

CITY OF SOUTH PASADENA

DOG PARK PROJECT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF SOUTH PASADENA
1414 MISSION STREET
SOUTH PASADENA, CA 91030

Prepared by:

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I N T E R N A T I O N A L

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CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

INITIAL STUDY

1. Project Title:

South Pasadena Dog Park Project

2. Lead Agency Name/Address:

City of South Pasadena
1414 Mission Street
South Pasadena, CA 91030

3. Contact Person and Phone Number:

Shin Furukawa, PE, Deputy Public Works Director
(626) 403-7246

4. Project Location:

The project site is located at the northeast corner of the intersection of Stoney Drive and Lohman Lane, in the City of South Pasadena in Los Angeles County, California, 91030.

Assessor's Parcel Number: 5313-002-901

Lot Size: Approximately 23,000 square feet, or 0.53 acre

Figures: **Figure 1** shows the location of the project site in the region, and **Figure 2** shows the project site in its neighborhood context.

Site Description: The project site is a 0.53-acre irregularly shaped parcel of land that is currently vacant and covered with low-lying vegetation and several trees. The middle portion of the project site is approximately 4 feet higher in elevation compared to the front and rear portions of the site. A chain link fence traverses the width of the property, and is set back approximately 30 feet from Stoney Drive. The City's skate park and batting cages abut the project site along the east side and the proposed dog park would share an existing surface parking lot with these facilities. The City's Public Works Yard and compressed natural gas (CNG) fueling station abut the project site along the north (rear) and west sides, while Stoney Drive bounds the site to the south.

From 1997 through 2014, the site was leased to and used by the Time Warner Cable Company, which had installed and maintained eight large parabolic satellite dish antennas; a 40-foot tall lattice structure that accommodated additional antennae panels and arrays; and a storage structure that housed the related equipment. The structures have been removed, and no evidence of any of these improvements is present on-site. The site has been unoccupied since 2014.

5. Project Sponsor's Name and Address:

City of South Pasadena
1414 Mission Street
South Pasadena, CA 91030

6. General Plan Designation:

Open Space/Park

7. Zoning:

Open Space (OS)

8. Proposed Project Description:

The proposed project consists of developing a 0.53-acre vacant site owned by the City of South Pasadena with a dog park consisting of separated small and large dog play areas (measuring 6,300 square feet and 16,650 square feet, respectively) that would be lined with decomposed granite and wood chips. Additional improvements and amenities include dog waste stations, trash receptacles, benches, and drinking/pet watering fountains. The dog play areas would be enclosed with a 6-foot-tall chain-link fence fitted with green wind screens, while a 12-foot-tall chain-link fence is proposed along the rear (north) of the dog park. Light standards up to 12 feet in height are also proposed throughout the park to allow for use in the evening, until 10:00 p.m. The project also proposes pedestrian improvements, including a decomposed granite path in the public right-of-way along Stoney Drive and a striped crosswalk across Stoney Drive at Lohman Lane, which will provide access to a future trailhead and trail segment of the Arroyo Seco Trail. Lastly, an irrigation system is proposed throughout the site. **Figure 3** provides a concept site plan of the proposed project.

The following subsections provide additional information on access and parking; water quality and drainage; and construction activities.

Access and Parking

Dog park users will access the site through a gate along the eastern side of the park, from an existing parking lot that currently provides off-street parking for the batting cages and skate park facilities. The parking lot currently contains a total of 19 parking spaces. Parking for the dog park will be provided at this existing parking lot.

Vehicular access to/from the proposed project would be provided via an existing dedicated ingress driveway and an existing dedicated egress driveway along Stoney Drive. Pedestrian access to the proposed project would be provided via existing neighborhood trails. The proposed path along Stoney Drive along the site's frontage would also facilitate pedestrian access.

Water Quality and Drainage

The project proposes to retain drainage on-site to the maximum extent feasible. The primary project features that would minimize runoff from the site and capture water pollutants onsite are the proposed topography and the permeable surfaces that would cover nearly the entire dog park (e.g, decomposed granite and wood chips).

Construction Activities

Construction of the proposed project is anticipated to start in 2016, occurring over approximately 45 to 60 days. Grading would consist of approximately 900 cubic yards, involving 300 cubic yards of export and 600 cubic yards of import. Consistent with the City's

Noise Ordinance, construction would generally occur Monday through Friday between the hours of 8:00 a.m. and 7:00 p.m. Occasional work may occur on a Saturday, which would be limited to the hours between 9:00 a.m. and 7:00 p.m. It is anticipated that construction of the project would consist of the following:

- Phase 1: Site clean-up and grubbing; duration, 1 week
- Phase 2: Grading; duration, 1 week
- Phase 3: Utility installation, including trenching for electricity and water; duration, 1 week
- Phase 4: Concrete forming and pouring; duration, 1 week
- Phase 5: Surface material and path installation; duration, 2 weeks
- Phase 6: Installation of dog park amenities; duration, 2 weeks

9. Surrounding Land Uses and Setting:

The project site is located along the north side of Stoney Drive, within the overall Arroyo Seco Park area of the city. The City's Public Works Yard and CNG station are adjacent to the northern (rear) and western side boundaries of the project site. Beyond the City yard to the north is the I-110 Freeway, which is located at a distance of approximately 150 feet and is raised approximately 30 feet above grade in the project vicinity. Stoney Drive is adjacent to the southern boundary of the project site and separates the project site from the existing 18-hole Arroyo Seco Golf Course, a City-owned golf course. An existing City-owned/operated skate park and batting cages facilities and related parking lot abut the project site along its eastern side. Beyond these facilities is an existing multi-use trail (pedestrian and equestrian) and a transitional slope that slopes up to a residential street approximately 300 feet to the east. **Figure 4** presents an aerial photograph of the project site, and **Figure 5** presents the surrounding land uses.

Additional notable uses in the project vicinity include tennis courts to the southwest of the project site, which are part of the existing Arroyo Seco Racquet Club.

10. Required Approvals:

This IS/MND covers all approvals by government agencies that may be needed to construct, implement, and operate the proposed dog park project. As the lead agency, actions to be taken by the City of South Pasadena to undertake the proposed dog park include but are not limited to:

- Approval of project plans
- Dedication of funds to implement and operate the project
- Execution of grant agreements
- Award of contract to construct the project

In addition to approvals from the City of South Pasadena, the project requires approvals from the County of Los Angeles related to Proposition A grant funding for the project, which may include but are not limited to execution of agreements and adoption of resolutions.

11. Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or particular agreement):

The City of South Pasadena is the lead agency with responsibility for approving the proposed project. At this time, no discretionary public agency approvals are known to be required for the project, other than those required by the City of South Pasadena and County of Los Angeles as noted above in section 10.



Legend

- Project Site
- City Limits

Source: ESRI streetmap.

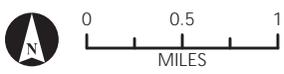


FIGURE 1
Regional Vicinity

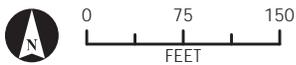


FIGURE 2
Project Location

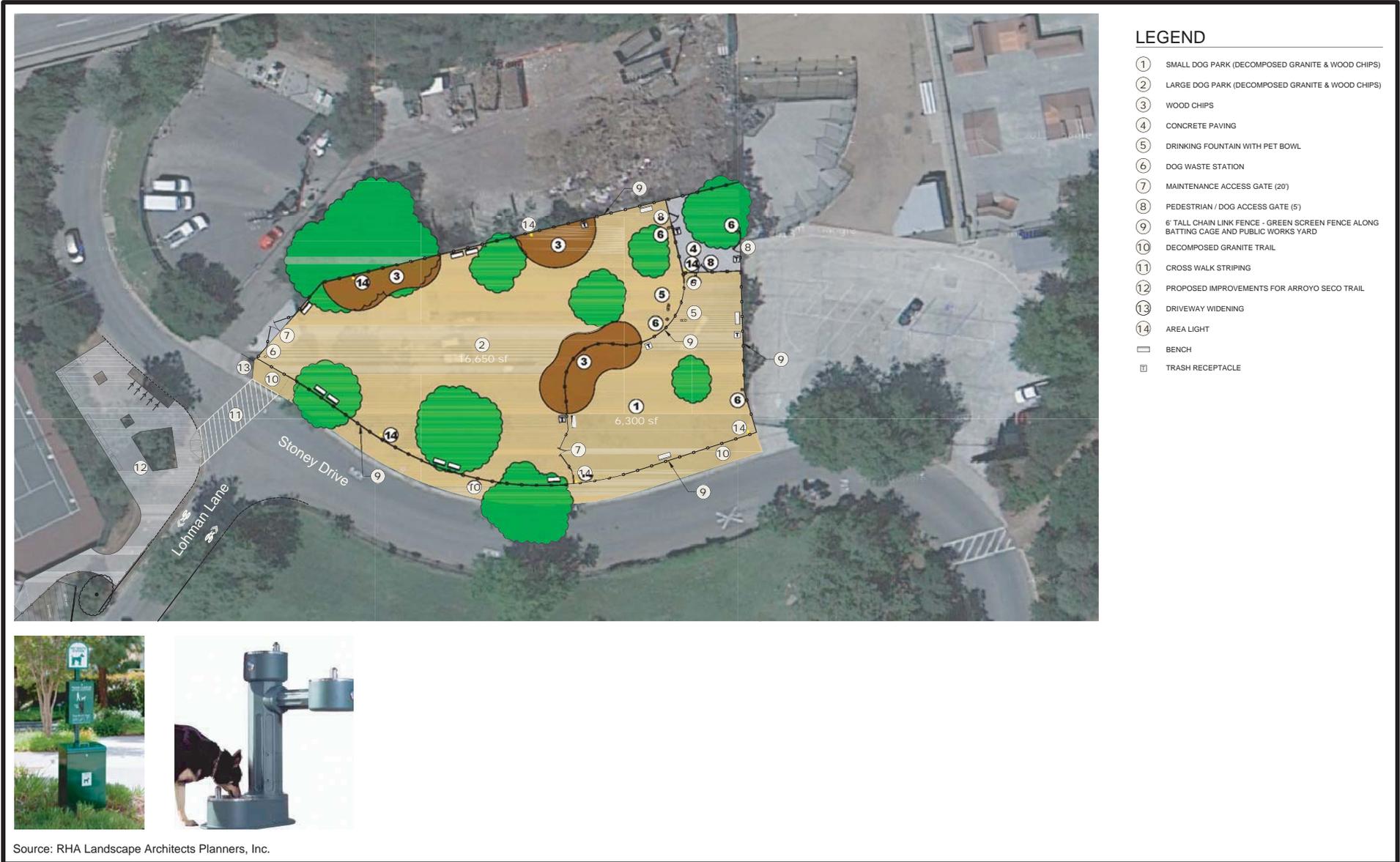


FIGURE 3
Conceptual Site Plan



FIGURE 4
Project Site Aerial

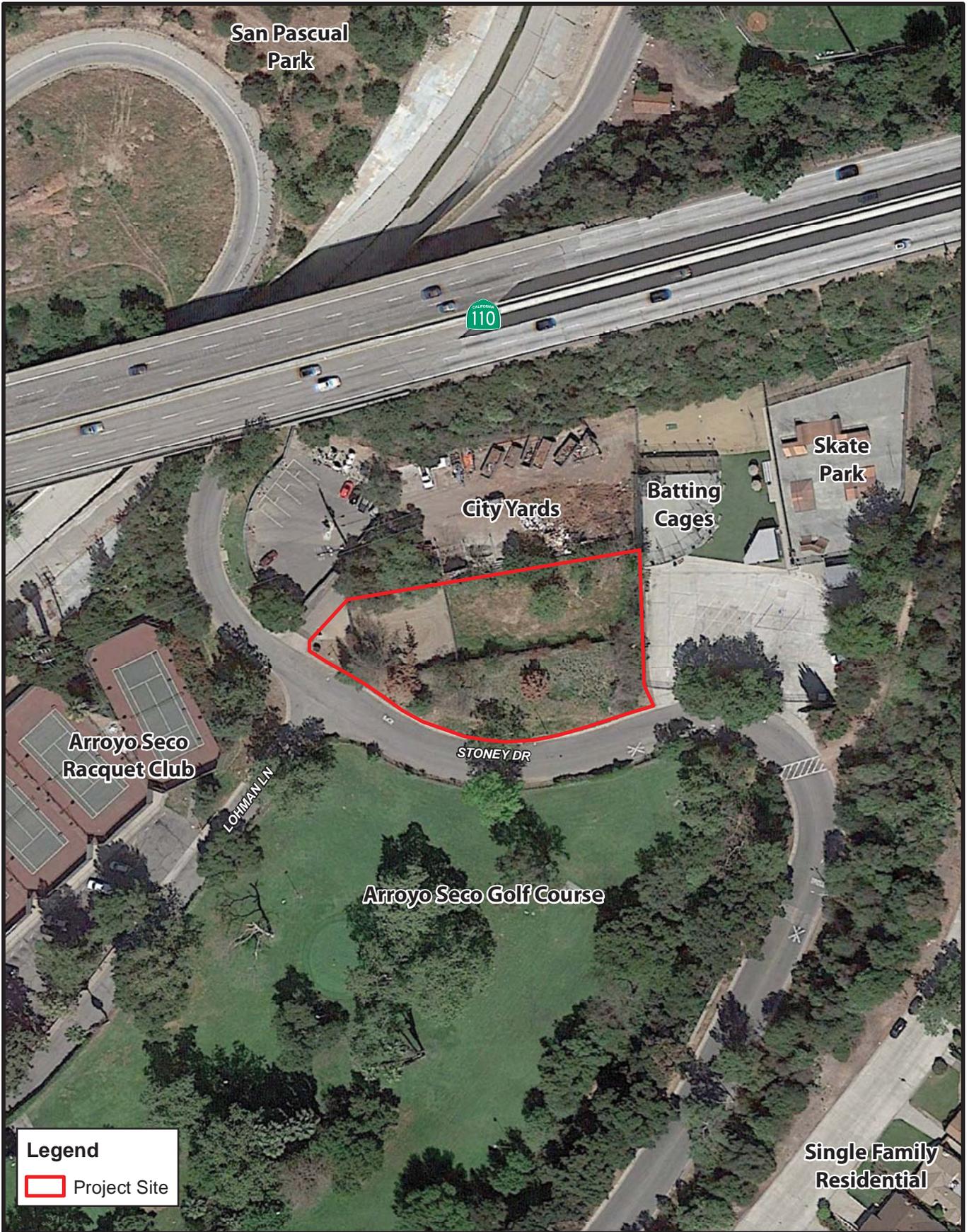


FIGURE 5
Surrounding Land Uses

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 type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Aesthetics |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Energy/Mineral Resources | <input type="checkbox"/> Cultural Resources |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Water | <input type="checkbox"/> Noise | <input type="checkbox"/> Greenhouse Gas Emissions |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Public Services | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Transportation/Circulation | <input type="checkbox"/> Utilities and Service System | |

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, Earlier Analysis, may be cross-referenced).
- 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration, Section 15063(c)(3)(D). Earlier analyses are discussed in Section 17 at the end of the checklist.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. LAND USE AND PLANNING. Would the proposal:					
a) Conflict with general plan designation or zoning?	16, 21, 20				X
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	16				X
c) Be incompatible with the existing land use in the vicinity?	16				X
d) Affect agricultural resources or operations (e.g., impact to soils or farmlands, or impacts from incompatible land uses)?	1, 16, 21				X
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	20				X

- 1.a)** The General Plan land use designation for the project site and the immediate area is Open Space/Park, and the zoning is OS (Open Space). The existing land uses are consistent with the underlying designations in that they are recreational facilities. The area contains active recreational uses such as batting cages, a skate park, and a golf course, as well as passive recreational uses such as trails. The proposed project would introduce an additional recreational amenity to the existing area, consistent with the underlying land use and zoning designation. Thus, **no impact** would occur.
- 1.b)** Development of the proposed project would not conflict with the environmental plans or policies of the City or other agencies. No changes are proposed to the land use designation of the area and the subject site, and the project would offer an improved recreational facility within the overall Arroyo Seco Park setting. As such, **no impact** would occur.
- 1.c)** Development of the proposed project would not result in incompatibility with other land uses in the project vicinity, as the project involves the addition of recreational-related improvements to the existing Arroyo Seco Park area, within the existing property limits. Other recreational activities and facilities surround the project site, including the City's skate park, batting cages, and golf course. Therefore, there would be **no impacts** relating to incompatible land uses.
- 1.d)** There are currently no agricultural operations or community gardens being conducted on the project site, and the City of South Pasadena does not identify any important farmlands or any lands for farmland use. In addition, the site is not within an area of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance as identified by the California Department of Conservation, Division of Land Resource Protection on the Los Angeles County Important Farmland 2002 map (California Department of Conservation 2004). Lastly, although community gardens are conditionally permitted uses in the OS zone, agriculture is not an allowed use in the Zoning Code. Therefore, **no impact** would occur.

- 1.e) The proposed project involves the construction of a new dog park facility within the existing property limits. The project site is located in Arroyo Seco Park, an open space area that contains no residential development. Due to the project's scope and location, the project would not physically divide an established community. Therefore, **no impact** would occur.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
2. POPULATION AND HOUSING. Would the proposal:					
a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other major infrastructure)?	19, 20, 36				X
b) Displace substantial numbers of existing housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	20				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	20				X

2.a-c) The proposed project includes a new dog park on a vacant 0.53-acre parcel located in the greater Arroyo Seco Park. No new homes or businesses are proposed as part of the project. The dog park amenities and improvements are intended to better accommodate the needs of the existing population. Further, implementation of the proposed project would not displace existing housing or people, or necessitate the construction of replacement housing elsewhere. As such, there would be **no impacts** upon population and housing as a result of the project.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
3. GEOLOGY AND SOILS. Would the proposal:					
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. A.	16				X
ii. Strong seismic ground shaking?	10, 16			X	
iii. Seismic-related ground failure, including liquefaction?	9			X	
iv. Landslides?	9				X
b) Result in substantial soil erosion or the loss of topsoil?	21			X	
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?	9, 16				X
d) Be located on expansive soil, as defined in Chapter 18A of the 2007 California Building Code, creating substantial risks to life or property?	16			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	20				X

3.a.i) The Alquist-Priolo Zone Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. The City’s General Plan Safety and Noise Element identifies that the Raymond Hill fault, an Alquist-Priolo fault and Alquist-Priolo Earthquake Fault Zone, is located in the northern portion of the city, north of the project site. No active faults are known to traverse the project site, and the project site is not located within or immediately adjacent to the Alquist-Priolo Earthquake Fault Zone. Therefore, the proposed project would have **no impact** related to the rupture of a known earthquake fault.

3.a.ii) As with most locations in Southern California, the project site is susceptible to ground shaking emanating from causative faults during an earthquake. Seismic activity along the San Andreas, Raymond Hill, Eagle Rock, and Sierra Madre faults, or on any other of the numerous faults in the Southern California area, could affect the proposed project and would be considered during project design.

Because South Pasadena is in a larger area traversed by active fault systems, any major earthquake along these systems could cause seismic ground shaking in the city. The National Seismic Zone maps, published by the International Code Council in the California Building Code, divide the United States into four major seismic zones numbered 1 through 4. Zone 1 has the lowest earthquake danger, while Zone 4 has the highest earthquake danger. According to this map, South Pasadena is in Seismic Zone 4, which has the highest earthquake danger (California Seismic Safety Commission 2005). However, since the project does not include any habitable structures or buildings, impacts would be **less than significant**.

3.a.iii) Liquefaction is a phenomenon in which saturated silt to cohesionless soil below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic stresses induced by an earthquake. These soils may acquire a high degree of mobility and lead to structurally damaging deformations. Liquefaction begins below the water table, but after liquefaction has developed, the groundwater table will rise and cause the overlying soil to mobilize. Liquefaction typically occurs in areas where groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine- to medium-grained sand. In addition to the necessary soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to initiate liquefaction. According to the Department of Conservation Division of Mines and Geology Seismic Hazard Zones Map, the project site is not within a liquefaction hazard zone as shown on the seismic hazard zone maps for the city (California Geological Survey 2015). Therefore, project implementation is not anticipated to result in the exposure of people or structures to potential impacts related to seismic ground failure or liquefaction. Thus, impacts would be **less than significant**.

3.a.iv) According to the seismic hazard zone maps for the city (California Geological Survey 2015), the project site is not located within a landslide hazard area. The project site is characterized by relatively flat topography. Project implementation would not expose people or structures to landslides. Thus, **no impact** would occur.

3.b) During construction of the proposed project, the soils on-site may become exposed for a limited time, allowing for possible erosion. However, the project is required to comply with existing regulations that reduce erosion potential. Although project development has the potential to result in the erosion of soils, this potential would be reduced by implementation of standard erosion controls imposed during site preparation and grading activities. Specifically, consistent with the City of South Pasadena Municipal Code, Chapter 23, Section 23.12, the project would be required to comply with all requirements set forth in the National Pollutant Discharge Elimination System (NPDES) permit for construction activities. The NPDES permitting process requires that the applicant submit a stormwater pollution prevention plan (SWPPP) to be administered throughout project construction.

Further, the proposed project is required to comply with South Coast Air Quality Management District (SCAQMD) Rule 403, which would reduce the potential for wind erosion by requiring the implementation of dust control measures during construction. Thus, the potential to increase erosion during any construction activity would be effectively mitigated through the required compliance activities. Operation of the proposed park would not cause wind or water erosion or the loss of topsoil. Thus, impacts would be **less than significant**.

3.c) South Pasadena rests primarily on an alluvial plain. To the north, the San Gabriel Mountains are relatively new in geological time. These mountains run generally east to west, with the

San Andreas fault on the north and the Sierra Madre fault on the south. The action of these two faults in conjunction with the north-south compression of the San Andreas tectonic plate are pushing up the San Gabriel Mountains. This uplifting, combined with erosion, has helped form the alluvial plain. As shown on the seismic hazard zone maps of the city (California Geological Survey 2015), the majority of South Pasadena lies on the flat portion of the alluvial fan, which is expected to be stable. The project site is not located on a cliff, mountainside, bluff, or other geographic feature with stability concerns. The site is not susceptible to liquefaction, landslide, subsidence, or collapse. Therefore, the proposed project would have **no impact** related to unstable geologic units or soils.

- 3.d)** The City's Safety and Noise Element does not identify expansive soils as a risk to the project area, and the project site is underlain by alluvial material from the San Gabriel Mountains. This soil consists primarily of sand and gravel and is in the low to moderate range for expansion potential (California Geological Survey 2015). Modern engineering practices and compliance with established building standards, including the California Building Code, would reduce any potential impacts to a **less than significant** level.
- 3.e)** The proposed project does not include any habitable structures or buildings, and no connections to the City's existing sewer system are proposed. Further, no septic systems and/or other alternative forms of wastewater disposal would be utilized. Thus, **no impacts** would occur.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
4. WATER. Would the proposal:					
a) Violate any water quality standards or waste discharge requirements?	16,20, 21			X	
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)?	16			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	16,20, 21			X	
d) Substantially alter the existing drainage pattern of the site or area, including through 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?	20			X	
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?	20			X	
f) Otherwise substantially degrade water quality?	21			X	
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?	16				X
h) Place within a 100-year flow hazard area structures which would impede or redirect flood flows?	16				X
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	16				X
j) Inundation by seiche, tsunami, or mudflow?	16				X

4.a, c, f) The project consists of developing a dog park facility on an existing vacant site within the greater Arroyo Seco Park. The improvements include recreational amenities including naturalized/permeable play areas for dogs; fencing; lighting; and a path between the street and the project site. None of the proposed uses are point source generators of water pollutants and, thus, no quantifiable water quality standards apply to the project. As a development project, the proposed project has the potential to introduce typical, urban, nonpoint-source pollutants to stormwater runoff, such as trash, sediment, metals, and nutrients. However, given the proposed recreational use of the facility, the naturalized/permeable nature of the park, and the vegetated nature of the site, the amount of water pollutants that would be generated on-site would be limited. The primary source of potential water pollutants from the proposed dog park would be pet waste and the related nutrients and bacteria (e.g., fecal coliform). As the first means of controlling pet waste, park rules would require pet owners to clean up after their dogs, and waste bags and disposal cans would be provided. Additionally, any drainage would be retained on-site to the maximum extent feasible. The primary project features that would minimize runoff from the site and capture water pollutants onsite are the proposed topography and the permeable surfaces that would cover nearly the entire dog park (e.g., decomposed granite and wood chips). Since the project site would continue to be pervious, runoff from the site would be negligible. Thus, operational impacts would be **less than significant**.

The project site contains no streams or rivers, and the site does not directly discharge to any surface waters. The site is generally flat with a gentle slope up to the middle of the site. The proposal would flatten the site; thus, erosion or siltation could occur during construction-related earthmoving activities. Grading activities would change drainage patterns through recontouring and compaction of soil. A potential source of off-site deposition of silt or sediment would be stormwater flowing over the project site when soil is exposed during grading activities. However, during site grading and construction, short-term runoff and erosion/sedimentation impacts would be addressed through the incorporation of best management practices and water quality management practices in accordance with an NPDES SWPPP, and through compliance with City regulations, including Municipal Code Chapter 23.12. Thus, adherence to these requirements and regulations would ensure that this construction phase impact remains **less than significant**.

4.b) The project would not install any groundwater wells, and would not otherwise directly withdraw any groundwater. The proposed irrigation system would connect to the existing water system and would not draw water directly from any wells. In addition, there are no aquifer conditions or recharge features at the project site or in the surrounding area, which could be affected by excavation or development of the project. Stormwater that percolates into the substrate in the project area remains in the upper layers of soil. Therefore, the proposed project would not physically interfere with any groundwater supplies. Similarly, the proposed project would add a negligible amount of impervious surface to the project site, but would not impede percolation of stormwater into the underlying substrate. The entry area at the proposed dog park is anticipated to be impervious. However, this area makes up less than 2 percent of the dog park site. Runoff would flow from these impervious surfaces onto the pervious portions of the site (lawn and open space areas) and/or into the proposed drainage features, which are intended to allow for retention and percolation of stormwater. Consequently, the minor areas of introduced impervious surfaces would not have a noticeable effect on percolation rates. Therefore, impacts would be **less than significant**.

- 4.d, e) Since the project site contains a knoll along the middle of the site, on-site drainage generally flows toward the front and rear of the site, following the site's existing contours. The proposal includes altering the site's topography by flattening the site and negligibly increasing the amount of impervious area (less than 2 percent of the project site). The project proposes to retain drainage on-site to the maximum extent feasible; however, any discharge to the City's storm drain system is anticipated to be minimal since the amount of impervious area is negligible and stormwater would continue to percolate into the ground. Therefore, the proposed project would not result in flooding, would not create runoff that would exceed the capacity of the storm drain system, and would not provide a substantial additional source of polluted runoff. Thus, impacts would be **less than significant**.
- 4.g, h, i) According to the General Plan, no portions of South Pasadena are located within the 100-year floodplain boundaries, as identified by the Flood Insurance Rate Maps. In addition, no levees or dams present flooding risks to the site or surrounding area. Because the project would not be located within a 100-year flood hazard area, development of the proposed project would not expose people or structures to significant flood hazards and would not impede or redirect flood flows. Thus, there would be **no impact**.
- 4.j) The project site is not located near any major bodies of surface water; therefore, impacts from seiche is not expected. The project site is located over 20 miles from the Pacific Ocean and would not be inundated by a tsunami (CalEMA 2009). In addition, although there is a knoll in the middle of the project site, the topography change is only approximately 4 feet, thereby precluding the possibility of mudslides inundating the project site. Thus, there would be **no impact**.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
5. AIR QUALITY. Would the proposal:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	3, 16, 21, 36, 38, 39, 42			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	20, 37			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	37			X	
d) Expose sensitive receptors to substantial pollutant concentrations?	20, 37, 38, 39, 42			X	
e) Create objectionable odors affecting a substantial number of people?	37			X	

5.a) The 2012 Air Quality Management Plan (AQMP) was prepared to accommodate growth, to reduce the high levels of pollutants in the areas under the jurisdiction of the South Coast Air Quality Management District (SCAQMD), and to attain clean air in the region. Projects that are considered consistent with the AQMP would not interfere with attainment of the ambient air quality standards, because this growth is included in the projections used to formulate the plan. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD’s recommended daily emissions thresholds. The 2012 AQMP utilized projections of population and transportation activity forecasts by the Southern California Association of Governments (SCAG) in its 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Under California law, SCAG is responsible for developing an SCS, a required element of the RTP, which provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board (CARB). In 2010, CARB issued a regional 8 percent per capita reduction target for the planning year 2020 and a conditional target of 13 percent for 2035. SCAG adopted the updated 2012–2035 RTP/SCS in 2012 to achieve these targets. Transportation strategies—managing transportation demand and making certain transportation system improvements—are major components of the 2012–2035 RTP/SCS. However, the 2012–2035 RTP/SCS also focuses on the general land use growth pattern for the region, because geographical relationships between land uses, including density and intensity, help determine the need for travel. SCAG placed a greater emphasis on sustainability and integrated planning in the 2012–2035 RTP/SCS, whose vision encompasses three principles: mobility, economy, and sustainability. In 2012, CARB determined that SCAG’s 2012–2035 RTP/SCS was consistent with its greenhouse gas reduction targets.

The proposed project, however, does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing recreational land use projects. Conformity with adopted plans, forecasts, and programs relative to population, housing, employment, and land use is the primary yardstick by which impact significance of planned growth is determined. The General Plan land use designation for the project site and the immediate area is Open Space/Park, and the zoning is OS (Open Space). The existing land uses are consistent with the underlying designations in that they are recreational facilities. The area contains active recreational uses such as batting cages, a skate park, and a golf course, as well as passive recreational uses such as trails. The proposed project would introduce an additional recreational amenity to the existing area, consistent with the underlying land use and zoning designation. Thus, impacts would be **less than significant**.

- 5.b) The proposed project would generate air pollutants during both construction and operation. The following paragraphs describe and evaluate the project's emissions.

Construction Emissions

Construction emissions are calculated by estimating the types and number of pieces of equipment that would be used to grade, excavate, and balance fill at the project site and to construct the proposed uses. These are analyzed according to the thresholds established by the SCAQMD. Construction activities associated with the proposed project would temporarily increase vehicle and equipment emissions and would generate particulate matter (dust). Construction equipment on the project site that would generate volatile organic compounds (VOC), nitrogen oxide (NO_x), carbon monoxide (CO), and particulate matter could include graders, cement trucks, and loaders. Some of this equipment would be used during grading activities and during construction of the amenities on the project site. This environmental assessment assumes that all construction equipment used would be diesel-powered. Construction of the proposed project is anticipated to start in 2016, occurring over approximately 45 to 60 days. Grading would consist of approximately 900 cubic yards, involving 300 cubic yards of export and 600 cubic yards of import. Consistent with the City's Noise Ordinance, construction would generally occur Monday through Friday between the hours of 8:00 a.m. and 7:00 p.m. Occasional work may occur on a Saturday, which would be limited to the hours between 9:00 a.m. and 7:00 p.m.

Emissions for the construction activities were calculated using CalEEMod, a computer program developed by the SCAQMD that calculates emissions for construction and operation of development projects. For on-road vehicular emissions, CalEEMod utilizes the Emission Factor 2014 (EMFAC2014) emission rates developed by CARB. Equipment for each phase of construction activity is based on data provided by the project applicant. Detailed assumptions and CalEEMod inputs and outputs are included in Appendix A.

Regional Construction Emissions

Construction emissions are primarily generated by construction equipment and from dust resulting from construction activity. The SCAQMD developed the CEQA Air Quality Handbook, which establishes suggested significance thresholds based on the volume of pollution emitted. According to the handbook, any project in the South Coast Air Basin with daily emissions that exceed any of the following thresholds should be considered as having an individually and cumulatively significant air quality impact:

- 75 pounds per day of volatile organic compounds (VOC)
- 100 pounds per day of nitrogen oxides (NOx)
- 550 pounds per day of carbon monoxide (CO)
- 150 pounds per day of sulfur oxides (SOx)
- 150 pounds per day of respirable particulate matter (PM10)
- 55 pounds per day of fine particulate matter (PM_{2.5})

Table AQ-1 identifies the estimated peak daily construction emissions, as calculated using the CalEEMod model. As required by the SCAQMD’s Rule 403 (Fugitive Dust), all construction activities that are capable of generating fugitive dust are required to implement dust control measures during each phase of project development to reduce the amount of particulate matter entrained in the ambient air; therefore, the CalEEMod modeling includes Rule 403 measures to reduce fugitive dust. As shown in Table AQ-1, construction emissions would be below the SCAQMD thresholds and are therefore **less than significant**.

**TABLE AQ-1
ESTIMATED PEAK DAILY CONSTRUCTION EMISSIONS IN POUNDS PER DAY, UNMITIGATED**

Emission Sources	Peak Day Emissions					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	1.78	17.04	11.06	0.02	1.14	1.01
SCAQMD Thresholds	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Source: CalEEMod 2016 (calculation sheets are provided in **Appendix A**).

Operational Emissions

The SCAQMD recommends that operational emissions of a project should be considered if they exceed any of the following emissions thresholds, which apply to individual development projects only and do not apply to cumulative development:

- 55 pounds per day of VOC
- 55 pounds per day of NOx
- 550 pounds per day of CO
- 150 pounds per day SOx
- 150 pounds per day of PM10
- 55 pounds per day of PM_{2.5}

Long-term air quality project-related emissions would be generated by vehicles traveling to and from the site. In addition to mobile sources from vehicles, general development causes smaller amounts of “area source” air pollution to be generated from on-site energy consumption (primarily landscaping/maintenance equipment) and from off-site electrical generation (lighting). These sources represent a minimal percentage of the total project NOx and CO burdens, and a few percent other pollutants.

The results of the CalEEMod calculations for the daily operational emissions of the proposed project are presented in Table AQ-2 (refer to Appendix A for CalEEMod outputs). The emissions shown in Table AQ-2 reflect the net increase in emissions anticipated from implementation of the proposed project. As shown, the daily operational emissions are below the SCAQMD thresholds for all criteria pollutants; therefore, this impact is considered **less than significant**.

**TABLE AQ-2
ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS IN POUNDS PER DAY, UNMITIGATED**

Emission Sources	Peak-Day Emissions					
	VOC	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Area	0.57	0.0	0.001	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.001	0.001	0.318	0.00	0.001	0.001
Maximum Daily Emissions	0.572	0.001	0.318	0.00	0.001	0.001
SCAQMD Thresholds	55	55	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Source: CalEEMod 2015 (calculation sheets are provided in **Appendix A**).

- 5.c) The project is located in the South Coast Air Basin, a designated non-attainment area. The project does not represent significant growth, because it is a community dog park intended to serve the current area population. The project would not result in any significant short-term (construction-related) impacts or long-term air quality impacts. Therefore, cumulative air quality impacts would be **less than significant**.
- 5.d) Sensitive populations (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses considered sensitive receptors typically include residences, schools, playgrounds, child care centers, hospitals, convalescent homes, and retirement homes. Sensitive receptors in proximity to the project site are the residential uses located approximately 330 feet (100 meters) to the east across Stoney Drive and Arroyo Drive.

Air quality impacts on sensitive receptors are assessed by evaluating the potential for the project to cause localized concentrations of pollutants. Land use development projects, like the proposed project, have the potential to increase pollutant levels at or near the project site during construction. The SCAQMD has developed methodologies for analyzing the potential effects related to localized significance thresholds and carbon monoxide hotspots. The following paragraphs describe and evaluate the project’s potential impacts on sensitive receptors pursuant to the SCAQMD’s guidance.

The SCAQMD developed localized significance threshold (LST) methodologies and mass rate look-up tables by source receptor area (SRA) that can be used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or substantially contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. They are developed based on the ambient concentrations of that pollutant for each SRA. The SCAQMD's LST methodology is described in Final Localized Significance Threshold Methodology and is based on LST tables published by the SCAQMD (2009); both documents are available on the SCAQMD website.

The LST mass rate look-up tables screening thresholds provided by the SCAQMD allow a determination as to whether the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts. If the calculated on-site emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up tables, the proposed construction or operation activity is not significant for air quality.

The LST mass rate look-up tables are applicable to the following pollutants only: nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter less than 10 microns and 2.5 microns in aerodynamic diameter (PM₁₀ and PM_{2.5}). Table entries are derived based on the location of the activity (i.e., the SRA); the emission rates of NO_x, CO, PM₁₀, and PM_{2.5}; and the distance to the nearest exposed individual.

The LST methodology presents mass emission rates for each SRA, project sizes of 1, 2, and 5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given receptors, the methodology uses linear interpolation to determine the thresholds. The SCAQMD recommends that LSTs be analyzed using the CalEEMod equipment list based on the maximum number of acres disturbed on the peak day. As the project site is 0.53 acres, for the purposes of the LST analysis, maximum emissions were estimated using the LST screening tables for a 1-acre site (the LST screening table provides emissions for project sites of 1, 2, and 5 acres).

The project is located in SRA 8. The sensitive receptors in the proposed project vicinity with the largest potential to be affected by construction activities are the residential uses located approximately 330 feet (100 meters) to the east of the project site. The construction emissions are comparable to the most stringent LST screening thresholds for a 1-acre project located in SRA 8 as identified in the SCAQMD look-up tables, and the LSTs for receptors at 100 meters are utilized in this analysis and provide a conservative, i.e., "health protective," standard of care.

Since operation of the proposed project does not include any point sources of pollutants (e.g., generator, incinerator) only the construction phase LSTs apply to the project. Emissions for the construction activities were calculated using CalEEMod, utilizing the construction equipment data provided by the City. Total worst-case on-site construction emissions for the proposed project are included in Table AQ-3. Detailed assumptions and CalEEMod inputs and outputs are included in Appendix A. As shown in Table AQ-3, the proposed project would not generate emissions in excess of the LST screening thresholds. Therefore, impacts to sensitive receptors in the project vicinity would be **less than significant**.

**TABLE AQ-3
TOTAL CONSTRUCTION EMISSIONS AND LOCALIZED SIGNIFICANCE THRESHOLDS**

Pollutant	Maximum On-Site Construction Emissions	Screening Threshold¹	Quantity of Pollutant Exceeding Threshold	Potentially Significant Impact?
CO	11.06	1,158	0	No
NO ₂	17.04	81	0	No
PM ₁₀	1.14	27	0	No
PM _{2.5}	1.01	7	0	No

Source: CalEEMod 2015 (calculation sheets are provided in **Appendix A**).

1. Screening thresholds are measured at 100 meters from the proposed project site.

- 5.e)** The proposed project (dog park) is not expected to create any objectionable odors. However, during construction-related activities, some odors (not substantial pollutant concentrations) that may be detected are those typical of construction vehicles (e.g., diesel exhaust from grading and construction equipment). These odors are not unusual and do not pose a health risk, but are a temporary short-term impact that is typical of construction projects. The project would not expose sensitive receptors to substantial pollutant concentrations. When the park is operational, pet owners are expected to clean up after their pets, and doggie bags and disposal cans will be provided. Weekly park maintenance will clean up any droppings that may have been overlooked. Therefore, the project would not create objectionable odors that would affect a substantial number of people, and impacts are **less than significant**.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
6. TRANSPORTATION/CIRCULATION. Would the proposal:					
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?	16, 34			X	
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?	34			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	16				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	20, 21				X
e) Result in inadequate emergency access?	20, 21			X	
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?	16, 18, 20				X
g) Result in inadequate parking capacity?	20, 21		X		

6.a) Implementation of the proposed project does not have the potential to cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system due to the potential increase in vehicular traffic generated by the proposed uses. As indicated in Table TC-1, the amount of traffic generated by the proposed dog park will not result in a decrease in the level of service for the local and regional circulation network.

It is anticipated that a majority of dog park users would be from the nearby residential neighborhood. Many of these users are anticipated to walk to the proposed dog park, with pedestrian access provided via existing neighborhood trails. The proposed path along Stoney Drive along the site’s frontage, combined with the existing network of neighborhood trails in the area, creates additional opportunities for residents in the area to access the dog park without the need to drive to the facility. Thus, impacts would be **less than significant**.

- 6.b) As noted above, it is anticipated that many patrons of the proposed dog park would walk their dogs to the site. To estimate the number of vehicles anticipated to access the site, trip generation rates were published by the San Diego Association of Governments (SANDAG). As shown in Table TC-1, the proposed dog park facility would generate 4 vehicle trips during the a.m. peak hour, 3 vehicle trips during the p.m. peak hour, and 27 daily vehicle trips, which does not meet the threshold for traffic analysis.

**TABLE TC-1
PROJECT TRIP GENERATION RATE**

Land Use	Size		Daily	AM Peak Hour	PM Peak Hour
<i>Trip Rates</i>					
City Park	Per	Acre	50	13%	9%
<i>Trip Generation</i>					
City Park	0.53	Acre	27	4	3
Total Trip Generation			27	4	3

Source: SANDAG 2002

To verify that traffic generation would be below the thresholds for analysis, trip rates from an approved traffic study titled “Aliso Canyon Community Park Dog Park Parking and Trip Generation Analysis” were considered. This study was prepared for a 5.47-acre community dog park in the City of Aliso Viejo, in Orange County (RK Engineering Group, Inc., April 2015). Based on observed data from other dog parks, the study concluded that the 1.66-acre portion of the Aliso Canyon Community Dog Park would produce 52 vehicle trips on weekdays and 74 vehicle trips on weekends. Since the proposed South Pasadena dog park would measure 0.53 acre in area, proportionally the proposed dog park would produce 17 weekday vehicle trips and 24 weekend vehicle trips. This level of trip generation is consistent with (albeit less conservative than) the SANDAG rates considered above. Using either trip generation rates, the proposed dog park would not produce a level of traffic generation that would warrant a traffic study.

Per review of the 2010 Los Angeles County Congestion Management Plan (CMP), the nearest CMP monitoring stations in the project vicinity are the intersections of Fremont Avenue/Huntington Drive to the south and Arroyo Parkway/California Boulevard to the north. The nearest CMP-monitored freeway segment is Interstate 110 at Pasadena Avenue to the west. Per review of CMP Appendix B, Guidelines for CMP Transportation Impact Analysis, a regional CMP-level traffic analysis is required for projects that would add 50 or more weekday peak-hour trips to the nearest monitored CMP intersections (Fremont Avenue/Huntington Drive and Arroyo Parkway/California Boulevard) or 150 or more peak-hour trips to a monitored freeway mainline segment (Interstate 110 at Pasadena Avenue). As indicated in Table TC-1, the proposed project would generate far fewer trips than the level needed to warrant a traffic impact analysis/study. Thus, since the project would generate four peak hour trips in the a.m. and three peak hour trips in the p.m., the impacts would be **less than significant**.

- 6.c) There are no airports or private airstrips within 10 miles of the project site. The closest airports are the Bob Hope Airport in Burbank, which is located more than 20 miles away, and the El Monte Airport, which is 11 miles away. The project would not impact any airport facilities

and thus would not cause a change in the directional patterns of aircraft. Thus, there would be **no impact**.

- 6.d) The proposed project would not introduce any design features such as sharp curves or incompatible uses to the project site that would substantially increase hazards at the site. The project will not alter the existing roadway network, other than to add a crosswalk striping on Stoney Drive to improve pedestrian access. Thus, there would be **no impact**.
- 6.e) The project site plan is required to adhere to the City’s Municipal Code and standards for vehicle and pedestrian circulation, including the proposed crosswalk striping across Stoney Drive at Lohman Lane which would provide access to a future trailhead and trail segment of the Arroyo Seco Trail. In addition, compliance with all building, fire, and safety codes would be required to ensure that adequate emergency access is made available. Additionally, the City’s Public Works Department would review all plans prior to building permit issuance. As a result, impacts would be **less than significant**.
- 6.f) The construction and operation of the proposed park would not place any permanent or temporary physical barriers on any existing public streets that could impede bicycle, pedestrian, or other alternative modes of transportation. All development for the proposed project would occur on-site and, thus, the proposed project would not impose any physical barriers on any existing pedestrian, bicycle, or vehicle travel routes. Furthermore, the project would improve pedestrian access with a proposed path on the site’s Stoney Drive frontage and crosswalk striping across Stoney Drive at Lohman Lane. This path and crosswalk would provide a linkage between the existing multi-purpose trail to the east of the site and the planned Arroyo Seco Pedestrian and Bicycle Trail to the south. Therefore, the proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation. Thus, there would be **no impacts**.
- 6.g) The City’s Municipal Code does not provide parking requirements for park uses. However, dog park users will access the site through an access gate along the eastern side of the park, from an existing parking lot that currently provides off-street parking for the existing batting cages and skate park facilities that abut the project site. The parking lot currently has a total of 19 parking spaces. Parking for the dog park would be provided at this existing parking lot.

According to City staff, the existing batting cages and skate park open at 3:00 p.m. during the school year and at 11:00 a.m. during the summer months. The proposed dog park will open at 6:00 a.m. year round. Thus, the greatest parking demand will occur in the later afternoon and evening hours when all three uses would be open simultaneously. However, it is anticipated that a majority of dog park patrons would be from the adjacent residential neighborhood. Many of these patrons are anticipated to walk to the proposed dog park. Based on the anticipated vehicle trip generation noted in Table TC-1, the project is estimated to generate a need for two parking spaces during the p.m. peak hours.¹ City staff’s observations of the parking lot has determined that approximately half of the existing parking lot is occupied after 3:00pm; thus, there is available capacity in the existing parking lot to adequately serve the proposed dog park in addition to the existing uses. Additional parking is also available across the street at the City-owned Arroyo Seco

¹ As shown in Table TC-1, the proposed project is anticipated to generate three trips during the p.m. peak hour, which would be evenly split between inbound and outbound trips. Thus, an estimated maximum two vehicles would be parked during the p.m. peak hours.

Racquet Club where patrons would be able to park if necessary, and up the hill along Arroyo Drive. However, according to City staff's observations, baseball season has recently commenced, for which they have observed an increase in patrons of the batting cages. Thus, to address the potential inadequacy in the parking supply during the limited time associated with baseball season, the following mitigation will reduce the potential impact to **less than significant** after mitigation.

TR-1 Parking Lot Monitoring. The City shall monitor the level of usage at the existing parking lot onsite at least monthly during the first year of operations of the Dog Park. If, at the discretion of the Community Services Director, the number of existing parking spaces is found to be insufficient to serve the Dog Park in addition to the existing batting cages and skate park uses, the City shall either restripe/reconfigure the existing lot to accommodate the increase in parking demand from the Dog Park or shall schedule/restrict the hours of operation and/or usage of the facilities to match demand with available parking.

Lastly, pedestrian access to the proposed project would be provided via existing neighborhood trails. The proposed path along the site's Stoney Drive frontage, combined with the existing network of neighborhood trails in the area, creates additional opportunities for area residents to access the dog park without the need to drive to the facility. Thus, the increase in demand on the existing parking lot adjacent to the project site would be negligible when taking into account the likely pedestrian usage to access the site, and the additional parking available at the Arroyo Seco Racquet Club and along Arroyo Drive. Nonetheless, with implementation of Mitigation Measure TR-1 above, impacts would be **less than significant**.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
7. BIOLOGICAL RESOURCES. Would the proposal:					
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 Wildlife or US Fish and Wildlife Service?	16, 22		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	16, 22				X
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?	16, 22				X
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?	16, 20, 22		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	20, 21, 22			X	
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?	16, 22				X

7.a) The project site is currently vacant, surrounded by paved recreational facilities, the City’s maintenance yard, and a golf course across the street. Based on a review of historic aerial photographs and discussion with City staff, historically, from 1997 through 2014, the project site was used and leased by Time Warner, which had improvements on the site consisting of large parabolic dish antennas, a lattice tower with antenna arrays, and a structure that housed the equipment for the antenna facility. The site has been vacant since 2014.

Local, state, and federal agencies regulate special-status species and generally require an assessment of their presence or potential presence to be conducted on-site prior to the approval of proposed development on a property. In December 2015, Michael Baker International conducted a site visit to the project site. Evidence of ornamental vegetation, including trees and shrubs, were observed, thereby providing limited habitat for wildlife, as it is dominated by low-growing ruderal vegetation. Avian species were observed roosting

on utility lines, fence posts, and in the trees on-site. According to the City's tree survey (Appendix B), the project site contains 15 trees, including ash, Brazilian pepper, sycamore, pine, and camphor. These trees could provide suitable nesting habitat for several common avian species. Nesting birds are protected by California Fish and Game Code 3503 and the Migratory Bird Treaty Act (MBTA). The proposed project would preserve the seven healthy trees on-site in place, as determined by the City's arborist, and would remove the eight dead trees, which consist of three sycamores, three pines, one ash, and one camphor. Mitigation Measure BIO-1 would be required to avoid breeding birds and their nests, young, and eggs. With the incorporation of Mitigation Measure BIO-1, the proposed project would not cause a substantial adverse effect on any species identified as a candidate, sensitive, or special status. Impacts are **less than significant** after mitigation.

BIO-1 Nesting Birds. If project clearing and construction must occur during the avian nesting season (typically from February 15 through September 15), a preconstruction survey for breeding birds, and active and potential nesting sites within and adjacent to the project site, shall be conducted by a qualified biologist one to two weeks prior to construction activities to determine the presence/absence, location, and status of any breeding birds and/or active nests. If no active nests are discovered or identified, no further mitigation is required. In the event that active nests are discovered on-site, a suitable buffer determined by the qualified biologist (e.g., 30–50 feet for passerines) should be established around such active nests. No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Limits of construction to avoid a nest site shall be established in the field by a qualified biologist with flagging and stakes or construction fencing. Construction personnel shall be instructed regarding the ecological sensitivity of the fenced area. The results of the survey shall be documented and filed with the community development director within five days after the survey.

- 7.b, c) The project site does not contain potentially jurisdictional drainages or wetlands. The project site abuts existing recreational facilities and the City's maintenance yard. The project site is not located in or adjacent to any existing or proposed significant ecological areas, and there are no wetlands on the subject property. The project site does not contain riparian habitat or sensitive plant communities as defined by the federal, state, or local ordinances. Thus, **no impacts** would occur.
- 7.d) The project site abuts existing recreational facilities and the City's maintenance yard and does not contain any physical or natural features that support wildlife movement. Therefore, no migratory wildlife corridors or native wildlife nurseries exist in the project area and the proposed project would have no impacts in this regard. Without mitigation, however, the proposed project has the potential to impact nesting migratory birds. As described above in part 7.a, the project involves removing the eight deceased trees on-site and preserving the seven healthy trees, as determined by the City's arborist. Such trees may continue to be used by migratory avian species for nesting during the breeding season. Migratory birds are protected under the MBTA, which specifically includes all native breeding birds (except game birds), regardless of their listing status (16 United States Code [USC] Sections 703–711). The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species. To ensure compliance with the MBTA, Mitigation Measure BIO-1, above, requires nesting bird surveys if construction activities are to occur during breeding season and protection of any discovered nests. Adherence to this measure, and all federal, state, and local laws and regulations, would ensure that development of the proposed project would not interfere

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 site. With implementation of Mitigation Measure BIO-1, this impact would be **less than significant**.

- 7.e) According to the City’s tree survey, the project site contains 15 ornamental trees. Eight trees will be removed since the trees are dead, while the remaining seven healthy trees will be preserved and incorporated into the dog park. According to Chapter 34 of the City of South Pasadena Municipal Code and the South Pasadena website, regulations are in place to protect mature heritage, native species, and oak trees (4 inches in diameter or larger) on any property in the city. Of the remaining seven trees that will be preserved on-site, three are considered to meet the criteria for significant trees. Municipal Code Section 34.2 contains regulations to ensure protection of significant or heritage trees during construction. Thus, compliance with Chapter 34 of the City of South Pasadena’s Municipal Code, which includes notification procedures and replacement tree requirements when necessary, would ensure that impacts to the three significant trees would be **less than significant**.
- 7.f) The project site is not located within the jurisdiction of an adopted habitat conservation plan, natural community plan, or other approved local, regional, or state habitat conservation plan. Thus, **no impact** would occur.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
8. ENERGY AND MINERAL RESOURCES. Would the proposal:					
a) Conflict with adopted energy conservation plans?	16, 20			X	
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?	16				X

8.a) The project does not include any new buildings or structures that require energy. However, energy to the site will be for the operation of night-time lighting, which will be high-efficient, Energy Star-rated lights, which is consistent with the energy conservation goals and policies outlined in the Open Space and Resource Conservation Element of the City's General Plan. Thus, the use will not be conducted in a wasteful manner, and the project will not significantly increase or affect the demand upon energy sources or require new sources of energy. As such, impacts would be **less than significant**.

8.b) According to the City's General Plan, there are no designated Mineral Resources Zones in South Pasadena. The General Plan does not identify the project site as an important mineral resource recovery site. Thus, **no impacts** would occur.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
9. HAZARDS AND HAZARDOUS MATERIALS. Would the proposal:					
a) 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?	16				X
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?	16, 20			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	16, 20				X
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?	23, 43				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	16, 20				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	16, 20				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	16			X	
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?	4, 16				X

9.a) As indicated above in Response 8.b), **no impact** would occur.

9.b) Since the project is only known to have been used by a cable provider, which had improvements on the site consisting of dish antennas, the site is not known or expected to contain any underground storage tanks (USTs), aboveground storage tanks (ASTs), gas lines, or other hazardous material conduits or storage facilities. Construction of the proposed project does not include demolition activities; thus, it is unlikely that construction activities will result in the release of asbestos, lead, or other hazardous materials from the project site. Furthermore, the project does not propose any industrial uses, waste treatment/storage facilities, power plants, or other land uses that are typically associated

with hazardous material accidents. Therefore, the proposed project would not create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and the project would have a **less than significant impact**.

9.c) There are no schools located within one-quarter mile of the project site. Regardless, as discussed in Response 9.b) of this report, the proposed dog park is not anticipated to emit, generate, store, or use substantial amounts of hazardous materials, and is not anticipated to utilize any acutely hazardous materials. Therefore, the project would have **no impacts** related to the emission or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school.

9.d) The project site is a vacant and undeveloped property and there are no physical conditions or other information that suggests that the project site contains or has been contaminated with hazardous materials. Since the property is only known to have been used by a cable provider, which had improvements on the site consisting of dish antennas, there is no known history of hazardous material use, generation, storage, or contamination. Likewise, during a site visit to the subject property, no stained soils, stressed vegetation, abandoned barrels/containers, or other visible conditions were observed that would indicate a potential for hazardous material contamination.

Lastly, the project site is not listed on the Cortese List. According to the State Resources Water Control Board's (2015) GeoTracker database, no sites within 1,000 feet of the project site are on said list. Further, the California Department of Toxic Substances Control's (2015) EnviroStor website does not list any hazardous waste or substance site within 0.5 miles of the project site. The project site is not listed on a contamination-related database and does not present an environmental concern to the proposed project. Therefore, the project would have **no impact** in this regard.

9.e, f) There are no airports or private airstrips located within 2 miles of the project site, and the project site is not within an airport land use plan. The proposed project would not result in a safety hazard for people residing or working in the project area. Therefore, there would be **no impact**.

9.g) The construction and operation of the proposed dog park would not place any permanent or temporary physical barriers on any existing public streets. Furthermore, the project site is not utilized by any emergency response agencies, and no emergency response facilities exist in the project vicinity. Therefore, the proposed project would not impair implementation of or physically interfere with the City's Disaster Response Plan or emergency evacuation plan. As such, impacts would be **less than significant**.

9.h) The project site is not designated as a "Very High Fire Hazard" area by the California Department of Forestry and Fire Protection. Since the project site is currently vacant and unimproved, development of the dog park would not introduce additional landscaping above what is already present on-site. As such, it is not anticipated to create hazardous fire conditions. Thus, **no impacts** would occur.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
10. NOISE. Would the proposal 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?	16, 20, 21			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	12, 20, 30			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	34			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	21, 24			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	16, 20				X
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?	16, 20				X

10.a) The proposed project would generate noise during both construction and operation/use of the proposed dog park. The following paragraphs examine the potential impacts of such noise.

Construction

The City of South Pasadena regulates noise levels through the General Plan Safety and Noise Element and under Chapter 19A of the City’s Municipal Code. The Safety and Noise Element established a 65 dBA threshold for sensitive land uses, such as residential uses. The proposed project involves the grading of approximately 900 cubic yards, involving 300 yards of export and 600 cubic yards of import. Other construction activities include trenching for the utilities and irrigation system, and the development of the 12-foot-tall light standards. Sensitive noise receptors in the project area include the golf course and tennis courts across Stoney Drive to the south and the residential uses located to the east along Arroyo Drive, which are located approximately 330 feet from the eastern border of the project site, and 450 feet from the center of the project site. Additionally, these residential uses are screened from the project site by an approximately 30-foot-high natural berm.

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers, and portable generators, can reach high levels. The greatest construction noise

levels are typically generated by heavy grading equipment. The dog park project is expected to utilize smaller tractor equipment to clear the park site of brush. The park is designed to follow existing ground contours and is not anticipated to involve significant grading operations. The peak noise level for most of the equipment that will be used during the construction is 70 to 90 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. At 400 feet, the peak noise levels range from 52 to 77 dBA. These noise levels are based upon worst-case conditions. The project construction is expected to utilize typical construction equipment with scrapers, tractors, trucks, and loaders generating the greatest noise levels.

Construction activities would be restricted to the times set forth in the City's Municipal Code Chapter 19A.13 and would not occur Monday through Friday before 8 a.m. and after 7 p.m., Saturday before 9 a.m. and after 7 p.m., and Sunday before 10 a.m. and after 6 p.m. Therefore, construction noise would not exceed the applicable standards.

Construction may generate noise levels in excess of the Noise Ordinance limits. However, noise generated by construction activities during daytime hours is exempted from the Noise Ordinance standards. Construction is limited to those hours specified by the Noise Ordinance. Construction noise would be audible at portions of the golf course and tennis club, which are south of the project site. However, due its temporary and intermittent nature, construction noise would have a nominal effect on most patrons of these facilities, would only affect the northernmost golf holes and tennis courts, and would last only approximately 45–60 days. Further, due to the distance between the proposed dog park and the nearest residential areas to the east, construction noise levels would diminish to the point that the noise levels will be less than significant. Additionally, the significant upslope between the project site and Arroyo Drive and the masking effects of traffic on the Arroyo Seco Parkway to the north of the project site would further reduce the effects of construction noise on sensitive receptors. Therefore, noise impacts from short-term construction activities would be **less than significant**.

Operational

Distance and topography significantly reduce the potential for operational noise to impact the residences along Arroyo Drive. Additionally, traffic noise from Arroyo Seco Parkway will mask much of the sound emanating from the dog park. Anticipated noise levels from active use of the dog park were determined by the measured noise levels at an existing dog park (Irvine's Central Bark Park) as utilized in the "Noise Impact Analysis of the Aliso Viejo Dog Park" prepared for a 5.47-acre community dog park in the City of Aliso Viejo, in Orange County (Giroux & Associates 2014). The measured noise levels are shown in Table NO-1, below.

TABLE NOI-1
IRVINE CENTRAL BARK PARK SHORT-TERM NOISE MEASUREMENTS (DBA)

Date and Time	Noise Levels (dBA)						
	Leq	Lmax	Lmin	L10	L33	L50	L90
March 22, 2011 5:50 p.m. – 6:08 p.m.	60.8	69.0	46.0	62.5	56.5	53.5	48.5

Source: Giroux & Associates 2014

The closest homes to the proposed project are approximately 450 feet from the center of the planned dog activity area. The additional distance separation compared to the above measurement would reduce the measured level by almost -10 dB. Potential noise levels associated with dog park operations at its busiest period would thus be around 50 dB Leq (an Lmax of 59 dB and a 50th percentile of 43 dB). The proposed dog park is also screened from a direct line-of-sight by a substantial grade separation. The top of slope at Arroyo Drive acts as an additional noise attenuation feature. This de facto berm will further reduce park activity noise by an additional -10 dB. It should also be noted that the dominant noise source in the immediate vicinity of the project site is vehicle noise from the Arroyo Seco Parkway. As such, any dog-related recreational activity would be considerably less than the ambient levels experienced at the closest homes along Arroyo Drive and comparable to ambient noise levels experienced at the nearby golf course and tennis club. The masking effects of an elevated traffic noise baseline, line-of-sight screening from grade separation, and a reasonable source-receiver separation distance are considered adequate to minimize the projects' operational noise impact on sensitive receptors. Therefore, impacts would be **less than significant**.

- 10.b) The project will require minor site preparation and construction activities. Construction activities will be sufficiently distant from nearby uses (e.g., existing schools and residences) that these uses are not expected to experience excessive groundborne vibration or groundborne noise levels. The project site is 330 feet to east of the nearest residence along Arroyo Drive. Vibration impacts would be **less than significant**.
- 10.c) The project itself will not result in any substantial permanent increase in ambient noise levels above levels existing without the project. That is because the maximum impacted area and the mobile noise levels related to the project will be **less than significant** or below existing ambient noise levels. See also Response to 10.a.
- 10.d) Since the project will involve construction activities on the site, there will be short-term increases in ambient noise levels above levels existing without the project. The project will comply with applicable noise regulations of the City's Noise Ordinance. Therefore, the project will result in **less than significant** noise impacts. See also Response to 10.a.
- 10.e) The project site is not located in an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels. There would be **no impact**.
- 10.f) The project site is not located in the vicinity of a private airstrip. Exposure of people residing or working in the project site to excessive noise levels is not anticipated as a result of project implementation. There would be **no impact**.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
11. PUBLIC SERVICES. Would the proposal:					
a) 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?	16, 20			X	
ii. Police protection?	16			X	
iii. Schools?	16				X
iv. Parks?	3, 12, 16				X
v. Other public services?	16			X	

11.a.i) The City of South Pasadena Fire Department provides fire service to the project area. There is one fire station that houses an engine company, a rescue ambulance, and a light and air unit. The fire department currently has 18 sworn personnel, and in-house staffing currently consists of 6 personnel on duty each day, which includes 3 firefighters/paramedics. The fire station is located approximately 1 mile to the east of the project site, at 817 Mound Avenue in South Pasadena. Although increased human activity on the site could increase demand on existing fire services and facilities, the proposed project is not anticipated to increase service ratios, response times, or other performance objectives to the extent that new or physically altered fire facilities would be required. Thus, impacts would be **less than significant**.

11.a.ii) The City of South Pasadena Police Department provides police protection in the area. The South Pasadena Police Department is composed of 36 sworn officers, including captains, sergeants, and the chief of police, and 16 civilian employees. The department is augmented with an additional 30 reserve police officers. While the dog park may increase the number of visitors to the area, any anticipated increase in calls for law enforcement services would be negligible and the police department has sufficient facilities to handle any anticipated increase in such calls. Thus, development of the proposed dog park project is not expected to substantially affect police protection needs or service ratios, and would not result in the need for new or physically altered police facilities. As such, impacts would be **less than significant**.

11.a.iii) The project site is located within the South Pasadena Unified School District, which provides kindergarten through 12th grade public education services in South Pasadena. Since the project involves construction of a new dog park, project implementation would not result in an increase in the district’s student population; thus, the project would not result in the need for construction of new school facilities or the alteration of existing facilities. As such, there would be **no impact**.

11.a.iv) According to the Open Space and Resource Conservation Element of the General Plan, the City identifies a standard of 4 acres of parks and recreation facilities per 1,000 residents. Based on the current (2014) city population of 26,011 residents (California Department of Finance 2015), South Pasadena would need approximately 104 acres of parkland to meet existing demand. Currently there are 92.2 acres of parks in South Pasadena, the majority

of which (73.9 acres) is located in Arroyo Seco Park in the northwest portion of the city, which is the location of the project site. Therefore, the city has a current parkland deficiency of approximately 11.8 acres.

When school recreation facilities are incorporated into the assessment (calculated at 50 percent of usable acreage to account for use restrictions), adequate parkland facilities are available to serve both the current and forecast population in South Pasadena (City of South Pasadena 1998). In fact, according to the City's General Plan Open Space and Resource Conservation Element, when adding public recreational play areas, a surplus of approximately 30 acres of parkland currently exists.

Notwithstanding the aforementioned discussion, the proposed project involves the construction of a new dog park, an additional recreational-related amenity and improvement on a vacant parcel within the existing overall Arroyo Seco Park. The proposed park improvements would assist the City in meeting the existing recreational needs and demands of the community, and provide for a wider and more diverse set of recreational activities. As such, there would be **no adverse impact**.

- 11.a.v)** See Responses to 11 a)i through 11 a)iv. The proposed project involves the addition of recreational-related amenities and improvements to the existing Arroyo Seco Park, within the existing property limits of the park. No additional public or governmental services would be impacted by the proposed dog park project. Although the increased demand on public facilities associated with the project may result in greater maintenance requirements, these impacts would be negligible. Thus, impacts would be **less than significant**.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
12. UTILITIES AND SERVICE SYSTEMS. Would the proposal:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	16, 20, 35				X
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?	16, 20			X	
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	20			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	3, 17, 20, 21, 36			X	
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?	16, 20, 35				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	16, 11			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?	16, 21				X

12.a) The Sanitation Districts of Los Angeles County and the City of South Pasadena provide sanitation service for the City. The City of South Pasadena operates a municipal wastewater collection system and is subject to the wastewater treatment requirements adopted by the Los Angeles Regional Water Quality Control Board, as well as various state and federal regulations. Wastewater collection service in South Pasadena is provided by the South Pasadena Public Works Department, with regional facilities under the jurisdiction of the Sanitation Districts of Los Angeles County. However, the project includes development of a new dog park, which would include an irrigation system, but no restroom facilities. Thus, the project would not generate wastewater. Therefore, the project would have **no impact** related to wastewater treatment requirements.

12.b) The project does not include construction and operation of any new restroom facilities. An irrigation system and drinking water fountain would be provided, and there would be no increase in wastewater added to the sewer system.

The availability of water supplies would be sufficient to serve the dog park, and there would not be a need for new or altered water supply facilities to serve the dog park. This is because the increased water demand would be minimal, consisting only of on-site

irrigation of the landscaped/vegetated areas, and a potable drinking fountain. Modifications, upsizing, and realignments of water and wastewater facilities would not result from these kinds of facilities at a public park and no physical impacts associated with water and wastewater utility improvements would occur. Furthermore, a formal water supply assessment is not required for the project, because the project's increase in water demand resulting from the irrigation system and potable drinking fountain would be far less than the amount of water required by a 500-dwelling unit project, which is the study threshold established in Water Code Section 10912(a)(7). Thus, impacts would be **less than significant**.

- 12.c) The project consists of improving an existing vacant parcel in Arroyo Seco Park with additional recreational amenities including a dog park and path. None of the proposed uses are point source generators of water pollutants and, thus, no quantifiable water quality standards apply to the project. As a development project, the proposed project has the potential to introduce typical, urban, nonpoint-source pollutants to stormwater runoff, such as trash, sediment, metals, and nutrients. However, given the proposed recreational use of the facility and the proposal to retain drainage on-site, the amount of water pollutants that would be generated by the proposed dog park would be limited. Since the project site would continue to be pervious, runoff from the site would be negligible. Thus, impacts would be **less than significant**.
- 12.d) See Response to 12.b. Impacts would be **less than significant**.
- 12.e) See Responses 12.a and 12.b. There would be **no impact**.
- 12.f) Solid waste disposal for the City of South Pasadena is currently contracted to Athens Services. Solid waste from South Pasadena is primarily disposed of at the Scholl Canyon Landfill in Glendale, approximately 3 miles northwest of the project site. The estimated remaining capacity of the landfill is 12,100,000 cubic yards, with a permitted daily throughput of 3,400 tons per day (6,800,000 pounds per day) (CalRecycle 2015). The project would be served by landfills with sufficient capacity to accommodate the project's solid waste disposal needs.

Increased visitation and use of the dog park by local residents are expected to generate only minimal amounts of solid waste (trash and recyclables). The dog park is not expected to increase the existing service schedule by the City's waste hauler, and the haulers would dispose of the waste at area landfills that have sufficient capacity to handle this level of solid waste generation.

It should also be noted that the City has completed a comprehensive Source Reduction and Recycling Element (SRRE) in compliance with Assembly Bill (AB) 939, which requires every city in California to reduce the waste it sends to landfills. As of 2006, the City was recycling 50 percent of its solid waste, thereby complying with the standards established by AB 939 (CalRecycle 2015). Impacts related to solid waste disposal facilities would be **less than significant**.

- 12.g) The project would be required to comply with adopted programs and regulations pertaining to solid waste. Thus, there would be **no impact** in this regard.

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
13. AESTHETICS. Would the proposal:					
a) Have a substantial adverse effect on a scenic vista?	16, 20			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	16, 20			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	16, 20			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	16, 20, 21			X	

13.a, c) While there are no specifically designated scenic vistas in South Pasadena, the Open Space and Resource Conservation Element of the City’s General Plan states, “The hillsides and ridgelines of South Pasadena provide a scenic backdrop for the entire community.” The element further stresses “protecting the ‘view shed,’ both from and to these hillsides,” with the following policy and strategy:

- Policy 6.2: Discourage grading on ridgelines and other significant topographic features including knolls, ridgetops, saddles, treelines, significant stands of trees, and natural vegetation which damage the integrity of hillside areas, in order to provide off-site views.
- Strategy 6.3: Develop and maintain standards and regulations that retain native vegetation and that protect the “view shed” both from and to hillsides.

Although the project site contains a small knoll in the middle of the site, the elevation grade difference is approximately 4 feet, which is not a significant topographic feature and does not result in a ridge or hillside. Further, due to the topography of the project site and the area, there are no scenic vistas from the site. Lastly, the proposed project would convert a vacant site to a dog park, and the existing healthy trees would be retained. Since no structures are proposed, the site would continue to maintain an open space appearance similar to the existing condition. As such, the proposed project would not affect any scenic vistas of hillsides or substantially degrade the existing visual character or quality of the site. Thus, the impacts are considered **less than significant**.

13.b) In its current state, the project site is vacant and disturbed due to its former use as an antenna facility by Time Warner Cable, which leased the subject site from the City of South Pasadena. The project site does not contain scenic resources such as designated heritage trees, rock outcroppings, or structures that may be historic resources. As discussed in Section 7, Biological Resources, vegetation on the site consists of scattered trees and ruderal shrubs and nonnative grasses. Municipal Code Chapter 34 (Trees and Shrubs) provides regulations to protect significant and mature trees during construction. The project site contains several tree species, including ash, Brazilian pepper, sycamore, pine, and camphor. Although the trees are not protected as heritage trees, some are

protected as native species under the City's Municipal Code. In accordance with the Municipal Code, the project includes preserving the existing healthy trees, planting new trees and limiting tree removal to only those that are dead or unhealthy. Lastly, the only roadway within or adjacent to South Pasadena that is identified in the California Scenic Highways Program is Arroyo Seco Parkway (Interstate 110), which has been designated a historic parkway (Caltrans 2015). Arroyo Seco Parkway is located approximately 150 feet north of the project site; however, the subject site is 30 feet lower in elevation and is not readily visible from Arroyo Seco Parkway. As such, impacts would be **less than significant**.

- 13.d) The proposed project would introduce new sources of light and glare to the project site. New lighting would be typical of uses in the vicinity of the project site. Project lighting would not have a significant impact on the night sky, as it would only incrementally add to the existing background light levels already present as a result of the surrounding recreational uses (i.e., the batting cages and skate park). Further, the light fixtures would be mounted on poles measuring 12 feet, 3 inches in height and would be encased so that the light source is shielded and directed downward. Lighting would be turned off when the dog park closes at 10:00 p.m., consistent with the operating schedule for the adjacent recreational uses. Additionally, since existing healthy and mature trees would be retained on-site, the vegetation would reduce the visibility of light and glare outside of the project site. Performance standards in the City's Development Code also require that exterior lighting be "shielded or recessed so that direct glare and reflections are confined to the maximum extent feasible within the boundaries of the site, and shall be directed downward and away from adjoining properties and public rights-of-way. Adherence to the City's Municipal Code requirements would reduce light and glare impacts to **less than significant**.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
14. CULTURAL RESOURCES. Would the proposal:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	16				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	16		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	16			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?	16			X	

14.a) A historical resource is defined in Section 15064.5(a)(3) of the CEQA Guidelines as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Historical resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period, or method of construction; representing the work of an important creative individual; or possessing high artistic values.

The project site does not contain any structures and does not lie within, nor is adjacent to, a historical district designated by the City of South Pasadena. There are no known historical resources on the subject site or within its immediate vicinity. Thus, implementation of the project would not cause a substantial adverse change in the significance of a historical resource. As such, there would be **no impact**.

14.b) An archaeological resource is defined in Section 15064.5(c) of the CEQA Guidelines as a site, area, or place determined to be historically significant as defined in Section 15064.5 (a) of the CEQA Guidelines (see definition of historical resource in 14.a, above), or as a unique archaeological resource defined in Section 21083.2 of the Public Resources Code as an artifact, object, or site that contains information needed to answer important scientific research questions of public interest, or that has a special and particular quality such as being the oldest or best example of its type, or that is directly associated with a scientifically recognized important prehistoric or historic event or person.

The project site is currently vacant and has been previously disturbed by past activities. While no archaeological resources are known to have been found on the project site, there is the remote possibility that unknown resources could be encountered during project construction, particularly during ground-disturbing activities. This impact is considered potentially significant; however, Mitigation Measure CULT-1 is provided to reduce the potential adverse effects to a **less than significant** level.

CULT-1: If archaeological and/or cultural materials are discovered during grading or ground-disturbing activity, work shall stop in the immediate area and be

redirected elsewhere until a qualified archaeologist has evaluated the situation and provided recommendations. Upon such discoveries, the archaeologist shall notify the City of South Pasadena. The archeologist shall determine the discovery's significance and, if necessary, formulate a mitigation plan, including avoidance alternatives, if feasible, to mitigate impacts. Work can only resume in that area with the approval of the archaeologist.

- 14.c) Although the project site is currently vacant, the site has been previously disturbed by past activities. No unique geologic or paleontological resources are known to occur on-site and, due to the level of past disturbance, it is not anticipated that paleontological resource sites exist within the project area. Furthermore, the project does not involve excavation into older and potentially fossil-bearing substrate. Thus, impacts would be **less than significant**.
- 14.d) There are no known human remains on the site. The project site is not part of a formal cemetery and is not known to have been used for disposal or burial of historic or prehistoric human remains. Thus, human remains are not expected to be encountered during construction of the proposed project. In the unlikely event that human remains are encountered during project construction, California Health and Safety Code Section 7050.5 requires the project to halt until the county coroner has made the necessary findings as to the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. Compliance with these regulations would reduce any potential impacts to a **less than significant** level.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
15. RECREATION. Would the proposal:					
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?	3, 16, 21				X
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?	16, 20				X

- 15.a)** The project site is within the overall Arroyo Seco Park, and is currently vacant and unimproved. The project would improve an existing vacant parcel in Arroyo Seco Park with additional recreational amenities, including a dog park and a path. The proposed park improvements would assist the City in meeting the existing recreational needs and demands of the community, and provide for a wider and more diverse set of recreational activities as discussed in Response 11.a.(iv). As such, there would be **no impact**.
- 15.b)** The proposed project would provide an additional recreational amenity on a currently vacant and unimproved site within the overall Arroyo Seco Park. As such, the project does not increase the need for additional recreational facilities. Instead, the proposed park improvements would help the City accommodate more diverse recreational needs of the community and would improve and extend the usefulness of the park. As such, there would be **no impact**.

CITY OF SOUTH PASADENA INITIAL STUDY– MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
16. GREENHOUSE GAS EMISSIONS. Would the proposal:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	2, 14, 15, 16, 25, 26, 27, 28, 29, 40			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	16, 20, 40			X	

16.a) Greenhouse gas (GHG) emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. Operational activities would result in direct GHG emissions from traffic increases (mobile sources) as well as indirect emissions, through electricity consumption, water use, and solid waste generation. The Public Resources Code, the CEQA Guidelines, and the City of South Pasadena have no established numeric or qualitative thresholds of significance for GHG emissions. The CEQA Guideline Amendments, adopted in December 2010, state that each lead agency must determine its own significance criteria based on local conditions, data, and guidance from public agencies and other sources. The SCAQMD is responsible for improving air quality in the South Coast Air Basin, which includes assisting local governments in addressing climate change. The SCAQMD has identified interim guidelines and draft thresholds of significance for the evaluation of GHG emissions at a project level, although the guidelines and thresholds have not been officially adopted. The SCAQMD has proposed screening-level thresholds for projects, such that projects that fall below 3,000 metric tons of carbon dioxide equivalent (MTCO₂e) emissions annually are considered to comply with the GHG emissions reduction strategy as mandated by AB 32. Therefore, this analysis uses compliance with the 3,000 MTCO₂e annual screening level as a threshold in determining whether the proposed project’s contribution of GHGs is a considerable contribution to global warming impacts.

Construction Emissions

As with regional air quality emissions, construction emissions are calculated by estimating the types and number of pieces of equipment that would be used to grade, excavate, and balance fill at the project site and to construct the project’s proposed uses. It is assumed that all construction equipment used would be diesel-powered. Construction activities are anticipated to begin in the spring of 2016 and last approximately 45–60 days. Construction phases would involve site cleanings, grading, utility installation, and concrete forming and pouring. A total of 0.53 acres would be disturbed. Grading would consist of

approximately 900 cubic yards, involving 300 cubic yards of export and 600 cubic yards of import.

Table GHG-1 shows the GHG emissions associated with the construction of the proposed project. Based on current methodology, construction GHG emissions are amortized over the life of the project (30 years) and are combined with operational emissions to provide total estimated annual GHG emissions for the life of the proposed project. Construction activities are anticipated to result in a total of approximately 22.85 MTCO_{2e}, and the amortized construction emissions would be 0.76 MTCO_{2e} per year. Emissions for the construction activities were calculated using CalEEMod, a computer program developed by the SCAQMD that calculates emissions for construction and operation of development projects. For on-road vehicular emissions, CalEEMod utilizes the EMFAC2014 emission rates that were developed by CARB. Equipment for each phase of construction activity is based on data provided by the project applicant. Detailed assumptions and CalEEMod inputs and outputs are included in Appendix A.

**TABLE GHG-1
ESTIMATED CONSTRUCTION GHG EMISSIONS**

Emissions Sources	Metric Tons per Year ^a			
	CO ²	CH ⁴	N ² O	CO ^{2e}
2016	22.20	0.001	0.00	22.85
Total	22.20	0.001	0.00	22.85
Amortized^b				0.76

Source: CalEEMod 2015 (calculation sheets are provided in **Appendix A**).

a. Totals will not add across rows, as emissions from CH₄ and N₂O need to be multiplied by their global warming potential in order to convert them to carbon dioxide equivalents (CO_{2e}). The math is not shown in the table. The global warming potentials for CH₄ and N₂O are 21 and 310, respectively. Further, the CalEEMod model only reports to the hundredth; therefore, rounding may have also occurred.

b. Amortization assumes project lifetime of 30 years.

Operational Emissions

Emissions estimates are based on the level of development and on-site operations and were calculated using CalEEMod (Appendix A). Annual emissions for the operation of the project are 3.71 MTCO_{2e} per year. Table GHG-2 shows the total estimated annual GHG emissions from CalEEMod by source. As indicated, the anticipated annual emissions for the project are substantially below the annual threshold of 3,000 MTCO_{2e}, and this impact would be **less than significant**.

TABLE GHG-2
ESTIMATED ANNUAL OPERATIONAL GHG EMISSIONS

Emissions Sources	Metric Tons per Year			
	CO ₂	CH ₄ ^a	N ₂ O ^a	CO ₂ e ^a
Area	0.001	0.00	0.00	0.001
Energy	0.00	0.00	0.00	0.00
Mobile	1.01	0.001	0.00	1.02
Waste	0.001	0.001	0.00	0.01
Water	1.89	0.001	0.001	1.90
Operational Source Subtotal				2.95
Amortized Construction ^b				0.76
Total				3.71
Threshold				3,000
Significant?				No

Source: CalEEMod 2014 (calculation sheets are provided in **Appendix A**).

a. Totals will not add across rows, as emissions from CH₄ and N₂O need to be multiplied by their global warming potential in order to convert them to carbon dioxide equivalents (CO₂e). The math is not shown in the table. The global warming potentials for CH₄ and N₂O are 21 and 310, respectively. Further, the CalEEMod model only reports to the hundredth; therefore, rounding may have also occurred.

b. Amortization assumes project lifetime of 30 years.

16.b) California has adopted several policies and regulations for the purpose of reducing GHG emissions. On December 11, 2008, CARB adopted the AB 32 Scoping Plan to achieve the goals of AB 32, the Global Warming Solutions Act of 2006. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. The proposed project is subject to compliance with AB 32, which is designed to reduce statewide GHG emissions to 1990 levels by 2020. Senate Bill (SB) 97, signed in August 2007, acknowledges that global climate change is an environmental issue that requires analysis under CEQA. In December 2009, the California Natural Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts. The proposed project includes construction and operational activities which would result in the emission of GHGs. However, given the type of project (recreational) and the nominal amount of operational GHG emissions generated by the project (3.71 MTCO₂e per year), the project would not impede performance standards set forth in City policies promoting sustainability and emission reduction, or state policies and strategies designed to meet the emissions reduction objectives in AB 32. Therefore, this impact is **less than significant**.

CITY OF SOUTH PASADENA INITIAL STUDY – MITIGATED NEGATIVE DECLARATION

Issues and Supporting Information	Source	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
17. 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?	16, 20, 21		X		
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,				X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X	

17.a) As discussed in Section 7, Biological Resources, although it is not anticipated that the proposed dog park project would substantially affect candidate, sensitive or special-status plant or animal species (since none have been discovered on the project site or environs), appropriate mitigation measures would prevent substantial impacts on species that may have the potential to be present on-site during construction of the project. As described in Section 7, impacts to special-status species and nesting birds that may have the potential to be present on-site would be reduced to a less than significant level with implementation of Mitigation Measure BIO-1. Therefore, the proposed project does not result in a Mandatory Finding of Significance due to impacts to biological resources.

17.b) As described in the discussion of environmental checklist Sections 1 through 16, the project would have no impact, or a less than significant impact with mitigation incorporated, with respect to all environmental issues. Cumulative impacts of several resource areas have been addressed in the individual resource sections above: Air Quality, Greenhouse Gases, Noise, and Transportation/Traffic (see CEQA Guidelines Section 15064(h)(3)). Some of the other resource areas (agricultural, land use and planning, population and housing, and recreation) were determined to have no impact in comparison to existing conditions and therefore would not contribute to cumulative impacts. As such, cumulative impacts would be less than significant (not cumulatively considerable).

17.c) As discussed in Sections 6 and 9 of this document, the proposed project would not expose persons to flooding or transportation hazards. Section 3 of this document explains that visitors to the proposed dog park could be exposed to strong seismic earthshaking due to

the potential for earthquakes in Southern California. The earth and geology conditions of the site would be alleviated by the required compliance with the California Building Code and, thus, the proposed project would not result in adverse effects on human beings from geotechnical considerations. Therefore, the project would not create environmental effects that would cause substantial adverse effects on humans.

18. EARLIER ANALYSES.

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration (CEQA Guidelines Section 15063 (c) (3) (D)). In this case a discussion should identify the following items:

- a) **Earlier analysis used.** Identify earlier analyses and state where they are available for review.

The proposed project includes a path and crosswalk that would connect the site to the planned Arroyo Seco Bicycle and Pedestrian Trail. This planned 0.65-mile trail begins at the southern City limit, runs north along the northeast bank of the Arroyo Seco Channel, through the City's Nature Park and the Arroyo Seco Golf Course, continues along Lohman Lane, and terminates at Stoney Drive. An Initial Study/Mitigated Negative Declaration was prepared for this planned trail by the City of South Pasadena in 2013, which is hereby incorporated by reference into this document and is available for inspection at the City of South Pasadena, City Hall, 1414 Mission Street, South Pasadena, CA 91030 during normal business hours.

- b) **Impacts adequately addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

None.

- c) **Mitigation measures.** For effects that are "Less Than Significant With Mitigation Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions of the project.

None.

19. SOURCE REFERENCES

- 1 California Department of Conservation. 2002 (reprint 2004). Los Angeles County Important Farmland map.
- 2 California Climate Action Registry. 2009. California Climate Action Registry General Reporting Protocol Version 3.1.
- 3 California Department of Finance. 2015. Table E-5, City/County Population and Housing Estimates. Accessed December 30. <http://www.dof.ca.gov/research/demographic/>.
- 4 California Department of Forestry and Fire Protection. 2015. Accessed December 30. http://frap.fire.ca.gov/webdata/maps/los_angeles/LosAngelesCounty.pdf
- 5 CalEMA (California Emergency Management Services). 2009. Tsunami Maps for Emergency Planning (Los Angeles County).
- 6 CalEEMod (California Emissions Estimator Model). 2014. <http://www.caleemod.com/>
- 7 CalEEMod (California Emissions Estimator Model). 2015. <http://www.caleemod.com/>
- 8 CalEEMod (California Emissions Estimator Model). 2016. <http://www.caleemod.com/>
- 9 California Geological Survey. 2015. Seismic Hazard Zonation Program (SHZP) Data Access. Accessed December 29. <http://gmw.consrv.ca.gov/shmp/MapProcessor.asp?Action=SHMP&Location=All&Version=5&Browser=Netscape&Platform=Win>.
- 10 California Seismic Safety Commission. 2005. *The Homeowner's Guide to Earthquake Safety*.
- 11 CalRecycle (California Department of Resources Recycling and Recovery). 2015. Estimated Solid Waste Generation Rates. Accessed December 30. <http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/default.htm>.
- 12 Caltrans (California Department of Transportation). 2013. *Transportation and Construction Vibration Guidance Manual*.
- 13 Caltrans (California Department of Transportation). 2016. California Scenic Highway Mapping System. Accessed January 12. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.
- 14 CAPCOA (California Air Pollution Control Officers Association). 2008. *CEQA and Climate Change—Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*.
- 15 CARB (California Air Resources Board). 2007. Proposed Early Actions to Mitigate Climate Change in California, April 17. http://www.arb.ca.gov/cc/ccea/meetings/042307workshop/early_action_report.pdf.
- 16 City of South Pasadena. 1998. *City of South Pasadena General Plan*.
- 17 City of South Pasadena. 2011. *2010 Urban Water Management Plan*.
- 18 City of South Pasadena. 2011. *Cycle South Pasadena, Bicycle Master Plan Update*.
- 19 City of South Pasadena. 2014. *General Plan Housing Element Update*.
- 20 City of South Pasadena. 2015. Project Concept Site Plan.
- 21 City of South Pasadena. 2015. *South Pasadena Municipal Code*.
- 22 City of South Pasadena. 2016. Tree Survey/Inventory.
- 23 DTSC (California Department of Toxic Substances Control). 2015. EnviroStor. Accessed December 30. <http://www.envirostor.dtsc.ca.gov/public/>.
- 24 EPA (US Environmental Protection Agency). 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*.

- 25 EPA (US Environmental Protection Agency). 2010. Nitrous Oxide. <http://www.epa.gov/nitrousoxide/scientific.html>.
- 26 EPA (US Environmental Protection Agency). 2010. High Global Warming Potential Gases. <http://epa.gov/highgwp/>.
- 27 EPA (US Environmental Protection Agency). 2011. Climate Change – Greenhouse Gas Emissions: Carbon Dioxide. <http://www.epa.gov/climatechange/emissions/co2.html>.
- 28 EPA (US Environmental Protection Agency). 2011. Methane. <http://www.epa.gov/methane/scientific.html>.
- 29 European Fluorocarbons Technical Committee. 2003. *Fluorocarbons and Sulphur Hexafluoride: Perfluorocarbons (PFCs) Fact Sheet*.
- 30 FTA (Federal Transit Administration). 2006. *Transit Noise and Vibration Impact Assessment*.
- 31 Giroux & Associates. 2014. *Noise Impact Analysis of the Aliso Viejo Dog Park*.
- 32 MTA (Metropolitan Transportation Authority). 2004. 2004 Congestion Management Plan for Los Angeles County. http://www.metro.net/images/cmp_2004.pdf.
- 33 RK Engineering Group. 2015. *Aliso Canyon Community Park Dog Park Parking and Trip Generation Analysis*.
- 34 SANDAG (San Diego Association of Governments). 2002. *Brief Guide of Vehicular Traffic Generation Rates*.
- 35 Sanitation Districts of Los Angeles County. 2015. Joint Water Pollution Control Plant. Accessed December 30. <http://www.lacsd.org/wastewater/wwfacilities/jwpcp/>.
- 36 SCAG (Southern California Association of Governments). 2012. *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy*.
- 37 SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.
- 38 SCAQMD (South Coast Air Quality Management District). 1994. *Revision to the 1992 Carbon Monoxide Attainment Plan*.
- 39 SCAQMD (South Coast Air Quality Management District). 2003. *2003 Air Quality Management Plan*.
- 40 SCAQMD (South Coast Air Quality Management District). 2008. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, December 5. Accessed April 17, 2015. <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2>.
- 41 SCAQMD (South Coast Air Quality Management District). 2009. NEED MORE INFO. CITATION ON PAGE 32
- 42 SCAQMD (South Coast Air Quality Management District). 2012. Revised Draft 2012 Air Quality Management Plan.
- 43 State Water Resources Control Board. 2015. GeoTracker. Accessed December 30. <http://geotracker.waterboards.ca.gov/map/>.

APPENDICES

CALEEMOD OUTPUT

South Pasadena Dog Park
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction to begin in April 2016. No structures will be constructed.

Off-road Equipment - Demolition consists of removal of concrete driveway.

Off-road Equipment -

Off-road Equipment - limited grading required.

Off-road Equipment - 1 forklift, 1 gen set, 1 loader/backhoe,

Grading - Site size is 0.5 acres

Demolition -

Construction Off-road Equipment Mitigation - Table XI-C mitigation rate.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	100.00	14.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseStartDate	4/23/2016	4/25/2016
tblConstructionPhase	PhaseStartDate	4/16/2016	4/18/2016
tblGrading	AcresOfGrading	0.00	0.50
tblGrading	AcresOfGrading	2.50	0.50
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	100.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	89.00	125.00
tblOffRoadEquipment	LoadFactor	0.20	0.42
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	WorkerTripNumber	8.00	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.7878	17.0749	11.0668	0.0247	1.2757	1.0575	1.9743	0.5395	0.9865	1.2100	0.0000	2,445.6118	2,445.6118	0.3826	0.0000	2,453.6468
Total	1.7878	17.0749	11.0668	0.0247	1.2757	1.0575	1.9743	0.5395	0.9865	1.2100	0.0000	2,445.6118	2,445.6118	0.3826	0.0000	2,453.6468

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					
2016	1.7878	17.0749	11.0668	0.0247	0.7188	1.0575	1.4174	0.2844	0.9865	1.0135	0.0000	2,445.6118	2,445.6118	0.3826	0.0000	2,453.6468
Total	1.7878	17.0749	11.0668	0.0247	0.7188	1.0575	1.4174	0.2844	0.9865	1.0135	0.0000	2,445.6118	2,445.6118	0.3826	0.0000	2,453.6468

	ROG	NOx	CO	SO2	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	43.66	0.00	28.21	47.29	0.00	16.24	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
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	2.8800e-003	7.6300e-003	0.0317	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.3874	6.3874	2.5000e-004		6.3927
Total	0.5724	7.6300e-003	0.0318	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.3875	6.3875	2.5000e-004	0.0000	6.3929

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	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
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	2.8800e-003	7.6300e-003	0.0317	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.3874	6.3874	2.5000e-004		6.3927
Total	0.5724	7.6300e-003	0.0318	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.3875	6.3875	2.5000e-004	0.0000	6.3929

	ROG	NOx	CO	SO2	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	4/11/2016	4/15/2016	5	5	
2	Site Preparation	Site Preparation	4/18/2016	4/22/2016	5	5	
3	Grading	Grading	4/25/2016	5/2/2016	5	6	
4	Building Construction	Building Construction	5/3/2016	5/20/2016	5	14	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	1	6.00	125	0.42
Building Construction	Generator Sets	1	4.00	84	0.74
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Site Preparation	Graders	1	8.00	174	0.41
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Trenchers	1	6.00	80	0.50
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	113.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

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	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944		950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.0000	0.6159	0.6159	0.0000	0.5944	0.5944		950.8527	950.8527	0.1654		954.3261

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	0.0209	0.0261	0.3250	7.1000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		59.4729	59.4729	3.0500e-003		59.5370
Total	0.0209	0.0261	0.3250	7.1000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		59.4729	59.4729	3.0500e-003		59.5370

3.2 Demolition - 2016**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	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944	0.0000	950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.0000	0.6159	0.6159	0.0000	0.5944	0.5944	0.0000	950.8527	950.8527	0.1654		954.3261

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	0.0209	0.0261	0.3250	7.1000e-004	0.0433	4.7000e-004	0.0437	0.0117	4.3000e-004	0.0122		59.4729	59.4729	3.0500e-003		59.5370
Total	0.0209	0.0261	0.3250	7.1000e-004	0.0433	4.7000e-004	0.0437	0.0117	4.3000e-004	0.0122		59.4729	59.4729	3.0500e-003		59.5370

3.3 Site Preparation - 2016**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					0.1083	0.0000	0.1083	0.0118	0.0000	0.0118			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	1.3593	13.6350	7.3401	9.3500e-003	0.1083	0.8338	0.9421	0.0118	0.7671	0.7788		973.0842	973.0842	0.2935		979.2481

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	0.0445	0.7127	0.5041	1.9200e-003	0.0453	0.0113	0.0566	0.0124	0.0104	0.0228		193.2195	193.2195	1.3700e-003		193.2483
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	0.0209	0.0261	0.3250	7.1000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		59.4729	59.4729	3.0500e-003		59.5370
Total	0.0654	0.7388	0.8291	2.6300e-003	0.1012	0.0118	0.1130	0.0272	0.0108	0.0381		252.6924	252.6924	4.4200e-003		252.7853

3.3 Site Preparation - 2016**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					0.0487	0.0000	0.0487	5.3100e-003	0.0000	5.3100e-003			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	1.3593	13.6350	7.3401	9.3500e-003	0.0487	0.8338	0.8825	5.3100e-003	0.7671	0.7724	0.0000	973.0842	973.0842	0.2935		979.2481

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	0.0445	0.7127	0.5041	1.9200e-003	0.0364	0.0113	0.0477	0.0102	0.0104	0.0206		193.2195	193.2195	1.3700e-003		193.2483
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	0.0209	0.0261	0.3250	7.1000e-004	0.0433	4.7000e-004	0.0437	0.0117	4.3000e-004	0.0122		59.4729	59.4729	3.0500e-003		59.5370
Total	0.0654	0.7388	0.8291	2.6300e-003	0.0796	0.0118	0.0914	0.0219	0.0108	0.0328		252.6924	252.6924	4.4200e-003		252.7853

3.4 Grading - 2016

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					0.8581	0.0000	0.8581	0.4259	0.0000	0.4259			0.0000			0.0000
Off-Road	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944		950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.8581	0.6159	1.4740	0.4259	0.5944	1.0203		950.8527	950.8527	0.1654		954.3261

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	0.3221	5.1626	3.6515	0.0139	0.3282	0.0820	0.4101	0.0899	0.0754	0.1652		1,399.6024	1,399.6024	9.9500e-003		1,399.8113
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	0.0334	0.0418	0.5200	1.1300e-003	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		95.1567	95.1567	4.8800e-003		95.2592
Total	0.3556	5.2043	4.1715	0.0150	0.4176	0.0827	0.5003	0.1136	0.0761	0.1896		1,494.7591	1,494.7591	0.0148		1,495.0705

3.4 Grading - 2016

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					0.3861	0.0000	0.3861	0.1917	0.0000	0.1917			0.0000			0.0000
Off-Road	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944	0.0000	950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.3861	0.6159	1.0021	0.1917	0.5944	0.7861	0.0000	950.8527	950.8527	0.1654		954.3261

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	0.3221	5.1626	3.6515	0.0139	0.2634	0.0820	0.3454	0.0740	0.0754	0.1494		1,399.6024	1,399.6024	9.9500e-003		1,399.8113
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	0.0334	0.0418	0.5200	1.1300e-003	0.0692	7.5000e-004	0.0700	0.0188	6.9000e-004	0.0194		95.1567	95.1567	4.8800e-003		95.2592
Total	0.3556	5.2043	4.1715	0.0150	0.3326	0.0827	0.4153	0.0927	0.0761	0.1688		1,494.7591	1,494.7591	0.0148		1,495.0705

3.5 Building Construction - 2016

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	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805		1,465.2372	1,465.2372	0.3765		1,473.1439
Total	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805		1,465.2372	1,465.2372	0.3765		1,473.1439

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	0.0333	0.3455	0.3984	8.7000e-004	0.0250	5.6900e-003	0.0307	7.1200e-003	5.2300e-003	0.0124		87.2116	87.2116	6.2000e-004		87.2246
Worker	0.0376	0.0470	0.5850	1.2700e-003	0.1006	8.4000e-004	0.1014	0.0267	7.7000e-004	0.0275		107.0513	107.0513	5.4900e-003		107.1666
Total	0.0709	0.3925	0.9834	2.1400e-003	0.1256	6.5300e-003	0.1321	0.0338	6.0000e-003	0.0398		194.2628	194.2628	6.1100e-003		194.3912

3.5 Building Construction - 2016

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	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805	0.0000	1,465.2372	1,465.2372	0.3765		1,473.1439
Total	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805	0.0000	1,465.2372	1,465.2372	0.3765		1,473.1439

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	0.0333	0.3455	0.3984	8.7000e-004	0.0203	5.6900e-003	0.0259	5.9600e-003	5.2300e-003	0.0112		87.2116	87.2116	6.2000e-004		87.2246
Worker	0.0376	0.0470	0.5850	1.2700e-003	0.0779	8.4000e-004	0.0787	0.0211	7.7000e-004	0.0219		107.0513	107.0513	5.4900e-003		107.1666
Total	0.0709	0.3925	0.9834	2.1400e-003	0.0981	6.5300e-003	0.1046	0.0271	6.0000e-003	0.0331		194.2628	194.2628	6.1100e-003		194.3912

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8800e-003	7.6300e-003	0.0317	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.3874	6.3874	2.5000e-004		6.3927
Unmitigated	2.8800e-003	7.6300e-003	0.0317	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.3874	6.3874	2.5000e-004		6.3927

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.80	0.80	0.80	2,288	2,288
Total	0.80	0.80	0.80	2,288	2,288

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	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513363	0.060352	0.180146	0.139338	0.042155	0.006672	0.015739	0.030749	0.001928	0.002503	0.004351	0.000593	0.002111

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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

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	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Unmitigated	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-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	lb/day										lb/day					
Architectural Coating	0.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4312					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

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	0.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4312					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

7.0 Water Detail

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 Vegetation

South Pasadena Dog Park
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction to begin in April 2016. No structures will be constructed.

Off-road Equipment - Demolition consists of removal of concrete driveway.

Off-road Equipment -

Off-road Equipment - limited grading required.

Off-road Equipment - 1 forklift, 1 gen set, 1 loader/backhoe,

Grading - Site size is 0.5 acres

Demolition -

Construction Off-road Equipment Mitigation - Table XI-C mitigation rate.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	100.00	14.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseStartDate	4/23/2016	4/25/2016
tblConstructionPhase	PhaseStartDate	4/16/2016	4/18/2016
tblGrading	AcresOfGrading	0.00	0.50
tblGrading	AcresOfGrading	2.50	0.50
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	100.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	89.00	125.00
tblOffRoadEquipment	LoadFactor	0.20	0.42
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	WorkerTripNumber	8.00	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.7918	17.0882	11.5604	0.0246	1.2757	1.0576	1.9745	0.5395	0.9865	1.2101	0.0000	2,436.384 4	2,436.384 4	0.3826	0.0000	2,444.419 9
Total	1.7918	17.0882	11.5604	0.0246	1.2757	1.0576	1.9745	0.5395	0.9865	1.2101	0.0000	2,436.384 4	2,436.384 4	0.3826	0.0000	2,444.419 9

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					
2016	1.7918	17.0882	11.5604	0.0246	0.7188	1.0576	1.4176	0.2844	0.9865	1.0136	0.0000	2,436.384 4	2,436.384 4	0.3826	0.0000	2,444.419 9
Total	1.7918	17.0882	11.5604	0.0246	0.7188	1.0576	1.4176	0.2844	0.9865	1.0136	0.0000	2,436.384 4	2,436.384 4	0.3826	0.0000	2,444.419 9

	ROG	NOx	CO	SO2	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	43.66	0.00	28.21	47.29	0.00	16.24	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
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	2.9800e-003	8.0200e-003	0.0314	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.0784	6.0784	2.5000e-004		6.0838
Total	0.5725	8.0200e-003	0.0314	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.0785	6.0785	2.5000e-004	0.0000	6.0839

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	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
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	2.9800e-003	8.0200e-003	0.0314	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.0784	6.0784	2.5000e-004		6.0838
Total	0.5725	8.0200e-003	0.0314	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.0785	6.0785	2.5000e-004	0.0000	6.0839

	ROG	NOx	CO	SO2	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	4/11/2016	4/15/2016	5	5	
2	Site Preparation	Site Preparation	4/18/2016	4/22/2016	5	5	
3	Grading	Grading	4/25/2016	5/2/2016	5	6	
4	Building Construction	Building Construction	5/3/2016	5/20/2016	5	14	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	1	6.00	125	0.42
Building Construction	Generator Sets	1	4.00	84	0.74
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Site Preparation	Graders	1	8.00	174	0.41
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Trenchers	1	6.00	80	0.50
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	113.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

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	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944		950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.0000	0.6159	0.6159	0.0000	0.5944	0.5944		950.8527	950.8527	0.1654		954.3261

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	0.0213	0.0287	0.2995	6.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		55.7858	55.7858	3.0500e-003		55.8498
Total	0.0213	0.0287	0.2995	6.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		55.7858	55.7858	3.0500e-003		55.8498

3.2 Demolition - 2016

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	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944	0.0000	950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.0000	0.6159	0.6159	0.0000	0.5944	0.5944	0.0000	950.8527	950.8527	0.1654		954.3261

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	0.0213	0.0287	0.2995	6.6000e-004	0.0433	4.7000e-004	0.0437	0.0117	4.3000e-004	0.0122		55.7858	55.7858	3.0500e-003		55.8498
Total	0.0213	0.0287	0.2995	6.6000e-004	0.0433	4.7000e-004	0.0437	0.0117	4.3000e-004	0.0122		55.7858	55.7858	3.0500e-003		55.8498

3.3 Site Preparation - 2016**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					0.1083	0.0000	0.1083	0.0118	0.0000	0.0118			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	1.3593	13.6350	7.3401	9.3500e-003	0.1083	0.8338	0.9421	0.0118	0.7671	0.7788		973.0842	973.0842	0.2935		979.2481

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	0.0470	0.7386	0.5779	1.9100e-003	0.0453	0.0113	0.0566	0.0124	0.0104	0.0228		192.7600	192.7600	1.3900e-003		192.7893
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	0.0213	0.0287	0.2995	6.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		55.7858	55.7858	3.0500e-003		55.8498
Total	0.0683	0.7672	0.8773	2.5700e-003	0.1012	0.0118	0.1130	0.0272	0.0109	0.0381		248.5458	248.5458	4.4400e-003		248.6391

3.3 Site Preparation - 2016**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					0.0487	0.0000	0.0487	5.3100e-003	0.0000	5.3100e-003			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	1.3593	13.6350	7.3401	9.3500e-003	0.0487	0.8338	0.8825	5.3100e-003	0.7671	0.7724	0.0000	973.0842	973.0842	0.2935		979.2481

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	0.0470	0.7386	0.5779	1.9100e-003	0.0364	0.0113	0.0477	0.0102	0.0104	0.0206		192.7600	192.7600	1.3900e-003		192.7893
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	0.0213	0.0287	0.2995	6.6000e-004	0.0433	4.7000e-004	0.0437	0.0117	4.3000e-004	0.0122		55.7858	55.7858	3.0500e-003		55.8498
Total	0.0683	0.7672	0.8773	2.5700e-003	0.0796	0.0118	0.0914	0.0219	0.0109	0.0328		248.5458	248.5458	4.4400e-003		248.6391

3.4 Grading - 2016

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					0.8581	0.0000	0.8581	0.4259	0.0000	0.4259			0.0000			0.0000
Off-Road	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944		950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.8581	0.6159	1.4740	0.4259	0.5944	1.0203		950.8527	950.8527	0.1654		954.3261

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	0.3404	5.3499	4.1859	0.0139	0.3282	0.0821	0.4103	0.0899	0.0756	0.1654		1,396.2746	1,396.2746	0.0101		1,396.4862
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	0.0341	0.0459	0.4791	1.0600e-003	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		89.2572	89.2572	4.8800e-003		89.3598
Total	0.3745	5.3958	4.6651	0.0149	0.4176	0.0829	0.5005	0.1136	0.0763	0.1898		1,485.5318	1,485.5318	0.0150		1,485.8460

3.4 Grading - 2016

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					0.3861	0.0000	0.3861	0.1917	0.0000	0.1917			0.0000			0.0000
Off-Road	1.0568	8.7972	6.8953	9.7000e-003		0.6159	0.6159		0.5944	0.5944	0.0000	950.8527	950.8527	0.1654		954.3261
Total	1.0568	8.7972	6.8953	9.7000e-003	0.3861	0.6159	1.0021	0.1917	0.5944	0.7861	0.0000	950.8527	950.8527	0.1654		954.3261

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	0.3404	5.3499	4.1859	0.0139	0.2634	0.0821	0.3456	0.0740	0.0756	0.1495		1,396.2746	1,396.2746	0.0101		1,396.4862
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	0.0341	0.0459	0.4791	1.0600e-003	0.0692	7.5000e-004	0.0700	0.0188	6.9000e-004	0.0194		89.2572	89.2572	4.8800e-003		89.3598
Total	0.3745	5.3958	4.6651	0.0149	0.3326	0.0829	0.4155	0.0927	0.0763	0.1690		1,485.5318	1,485.5318	0.0150		1,485.8460

3.5 Building Construction - 2016**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	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805		1,465.2372	1,465.2372	0.3765		1,473.1439
Total	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805		1,465.2372	1,465.2372	0.3765		1,473.1439

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	0.0365	0.3542	0.4782	8.6000e-004	0.0250	5.7500e-003	0.0308	7.1200e-003	5.2800e-003	0.0124		86.4802	86.4802	6.4000e-004		86.4936
Worker	0.0384	0.0516	0.5390	1.1900e-003	0.1006	8.4000e-004	0.1014	0.0267	7.7000e-004	0.0275		100.4144	100.4144	5.4900e-003		100.5297
Total	0.0749	0.4058	1.0173	2.0500e-003	0.1256	6.5900e-003	0.1322	0.0338	6.0500e-003	0.0399		186.8945	186.8945	6.1300e-003		187.0234

3.5 Building Construction - 2016

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	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805	0.0000	1,465.2372	1,465.2372	0.3765		1,473.1439
Total	1.7169	16.6825	9.7020	0.0144		1.0510	1.0510		0.9805	0.9805	0.0000	1,465.2372	1,465.2372	0.3765		1,473.1439

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	0.0365	0.3542	0.4782	8.6000e-004	0.0203	5.7500e-003	0.0260	5.9600e-003	5.2800e-003	0.0112		86.4802	86.4802	6.4000e-004		86.4936
Worker	0.0384	0.0516	0.5390	1.1900e-003	0.0779	8.4000e-004	0.0787	0.0211	7.7000e-004	0.0219		100.4144	100.4144	5.4900e-003		100.5297
Total	0.0749	0.4058	1.0173	2.0500e-003	0.0981	6.5900e-003	0.1047	0.0271	6.0500e-003	0.0331		186.8945	186.8945	6.1300e-003		187.0234

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9800e-003	8.0200e-003	0.0314	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.0784	6.0784	2.5000e-004		6.0838
Unmitigated	2.9800e-003	8.0200e-003	0.0314	7.0000e-005	4.8500e-003	1.1000e-004	4.9600e-003	1.3000e-003	1.0000e-004	1.4000e-003		6.0784	6.0784	2.5000e-004		6.0838

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.80	0.80	0.80	2,288	2,288
Total	0.80	0.80	0.80	2,288	2,288

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	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513363	0.060352	0.180146	0.139338	0.042155	0.006672	0.015739	0.030749	0.001928	0.002503	0.004351	0.000593	0.002111

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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

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	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Unmitigated	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-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	lb/day										lb/day					
Architectural Coating	0.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4312					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

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	0.1383					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4312					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.5695	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

7.0 Water Detail

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 Vegetation

South Pasadena Dog Park
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction to begin in April 2016. No structures will be constructed.

Off-road Equipment - Demolition consists of removal of concrete driveway.

Off-road Equipment -

Off-road Equipment - limited grading required.

Off-road Equipment - 1 forklift, 1 gen set, 1 loader/backhoe,

Grading - Site size is 0.5 acres

Demolition -

Construction Off-road Equipment Mitigation - Table XI-C mitigation rate.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	100.00	14.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseStartDate	4/23/2016	4/25/2016
tblConstructionPhase	PhaseStartDate	4/16/2016	4/18/2016
tblGrading	AcresOfGrading	0.00	0.50
tblGrading	AcresOfGrading	2.50	0.50
tblGrading	MaterialExported	0.00	300.00
tblGrading	MaterialExported	0.00	100.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	89.00	125.00
tblOffRoadEquipment	LoadFactor	0.20	0.42
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	WorkerTripNumber	8.00	5.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0231	0.2206	0.1481	2.5000e-004	5.3300e-003	0.0132	0.0185	1.9800e-003	0.0124	0.0143	0.0000	22.2021	22.2021	3.9800e-003	0.0000	22.2856
Total	0.0231	0.2206	0.1481	2.5000e-004	5.3300e-003	0.0132	0.0185	1.9800e-003	0.0124	0.0143	0.0000	22.2021	22.2021	3.9800e-003	0.0000	22.2856

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					
2016	0.0231	0.2206	0.1481	2.5000e-004	3.2400e-003	0.0132	0.0164	1.1300e-003	0.0124	0.0135	0.0000	22.2020	22.2020	3.9800e-003	0.0000	22.2856
Total	0.0231	0.2206	0.1481	2.5000e-004	3.2400e-003	0.0132	0.0164	1.1300e-003	0.0124	0.0135	0.0000	22.2020	22.2020	3.9800e-003	0.0000	22.2856

	ROG	NOx	CO	SO2	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	39.21	0.00	11.31	42.93	0.00	5.93	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1039	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
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	0.0000
Mobile	5.1000e-004	1.4900e-003	5.7700e-003	1.0000e-005	8.7000e-004	2.0000e-005	8.9000e-004	2.3000e-004	2.0000e-005	2.5000e-004	0.0000	1.0147	1.0147	4.0000e-005	0.0000	1.0156
Waste						0.0000	0.0000		0.0000	0.0000	8.1200e-003	0.0000	8.1200e-003	4.8000e-004	0.0000	0.0182
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.8941	1.8941	9.0000e-005	2.0000e-005	1.9015
Total	0.1045	1.4900e-003	5.7800e-003	1.0000e-005	8.7000e-004	2.0000e-005	8.9000e-004	2.3000e-004	2.0000e-005	2.5000e-004	8.1200e-003	2.9088	2.9169	6.1000e-004	2.0000e-005	2.9353

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1039	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
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	0.0000
Mobile	5.1000e-004	1.4900e-003	5.7700e-003	1.0000e-005	8.7000e-004	2.0000e-005	8.9000e-004	2.3000e-004	2.0000e-005	2.5000e-004	0.0000	1.0147	1.0147	4.0000e-005	0.0000	1.0156
Waste						0.0000	0.0000		0.0000	0.0000	8.1200e-003	0.0000	8.1200e-003	4.8000e-004	0.0000	0.0182
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.8941	1.8941	9.0000e-005	2.0000e-005	1.9015
Total	0.1045	1.4900e-003	5.7800e-003	1.0000e-005	8.7000e-004	2.0000e-005	8.9000e-004	2.3000e-004	2.0000e-005	2.5000e-004	8.1200e-003	2.9088	2.9169	6.1000e-004	2.0000e-005	2.9353

	ROG	NOx	CO	SO2	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	4/11/2016	4/15/2016	5	5	
2	Site Preparation	Site Preparation	4/18/2016	4/22/2016	5	5	
3	Grading	Grading	4/25/2016	5/2/2016	5	6	
4	Building Construction	Building Construction	5/3/2016	5/20/2016	5	14	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	1	6.00	125	0.42
Building Construction	Generator Sets	1	4.00	84	0.74
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Site Preparation	Graders	1	8.00	174	0.41
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Trenchers	1	6.00	80	0.50
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	113.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

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	2.6400e-003	0.0220	0.0172	2.0000e-005	1.5400e-003	1.5400e-003		1.4900e-003	1.4900e-003		0.0000	2.1565	2.1565	3.8000e-004	0.0000	2.1644
Total	2.6400e-003	0.0220	0.0172	2.0000e-005	0.0000	1.5400e-003	1.5400e-003	0.0000	1.4900e-003	1.4900e-003	0.0000	2.1565	2.1565	3.8000e-004	0.0000	2.1644

3.2 Demolition - 2016

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	5.0000e-005	7.0000e-005	7.7000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1285	0.1285	1.0000e-005	0.0000	0.1286
Total	5.0000e-005	7.0000e-005	7.7000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1285	0.1285	1.0000e-005	0.0000	0.1286

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	2.6400e-003	0.0220	0.0172	2.0000e-005		1.5400e-003	1.5400e-003		1.4900e-003	1.4900e-003	0.0000	2.1565	2.1565	3.8000e-004	0.0000	2.1644
Total	2.6400e-003	0.0220	0.0172	2.0000e-005	0.0000	1.5400e-003	1.5400e-003	0.0000	1.4900e-003	1.4900e-003	0.0000	2.1565	2.1565	3.8000e-004	0.0000	2.1644

3.2 Demolition - 2016

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	5.0000e-005	7.0000e-005	7.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1285	0.1285	1.0000e-005	0.0000	0.1286
Total	5.0000e-005	7.0000e-005	7.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1285	0.1285	1.0000e-005	0.0000	0.1286

3.3 Site Preparation - 2016

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-003	0.0341	0.0184	2.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	2.2069	2.2069	6.7000e-004	0.0000	2.2209
Total	3.4000e-003	0.0341	0.0184	2.0000e-005	2.7000e-004	2.0800e-003	2.3500e-003	3.0000e-005	1.9200e-003	1.9500e-003	0.0000	2.2069	2.2069	6.7000e-004	0.0000	2.2209

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-004	1.8800e-003	1.4200e-003	0.0000	1.1000e-004	3.0000e-005	1.4000e-004	3.0000e-005	3.0000e-005	6.0000e-005	0.0000	0.4378	0.4378	0.0000	0.0000	0.4378
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	5.0000e-005	7.0000e-005	7.7000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1285	0.1285	1.0000e-005	0.0000	0.1286
Total	1.7000e-004	1.9500e-003	2.1900e-003	0.0000	2.5000e-004	3.0000e-005	2.8000e-004	7.0000e-005	3.0000e-005	1.0000e-004	0.0000	0.5663	0.5663	1.0000e-005	0.0000	0.5665

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-003	0.0341	0.0184	2.0000e-005		2.0800e-003	2.0800e-003		1.9200e-003	1.9200e-003	0.0000	2.2069	2.2069	6.7000e-004	0.0000	2.2209
Total	3.4000e-003	0.0341	0.0184	2.0000e-005	1.2000e-004	2.0800e-003	2.2000e-003	1.0000e-005	1.9200e-003	1.9300e-003	0.0000	2.2069	2.2069	6.7000e-004	0.0000	2.2209

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-004	1.8800e-003	1.4200e-003	0.0000	9.0000e-005	3.0000e-005	1.2000e-004	3.0000e-005	3.0000e-005	5.0000e-005	0.0000	0.4378	0.4378	0.0000	0.0000	0.4378
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	5.0000e-005	7.0000e-005	7.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1285	0.1285	1.0000e-005	0.0000	0.1286
Total	1.7000e-004	1.9500e-003	2.1900e-003	0.0000	2.0000e-004	3.0000e-005	2.3000e-004	6.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.5663	0.5663	1.0000e-005	0.0000	0.5665

3.4 Grading - 2016

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					2.5700e-003	0.0000	2.5700e-003	1.2800e-003	0.0000	1.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1700e-003	0.0264	0.0207	3.0000e-005		1.8500e-003	1.8500e-003		1.7800e-003	1.7800e-003	0.0000	2.5878	2.5878	4.5000e-004	0.0000	2.5973
Total	3.1700e-003	0.0264	0.0207	3.0000e-005	2.5700e-003	1.8500e-003	4.4200e-003	1.2800e-003	1.7800e-003	3.0600e-003	0.0000	2.5878	2.5878	4.5000e-004	0.0000	2.5973

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0100e-003	0.0163	0.0123	4.0000e-005	9.7000e-004	2.5000e-004	1.2100e-003	2.7000e-004	2.3000e-004	4.9000e-004	0.0000	3.8053	3.8053	3.0000e-005	0.0000	3.8059
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	1.0000e-004	1.4000e-004	1.4700e-003	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2467	0.2467	1.0000e-005	0.0000	0.2470
Total	1.1100e-003	0.0165	0.0138	4.0000e-005	1.2300e-003	2.5000e-004	1.4800e-003	3.4000e-004	2.3000e-004	5.6000e-004	0.0000	4.0520	4.0520	4.0000e-005	0.0000	4.0528

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					1.1600e-003	0.0000	1.1600e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1700e-003	0.0264	0.0207	3.0000e-005		1.8500e-003	1.8500e-003		1.7800e-003	1.7800e-003	0.0000	2.5878	2.5878	4.5000e-004	0.0000	2.5973
Total	3.1700e-003	0.0264	0.0207	3.0000e-005	1.1600e-003	1.8500e-003	3.0100e-003	5.7000e-004	1.7800e-003	2.3500e-003	0.0000	2.5878	2.5878	4.5000e-004	0.0000	2.5973

3.4 Grading - 2016**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0100e-003	0.0163	0.0123	4.0000e-005	7.8000e-004	2.5000e-004	1.0200e-003	2.2000e-004	2.3000e-004	4.5000e-004	0.0000	3.8053	3.8053	3.0000e-005	0.0000	3.8059
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	1.0000e-004	1.4000e-004	1.4700e-003	0.0000	2.0000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2467	0.2467	1.0000e-005	0.0000	0.2470
Total	1.1100e-003	0.0165	0.0138	4.0000e-005	9.8000e-004	2.5000e-004	1.2300e-003	2.8000e-004	2.3000e-004	5.1000e-004	0.0000	4.0520	4.0520	4.0000e-005	0.0000	4.0528

3.5 Building Construction - 2016**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	0.0120	0.1168	0.0679	1.0000e-004		7.3600e-003	7.3600e-003		6.8600e-003	6.8600e-003	0.0000	9.3047	9.3047	2.3900e-003	0.0000	9.3549
Total	0.0120	0.1168	0.0679	1.0000e-004		7.3600e-003	7.3600e-003		6.8600e-003	6.8600e-003	0.0000	9.3047	9.3047	2.3900e-003	0.0000	9.3549

3.5 Building Construction - 2016

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	0.0000
Vendor	2.5000e-004	2.5300e-003	3.2600e-003	1.0000e-005	1.7000e-004	4.0000e-005	2.1000e-004	5.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.5519	0.5519	0.0000	0.0000	0.5520	
Worker	2.5000e-004	3.7000e-004	3.8700e-003	1.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6476	0.6476	3.0000e-005	0.0000	0.6483	
Total	5.0000e-004	2.9000e-003	7.1300e-003	2.0000e-005	8.6000e-004	5.0000e-005	9.1000e-004	2.3000e-004	5.0000e-005	2.8000e-004	0.0000	1.1994	1.1994	3.0000e-005	0.0000	1.2002	

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	0.0120	0.1168	0.0679	1.0000e-004		7.3600e-003	7.3600e-003		6.8600e-003	6.8600e-003	0.0000	9.3047	9.3047	2.3900e-003	0.0000	9.3549
Total	0.0120	0.1168	0.0679	1.0000e-004		7.3600e-003	7.3600e-003		6.8600e-003	6.8600e-003	0.0000	9.3047	9.3047	2.3900e-003	0.0000	9.3549

3.5 Building Construction - 2016

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	2.5000e-004	2.5300e-003	3.2600e-003	1.0000e-005	1.4000e-004	4.0000e-005	1.8000e-004	4.0000e-005	4.0000e-005	8.0000e-005	0.0000	0.5519	0.5519	0.0000	0.0000	0.5520
Worker	2.5000e-004	3.7000e-004	3.8700e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.4000e-004	1.5000e-004	1.0000e-005	1.5000e-004	0.0000	0.6476	0.6476	3.0000e-005	0.0000	0.6483
Total	5.0000e-004	2.9000e-003	7.1300e-003	2.0000e-005	6.8000e-004	5.0000e-005	7.2000e-004	1.9000e-004	5.0000e-005	2.3000e-004	0.0000	1.1994	1.1994	3.0000e-005	0.0000	1.2002

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1000e-004	1.4900e-003	5.7700e-003	1.0000e-005	8.7000e-004	2.0000e-005	8.9000e-004	2.3000e-004	2.0000e-005	2.5000e-004	0.0000	1.0147	1.0147	4.0000e-005	0.0000	1.0156
Unmitigated	5.1000e-004	1.4900e-003	5.7700e-003	1.0000e-005	8.7000e-004	2.0000e-005	8.9000e-004	2.3000e-004	2.0000e-005	2.5000e-004	0.0000	1.0147	1.0147	4.0000e-005	0.0000	1.0156

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.80	0.80	0.80	2,288	2,288
Total	0.80	0.80	0.80	2,288	2,288

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	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513363	0.060352	0.180146	0.139338	0.042155	0.006672	0.015739	0.030749	0.001928	0.002503	0.004351	0.000593	0.002111

5.0 Energy Detail

~~4.4 Fleet Mix~~

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
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	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000								

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		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	tons/yr										MT/yr					
Mitigated	0.1039	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	0.1039	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

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	0.0252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0787					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	0.1039	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

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	0.0252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0787					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	0.1039	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8941	9.0000e-005	2.0000e-005	1.9015
Unmitigated	1.8941	9.0000e-005	2.0000e-005	1.9015

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.595741	1.8941	9.0000e-005	2.0000e-005	1.9015
Total		1.8941	9.0000e-005	2.0000e-005	1.9015

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.595741	1.8941	9.0000e-005	2.0000e-005	1.9015
Total		1.8941	9.0000e-005	2.0000e-005	1.9015

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.1200e-003	4.8000e-004	0.0000	0.0182
Unmitigated	8.1200e-003	4.8000e-004	0.0000	0.0182

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0182
Total		8.1200e-003	4.8000e-004	0.0000	0.0182

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0182
Total		8.1200e-003	4.8000e-004	0.0000	0.0182

9.0 Operational Offroad

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

TREE SURVEY



45" sycamore
DEAD

11" sycamore

15" sycamore
DEAD

45" Brazillian
pepper

10" ash DEAD

37" sycamore
DEAD

16" ash

26" pine DEAD

42" sycamore

19" camphor DEAD

9" pine

8" pine DEAD

8" pine

11" pine DEAD

22" sycamore

Stoney Dr

Google earth

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1994

Imagery Date: 3/24/2015 34°07'02.54" N 118°10'02.44" W elev 590 ft eye alt 929 ft

