impact)*

The proposed project would be constructed and operated on already developed fields, and drainage patterns would remain unchanged on the project sites. Minor excavation from installing the new lighting poles and electrical connections would be returned to pre-project conditions following construction activities. Therefore, the proposed project would have a less-than-significant impact on existing drainage patterns.

- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (Less-Than-Significant Impact)*

Refer to Section IX.c. The proposed project would not substantially alter existing drainage or result in flooding. The project sites are located on existing fields, and surface runoff is directed into the existing storm drainage system or captured on the grass fields. The proposed project would result in an incremental increase in the amount of impervious surfaces at the project sites in the form of the new lighting poles. However, it would not substantially increase the rate or amount of surface runoff, and therefore the proposed project would have a less-than-significant impact on the existing drainage pattern of the project area.

- e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Less-Than-Significant Impact)*

Refer to Sections IX.a and IX.c. Implementation of the proposed project would have a less-than-significant impact on existing and planned stormwater drainage systems.

- f) *Otherwise substantially degrade water quality? (Less-Than-Significant Impact)*

Refer to Section IX.a. Implementation of the proposed project would have a less-than-significant impact associated with water quality standards and waste discharge.

- g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (No Impact)*

The proposed project does not include housing. Therefore, the proposed project would not result in placement of housing in a flood hazard area, and no impact would occur.

- h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (Less-Than-Significant Impact)*

The Flood Insurance Rate Map issued by FEMA, effective October 16, 2012, indicates that the proposed project is located within Zone X (Other Areas), which is defined as being outside the 0.2 percent annual chance floodplain.¹² Small portions of Burton Park are defined as areas of a 0.2 percent annual chance of flood, areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square miles, and areas protected by levees from 1 percent annual chance flood. The project sites are not located within a 100-year flood zone as mapped by FEMA and the proposed project would not impede or redirect flows. Therefore, the proposed project would have a less-than-significant effect on flood flows.

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam? (No Impact)*

The proposed project would not increase the residential or working population of the project site. Therefore, the proposed project would not result in an impact related to the exposure of people or structures to a significant risk of loss related to flooding.

- j) *Inundation by seiche, tsunami, or mudflow? (No Impact)*

The project sites are not located adjacent an enclosed body of water, and would not face the risk of inundation from tsunami. Additionally, the project sites are located on generally flat, developed areas and would not be subject to mudflows. Therefore, there would be no impact related to inundation by seiche, tsunami, or mudflow.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

¹² Federal Emergency Management Agency, 2012. Flood Insurance Rate Map, City of San Carlos, Community Panel 060327, Map Item ID: 06081C0282E. Website: msc.fema.gov/portal (accessed June 1, 2017).

a) *Physically divide an established community? (No Impact)*

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying area. For instance, the construction of an interstate highway through an existing community may constrain travel from one of the community to another; similarly, such construction may also impair travel to areas outside the community.

The proposed project consists of installation of new and replacement field lighting at Burton and Highlands Parks. The proposed project would not alter the existing streets within or adjacent to the project site. Therefore, the proposed project would not result in a physical division of an established community or adversely affect the continuity of land uses in the vicinity, and there would be no impact.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (No Impact)*

The proposed project is located within the City of San Carlos limits and is designated as Park under the City's General Plan and Zoning Ordinance. Land use at the project sites would remain the same with project implementation, and the proposed project would not conflict with any applicable land use plan, policy or regulation of the City of San Carlos that was adopted for the purpose of avoiding or mitigating an environmental impact.

The proposed project would also implement some of the recommended actions that are outlined in the City of San Carlos Master Plan for Parks, Open Space, and Other Recreational Facilities.¹³ Specifically, the proposed project would provide lighting at Stadium Field in Highlands Park for nighttime baseball and soccer play. In addition, the proposed project is consistent with the recommendation to provide night lighting at Flanagan Field in Burton Park. The proposed project is also consistent with the strategies in the 2001 City of San Carlos Parks and Sports Fields Field Use and Agronomic Specifications study¹⁴ to increase athletic field availability by providing night lighting.

No land use incompatibilities or conflicts with existing plans or policies would result from the proposed project. Therefore, the proposed project would not conflict with any applicable land use plan, policy or regulation, and no impact would occur.

¹³ Harris Design Landscape Architecture, 2008. *City of San Carlos Master Plan for Parks, Open Space, Buildings and other Recreational Facilities*. Prepared for the City of San Carlos. August.

¹⁴ Mark Mahady & Associates, 2001. *Parks and Sports Fields Field Use and Agronomic Specifications*.

- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan? (No Impact)*

Refer to Section IV.f. The proposed project is not within the boundaries of an adopted or pending Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, no impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? (No Impact)*

The project sites are located in urban areas. There are no areas within the City of San Carlos designated by the California Department of Conservation as having the potential for being a significant source of composite materials or industrial materials.¹⁵ The proposed project involves the installation of new and replacement lighting and would not result in the loss of availability of a known mineral resource of value to the region and the residents of the State and no impact would occur.

- b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No Impact)*

Refer to Section XI.a. The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site. Therefore, no impact would occur.

¹⁵ San Carlos, City of, 2009. *2030 General Plan, Land Use Element*. October 12.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would involve the installation of new field lighting on currently unlit fields at Burton and Highlands Parks and the upgrade of the existing lighting at the parks with LED lights and would allow for the increase in field use at the two parks. In addition, the proposed project involves modifications to the 2010 Settlement Agreement which would allow for additional use at Highlands Park. Due to the potential for significant noise impacts associated with the extended use at the two parks, the Draft EIR will analyze the potential for impacts related to noise.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (No Impact)</i>				

The proposed project does not include housing and would be located at Burton and Highlands Parks. Development of the proposed project would not affect the residential population of the City of San Carlos and therefore, would have no impact on population increase or population projections.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (No Impact)

No permanent housing is located within the project sites. Implementation of the proposed project would not remove existing housing. Therefore, no impact would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (No Impact)

Refer to Section XIII.b. The proposed project would not displace any people and would not require the construction of replacement housing. Therefore, no impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. PUBLIC SERVICES.

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

i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The proposed project focused on in this section is the installation of new field lights and upgrades for existing field lights at Burton Park and Highlands Park. The change in use of fields at Highlands Park per provisions in the Settlement Agreement would not result in any significant impacts related to public services.

Fire Protection. (Less-Than-Significant Impact) The San Carlos Fire Department (SCFD) provides fire protection and emergency medical services to the project sites. The SCFD operates two stations within the City: Station #13 at 525 Laurel Street and Station #16 at 1280 Alameda de las Pulgas.

The installation of new and replacement field lighting systems would allow practices and games to be held during evening hours at Burton and Highlands Parks. The addition of new night lighting on two fields to allow additional games and practices would incrementally increase demand for fire protection and life safety services at both parks. However, the addition of lighting would not affect existing response times to the project sites. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services. Therefore, the installation of new and replacement field lighting would have a less-than-significant impact on fire protection and life safety services and facilities.

Police Protection. (*Less-Than-Significant Impact*) Police protection services at the project sites are provided by the San Carlos Police Bureau, a division of the San Mateo County Sheriff's Office. The San Carlos Police Bureau is located at 600 Elm Street.

The installation of new and replacement field lighting systems would allow additional practices and games to be held during evening hours at Burton and Highlands Parks. The addition of new night lighting on two fields to allow additional games and practices would incrementally increase demand for police protection services at both parks. However, the addition of lighting would not affect existing response times to the project sites. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for police protection services. Therefore, the installation of new and replacement field lighting would have a less-than-significant impact on police protection services and facilities.

Schools. (*No Impact*) The proposed project would not directly affect the existing schools such that new school facilities would have to be physically altered or newly constructed. Therefore, installation of new and replacement field lighting would have no impact on school facilities.

Parks. (*Less-Than-Significant Impact*) The proposed project involves the installation of new and replacement field lighting at Burton and Highlands Parks to allow for extended use of the two parks. The installation of the new field lighting at the parks would allow additional practices and games to be held during evening hours. During project construction, use of the existing fields would be temporarily interrupted, which could increase the use of other community parks. However, this impact would be temporary in nature and the proposed project would not result in increased demand for park facilities such that new park facilities would need to be constructed. Therefore, the installation of new and replacement lighting to allow extended use of the fields would have a less-than-significant impact.

Other Public Facilities. (*No Impact*) The installation of new and replacement field lighting would not affect the existing school population, and would not result in an increase of the local resident population. Therefore, the project would not result in increased demand for other public facilities such as libraries and community centers, such that new facilities would have to be physically altered or newly constructed. Therefore, the installation of the field lighting would have no impact on other public facilities.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Less-Than-Significant Impact)*

The proposed project sites are grass and artificial turf fields at two sites. Implementation of the proposed project would result in the installation of new and replacement field lighting at Burton and Highlands Parks to allow for extended hours of use per the City’s Field Use Policy. To address use and maintenance of all City fields, the Parks & Recreation Department has an active and dedicated field maintenance program. The field maintenance program includes mowing, edging, weed control, pruning and infield maintenance two times per week at each field. Annual, routine field closures are essential in keeping up the integrity of the fields, allowing the City to provide quality and safe fields for San Carlos youth to play on. The following tasks are performed during annual four- to six-week field closures: aerating, fertilizing, top seeding, irrigation/repairs/modifications, infield material added and fencing/closure to allow seed to germinate. The City will continue to manage and maintain all fields, including those at Burton and Highlands Parks, per standard City practices to ensure that substantial physical deterioration of the fields would not occur or be accelerated, and impacts to the fields associated with the extended hours of use would be less than significant.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (No Impact)*

Please refer to Section XV.a. The project involves the installation of new and replacement field lighting and would not require the construction or expansion of additional recreational facilities on or off the project sites. The proposed project may alleviate the demand for field space in the community by allowing additional use at Burton and Highlands Parks fields. As such, there would be no construction or expansion of recreational facilities that would have an adverse impact on the environment.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would involve the installation of new field lighting on currently unlit fields at Burton and Highlands Parks and the upgrade of the existing lighting at the parks with LED lights and would allow for the increase in field use at the two parks. In addition, the proposed project involves modifications to the 2010 Settlement Agreement which would allow for additional use at Highlands Park. Due to the potential for significant traffic impacts associated with the extended use at the two parks, the Draft EIR will analyze the potential for impacts related to transportation/traffic.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVII. TRIBAL CULTURAL RESOURCES.

(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | | |
|-----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i) | Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) | A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. [In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.] | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (i) Listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? (No Impact)*

As noted in Section V, Cultural Resources, the project sites are both located in developed, urban areas and are not anticipated to contain cultural resources, including tribal cultural resources. Additionally, no tribal resources are known to occur or have been identified at Burton or Highlands Parks. On April 25, 2017, the City of San Carlos invited interested Native American tribes that may be culturally or traditionally affiliated with the project area to conduct consultation (see Appendix B). No response was received within 30 days of this request and the City has fulfilled its obligations pursuant to AB 52. Therefore, the proposed project would not have an impact on a tribal cultural resource. The correspondence related to tribal cultural resources is included in Appendix B.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, State, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (No Impact)*

The proposed project would not affect the current wastewater disposal and treatment systems that serve Burton Park and Highlands Park. Therefore, installation of the updated and new field lighting systems at the two parks would not exceed wastewater treatment requirements and no impact on wastewater treatment systems would occur.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (No Impact)*

The proposed project would not affect the current wastewater disposal and treatment systems that serve Burton and Highlands Parks. Therefore, installation of the updated and new field lighting systems at the two parks would not exceed water or wastewater treatment facilities, and would not require the construction of new facilities.

- c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (No Impact)*

The proposed project would not result in the construction of new storm water drainage facilities or expansion of existing facilities. Therefore, no impact would occur.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (No Impact)*

Please refer to Section XVIII.b. The proposed project would not result in an impact related to water supplies.

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (No Impact)*

Please refer to Section XVIII.a. The proposed project would not generate any wastewater, and therefore would not impact the capacity of the wastewater treatment provider.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Less-than-Significant Impact)*

The proposed project would not generate solid waste (beyond whatever small quantities of construction waste could not be reused or recycled). Existing landfills have sufficient capacity to accommodate this potential minor increase in construction waste and impacts with landfill capacity are expected to be less than significant.

- g) *Comply with federal, State, and local statutes and regulations related to solid waste? (Less-than-Significant Impact)*

Please refer to Section XVII.f. The proposed project would comply with federal, State, and local statutes and regulations related to solid waste. Therefore, implementation of the proposed project would have a less-than-significant impact on regulations related to solid waste.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIV. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Implementation of the proposed project would not adversely affect protected wildlife species as the project sites are located on developed fields and there are no listed sensitive species or habitats in the vicinity of the two sites. There also are no historic or cultural resources on the project sites. Therefore, the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife species population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history.

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

With the mitigation measures identified in this report, potential cumulative impacts related to air quality would not be cumulatively considerable in the connect of impacts associated with other pending and planned development projects.

However, as discussed in this Initial Study, potentially significant impacts related to aesthetics, noise, and transportation and circulation may result from the proposed project. these impacts, as well as any cumulatively considerable impacts that may result from the proposed project related to these issues, are evaluation in the Draft EIR.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (No Impact)*

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects on human beings.

REPORT PREPARATION

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C. COMMUNICATION

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July 12.

APPENDIX A

AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

Burton Park Lighting - San Mateo County, Annual

Burton Park Lighting
San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	10.33	Acre	10.33	449,974.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	328	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burton Park Lighting - San Mateo County, Annual

Project Characteristics - CO2 intensity factor per PG&E, 2015

Land Use - Default

Construction Phase - Assuming 3 months construction

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Grading - Only a trench is needed for this project.

Vehicle Trips - Per the traffic study memorandum by W-Trans, August 2017.

Energy Use - Total load 72.45 kW obtained from Musco Lighting project summary, April 2017. Assuming approximately 5 hours of usage daily.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblEnergyUse	LightingElect	0.00	0.30
tblGrading	AcresOfGrading	10.00	75.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Burton Park Lighting - San Mateo County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2018	3-31-2018	0.4649	0.4649
		Highest	0.4649	0.4649

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	4.2400e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	19.7492	19.7492	1.7500e-003	3.6000e-004	19.9005
Mobile	0.0305	0.0960	0.3354	9.5000e-004	0.0810	1.2700e-003	0.0822	0.0218	1.1900e-003	0.0230	0.0000	87.0083	87.0083	3.5200e-003	0.0000	87.0962
Waste						0.0000	0.0000		0.0000	0.0000	0.1807	0.0000	0.1807	0.0107	0.0000	0.4476
Water						0.0000	0.0000		0.0000	0.0000	0.0000	6.4091	6.4091	5.7000e-004	1.2000e-004	6.4582
Total	0.0347	0.0960	0.3355	9.5000e-004	0.0810	1.2700e-003	0.0822	0.0218	1.1900e-003	0.0230	0.1807	113.1667	113.3474	0.0165	4.8000e-004	113.9027

Burton Park Lighting - San Mateo County, Annual

2.2 Overall Operational

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	4.2400e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	19.7492	19.7492	1.7500e-003	3.6000e-004	19.9005
Mobile	0.0305	0.0960	0.3354	9.5000e-004	0.0810	1.2700e-003	0.0822	0.0218	1.1900e-003	0.0230	0.0000	87.0083	87.0083	3.5200e-003	0.0000	87.0962
Waste						0.0000	0.0000		0.0000	0.0000	0.1807	0.0000	0.1807	0.0107	0.0000	0.4476
Water						0.0000	0.0000		0.0000	0.0000	0.0000	6.4091	6.4091	5.7000e-004	1.2000e-004	6.4582
Total	0.0347	0.0960	0.3355	9.5000e-004	0.0810	1.2700e-003	0.0822	0.0218	1.1900e-003	0.0230	0.1807	113.1667	113.3474	0.0165	4.8000e-004	113.9027

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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

Burton Park Lighting - San Mateo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/5/2018	5	5	
2	Site Preparation	Site Preparation	1/6/2018	1/12/2018	5	5	
3	Grading	Grading	1/13/2018	1/26/2018	5	10	
4	Building Construction	Building Construction	1/27/2018	3/9/2018	5	30	
5	Paving	Paving	3/10/2018	3/16/2018	5	5	
6	Architectural Coating	Architectural Coating	3/17/2018	3/23/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burton Park Lighting - San Mateo County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

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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	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	189.00	74.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876
Total	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876

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3.2 Demolition - 2018

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622
Total	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876
Total	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876

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3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622
Total	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149
Total	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005	0.0000	4.7000e-004	4.7000e-004	0.0000	4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146
Total	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149
Total	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005	0.0000	4.7000e-004	4.7000e-004	0.0000	4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146
Total	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0398	0.0000	0.0398	4.2900e-003	0.0000	4.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5100e-003	0.0996	0.0720	1.2000e-004		4.4800e-003	4.4800e-003		4.1200e-003	4.1200e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751
Total	8.5100e-003	0.0996	0.0720	1.2000e-004	0.0398	4.4800e-003	0.0443	4.2900e-003	4.1200e-003	8.4100e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751

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3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992
Total	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992

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					0.0398	0.0000	0.0398	4.2900e-003	0.0000	4.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5100e-003	0.0996	0.0720	1.2000e-004		4.4800e-003	4.4800e-003		4.1200e-003	4.1200e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751
Total	8.5100e-003	0.0996	0.0720	1.2000e-004	0.0398	4.4800e-003	0.0443	4.2900e-003	4.1200e-003	8.4100e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992
Total	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0176	0.1493	0.0917	1.5000e-004		8.0200e-003	8.0200e-003		7.5200e-003	7.5200e-003	0.0000	13.4605	13.4605	3.8500e-003	0.0000	13.5569
Total	0.0176	0.1493	0.0917	1.5000e-004		8.0200e-003	8.0200e-003		7.5200e-003	7.5200e-003	0.0000	13.4605	13.4605	3.8500e-003	0.0000	13.5569

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3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9200e-003	0.1508	0.0575	3.0000e-004	7.2300e-003	1.1600e-003	8.3900e-003	2.0900e-003	1.1100e-003	3.2000e-003	0.0000	30.0043	30.0043	2.6700e-003	0.0000	30.0711
Worker	9.2500e-003	6.7200e-003	0.0681	2.2000e-004	0.0223	1.4000e-004	0.0225	5.9400e-003	1.3000e-004	6.0700e-003	0.0000	19.8106	19.8106	4.7000e-004	0.0000	19.8223
Total	0.0152	0.1575	0.1256	5.2000e-004	0.0296	1.3000e-003	0.0309	8.0300e-003	1.2400e-003	9.2700e-003	0.0000	49.8149	49.8149	3.1400e-003	0.0000	49.8934

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	0.0176	0.1493	0.0917	1.5000e-004		8.0200e-003	8.0200e-003		7.5200e-003	7.5200e-003	0.0000	13.4605	13.4605	3.8500e-003	0.0000	13.5568
Total	0.0176	0.1493	0.0917	1.5000e-004		8.0200e-003	8.0200e-003		7.5200e-003	7.5200e-003	0.0000	13.4605	13.4605	3.8500e-003	0.0000	13.5568

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3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.3000e-004	2.2800e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6639	0.6639	2.0000e-005	0.0000	0.6642
Total	3.1000e-004	2.3000e-004	2.2800e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6639	0.6639	2.0000e-005	0.0000	0.6642

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	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	0.0305	0.0960	0.3354	9.5000e-004	0.0810	1.2700e-003	0.0822	0.0218	1.1900e-003	0.0230	0.0000	87.0083	87.0083	3.5200e-003	0.0000	87.0962
Unmitigated	0.0305	0.0960	0.3354	9.5000e-004	0.0810	1.2700e-003	0.0822	0.0218	1.1900e-003	0.0230	0.0000	87.0083	87.0083	3.5200e-003	0.0000	87.0962

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	94.00	123.03	123.03	218,388	218,388
Total	94.00	123.03	123.03	218,388	218,388

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHO	OBUS	UBUS	MCY	SBUS	MH
City Park	0.508680	0.049272	0.242166	0.132717	0.018469	0.006106	0.019850	0.006168	0.003703	0.003432	0.008335	0.000401	0.000701

5.0 Energy Detail

Historical Energy Use: N

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	132743	19.7492	1.7500e-003	3.6000e-004	19.9005
Total		19.7492	1.7500e-003	3.6000e-004	19.9005

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	132743	19.7492	1.7500e-003	3.6000e-004	19.9005
Total		19.7492	1.7500e-003	3.6000e-004	19.9005

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	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	4.2400e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004
Unmitigated	4.2400e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.2300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004
Total	4.2400e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004

Burton Park Lighting - San Mateo County, Annual

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.2300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004
Total	4.2400e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.8000e-004	1.8000e-004	0.0000	0.0000	2.0000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Burton Park Lighting - San Mateo County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.4091	5.7000e-004	1.2000e-004	6.4582
Unmitigated	6.4091	5.7000e-004	1.2000e-004	6.4582

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 12.308	6.4091	5.7000e-004	1.2000e-004	6.4582
Total		6.4091	5.7000e-004	1.2000e-004	6.4582

Burton Park Lighting - San Mateo County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 12.308	6.4091	5.7000e-004	1.2000e-004	6.4582
Total		6.4091	5.7000e-004	1.2000e-004	6.4582

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1807	0.0107	0.0000	0.4476
Unmitigated	0.1807	0.0107	0.0000	0.4476

Burton Park Lighting - San Mateo County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.89	0.1807	0.0107	0.0000	0.4476
Total		0.1807	0.0107	0.0000	0.4476

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.89	0.1807	0.0107	0.0000	0.4476
Total		0.1807	0.0107	0.0000	0.4476

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burton Park Lighting - San Mateo County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Burton Park Lighting - San Mateo County, Summer

**Burton Park Lighting
San Mateo County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	10.33	Acre	10.33	449,974.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	328	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burton Park Lighting - San Mateo County, Summer

Project Characteristics - CO2 intensity factor per PG&E, 2015

Land Use - Default

Construction Phase - Assuming 3 months construction

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Grading - Only a trench is needed for this project.

Vehicle Trips - Per the traffic study memorandum by W-Trans, August 2017.

Energy Use - Total load 72.45 kW obtained from Musco Lighting project summary, April 2017. Assuming approximately 5 hours of usage daily.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblEnergyUse	LightingElect	0.00	0.30
tblGrading	AcresOfGrading	10.00	75.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Burton Park Lighting - San Mateo County, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	328
tblTripsAndVMT	WorkerTripNumber	3.00	15.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblVehicleTrips	ST_TR	22.75	11.91
tblVehicleTrips	SU_TR	16.74	11.91
tblVehicleTrips	WD_TR	1.89	9.10

2.0 Emissions Summary

Burton Park Lighting - San Mateo County, Summer

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					
2018	2.1833	20.2287	14.9057	0.0462	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,755.6150	4,755.6150	0.7376	0.0000	4,768.4291
Maximum	2.1833	20.2287	14.9057	0.0462	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,755.6150	4,755.6150	0.7376	0.0000	4,768.4291

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					
2018	2.1833	20.2287	14.9057	0.0462	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,755.6150	4,755.6150	0.7376	0.0000	4,768.4291
Maximum	2.1833	20.2287	14.9057	0.0462	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,755.6150	4,755.6150	0.7376	0.0000	4,768.4291

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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

Burton Park Lighting - San Mateo County, Summer

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	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2215	0.6021	2.2200	6.6200e-003	0.5578	8.3500e-003	0.5662	0.1494	7.8700e-003	0.1572		666.2040	666.2040	0.0256		666.8447
Total	0.2447	0.6021	2.2211	6.6200e-003	0.5578	8.3500e-003	0.5662	0.1494	7.8700e-003	0.1572		666.2063	666.2063	0.0256	0.0000	666.8471

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	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2215	0.6021	2.2200	6.6200e-003	0.5578	8.3500e-003	0.5662	0.1494	7.8700e-003	0.1572		666.2040	666.2040	0.0256		666.8447
Total	0.2447	0.6021	2.2211	6.6200e-003	0.5578	8.3500e-003	0.5662	0.1494	7.8700e-003	0.1572		666.2063	666.2063	0.0256	0.0000	666.8471

Burton Park Lighting - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	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	1/1/2018	1/5/2018	5	5	
2	Site Preparation	Site Preparation	1/6/2018	1/12/2018	5	5	
3	Grading	Grading	1/13/2018	1/26/2018	5	10	
4	Building Construction	Building Construction	1/27/2018	3/9/2018	5	30	
5	Paving	Paving	3/10/2018	3/16/2018	5	5	
6	Architectural Coating	Architectural Coating	3/17/2018	3/23/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burton Park Lighting - San Mateo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Burton Park Lighting - San Mateo County, Summer

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	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	189.00	74.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289

Burton Park Lighting - San Mateo County, Summer

3.2 Demolition - 2018

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289

Burton Park Lighting - San Mateo County, Summer

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714		312.7760	312.7760	0.0974		315.2102

Burton Park Lighting - San Mateo County, Summer

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869
Total	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102

Burton Park Lighting - San Mateo County, Summer

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869
Total	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241		2,357,159 g	2,357,159 g	0.7338		2,375,505.3
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829		2,357,159 g	2,357,159 g	0.7338		2,375,505.3

Burton Park Lighting - San Mateo County, Summer

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521
Total	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521

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					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241	0.0000	2,357,159 g	2,357,159 g	0.7338		2,375,505.3
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829	0.0000	2,357,159 g	2,357,159 g	0.7338		2,375,505.3

Burton Park Lighting - San Mateo County, Summer

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521
Total	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586

Burton Park Lighting - San Mateo County, Summer

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3865	9.8826	3.6642	0.0204	0.4994	0.0765	0.5759	0.1437	0.0732	0.2169		2,220.8187	2,220.8187	0.1936		2,225.6579
Worker	0.6228	0.3950	4.7876	0.0155	1.5526	9.5900e-003	1.5622	0.4118	8.8400e-003	0.4207		1,545.6164	1,545.6164	0.0359		1,546.5127
Total	1.0093	10.2776	8.4518	0.0359	2.0520	0.0861	2.1381	0.5555	0.0820	0.6375		3,766.4351	3,766.4351	0.2294		3,772.1706

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	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586

Burton Park Lighting - San Mateo County, Summer

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3865	9.8826	3.6642	0.0204	0.4994	0.0765	0.5759	0.1437	0.0732	0.2169		2,220.8187	2,220.8187	0.1936		2,225.6579
Worker	0.6228	0.3950	4.7876	0.0155	1.5526	9.5900e-003	1.5622	0.4118	8.8400e-003	0.4207		1,545.6164	1,545.6164	0.0359		1,546.5127
Total	1.0093	10.2776	8.4518	0.0359	2.0520	0.0861	2.1381	0.5555	0.0820	0.6375		3,766.4351	3,766.4351	0.2294		3,772.1706

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Summer

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Summer

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Summer

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1252	0.0794	0.9626	3.1200e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		310.7589	310.7589	7.2100e-003		310.9391
Total	0.1252	0.0794	0.9626	3.1200e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		310.7589	310.7589	7.2100e-003		310.9391

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Summer

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1252	0.0794	0.9626	3.1200e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		310.7589	310.7589	7.2100e-003		310.9391
Total	0.1252	0.0794	0.9626	3.1200e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		310.7589	310.7589	7.2100e-003		310.9391

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Burton Park Lighting - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2215	0.6021	2.2200	6.6200e-003	0.5578	8.3500e-003	0.5662	0.1494	7.8700e-003	0.1572		666.2040	666.2040	0.0256		666.8447
Unmitigated	0.2215	0.6021	2.2200	6.6200e-003	0.5578	8.3500e-003	0.5662	0.1494	7.8700e-003	0.1572		666.2040	666.2040	0.0256		666.8447

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	94.00	123.03	123.03	218,388	218,388
Total	94.00	123.03	123.03	218,388	218,388

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HH	OBUS	UBUS	MCY	SBUS	MH
City Park	0.508680	0.049272	0.242166	0.132717	0.018469	0.006106	0.019850	0.006168	0.003703	0.003432	0.008335	0.000401	0.000701

5.0 Energy Detail

Historical Energy Use: N

Burton Park Lighting - San Mateo County, Summer

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Burton Park Lighting - San Mateo County, Summer

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Unmitigated	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003

Burton Park Lighting - San Mateo County, Summer

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0232					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Total	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0232					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Total	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003

7.0 Water Detail

Burton Park Lighting - San Mateo County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Burton Park Lighting - San Mateo County, Winter

Burton Park Lighting
San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	10.33	Acre	10.33	449,974.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	328	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burton Park Lighting - San Mateo County, Winter

Project Characteristics - CO2 intensity factor per PG&E, 2015

Land Use - Default

Construction Phase - Assuming 3 months construction

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Grading - Only a trench is needed for this project.

Vehicle Trips - Per the traffic study memorandum by W-Trans, August 2017.

Energy Use - Total load 72.45 kW obtained from Musco Lighting project summary, April 2017. Assuming approximately 5 hours of usage daily.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblEnergyUse	LightingElect	0.00	0.30
tblGrading	AcresOfGrading	10.00	75.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Burton Park Lighting - San Mateo County, Winter

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	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2044	0.6547	2.3354	6.2900e-003	0.5578	8.3900e-003	0.5662	0.1494	7.9100e-003	0.1573		632.1132	632.1132	0.0262		632.7679
Total	0.2277	0.6547	2.3365	6.2900e-003	0.5578	8.3900e-003	0.5662	0.1494	7.9100e-003	0.1573		632.1155	632.1155	0.0262	0.0000	632.7703

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	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2044	0.6547	2.3354	6.2900e-003	0.5578	8.3900e-003	0.5662	0.1494	7.9100e-003	0.1573		632.1132	632.1132	0.0262		632.7679
Total	0.2277	0.6547	2.3365	6.2900e-003	0.5578	8.3900e-003	0.5662	0.1494	7.9100e-003	0.1573		632.1155	632.1155	0.0262	0.0000	632.7703

Burton Park Lighting - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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	1/1/2018	1/5/2018	5	5	
2	Site Preparation	Site Preparation	1/6/2018	1/12/2018	5	5	
3	Grading	Grading	1/13/2018	1/26/2018	5	10	
4	Building Construction	Building Construction	1/27/2018	3/9/2018	5	30	
5	Paving	Paving	3/10/2018	3/16/2018	5	5	
6	Architectural Coating	Architectural Coating	3/17/2018	3/23/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burton Park Lighting - San Mateo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Burton Park Lighting - San Mateo County, Winter

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	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	189.00	74.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289

Burton Park Lighting - San Mateo County, Winter

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

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	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289

Burton Park Lighting - San Mateo County, Winter

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714		312.7760	312.7760	0.0974		315.2102

Burton Park Lighting - San Mateo County, Winter

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073
Total	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102

Burton Park Lighting - San Mateo County, Winter

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073
Total	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241		2,357,159.9	2,357,159.9	0.7338		2,375,505.3
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829		2,357,159.9	2,357,159.9	0.7338		2,375,505.3

Burton Park Lighting - San Mateo County, Winter

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637
Total	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637

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					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241	0.0000	2,357.159 g	2,357.159 g	0.7338		2,375.5053
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829	0.0000	2,357.159 g	2,357.159 g	0.7338		2,375.5053

Burton Park Lighting - San Mateo County, Winter

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637
Total	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586

Burton Park Lighting - San Mateo County, Winter

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4054	10.0663	4.0232	0.0200	0.4994	0.0781	0.5775	0.1437	0.0747	0.2184		2,183.0449	2,183.0449	0.1994		2,188.0308
Worker	0.6907	0.4876	4.6888	0.0146	1.5526	9.5900e-003	1.5622	0.4118	8.8400e-003	0.4207		1,450.3128	1,450.3128	0.0346		1,451.1765
Total	1.0961	10.5539	8.7120	0.0346	2.0520	0.0877	2.1397	0.5555	0.0836	0.6391		3,633.3577	3,633.3577	0.2340		3,639.2073

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	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586

Burton Park Lighting - San Mateo County, Winter

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4054	10.0663	4.0232	0.0200	0.4994	0.0781	0.5775	0.1437	0.0747	0.2184		2,183.0449	2,183.0449	0.1994		2,188.0308
Worker	0.6907	0.4876	4.6888	0.0146	1.5526	9.5900e-003	1.5622	0.4118	8.8400e-003	0.4207		1,450.3128	1,450.3128	0.0346		1,451.1765
Total	1.0961	10.5539	8.7120	0.0346	2.0520	0.0877	2.1397	0.5555	0.0836	0.6391		3,633.3577	3,633.3577	0.2340		3,639.2073

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Winter

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Winter

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Winter

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1389	0.0980	0.9427	2.9300e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		291.5973	291.5973	6.9500e-003		291.7709
Total	0.1389	0.0980	0.9427	2.9300e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		291.5973	291.5973	6.9500e-003		291.7709

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

Burton Park Lighting - San Mateo County, Winter

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1389	0.0980	0.9427	2.9300e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		291.5973	291.5973	6.9500e-003		291.7709
Total	0.1389	0.0980	0.9427	2.9300e-003	0.3122	1.9300e-003	0.3141	0.0828	1.7800e-003	0.0846		291.5973	291.5973	6.9500e-003		291.7709

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Burton Park Lighting - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2044	0.6547	2.3354	6.2900e-003	0.5578	8.3900e-003	0.5662	0.1494	7.9100e-003	0.1573		632.1132	632.1132	0.0262		632.7679
Unmitigated	0.2044	0.6547	2.3354	6.2900e-003	0.5578	8.3900e-003	0.5662	0.1494	7.9100e-003	0.1573		632.1132	632.1132	0.0262		632.7679

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	94.00	123.03	123.03	218,388	218,388
Total	94.00	123.03	123.03	218,388	218,388

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHO	OBUS	UBUS	MCY	SBUS	MH
City Park	0.508680	0.049272	0.242166	0.132717	0.018469	0.006106	0.019850	0.006168	0.003703	0.003432	0.008335	0.000401	0.000701

5.0 Energy Detail

Historical Energy Use: N

Burton Park Lighting - San Mateo County, Winter

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
City Park	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	
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	

Burton Park Lighting - San Mateo County, Winter

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Unmitigated	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003

Burton Park Lighting - San Mateo County, Winter

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0232					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Total	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0232					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003
Total	0.0233	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.2600e-003	2.2600e-003	1.0000e-005		2.4200e-003

7.0 Water Detail

Burton Park Lighting - San Mateo County, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Highlands Park Lighting - San Mateo County, Annual

**Highlands Park Lighting
San Mateo County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.25	Acre	11.25	490,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	328	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Highlands Park Lighting - San Mateo County, Annual

Project Characteristics - CO2 intensity factor per PG&E, 2015

Land Use - Default

Construction Phase - Assuming 3 months construction

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Grading - Only a trench is needed for this project.

Vehicle Trips - Per the traffic study memorandum by W-Trans, August 2017.

Energy Use - Total load 104.86 kW obtained from Musco Lighting project summary, April 2017. Assuming approximately 5 hours of usage daily.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblEnergyUse	LightingElect	0.00	0.39
tblGrading	AcresOfGrading	10.00	75.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	328
tblTripsAndVMT	WorkerTripNumber	3.00	15.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblVehicleTrips	ST_TR	22.75	10.13
tblVehicleTrips	SU_TR	16.74	10.13
tblVehicleTrips	WD_TR	1.89	7.73

2.0 Emissions Summary

Highlands Park Lighting - San Mateo County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0450	0.4343	0.3218	8.8000e-004	0.0745	0.0148	0.0892	0.0137	0.0138	0.0275	0.0000	82.3234	82.3234	0.0112	0.0000	82.6039
Maximum	0.0450	0.4343	0.3218	8.8000e-004	0.0745	0.0148	0.0892	0.0137	0.0138	0.0275	0.0000	82.3234	82.3234	0.0112	0.0000	82.6039

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0450	0.4343	0.3218	8.8000e-004	0.0745	0.0148	0.0892	0.0137	0.0138	0.0275	0.0000	82.3234	82.3234	0.0112	0.0000	82.6038
Maximum	0.0450	0.4343	0.3218	8.8000e-004	0.0745	0.0148	0.0892	0.0137	0.0138	0.0275	0.0000	82.3234	82.3234	0.0112	0.0000	82.6038

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2018	3-31-2018	0.4793	0.4793
		Highest	0.4793	0.4793

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	4.6200e-003	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	28.5803	28.5803	2.5300e-003	5.2000e-004	28.7992
Mobile	0.0282	0.0889	0.3104	8.8000e-004	0.0749	1.1700e-003	0.0761	0.0201	1.1000e-003	0.0212	0.0000	80.5273	80.5273	3.2500e-003	0.0000	80.6087
Waste						0.0000	0.0000		0.0000	0.0000	0.1969	0.0000	0.1969	0.0116	0.0000	0.4878
Water						0.0000	0.0000		0.0000	0.0000	0.0000	6.9799	6.9799	6.2000e-004	1.3000e-004	7.0334
Total	0.0329	0.0889	0.3105	8.8000e-004	0.0749	1.1700e-003	0.0761	0.0201	1.1000e-003	0.0212	0.1969	116.0876	116.2845	0.0180	6.5000e-004	116.9293

Highlands Park Lighting - San Mateo County, Annual

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	4.6200e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	28.5803	28.5803	2.5300e-003	5.2000e-004	28.7992
Mobile	0.0282	0.0889	0.3104	8.8000e-004	0.0749	1.1700e-003	0.0761	0.0201	1.1000e-003	0.0212	0.0000	80.5273	80.5273	3.2500e-003	0.0000	80.6087
Waste						0.0000	0.0000		0.0000	0.0000	0.1969	0.0000	0.1969	0.0116	0.0000	0.4678
Water						0.0000	0.0000		0.0000	0.0000	0.0000	6.9799	6.9799	6.2000e-004	1.3000e-004	7.0334
Total	0.0329	0.0889	0.3105	8.8000e-004	0.0749	1.1700e-003	0.0761	0.0201	1.1000e-003	0.0212	0.1969	116.0876	116.2845	0.0180	6.5000e-004	116.9293

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/5/2018	5	5	
2	Site Preparation	Site Preparation	1/6/2018	1/12/2018	5	5	
3	Grading	Grading	1/13/2018	1/26/2018	5	10	
4	Building Construction	Building Construction	1/27/2018	3/9/2018	5	30	
5	Paving	Paving	3/10/2018	3/16/2018	5	5	
6	Architectural Coating	Architectural Coating	3/17/2018	3/23/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Highlands Park Lighting - San Mateo County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

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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	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	206.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	41.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876
Total	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876

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3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622
Total	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622

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	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876
Total	7.2000e-004	7.7400e-003	8.1900e-003	1.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.1784	1.1784	3.7000e-004	0.0000	1.1876

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3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622
Total	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2620	0.2620	1.0000e-005	0.0000	0.2622

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149
Total	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005	0.0000	4.7000e-004	4.7000e-004	0.0000	4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146
Total	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149
Total	6.7000e-004	6.5700e-003	5.8400e-003	1.0000e-005	0.0000	4.7000e-004	4.7000e-004	0.0000	4.3000e-004	4.3000e-004	0.0000	0.7094	0.7094	2.2000e-004	0.0000	0.7149

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146
Total	1.5000e-004	1.1000e-004	1.0800e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3145	0.3145	1.0000e-005	0.0000	0.3146

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0398	0.0000	0.0398	4.2900e-003	0.0000	4.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5100e-003	0.0996	0.0720	1.2000e-004		4.4800e-003	4.4800e-003		4.1200e-003	4.1200e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751
Total	8.5100e-003	0.0996	0.0720	1.2000e-004	0.0398	4.4800e-003	0.0443	4.2900e-003	4.1200e-003	8.4100e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751

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3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992
Total	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992

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					0.0398	0.0000	0.0398	4.2900e-003	0.0000	4.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5100e-003	0.0996	0.0720	1.2000e-004		4.4800e-003	4.4800e-003		4.1200e-003	4.1200e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751
Total	8.5100e-003	0.0996	0.0720	1.2000e-004	0.0398	4.4800e-003	0.0443	4.2900e-003	4.1200e-003	8.4100e-003	0.0000	10.6919	10.6919	3.3300e-003	0.0000	10.7751

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992
Total	3.3000e-004	2.4000e-004	2.4000e-003	1.0000e-005	7.9000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6988	0.6988	2.0000e-005	0.0000	0.6992

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0176	0.1493	0.0917	1.5000e-004		8.0200e-003	8.0200e-003		7.5200e-003	7.5200e-003	0.0000	13.4605	13.4605	3.8500e-003	0.0000	13.5569
Total	0.0176	0.1493	0.0917	1.5000e-004		8.0200e-003	8.0200e-003		7.5200e-003	7.5200e-003	0.0000	13.4605	13.4605	3.8500e-003	0.0000	13.5569

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3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4600e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.7163	0.7163	2.0000e-005	0.0000	0.7167
Total	3.3000e-004	2.4000e-004	2.4600e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.7163	0.7163	2.0000e-005	0.0000	0.7167

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.4600e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.7163	0.7163	2.0000e-005	0.0000	0.7167
Total	3.3000e-004	2.4000e-004	2.4600e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.7163	0.7163	2.0000e-005	0.0000	0.7167

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Highlands Park Lighting - San Mateo County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	192100	28.5803	2.5300e-003	5.2000e-004	28.7992
Total		28.5803	2.5300e-003	5.2000e-004	28.7992

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	192100	28.5803	2.5300e-003	5.2000e-004	28.7992
Total		28.5803	2.5300e-003	5.2000e-004	28.7992

6.0 Area Detail

6.1 Mitigation Measures Area

Highlands Park Lighting - San Mateo County, Annual

	ROG	NOx	CO	SO2	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	4.6200e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Unmitigated	4.6200e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Total	4.6200e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004

Highlands Park Lighting - San Mateo County, Annual

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004
Total	4.6200e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-004	2.0000e-004	0.0000	0.0000	2.1000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Highlands Park Lighting - San Mateo County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9799	6.2000e-004	1.3000e-004	7.0334
Unmitigated	6.9799	6.2000e-004	1.3000e-004	7.0334

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.4042	6.9799	6.2000e-004	1.3000e-004	7.0334
Total		6.9799	6.2000e-004	1.3000e-004	7.0334

Highlands Park Lighting - San Mateo County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.4042	6.9799	6.2000e-004	1.3000e-004	7.0334
Total		6.9799	6.2000e-004	1.3000e-004	7.0334

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1969	0.0116	0.0000	0.4878
Unmitigated	0.1969	0.0116	0.0000	0.4878

Highlands Park Lighting - San Mateo County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.97	0.1969	0.0116	0.0000	0.4878
Total		0.1969	0.0116	0.0000	0.4878

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.97	0.1969	0.0116	0.0000	0.4878
Total		0.1969	0.0116	0.0000	0.4878

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Highlands Park Lighting - San Mateo County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Highlands Park Lighting - San Mateo County, Summer

Highlands Park Lighting
San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.25	Acre	11.25	490,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	328	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Highlands Park Lighting - San Mateo County, Summer

Project Characteristics - CO2 intensity factor per PG&E, 2015

Land Use - Default

Construction Phase - Assuming 3 months construction

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Grading - Only a trench is needed for this project.

Vehicle Trips - Per the traffic study memorandum by W-Trans, August 2017.

Energy Use - Total load 104.86 kW obtained from Musco Lighting project summary, April 2017. Assuming approximately 5 hours of usage daily.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblEnergyUse	LightingElect	0.00	0.39
tblGrading	AcresOfGrading	10.00	75.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Highlands Park Lighting - San Mateo County, Summer

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	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2051	0.5577	2.0564	6.1400e-003	0.5167	7.7400e-003	0.5244	0.1384	7.2900e-003	0.1457		617.1022	617.1022	0.0237		617.6957
Total	0.2305	0.5577	2.0576	6.1400e-003	0.5167	7.7400e-003	0.5244	0.1384	7.2900e-003	0.1457		617.1047	617.1047	0.0238	0.0000	617.6983

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	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.2051	0.5577	2.0564	6.1400e-003	0.5167	7.7400e-003	0.5244	0.1384	7.2900e-003	0.1457		617.1022	617.1022	0.0237		617.6957
Total	0.2305	0.5577	2.0576	6.1400e-003	0.5167	7.7400e-003	0.5244	0.1384	7.2900e-003	0.1457		617.1047	617.1047	0.0238	0.0000	617.6983

Highlands Park Lighting - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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	1/1/2018	1/5/2018	5	5	
2	Site Preparation	Site Preparation	1/6/2018	1/12/2018	5	5	
3	Grading	Grading	1/13/2018	1/26/2018	5	10	
4	Building Construction	Building Construction	1/27/2018	3/9/2018	5	30	
5	Paving	Paving	3/10/2018	3/16/2018	5	5	
6	Architectural Coating	Architectural Coating	3/17/2018	3/23/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Highlands Park Lighting - San Mateo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Highlands Park Lighting - San Mateo County, Summer

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	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	206.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	41.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289

Highlands Park Lighting - San Mateo County, Summer

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

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	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289

Highlands Park Lighting - San Mateo County, Summer

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714		312.7760	312.7760	0.0974		315.2102

Highlands Park Lighting - San Mateo County, Summer

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869
Total	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102

Highlands Park Lighting - San Mateo County, Summer

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869
Total	0.0593	0.0376	0.4560	1.4800e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		147.2016	147.2016	3.4100e-003		147.2869

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241		2,357,159.9	2,357,159.9	0.7338		2,375,505.3
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829		2,357,159.9	2,357,159.9	0.7338		2,375,505.3

Highlands Park Lighting - San Mateo County, Summer

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521
Total	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521

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					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241	0.0000	2,357,159 g	2,357,159 g	0.7338		2,375,505.3
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829	0.0000	2,357,159 g	2,357,159 g	0.7338		2,375,505.3

Highlands Park Lighting - San Mateo County, Summer

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521
Total	0.0659	0.0418	0.5066	1.6400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		163.5573	163.5573	3.7900e-003		163.6521

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586

Highlands Park Lighting - San Mateo County, Summer

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4178	10.6838	3.9613	0.0220	0.5399	0.0827	0.6226	0.1553	0.0791	0.2345		2,400.885 1	2,400.885 1	0.2093		2,406.116 6
Worker	0.6788	0.4306	5.2183	0.0169	1.6922	0.0105	1.7027	0.4489	9.6400e-003	0.4585		1,684.640 1	1,684.640 1	0.0391		1,685.617 0
Total	1.0967	11.1144	9.1795	0.0389	2.2321	0.0932	2.3253	0.6042	0.0888	0.6930		4,085.525 2	4,085.525 2	0.2483		4,091.733 6

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	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586

Highlands Park Lighting - San Mateo County, Summer

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4178	10.6838	3.9613	0.0220	0.5399	0.0827	0.6226	0.1553	0.0791	0.2345		2,400.885 1	2,400.885 1	0.2093		2,406.116 6
Worker	0.6788	0.4306	5.2183	0.0169	1.6922	0.0105	1.7027	0.4489	9.6400e-003	0.4585		1,684.640 1	1,684.640 1	0.0391		1,685.617 0
Total	1.0967	11.1144	9.1795	0.0389	2.2321	0.0932	2.3253	0.6042	0.0888	0.6930		4,085.525 2	4,085.525 2	0.2483		4,091.733 6

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Highlands Park Lighting - San Mateo County, Summer

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

Highlands Park Lighting - San Mateo County, Summer

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391
Total	0.0494	0.0314	0.3800	1.2300e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		122.6680	122.6680	2.8500e-003		122.7391

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Highlands Park Lighting - San Mateo County, Summer

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1351	0.0857	1.0386	3.3600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		335.2924	335.2924	7.7800e-003		335.4869
Total	0.1351	0.0857	1.0386	3.3600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		335.2924	335.2924	7.7800e-003		335.4869

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

Highlands Park Lighting - San Mateo County, Summer

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1351	0.0857	1.0386	3.3600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		335.2924	335.2924	7.7800e-003		335.4869
Total	0.1351	0.0857	1.0386	3.3600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		335.2924	335.2924	7.7800e-003		335.4869

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Highlands Park Lighting - San Mateo County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2051	0.5577	2.0564	6.1400e-003	0.5167	7.7400e-003	0.5244	0.1384	7.2900e-003	0.1457		617.1022	617.1022	0.0237		617.6957
Unmitigated	0.2051	0.5577	2.0564	6.1400e-003	0.5167	7.7400e-003	0.5244	0.1384	7.2900e-003	0.1457		617.1022	617.1022	0.0237		617.6957

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	86.96	113.96	113.96	202,121	202,121
Total	86.96	113.96	113.96	202,121	202,121

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHB	OBUS	UBUS	MCY	SBUS	MH
City Park	0.508680	0.049272	0.242166	0.132717	0.018469	0.006106	0.019850	0.006168	0.003703	0.003432	0.008335	0.000401	0.000701

5.0 Energy Detail

Historical Energy Use: N

Highlands Park Lighting - San Mateo County, Summer

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
City Park	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	
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	

Highlands Park Lighting - San Mateo County, Summer

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Unmitigated	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003

Highlands Park Lighting - San Mateo County, Summer

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Total	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Total	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003

7.0 Water Detail

Highlands Park Lighting - San Mateo County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Highlands Park Lighting - San Mateo County, Winter

**Highlands Park Lighting
San Mateo County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.25	Acre	11.25	490,050.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	328	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Highlands Park Lighting - San Mateo County, Winter

Project Characteristics - CO2 intensity factor per PG&E, 2015

Land Use - Default

Construction Phase - Assuming 3 months construction

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Off-road Equipment - Conservative assumptions as park is already built, only needs light poles installed.

Grading - Only a trench is needed for this project.

Vehicle Trips - Per the traffic study memorandum by W-Trans, August 2017.

Energy Use - Total load 104.86 kW obtained from Musco Lighting project summary, April 2017. Assuming approximately 5 hours of usage daily.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblEnergyUse	LightingElect	0.00	0.39
tblGrading	AcresOfGrading	10.00	75.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Highlands Park Lighting - San Mateo County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	328
tblTripsAndVMT	WorkerTripNumber	3.00	15.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblVehicleTrips	ST_TR	22.75	10.13
tblVehicleTrips	SU_TR	16.74	10.13
tblVehicleTrips	WD_TR	1.89	7.73

2.0 Emissions Summary

Highlands Park Lighting - San Mateo County, Winter

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					
2018	2.3651	21.3651	15.5702	0.0478	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,929.9926	4,929.9926	0.7375	0.0000	4,943.4029
Maximum	2.3651	21.3651	15.5702	0.0478	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,929.9926	4,929.9926	0.7375	0.0000	4,943.4029

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					
2018	2.3651	21.3651	15.5702	0.0478	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,929.9926	4,929.9926	0.7375	0.0000	4,943.4029
Maximum	2.3651	21.3651	15.5702	0.0478	8.1181	0.8968	9.0148	0.9024	0.8250	1.7274	0.0000	4,929.9926	4,929.9926	0.7375	0.0000	4,943.4029

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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

Highlands Park Lighting - San Mateo County, Winter

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	0.0254	1.0000e-005	1.1690e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1894	0.6064	2.1633	5.8200e-003	0.5167	7.7800e-003	0.5245	0.1384	7.3300e-003	0.1457		585.5241	585.5241	0.0243		586.1305
Total	0.2147	0.6064	2.1645	5.8200e-003	0.5167	7.7800e-003	0.5245	0.1384	7.3300e-003	0.1457		585.5265	585.5265	0.0243	0.0000	586.1331

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	0.0254	1.0000e-005	1.1690e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1894	0.6064	2.1633	5.8200e-003	0.5167	7.7800e-003	0.5245	0.1384	7.3300e-003	0.1457		585.5241	585.5241	0.0243		586.1305
Total	0.2147	0.6064	2.1645	5.8200e-003	0.5167	7.7800e-003	0.5245	0.1384	7.3300e-003	0.1457		585.5265	585.5265	0.0243	0.0000	586.1331

Highlands Park Lighting - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	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	1/1/2018	1/5/2018	5	5	
2	Site Preparation	Site Preparation	1/6/2018	1/12/2018	5	5	
3	Grading	Grading	1/13/2018	1/26/2018	5	10	
4	Building Construction	Building Construction	1/27/2018	3/9/2018	5	30	
5	Paving	Paving	3/10/2018	3/16/2018	5	5	
6	Architectural Coating	Architectural Coating	3/17/2018	3/23/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Highlands Park Lighting - San Mateo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Highlands Park Lighting - San Mateo County, Winter

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		1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation		1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading		3	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction		3	206.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving		0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating		0	41.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381		519.5851	519.5851	0.1618		523.6289

Highlands Park Lighting - San Mateo County, Winter

3.2 Demolition - 2018

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289
Total	0.2892	3.0959	3.2757	5.1700e-003		0.1502	0.1502		0.1381	0.1381	0.0000	519.5851	519.5851	0.1618		523.6289

Highlands Park Lighting - San Mateo County, Winter

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714		312.7760	312.7760	0.0974		315.2102

Highlands Park Lighting - San Mateo County, Winter

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073
Total	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102
Total	0.2661	2.6297	2.3367	3.1100e-003	0.0000	0.1863	0.1863	0.0000	0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		315.2102

Highlands Park Lighting - San Mateo County, Winter

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073
Total	0.0658	0.0464	0.4466	1.3900e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		138.1250	138.1250	3.2900e-003		138.2073

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241		2,357,159 g	2,357,159 g	0.7338		2,375.5053
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829		2,357,159 g	2,357,159 g	0.7338		2,375.5053

Highlands Park Lighting - San Mateo County, Winter

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637
Total	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637

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					7.9538	0.0000	7.9538	0.8588	0.0000	0.8588			0.0000			0.0000
Off-Road	1.7022	19.9172	14.3991	0.0234		0.8957	0.8957		0.8241	0.8241	0.0000	2,357,159 g	2,357,159 g	0.7338		2,375.5053
Total	1.7022	19.9172	14.3991	0.0234	7.9538	0.8957	8.8495	0.8588	0.8241	1.6829	0.0000	2,357,159 g	2,357,159 g	0.7338		2,375.5053

Highlands Park Lighting - San Mateo County, Winter

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637
Total	0.0731	0.0516	0.4962	1.5400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		153.4723	153.4723	3.6600e-003		153.5637

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012		989.1799	989.1799	0.2832		996.2586

Highlands Park Lighting - San Mateo County, Winter

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4382	10.8925	4.3494	0.0216	0.5399	0.0845	0.6244	0.1553	0.0808	0.2361		2,360.0485	2,360.0485	0.2156		2,365.4387
Worker	0.7529	0.5315	5.1105	0.0159	1.6922	0.0105	1.7027	0.4489	9.6400e-003	0.4585		1,580.7643	1,580.7643	0.0377		1,581.7056
Total	1.1911	11.4140	9.4599	0.0375	2.2321	0.0949	2.3271	0.6042	0.0905	0.6946		3,940.8127	3,940.8127	0.2533		3,947.1443

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	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586
Total	1.1740	9.9511	6.1103	0.0103		0.5349	0.5349		0.5012	0.5012	0.0000	989.1799	989.1799	0.2832		996.2586

Highlands Park Lighting - San Mateo County, Winter

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.4382	10.8825	4.3494	0.0216	0.5399	0.0845	0.6244	0.1553	0.0808	0.2361		2,360.0485	2,360.0485	0.2156			2,365.4387
Worker	0.7529	0.5315	5.1105	0.0159	1.6922	0.0105	1.7027	0.4489	9.6400e-003	0.4585		1,580.7643	1,580.7643	0.0377			1,581.7056
Total	1.1911	11.4140	9.4599	0.0375	2.2321	0.0949	2.3271	0.6042	0.0905	0.6946		3,940.8127	3,940.8127	0.2533			3,947.1443

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Highlands Park Lighting - San Mateo County, Winter

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003			115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003			115.1727

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Highlands Park Lighting - San Mateo County, Winter

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727
Total	0.0548	0.0387	0.3721	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		115.1042	115.1042	2.7400e-003		115.1727

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Highlands Park Lighting - San Mateo County, Winter

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1498	0.1058	1.0172	3.1600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		314.6181	314.6181	7.4900e-003		314.8055
Total	0.1498	0.1058	1.0172	3.1600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		314.6181	314.6181	7.4900e-003		314.8055

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Highlands Park Lighting - San Mateo County, Winter

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1498	0.1058	1.0172	3.1600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		314.6181	314.6181	7.4900e-003		314.8055
Total	0.1498	0.1058	1.0172	3.1600e-003	0.3368	2.0800e-003	0.3389	0.0893	1.9200e-003	0.0913		314.6181	314.6181	7.4900e-003		314.8055

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Highlands Park Lighting - San Mateo County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1894	0.6064	2.1633	5.8200e-003	0.5167	7.7800e-003	0.5245	0.1384	7.3300e-003	0.1457		585.5241	585.5241	0.0243		586.1305
Unmitigated	0.1894	0.6064	2.1633	5.8200e-003	0.5167	7.7800e-003	0.5245	0.1384	7.3300e-003	0.1457		585.5241	585.5241	0.0243		586.1305

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	86.96	113.96	113.96	202,121	202,121
Total	86.96	113.96	113.96	202,121	202,121

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HH	OBUS	UBUS	MCY	SBUS	MH
City Park	0.508680	0.049272	0.242166	0.132717	0.018469	0.006106	0.019850	0.006168	0.003703	0.003432	0.008335	0.000401	0.000701

5.0 Energy Detail

Historical Energy Use: N

Highlands Park Lighting - San Mateo County, Winter

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Highlands Park Lighting - San Mateo County, Winter

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Unmitigated	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003

Highlands Park Lighting - San Mateo County, Winter

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Total	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003
Total	0.0254	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4600e-003	2.4600e-003	1.0000e-005		2.6300e-003

7.0 Water Detail

Highlands Park Lighting - San Mateo County, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX B

NATIVE AMERICAN TRIBAL CONSULTATION LETTERS

NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471



April 11, 2017

Andrew Pulcheon
LSA

Email to: Andrew.pulcheon@lsa.net

Re: Burton Park Light Installation, San Mateo County

Dear Mr. Pulcheon,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at frank.lienert@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Frank Lienert".

Frank Lienert
Associate Governmental Program Analyst

**Native American Heritage Commission
Native American Contacts
4/11/2017**

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street Ohlone/Costanoan
Pomona , CA 91766
rumsen@aol.com
(909) 524-8041 Cell
(909) 629-6081

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwielerlein, Chairperson
789 Canada Road Ohlone/Costanoan
Woodside , CA 94062
amahmutsuntribal@gmail.com
(650) 851-7489 Cell
(650) 851-7747 Office
(650) 332-1526 Fax

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791 Ohlone / Costanoan
Milpitas , CA 95036
muwekma@muwekma.org
(408) 314-1898
(510) 581-5194

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3152 Ohlone/Costanoan
Fremont , CA 94539 Bay Miwok
chochenyo@AOL.com Plains Miwok
(510) 882-0527 Cell Patwin

(510) 687-9393 Fax

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 Ohlone/Costanoan
Hollister , CA 95024
ams@indiancanyon.org
(831) 637-4238

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources assessments for the updated contact list for Burton Park Light Installation, San Mateo County

NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471



April 11, 2017

Andrew Pulcheon
LSA

Email to: Andrew.pulcheon@lsa.net

Re: Highland Park Light Installation, San Mateo County

Dear Mr. Pulcheon,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at frank.lienert@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Frank Lienert'.

Frank Lienert
Associate Governmental Program Analyst

**Native American Heritage Commission
Native American Contacts
4/11/2017**

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street Ohlone/Costanoan
Pomona , CA 91766
rumsen@aol.com
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(909) 629-6081

Amah Mutsun Tribal Band of Mission San Juan Bautista
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(650) 851-7747 Office
(650) 332-1526 Fax

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
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(408) 314-1898
(510) 581-5194

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(510) 882-0527 Cell Patwin

(510) 687-9393 Fax

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 Ohlone/Costanoan
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ams@indiancanyon.org
(831) 637-4238

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources assessments for the updated contact list for Highland Park Light Installation, San Mateo County

City Hall
600 ELM STREET
SAN CARLOS, CALIFORNIA 94070



Public Works Department
TELEPHONE: (650) 802-4200
FAX: (650) 595-6704

CITY OF SAN CARLOS

April 27, 2017

Irenne Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Bautista
789 Canada Road
Woodside, CA 94062

SUBJECT: AB 52 Consultation Notification for the Burton Park and Highlands Park Project, San Carlos, California

Dear Ms. Zwierlein:

The City of San Carlos (City) proposes improvements to lighting systems at two City-owned parks (Figures 1, 2, and 3). Specifically, the project involves installation of new LED lighting at Flanagan Field and replacement of existing halogen lighting at Madsen Field with LED lights at Burton Park. The other component of the project is the installation of new LED lighting at Upper Athletic Field/Stadium Field and replacement of existing halogen lighting at Lower Athletic Field/Highlands Field with LED lights at Highlands Park. In addition to the installation of new lighting and replacement of existing lighting, the proposed project involves modifications to a 2010 Settlement Agreement between the City and Save San Carlos Parks (SSCP) for Highlands Park. The modifications to the Settlement Agreement would simply remove restrictions on the use of Highlands Park including the practice schedule, required passenger loading zone, and designated carpool spaces. The City has contracted with an environmental consultant to prepare a focused EIR looking at traffic and aesthetics, as well as an Initial Study to address all the other topics.

The City is the lead agency responsible for the California Environmental Quality Act (CEQA). As such, the City would like to provide you with an opportunity to communicate concerns you might have regarding places within the project area that may be important to your community. The City requests your participation in the identification and protection of cultural resources, sacred lands or other heritage sites within the above described project area with the understanding that you or other members of the community might possess specialized knowledge of the area. The City requested a Sacred Lands File search, which was completed on April 11, 2017, with negative results for both project sites.

Please respond within 30 days, pursuant to PRC 21080.3.1(d) if you would like to consult on this project, and consider this letter and preliminary project information as formal notification of a proposed project as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52).

If you or any of your tribal members have any questions or concerns regarding this project please contact me at (650) 802-4202 or via e-mail at KForouhi@cityofsancarlos.org.

Thank you for your consideration of this request.

Sincerely,

Kaveh Forouhi, PE, TE, QSD/QSP
Senior Engineer

Attachments: Project Location and Regional Vicinity Map
Aerial Photograph of Burton Park
Aerial Photograph of Highlands Park

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CITY OF SAN CARLOS

April 27, 2017

Tony Cerda, Chairperson
Coastanoan Rumsen Carmel Tribe
244 E. 1st Street
Pomona, CA 91766

SUBJECT: AB 52 Consultation Notification for the Burton Park and Highlands Park Project, San Carlos, California

Dear Mr. Cerda:

The City of San Carlos (City) proposes improvements to lighting systems at two City-owned parks (Figures 1, 2, and 3). Specifically, the project involves installation of new LED lighting at Flanagan Field and replacement of existing halogen lighting at Madsen Field with LED lights at Burton Park. The other component of the project is the installation of new LED lighting at Upper Athletic Field/Stadium Field and replacement of existing halogen lighting at Lower Athletic Field/Highlands Field with LED lights at Highlands Park. In addition to the installation of new lighting and replacement of existing lighting, the proposed project involves modifications to a 2010 Settlement Agreement between the City and Save San Carlos Parks (SSCP) for Highlands Park. The modifications to the Settlement Agreement would simply remove restrictions on the use of Highlands Park including the practice schedule, required passenger loading zone, and designated carpool spaces. The City has contracted with an environmental consultant to prepare a focused EIR looking at traffic and aesthetics, as well as an Initial Study to address all the other topics.

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Thank you for your consideration of this request.

Sincerely,

Kaveh Forouhi, PE, TE, QSD/QSP
Senior Engineer

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CITY OF SAN CARLOS

April 27, 2017

Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Costanoan
P.O. Box 28
Hollister, CA 95024

SUBJECT: AB 52 Consultation Notification for the Burton Park and Highlands Park Project, San Carlos, California

Dear Ms. Sayers:

The City of San Carlos (City) proposes improvements to lighting systems at two City-owned parks (Figures 1, 2, and 3). Specifically, the project involves installation of new LED lighting at Flanagan Field and replacement of existing halogen lighting at Madsen Field with LED lights at Burton Park. The other component of the project is the installation of new LED lighting at Upper Athletic Field/Stadium Field and replacement of existing halogen lighting at Lower Athletic Field/Highlands Field with LED lights at Highlands Park. In addition to the installation of new lighting and replacement of existing lighting, the proposed project involves modifications to a 2010 Settlement Agreement between the City and Save San Carlos Parks (SSCP) for Highlands Park. The modifications to the Settlement Agreement would simply remove restrictions on the use of Highlands Park including the practice schedule, required passenger loading zone, and designated carpool spaces. The City has contracted with an environmental consultant to prepare a focused EIR looking at traffic and aesthetics, as well as an Initial Study to address all the other topics.

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Thank you for your consideration of this request.

Sincerely,

Kaveh Forouhi, PE, TE, QSD/QSP
Senior Engineer

Attachments: Project Location and Regional Vicinity Map
Aerial Photograph of Burton Park
Aerial Photograph of Highlands Park

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600 ELM STREET
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CITY OF SAN CARLOS

April 27, 2017

Rosemary Cambra, Chairperson
Muwekma Ohlone Indian Tribe of the SF Bay Area
P.O. Box 360791
Milpitas, CA 95036

SUBJECT: AB 52 Consultation Notification for the Burton Park and Highlands Park Project, San Carlos, California

Dear Ms. Cambra:

The City of San Carlos (City) proposes improvements to lighting systems at two City-owned parks (Figures 1, 2, and 3). Specifically, the project involves installation of new LED lighting at Flanagan Field and replacement of existing halogen lighting at Madsen Field with LED lights at Burton Park. The other component of the project is the installation of new LED lighting at Upper Athletic Field/Stadium Field and replacement of existing halogen lighting at Lower Athletic Field/Highlands Field with LED lights at Highlands Park. In addition to the installation of new lighting and replacement of existing lighting, the proposed project involves modifications to a 2010 Settlement Agreement between the City and Save San Carlos Parks (SSCP) for Highlands Park. The modifications to the Settlement Agreement would simply remove restrictions on the use of Highlands Park including the practice schedule, required passenger loading zone, and designated carpool spaces. The City has contracted with an environmental consultant to prepare a focused EIR looking at traffic and aesthetics, as well as an Initial Study to address all the other topics.

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Thank you for your consideration of this request.

Sincerely,

Kaveh Forouhi, PE, TE, QSD/QSP
Senior Engineer

Attachments: Project Location and Regional Vicinity Map
Aerial Photograph of Burton Park
Aerial Photograph of Highlands Park

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CITY OF SAN CARLOS

April 27, 2017

Andy Galvan
The Ohlone Indian Tribe
P.O. Box 3152
Fremont, CA 94539

SUBJECT: AB 52 Consultation Notification for the Burton Park and Highlands Park Project, San Carlos, California

Dear Mr. Galvan:

The City of San Carlos (City) proposes improvements to lighting systems at two City-owned parks (Figures 1, 2, and 3). Specifically, the project involves installation of new LED lighting at Flanagan Field and replacement of existing halogen lighting at Madsen Field with LED lights at Burton Park. The other component of the project is the installation of new LED lighting at Upper Athletic Field/Stadium Field and replacement of existing halogen lighting at Lower Athletic Field/Highlands Field with LED lights at Highlands Park. In addition to the installation of new lighting and replacement of existing lighting, the proposed project involves modifications to a 2010 Settlement Agreement between the City and Save San Carlos Parks (SSCP) for Highlands Park. The modifications to the Settlement Agreement would simply remove restrictions on the use of Highlands Park including the practice schedule, required passenger loading zone, and designated carpool spaces. The City has contracted with an environmental consultant to prepare a focused EIR looking at traffic and aesthetics, as well as an Initial Study to address all the other topics.

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If you or any of your tribal members have any questions or concerns regarding this project please contact me at (650) 802-4202 or via e-mail at KForouhi@cityofsancarlos.org.

Thank you for your consideration of this request.

Sincerely,

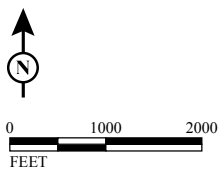
Kaveh Forouhi, PE, TE, QSD/QSP
Senior Engineer

Attachments: Project Location and Regional Vicinity Map
Aerial Photograph of Burton Park
Aerial Photograph of Highlands Park



LSA

FIGURE 1



SOURCE: ESRI StreetMap North America (2012).

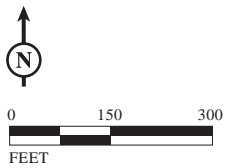
F:\CNH1601\GIS\Maps\Figure 1_Project Location & Regional Vicinity Map.mxd (3/13/2017)


Burton/Highlands Parks Lighting Project
 Project Location & Regional Vicinity Map



FIGURE 2

LSA



 Project Site

Burton/Highlands Parks Lighting Project
Aerial Photograph of Burton Park

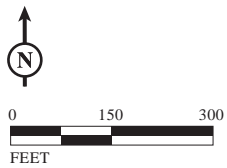
SOURCES: GOOGLE EARTH; 11/2/16; LSA, 2017.

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FIGURE 3

LSA



 Project Site

Burton/Highlands Parks Lighting Project
Aerial Photograph of Highlands Park

SOURCES: GOOGLE EARTH; 11/2/16; LSA, 2017.

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