

# FOCAL STRATEGIES PROJECT 17505 SOUTH MAIN STREET

Initial Study / Mitigated Negative Declaration  
for Compliance with the California Environmental Quality Act

Prepared for  
City of Carson  
Community Development Department  
701 E. Carson Street  
Carson, CA 90745

October 2018

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# **FOCAL STRATEGIES CANNABIS PROJECT**

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## **Initial Study**

### **Project Description**

#### **Project Overview**

The Focal Strategies Cannabis Project (proposed project) includes the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The two buildings would be used for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The project would not include on-site retail sales of cannabis or cannabis products, only distribution and sales of any materials that are developed on-site to licensed cannabis businesses. Construction of the proposed project is anticipated to occur over a 1-year period starting in May 2020 with operation of the proposed project anticipated in late May 2021.

#### **Project Location and Setting**

The project site is located at 17505 South Main Street in the City of Carson (Los Angeles County Assessor's Parcel Number 7339003900). The City of Carson is located in the central portion of southern Los Angeles County, approximately 10 miles south of downtown Los Angeles and three miles north of the Ports of Los Angeles and Long Beach (**Figure 1**, Regional Location).

The proposed project is located in the northern portion of the City of Carson. As shown in **Figure 2**, Aerial View of the Project Site and Vicinity, the proposed project is located in a highly urbanized area surrounded by a mixture of land uses, including commercial, warehouse, light industrial, automotive, and manufacturing uses. The project site is bordered to the east by Main Street and commercial uses, a three-story hotel (Carson Plaza Hotel) and West Albertoni Street to the south, and nursery uses (Centeno's Nursery and Landscaping) and State Route (SR) 91 to the north. To the west is a two-story multi-tenant warehouse/light manufacturing building and South Broadway.

According to the City's General Plan, Land Use Plan, the project site is designated as Light Industrial, which permits manufacturing, research and development, wholesaling, warehousing, and a limited amount of supportive retail and services. The existing zoning on the project site is ML-D (Manufacturing, Light), which permits the storage, wholesale, and manufacturing of products. The MD-D zone has no height limit and requires a minimum lot area of 20,000 square feet with no maximum lot coverage. The proposed project would require a Zone Text Amendment to allow cannabis uses subject to a Development Agreement pursuant to the City of Carson Cannabis Operations Ordinance No. 17-1637.



SOURCE: ESRI

Focal Cannabis Facility

**Figure 1**  
Regional Location





Path: U:\GIS\Projects\16xxx\16150573\_08\03\_MXDs\Projects\Fig2\_Aerial.mxd, Janderson 10/5/2018

SOURCE: ESRI

Focal Cannabis Facility

**Figure 2**  
Aerial View of Project Site and Vicinity



No existing trees are located on the project site. Two street trees are located in the sidewalk along South Main Street near the project site. Both street trees would be removed to construct the proposed driveway and driveway apron area. Removal of street trees would be subject to a tree removal permit that would be issued by the City of Carson.

## Proposed Project

The project site is a rectangular-shaped vacant lot covered with exposed soil, grass, and low-lying vegetation. It is currently not publically accessible and is enclosed by perimeter fencing and walls. The proposed project would involve the construction of two one-story buildings totaling 13,357 square feet that would be 20 feet tall up to the top of the parapet. The building to the east of the project site immediately fronting South Main Street, would be 7,600 square feet and would contain a cultivation area, small lobby area, and storage area. The building on the west site of the project site would be 5,757 square feet and would contain a cultivation area, manufacturing area for manufacturing of cannabis products, and a storage area (**Figure 3**, Site Plan, **Figure 4**, Floor Layout and **Figure 5**, Building Elevations).

Operation of the proposed project would include cannabis cultivation, harvesting, drying, extraction, packaging, and production of cannabis products. These products would be distributed to licensed facilities and dispensaries eligible to receive such products, in compliance with California and the City of Carson laws and regulations.

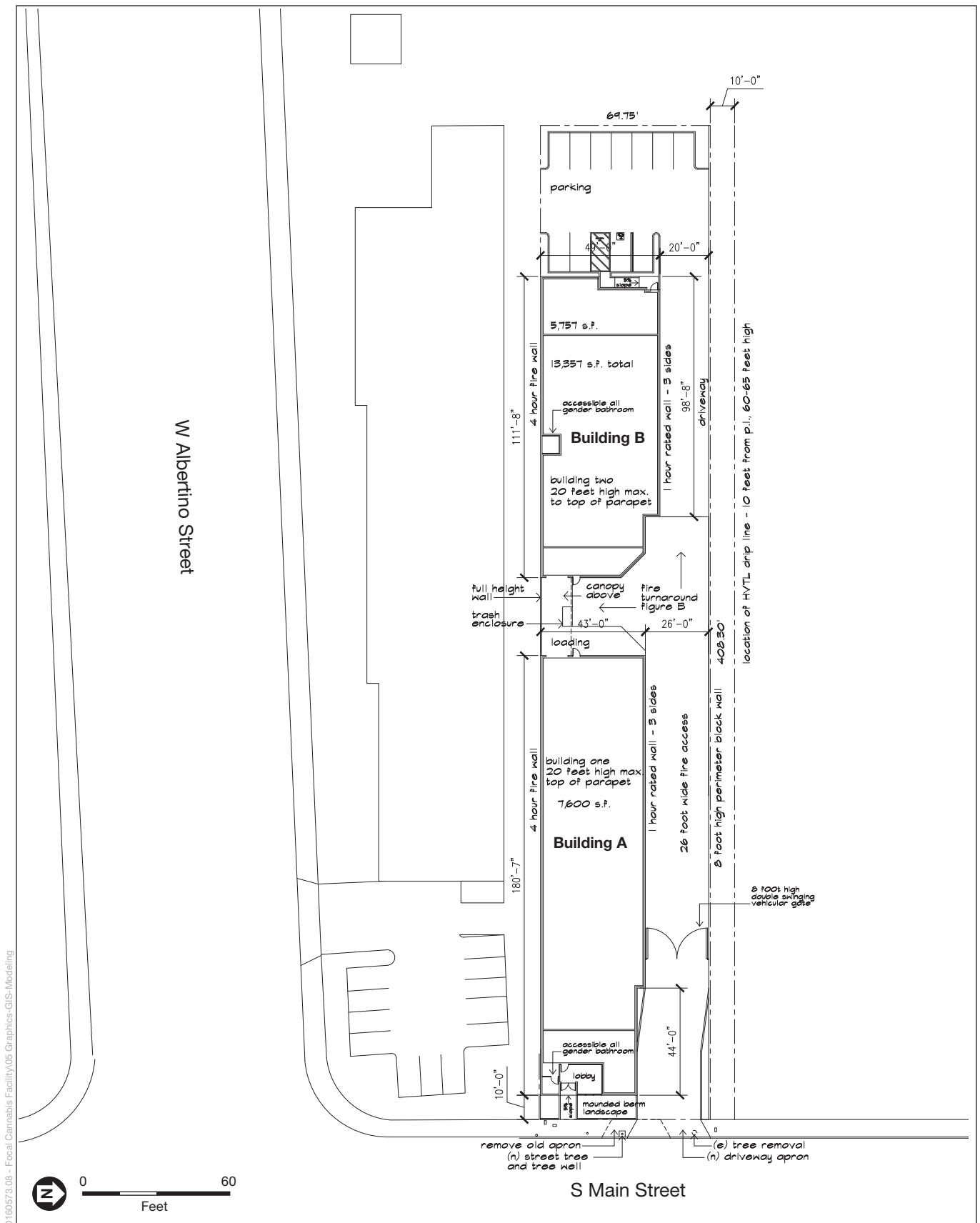
The proposed project would include the following activities:

1. **Cultivation:** The cultivation process would involve growing, harvesting, drying, curing, trimming, inspecting, and packaging.

*Germination, vegetative phase, flowering, and cloning of cannabis.* During germination, employees at the project site would collect, sort seeds and germinate seeds which takes between 12 hours and 8 days. To germinate, seeds are soaked and put into soil. After germination of the seeds, the plants would be placed into small pots with fertilizer and placed under intense lighting. The plants would typically require 16 to 24 hours of light and 0 to 8 hours of darkness to flower. From 1 to 4 weeks, the seedlings would require moderate humidity levels and medium to high light intensity.

Once the plants have developed roots and leaves, the plant would continue to grow for 1 to 2 months before flowering. During this vegetative phase, the seedlings would be moved into a separate area. Seedlings will be potted in larger receptacles and will be exposed to 18 to 24 hours of moderate/intense light during this phase. Between 1 day to 2 weeks before flowering, development of the plant would increase, and after nodes appear, the plants would be placed in at least 12 hours of darkness.





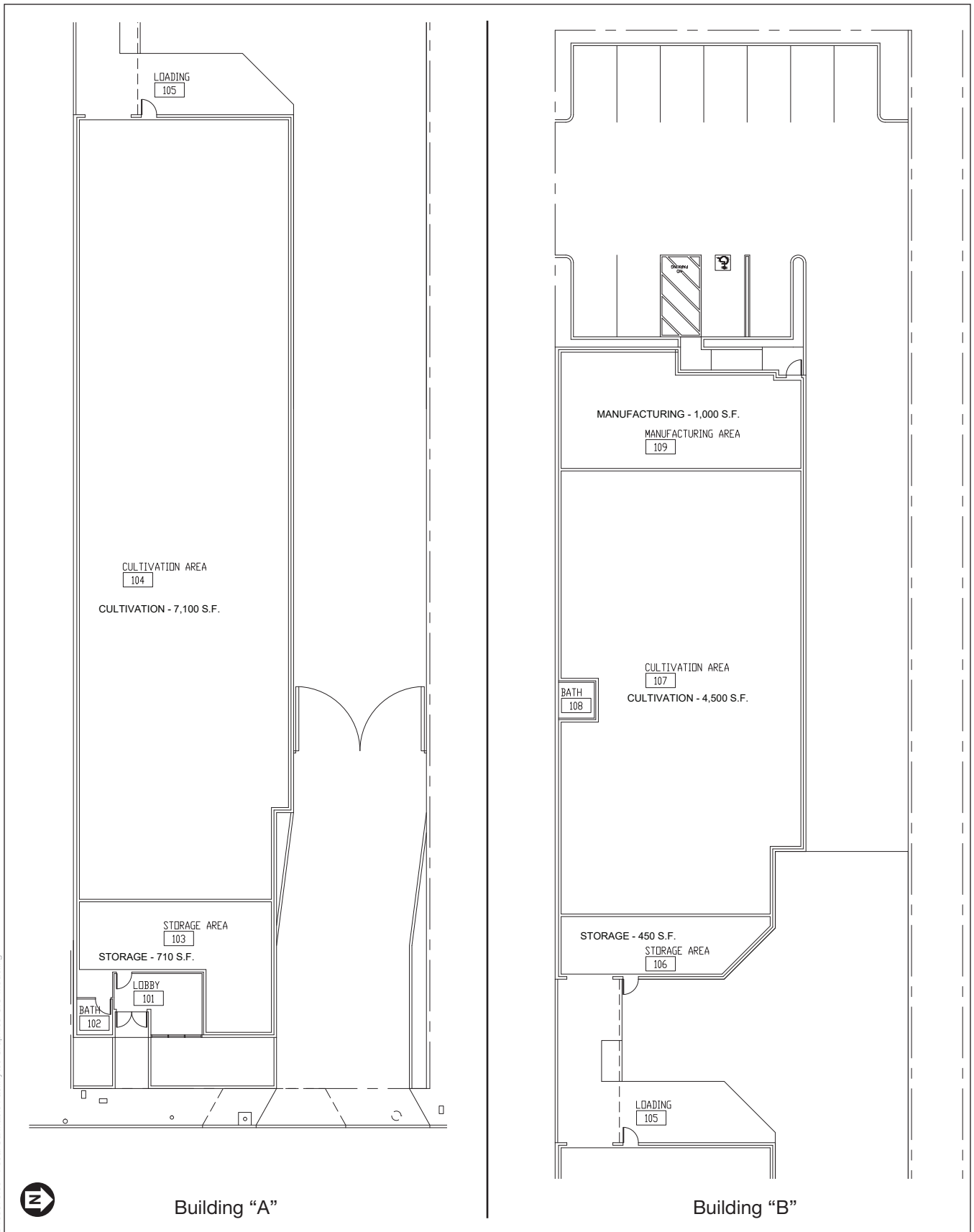
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SOURCE: Kamps Falcone Architects

Focal Cannabis Facility

**Figure 3**  
Site Plan





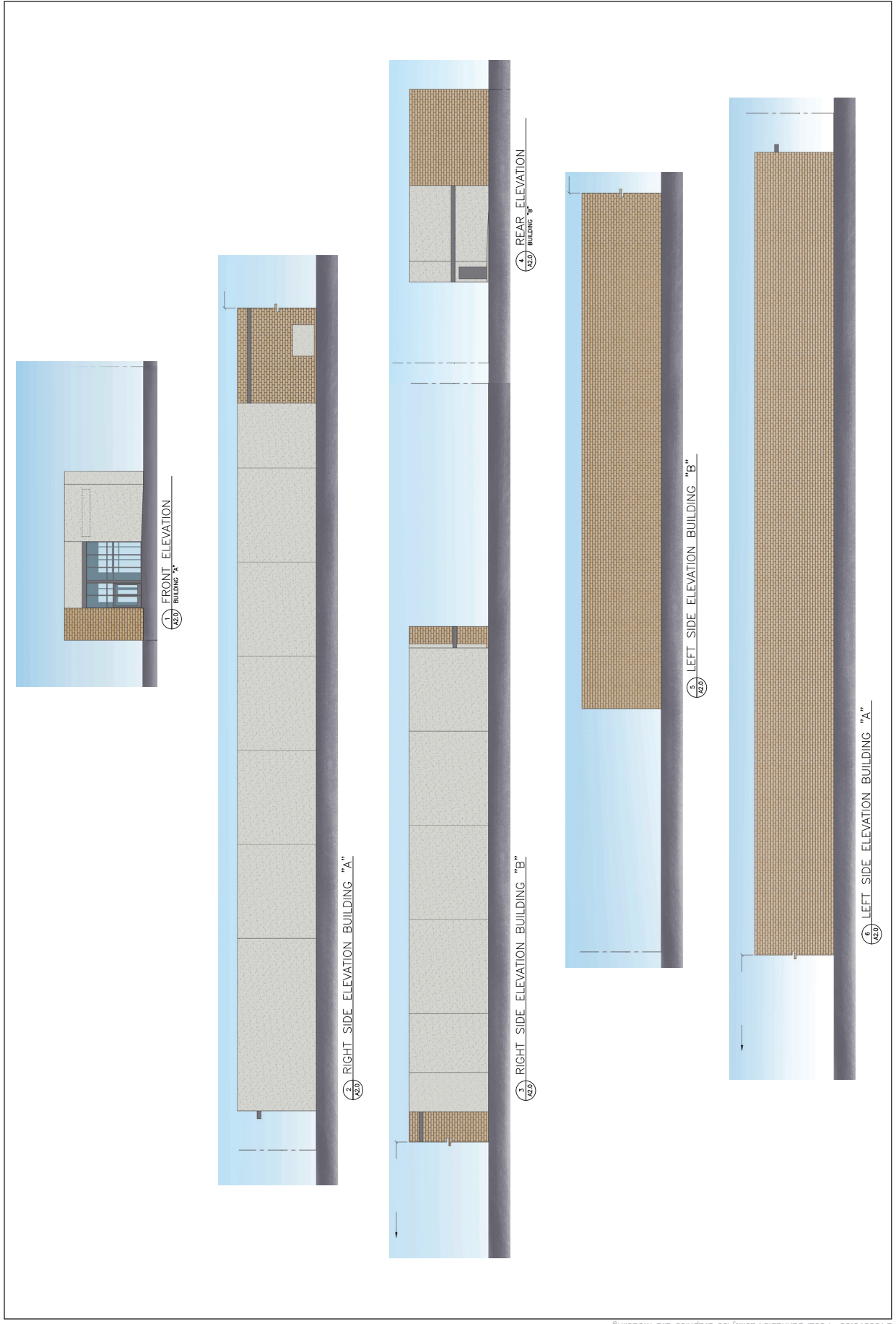
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SOURCE: Kamps Falcone Architects

Focal Cannabis Facility

**Figure 4**  
Floor Layouts





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SOURCE: Kamps Falcone Architects, 2018

Focal Cannabis Facility

**Figure 5**  
Building Elevations



During the flowering phase, which lasts from 6 to 22 weeks, the plants would be relocated into a reserved area. During this phase, plants would be regularly sampled and screened and nutrient supplements would be added. In the last 2 weeks, excess nutrients would be flushed out and the plants would absorb only water.

*Cloning:* During the cloning process, plant cuttings would be taken and a hormone gel added.

*Harvesting and drying:* Harvesting would involve cutting, manicuring, hanging the plants on a line to be dried. The total drying process would be approximately 1 to 2 weeks.

*Trimming:* Once the plants are dried, they would be placed in the trimming area where all plant matter would be cut. Each plant would be individually trimmed and the contents placed into a curing bin. The disposed plant matter would be used for edibles or concentrated products.

*Curing:* During the curing process, the trimmed cannabis would be placed into bines that are manually opened and closed to let off remaining water weight. The trimmed cannabis is aerated to remove any remaining water.

*Inspecting:* In accordance with state and City of Carson laws and regulations, all medical cannabis would be tested by a state-accredited and licensed independent testing laboratory for concentration, pesticides, mold, and other contaminants.

*Packaging:* After inspections, the product would be labeled to be sold and/or distributed to other cultivators, manufacturers, and/or distributors.

- 2. Manufacturing Operations:** Manufacturing operations would involve the extraction of tetrahydrocannabinol (THC) from the cannabis plant to produce cannabis oils, waxes, and edibles. Activities associated with manufacturing operations include extraction, post-processing, infusing, inspecting, packaging, and labeling.

*Extraction:* Project operations would involve a closed-loop extraction method that would use solvents such as butane to extract the cannabis resin from the plant or flower. The process would involve a highly pressurized solvent sprayed onto the plant to extract the plant resins in a blasting chamber. Following extraction, resin would be placed into a vacuum oven to undergo a process called purging. Purging involves the chamber being depressurized, thus creating a vacuum and causing bubbles of butane or solvent in the mid-stage, unfinished concentrate to be pulled out as they expand and burst, at which time any gases are removed from the chamber by a vacuum and captured for reuse.

*Post-Processing:* During this stage, the cannabis resin is placed into a vacuum oven to remove all of the residual solvents and most impurities. The final extraction product is cooled and collected for further processing and packaging. From the resin, waxes, oils, and edibles would be created.

*Packaging and labeling:* Prior to sale, the cannabis and cannabis products would be packaged and labeled. All products would be placed in re-sealable, tamper-evident, and child-resistant packaging.

Per the requirements of Chapter 15 of Article VI of the City of Carson Municipal Code, the proposed project would include a security plan, health and safety plan, and fire protection plan. The proposed project would use odor control devices and techniques, including an odor-absorbing ventilation/exhaust system and sealed doors and windows.

It is anticipated that proposed project would include approximately 29 employees (grower, cultivation employees, extraction managers, sales associates, and technical and support staff). With the exception of security personnel, master growers, employees at the proposed project engaged in cultivation, manufacturing operations, and administration would typically be at the proposed project from 9:00 AM to 5:00 PM, Monday through Sunday.

## **Access and Circulation**

Access to the project site would be from one driveway (ingress and egress) accessible from South Main Street. The driveway would extend the length of the two buildings from east to west providing access to surface parking for the proposed project located on the east end of the property. Eleven parking spaces would be provided, including one handicapped accessible space. Pedestrian access into the proposed project would be from the lobby area fronting South Main Street.

A loading area for deliveries and trash would be located between the two buildings that would be covered by a canopy. An 8-foot double swinging gate near the driveway entrance would limit access to the parking areas and loading areas. Deliveries and pickup of products would be scheduled before or after working hours (9:00AM to 5:00 PM) whenever possible.

Trash would be placed in trash bins secured with a lock placed inside of secured, locked storage areas within the buildings. Any rejected medicinal cannabis would be destroyed by grinding the cannabis and mixing with compost.

## **Site Security**

During construction of the proposed project, the project site would be fenced and gated.

During operation, the proposed project would incorporate a number of security measures to safely secure the cannabis facilities and provide a safe environment for employees and visitors. The access driveway would be gated and controlled. All doors would be secured by electronic locking doors controlled by security personnel, and would require keycards and/or electronic passcodes. An intrusion/burglar alarms system would be installed and the project site would be monitored at all times by either on-site security or a third-party monitoring and security company.

The proposed project would include security guards on duty 24 hours a day, 7 days a week. Duties of security personnel would include station duties at the main entrance in a, patrol checks of the interior and exterior of the facility and parking areas, and manning of the loading areas for distributors and transport. Panic buttons would be installed that would directly notify the Carson Police Department dispatcher. Security lighting would be strategically installed in and around the building for employee safety at closing and opening times in the evening and in the morning.

The project would contain minimal amount of windows. Any windows that would expose cultivation or manufacturing activities would be covered. Loading areas would be screened from view by a canopy, fencing, and walls.

## Project Approvals

The City of Carson is the lead agency under the California Environmental Quality Act (CEQA) and is responsible for the permitting of the proposed project. In order for the proposed project to be approved and be in compliance with the City's Municipal Code, the Applicant would be required to obtain the following approvals:

- A Development Agreement (Planning Commission and City Council);
- A Zone Text Amendment to allow cannabis uses subject to a Development Agreement pursuant to Ordinance No. 17-1637 (Planning Commission and City Council);
- Approval or adoption of the Mitigated Negative Declaration (Planning Commission and City Council);
- A Variance on parking and setbacks subject to Site Plan review (Administrative);
- A Site Plan and Design review (Administrative);
- Issuance of Grading, building, electrical, mechanical. Plumbing permits to construct the project. (Administrative);
- Issuance of Certificate of Occupancy following the construction and prior to occupancy of the site. (Administrative);
- A Tree removal permit (Administrative); and
- Issuance of a Business License to operate various cannabis businesses (Administrative).

# ENVIRONMENTAL CHECKLIST

## Initial Study

- |  |  |
|--|--|
| <b>1. Project Title:</b>                                     | Focal Strategies Cannabis Project  |
| <b>2. Lead Agency Name and Address:</b>                      | City of Carson<br>Community Development Department<br>701 E. Carson Street<br>Carson, CA 90745   |
| <b>3. Contact Person and Phone Number:</b>                   | Ethan Edwards, Senior Planner<br>(310) 952-1761  |
| <b>4. Project Location:</b>                                  | 17505 South Main Street, Carson, CA 90810  |
| <b>5. Project Sponsor's Name and Address:</b>                | Focal Strategies Investments, LLC<br>1121 S. Wilton Place, Los Angeles, CA 90019   |
| <b>6. General Plan Designation(s):</b>                       | Light Industrial   |
| <b>7. Zoning:</b>  | ML-D (Manufacturing, Light)  |
| <b>8. Description of Project:</b>                            | Construction of two buildings used for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation (see Chapter 2, Project Description) |
| <b>9. Surrounding Land Uses and Setting:</b>                 | North: Centeno's Nursery and Landscaping and SR 91<br>South: Carson Plaza Hotel<br>East: Light Industrial and Commercial<br>West: Light Industrial and Commercial  |
| <b>10. Other Public Agencies Whose Approval is Required:</b> | Undetermined   |

# ENVIRONMENTAL CHECKLIST

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

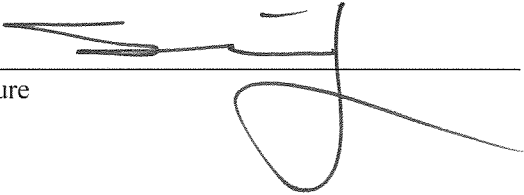


**DETERMINATION: (To be completed by the Lead Agency)**

On the basis of this initial study:

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

Signature



Date

10-18-17

# Environmental Checklist

## Aesthetics

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|--|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>1. AESTHETICS — Would the project:</b>  |                                       |   |                                     |                          |
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?                                | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

## Discussion

- a) **Less than Significant Impact.** Project implementation would result in a significant impact if the proposed action developed structures that permanently obstruct or are visually incompatible with a scenic vista. Scenic vistas are panoramic views of features such as mountains, forests, the ocean, or urban skylines.

The existing visual setting of the project area is characterized by a mix of urban uses and the major transportation corridor of the SR 91 freeway approximately 300 feet to the north, and electric power lines and poles immediately to the north. Given the highly urbanized setting of the proposed project, scenic resources in the area are limited. The proposed project would develop two one-story buildings within an urbanized area. As the project site is a vacant lot enclosed by fencing, the project site itself is not considered scenic.

Scenic vistas from the project site include the Palos Verdes Mountains to the south and San Gabriel Mountains to the north. However, due to the distance, intervening development and infrastructure, views of these scenic resources are very limited from the project site and surrounding roadways. In particular, the SR 91 on-ramp and roadway approximately 200 feet north of the project site, largely obscure views to the north from the project site. Additionally, intervening infrastructure, such as the existing hotel located immediately south of the project site, limits views to the south.

While the proposed project would develop new buildings up to 20 feet, development of the proposed project would not impede views of any scenic resources, as none are currently available from adjacent areas. The project site is not considered a scenic resource. Thus, the proposed project would not substantially diminish public views of scenic vistas. Therefore, impacts related to scenic vistas would be less than significant.

- b) **Less Than Significant Impact.** Project implementation would result in a significant impact if the proposed action would substantially damage scenic resources within a State Scenic Highway. According to the California Department of Transportation (Caltrans), there are no Officially Designated State or County Scenic Highways as defined by Caltrans, the County of Los Angeles, or any other local governing body adjacent to or within the vicinity of the project site. The nearest such highway to the site is SR 2 (Angeles Crest Highway), 32 miles north of the project site. The project would not damage scenic resources from a state scenic highway.

There are no trees, rock outcroppings, historic buildings or other unique scenic resources located on the project site.

Two street trees are located in the sidewalk along South Main Street near the project site. Both street trees would be removed to construct the proposed driveway and driveway apron area. Removal of street trees would be subject to a tree removal permit that would be issued by the City of Carson. Additionally, the project would install landscaping including trees; thus, removal of off-site trees would not substantially damage scenic resources. Therefore, impacts related to scenic resources would be less than significant.

- c) **Less Than Significant Impact.** The existing visual setting of the project area is characterized by a mix of urban industrial and commercial uses, the SR 91 freeway approximately 200 feet to the north, and electric power lines and poles. Vegetation related to nursery uses to the north of the project site offers some visual relieve from the dense urban uses, however as the nursery is fenced and gated, it is not considered a valued visual resource.

Construction activities typically result in site disturbance, movement of construction equipment, import and export of materials, views of incomplete buildings and other activities that generally contrast with the aesthetic character of an area. Construction activities would be primarily visible from West South Main Street with more limited views from West Albertoni Street. Construction would also be visible from hotel rooms immediately south of the project site. Construction staging of construction vehicles, storage of materials, and building construction.

Because of the short-term, temporary nature of the construction activities, construction activities would not substantially alter, degrade, or generate long-term contrast with the visual character of the surrounding area. In addition, construction fencing would be provided for safety, and would also serve to screen views of grading and other site disturbance from adjacent streets and sidewalks. Therefore, given the temporary nature of these impacts, impacts on visual character during construction would be less than significant.

The project site is currently undeveloped and surrounded by perimeter fencing. Development of the proposed project would change the visual character of the project site from a vacant parcel to the development of two one-story buildings up to 20 feet in height. As stated earlier, the project site under existing conditions, has a low visual

quality. Development of the two new one-story buildings would be consistent with the height of adjacent buildings in the area including the three-story hotel uses to the south and nearby one- and two-story commercial and visual character of the area. Additionally, during the approval process, the Applicant would submit landscape plans consistent with the City of Carson Municipal Code. Therefore, impacts to the existing visual character of the project site and surroundings would be less than significant.

- d) **Less Than Significant Impact.** A significant impact would occur if light and glare substantially interfered with off-site activity. The proposed project would introduce new sources of light associated with lighting the new developed manufacturing buildings, signage, and security and way-finding lighting. The project site would operate during typical daylight hours; however, since the two one-story buildings would be visible from the SR 91, the project has the potential to introduce new sources of light and glare to drivers and motorists related to nighttime views. However, prior to the issuance of building permits, the Applicant would be required to submit photometric plans showing the exterior lighting layout, fixture mounting details, and performance fixture descriptions to the City of Carson for review. The photometric plan would comply with the Municipal Code requirements that minimize lighting impacts to sensitive receptors. Therefore, impacts associated with light and glare as they relate to daytime and/or nighttime views in the area would be less than significant.

### **References**

California Department of Transportation (Caltrans). California Scenic Highway Mapping System. September 2011. Accessed: October 2018. Available at:  
[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)

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## Agricultural and Forest Resources

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>2. AGRICULTURAL AND FOREST RESOURCES —</b>   |                                       |   |                                     |                                     |
| In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. |                                       |   |                                     |                                     |
| <b>Would the project:</b>   |                                       |   |                                     |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **No Impact.** The project site is located in an urbanized area and has a general plan land use designation of Light Industrial and a zoning designation of ML-D (Manufacturing, Light). According to the California Department of Conservation's State of California Important Farmland map, the project site does not contain any agricultural uses or areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2014). Therefore, the proposed project would not convert farmland to a non-agricultural use, and no impact would occur.
- b) **No Impact.** As mentioned above in Issue 2 (a), the project site is in an urbanized area, and does not contain any agricultural land (California Department of Conservation 2014). The project site is zoned as Light Industrial and there are no Williamson Act contracts in the project vicinity (California Department of Conservation 2015). Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

- c) **No Impact.** As mentioned above in Issue 2 (a) and (b), the project site is in an urbanized and is zoned as Light Industrial. The project site does include forest lands, timberlands, or timberland zoned Timberland Production. No forestland or timberland uses are located in the project site's urban, industrial setting. Therefore, the proposed project would not conflict with existing zoning for forest land and no impact would occur.
- d) **No Impact.** As mentioned above in Issue 2 (c), the project site is in an urbanized area. According to the City of Carson General Plan and Municipal Code, the project site is not designated as forestland (City of Carson 2004, City of Carson 2018). Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use, and no impact would occur.
- e) **No Impact.** As mentioned above, construction and operation of the proposed project would have no impact on agriculture or forest resources. Additionally, there would be no need for land acquisitions to implement the proposed project. No other changes in the existing environment, which, due to their location and nature, would result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use under the proposed project. Therefore, there would be no impact.

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## Air Quality

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>3. AIR QUALITY —</b>   |                                       |   |                                     |                          |
| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.  |                                       |   |                                     |                          |
| <b>Would the project:</b>   |                                       |   |                                     |                          |
| a) Conflict with or obstruct implementation of the applicable air quality plan?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact.** The proposed project is located within the 6,745-square-mile South Coast Air Basin (SCAB). Air quality planning for the SCAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) for criteria air pollutants. The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the SCAB is in non-attainment for the NAAQS (e.g., ozone [O<sub>3</sub>], and particulate matter 2.5 microns in diameter or less [PM<sub>2.5</sub>]). The SCAQMD, California Air Resources Board (CARB), and United States Environmental Protection Agency (USEPA) have adopted the 2016 AQMP which incorporates scientific and technological information and planning assumptions, regarding air quality, including the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and emission inventory methodologies for various source categories (SCAQMD 2016).

The AQMP builds upon other agencies' plans to achieve federal standards for air quality in the SCAB and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. In addition, the AQMP highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially for mobile sources, to meet all federal criteria pollutant standards in accordance with the Clean Air Act.

The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan (RCP) and Guide and the RTP/SCS, these plans provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the RCP and AQMP are based, in part, on projections originating with County and City General Plans.

The SCAQMD released the Draft 2016 AQMP on June 30, 2016, for public review and comment. A revised Draft 2016 AQMP was released in October 2016 and the SCAQMD Governing Board adopted the 2016 AQMP on March 3, 2017 (SCAQMD 2016). CARB approved the 2016 AQMP on March 23, 2017. USEPA approval is pending, but is a necessary requirement before the 2016 AQMP can be incorporated into the State Implementation Plan (SIP). Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero emissions technologies; and taking credit from co-benefits for greenhouse gas (GHG), energy, transportation, and other planning efforts. The strategies included in the 2016 AQMP are intended to demonstrate attainment of the NAAQS for the federal O<sub>3</sub> and PM<sub>2.5</sub> standards. Until such time as the 2016 AQMP is approved by the USEPA, the 2012 AQMP remains the applicable AQMP.

### **Construction**

The project site is currently a vacant lot covered with bare soil, grass, and low-lying vegetation. The project would involve the construction of two one-story buildings totaling 13,357 square feet that would be 20 feet tall up to the top of the parapet. Construction activities associated with the proposed project have the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment and through vehicle trips generated by construction works and haul trips traveling to and from the project site. In addition, fugitive dust emissions would result from construction activities. During the finishing phase, the application of architectural coatings (i.e., paints) and other building materials would release volatile organic compounds (VOCs). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Project construction would result in an increase in short-term or temporary employment compared to existing conditions. Construction jobs under the project would generally be small in number, temporary in nature, and filled by local construction workers already living in the Basin, and therefore would not conflict with the long-term employment projections upon which the AQMP are based.



Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the as MOB-08 and MOB-10 in the 2016 AQMP, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The proposed project complied with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment.

Fugitive dust generation would result from the site preparation and various soil-handling activities. Although the amount of soil and asphalt disturbed is anticipated to be minimal, the project would comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and met the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the proposed project does not conflict with the control strategies intended to reduce emissions from construction equipment, construction of the proposed project would not conflict with or obstruct implementation of the AQMP, and impacts are less than significant.

### **Operation**

The 2016 AQMP was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The proposed project would include cannabis cultivation, harvesting, drying, extraction, packaging, and producing of cannabis products such as oils. SCAG predicted Carson's employment growth between 2012 and 2040 to be 11,200 jobs (SCAG, 2016). The estimated 25 new full-time-equivalent (FTE) employees generated by the proposed project are well within SCAG's employment growth assumptions for Carson. During each operation day, the proposed project has a maximum of 94 mobile source associated with the delivery of materials, pickup of products, employee trips, and other miscellaneous vehicle trips. As discussed in Issue 16, Transportation and Traffic, this project does not have a significant impact on transportation or traffic in the project vicinity. Mobile source emissions associated with the proposed project site were calculated and are discussed in Issue 3 (b) below.

- b) **Less Than Significant Impact.** As indicated above, the proposed project area is located within the SCAB, which is characterized by relatively poor air quality. State and federal air quality standards are often exceeded in many parts of the SCAB. The proposed project contributes to local and regional air pollutant emissions during construction (short-term or temporary) and project occupancy (long-term). Based on the following analysis, construction and operation of the project resulted in less than significant impacts relative

the project exceeding the daily significance thresholds for criteria air pollutant emissions as established by the SCAQMD for construction and operational phases (SCAQMD 2015).

### Construction Emissions

Daily regional and annual construction source project criteria pollutant emissions (NO<sub>x</sub>, volatile organic compounds [VOC], particulate matter 10 microns in diameter or less [PM10], PM2.5, sulfur oxides [SO<sub>x</sub>], and carbon monoxide [CO]) were calculated using the CalEEMod (Version 2016.3.2) software, an emissions inventory software program recommended by the SCAQMD. The model also calculates GHG emissions from direct and indirect sources and quantifies applicable air quality and GHG reductions achieved from mitigation measures. CalEEMod is based on outputs from OFFROAD and EMFAC, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles and statewide and regional emissions inventories from all motor vehicles, including passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. The input values used in the CalEEMod modeling analysis were adjusted based on project specific information.

Construction activities associated with the project resulted in emissions of CO, VOCs, NO<sub>x</sub>, SO<sub>x</sub>, PM10, and PM2.5. Construction related emissions were calculated based on the site preparation, grading, trenching, paving, building construction, and construction worker, haul truck, and vendor truck trips completed during the construction phase. Construction of the project is estimated to require approximately 12 months, starting as early as May 2020. The construction phases and duration are provided in **Table 1**. The construction schedule used in the Air Quality Impact Analysis represents a “worst-case” scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. A detailed summary of construction equipment assumptions for all phases is provided in **Table 2**.

**TABLE 1**  
**ESTIMATED CONSTRUCTION SCHEDULE**

| <b>Activity</b>              | <b>Start Date</b> | <b>End Date</b> | <b>Duration (Days)</b> |
|------------------------------|-------------------|-----------------|------------------------|
| Site Preparation             | 5/4/2020          | 5/17/2020       | 10                     |
| Grading/Excavation           | 5/18/2020         | 6/5/2020        | 15                     |
| Drainage/Utilities/Sub-Grade | 6/6/2020          | 7/3/2020        | 20                     |
| Foundation/Concrete Pour     | 7/4/2020          | 7/7/2020        | 2                      |
| Building Construction        | 7/8/2020          | 3/16/2021       | 180                    |
| Architectural Coatings       | 3/17/2021         | 3/30/2021       | 10                     |
| Paving                       | 3/31/2021         | 4/6/2021        | 5                      |

SOURCE: ESA 2018.

**TABLE 2  
CONSTRUCTION EQUIPMENT ASSUMPTIONS**

| <b>Equipment</b>          | <b>Horsepower</b> | <b>Load Factor</b> |
|---------------------------|-------------------|--------------------|
| Air Compressors           | 78                | 0.48               |
| Cement and Mortar Mixers  | 9                 | 0.56               |
| Concrete/Industrial Saws  | 81                | 0.73               |
| Cranes                    | 231               | 0.29               |
| Forklifts                 | 158               | 0.38               |
| Graders                   | 89                | 0.2                |
| Pavers                    | 84                | 0.74               |
| Rollers                   | 187               | 0.41               |
| Rubber Tired Dozers       | 130               | 0.42               |
| Tractors/Loaders/Backhoes | 132               | 0.36               |

SOURCE: ESA 2018.

The estimated maximum daily construction emissions are summarized in **Table 3**. Under the assumed scenarios, emissions resulting from the project construction would not exceed any criteria pollutant thresholds established by the SCAQMD. Therefore, impacts would be considered less than significant.

**TABLE 3  
MAXIMUM REGIONAL CONSTRUCTION (POUNDS PER DAY) <sup>A</sup>**

| <b>Source</b>                               | <b>VOC</b> | <b>NO<sub>x</sub></b> | <b>CO</b> | <b>SO<sub>2</sub></b> | <b>PM10 <sup>b</sup></b> | <b>PM2.5 <sup>b</sup></b> |
|---|------------|-----------------------|-----------|-----------------------|--------------------------|---------------------------|
| Site Preparation - 2020                     | 1          | 9                     | 4         | <1                    | 1                        | <1                        |
| Grading/Excavation - 2020                   | 2          | 22                    | 14        | <1                    | 4                        | 2                         |
| Drainage/Utils/Sub-Grade - 2020             | 1          | 8                     | 4         | <1                    | 1                        | <1                        |
| Foundation/Concrete Pour - 2020             | 2          | 28                    | 13        | <1                    | 2                        | 1                         |
| Building Construction - 2020                | 1          | 12                    | 10        | <1                    | 1                        | 1                         |
| Building Construction - 2021                | 1          | 11                    | 9         | <1                    | 1                        | 1                         |
| Architectural Coating - 2021                | 13         | 2                     | 2         | <1                    | <1                       | <1                        |
| Paving - 2021                               | 1          | 8                     | 9         | <1                    | 1                        | <1                        |
| <b>Maximum Daily Emissions <sup>b</sup></b> | <b>13</b>  | <b>28</b>             | <b>14</b> | <b>&lt;1</b>          | <b>4</b>                 | <b>2</b>                  |
| SCAQMD Significance Thresholds              | 75         | 100                   | 550       | 150                   | 150                      | 55                        |
| <b>Exceeds Threshold?</b>                   | <b>No</b>  | <b>No</b>             | <b>No</b> | <b>No</b>             | <b>No</b>                | <b>No</b>                 |

a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A.

b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

SOURCE: ESA, 2018

## Operational Emissions

Operations at the proposed project would include cannabis cultivation, harvesting, drying, extraction, packaging, and production of cannabis products. These products would be distributed to licensed facilities and dispensaries eligible to receive such products, in compliance with California and the City of Carson laws and regulations. During operations of the project, the primary emission sources would consist of mobile sources, off-road equipment (forklifts), energy use from site operations, testing and maintenance of the emergency generator, and routine maintenance of the facility.

The mobile sources associated with the proposed site consists of employee trips, as well as delivery and pickup of cannabis materials and/or products. Trip generation rates are based on the land use size and estimated by CalEEMod. Mobile source emissions are based on the vehicle emission factors from EMFAC and the trip length values for the project land uses in CalEEMod, which are Basin-wide average trip distance values. The estimated maximum daily operational emissions are summarized in **Table 4**.

**TABLE 4**  
**MAXIMUM UNMITIGATED REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY) A**

| Source                         | VOC       | NO <sub>x</sub> | CO        | SO <sub>2</sub> | PM10      | PM2.5        |
|--------------------------------|-----------|-----------------|-----------|-----------------|-----------|--------------|
| Area                           | <1        | <1              | <1        | <1              | <1        | <1           |
| Energy                         | <1        | <1              | <1        | <1              | <1        | <1           |
| Mobile                         | <1        | 1               | 3         | <1              | 1         | <1           |
| Off-road                       | <1        | 2               | 2         | <1              | <1        | <1           |
| Stationary                     | 1         | 10              | 6         | <1              | <1        | <1           |
| <b>Project Total</b>           | <b>1</b>  | <b>13</b>       | <b>11</b> | <b>&lt;1</b>    | <b>1</b>  | <b>&lt;1</b> |
| SCAQMD Significance Thresholds | 55        | 55              | 550       | 150             | 150       | 55           |
| <b>Exceeds Threshold?</b>      | <b>No</b> | <b>No</b>       | <b>No</b> | <b>No</b>       | <b>No</b> | <b>No</b>    |

a Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix A.

SOURCE: ESA, 2017

- c) **Less Than Significant Impact.** The SCAB is currently designated as extreme non-attainment for the federal and state ozone ambient air quality standards and non-attainment for the state PM10 and federal and state PM2.5 ambient air quality standards. The SCAQMD's approach for assessing cumulative impacts related to operations is based on attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. As discussed above, the SCAQMD has developed a comprehensive plan, the 2012 AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project were to add a cumulatively considerable contribution of a federal or state non-attainment pollutant. Because the SCAB is currently in non-attainment for ozone, PM10 and PM2.5, related projects could cause ambient concentrations to exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, CEQA Guidelines Sections 15064(h)(3) provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

*A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency*

For purposes of the cumulative air quality analysis with respect to CEQA Guidelines Section 15064(h)(3), the project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted 2012 AQMP. The 2012 AQMP includes demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment), developed by SCAG for their 2012 Regional Transportation Plan (RTP). As discussed under Issue 3(a) above, the project would be consistent with the 2012 AQMP.

As the project is not part of an ongoing regulatory program, the SCAQMD also recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily emissions of operation-related pollutants do not exceed SCAQMD regional significance thresholds. By applying SCAQMD's cumulative air quality impact methodology, implementation of the project would not result in the addition of criteria pollutants such that cumulative impacts would occur, in conjunction with related projects in the region. In addition, as discussed in Issue 3 (b) above and Issue 3 (d) below, construction of the project is not expected to result in a cumulatively considerable net increase of criteria pollutants for which the SCAQMD has established a regional and localized impact threshold. Therefore, the project impacts would be considered less than significant.

- d) **Less Than Significant Impact.** The localized effects from the on-site portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the Proposed Action according to the SCAQMD's Localized Significance Threshold Methodology (June 2003, revised July 2008), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling typically for sites greater than 5 acres, as appropriate (SCAQMD 2008). The localized significance thresholds are

applicable to NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. For NO<sub>x</sub> and CO, the thresholds are based on the ambient air quality standards. For PM<sub>10</sub> and PM<sub>2.5</sub>, the thresholds are based on requirements in SCAQMD Rule 403 (Fugitive Dust) for construction and Rule 1303 (New Source Review Requirements) for operations. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The screening criteria depend on: (1) the area in which the project is located, (2) the size of the project area, and (3) the distance between the project area and the nearest sensitive receptor (e.g., residences, schools, hospitals). For the project, the appropriate Source Receptor Area (SRA) for the localized significant threshold (LST) is the South Central Los Angeles County monitoring station (SRA 12). Since the total acreage disturbed is approximately 0.66 acres (less than 5 acres) per day, SCAQMD's screening look-up tables were used to determine localized significance thresholds. The nearest sensitive receptor is the Carson Harbor Village Mobile Home Park community located approximately 920 feet (280 meters) to the southeast of the project area at the corner of East Albertoni Street and South Avalon Boulevard. In addition, the Ambler Avenue Elementary School is located approximately 2,400 feet (732 meters) northeast and separated from the project site by SR 91.

A conservative approach was used to determine the significance thresholds for the project site. Therefore, the significance thresholds in the analysis are based on a 1-acre site with a 25-meter receptor distance. If the project's localized daily emissions exceed the applicable LSTs from the screening look-up tables, it does not necessarily mean that the project impact is significant. Rather, refined dispersion modeling should be conducted to compare the project impact to the concentration-based localized significance thresholds.

### **Construction Emissions**

**Table 5** identifies the localized impacts at the nearest receptor location in the vicinity of the project area. The localized emissions during construction activity would not exceed any of the SCAQMD's localized significance thresholds. Therefore, impacts would be considered less than significant.

**TABLE 5**  
**MAXIMUM LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY) A**

| <b>Source</b>                              | <b>NO<sub>x</sub></b> | <b>CO</b> | <b>PM10<sup>b</sup></b> | <b>PM2.5<sup>b</sup></b> |
|--|-----------------------|-----------|-------------------------|--------------------------|
| Site Preparation - 2020                    | 8                     | 4         | 1                       | <1                       |
| Grading/Excavation - 2020                  | 19                    | 12        | 4                       | 2                        |
| Drainage/Utils/Sub-Grade - 2020            | 8                     | 4         | 1                       | <1                       |
| Foundation/Concrete Pour - 2020            | 12                    | 9         | 1                       | 1                        |
| Building Construction - 2020               | 12                    | 9         | 1                       | 1                        |
| Building Construction - 2021               | 11                    | 9         | 1                       | 1                        |
| Architectural Coating - 2021               | 2                     | 2         | <1                      | <1                       |
| Paving - 2021                              | 8                     | 8         | <1                      | <1                       |
| <b>Maximum Daily Emissions<sup>b</sup></b> | <b>19</b>             | <b>12</b> | <b>3.5</b>              | <b>2.3</b>               |
| SCAQMD Significance Thresholds             | 46                    | 231       | 4                       | 3                        |
| <b>Exceeds Threshold?</b>                  | <b>No</b>             | <b>No</b> | <b>No</b>               | <b>No</b>                |

a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A

b Localized Significance Thresholds (LST) were for a 1-acre project site with a 25-meter receptor distance in SRA #12, South Central Los Angeles.

SOURCE: ESA, 2018

### Operational Emissions

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources that may include queuing and idling at the site (e.g., warehouse or transfer facilities). With regard to on-site sources of emissions, the project would not generate emissions resulting from trucks queuing and idling at the site. VOCs could emit from on-site equipment such as forklifts used inside the warehouse; however, LSTs are not applicable to VOCs emissions, which would contribute to regional ozone in the SCAB. **Table 6** summarizes the maximum localized operational emissions resulting from project operations, along with the localized significance thresholds. As shown, on-site daily emissions from operational activities do not exceed the SCAQMD localized thresholds and would not be expected to result in ground level concentrations that exceed the allowable incremental increase established by the SCAQMD. Therefore, the project results in a less than significant localized impact for operational emissions.

**TABLE 6**  
**MAXIMUM LOCALIZED OPERATIONAL EMISSIONS (POUNDS PER DAY) A**

| <b>Source</b>                            | <b>NO<sub>x</sub></b> | <b>CO</b> | <b>PM10</b>  | <b>PM2.5</b> |
|--|-----------------------|-----------|--------------|--------------|
| Area                                     | <1                    | <1        | <1           | <1           |
| Energy                                   | <1                    | <1        | <1           | <1           |
| Off-road                                 | 2                     | 2         | <1           | <1           |
| Stationary                               | 10                    | 6         | <1           | <1           |
| <b>Project Total</b>                     | <b>12</b>             | <b>8</b>  | <b>&lt;1</b> | <b>&lt;1</b> |
| SCAQMD Localized Significance Thresholds | 46                    | 231       | 1            | 1            |
| <b>Exceeds Threshold?</b>                | <b>No</b>             | <b>No</b> | <b>No</b>    | <b>No</b>    |

a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A

b Localized Significance Thresholds (LST) were for a 1-acre project site with a 25-meter receptor distance in SRA #12, South Central Los Angeles.

SOURCE: ESA, 2018

### **CO “Hot Spot” Analysis**

A carbon monoxide (CO) hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. Projects may worsen air quality if they increase the percentage of vehicles in cold start modes by 2 percent or more; significantly increase traffic volumes (by 5 percent or more) over existing volumes; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the proposed project, to operate at LOS E or F. While construction-related traffic on the local roadways occur during construction, the net increase of construction worker vehicle trips to the existing daily traffic volumes on the local roadways are expected to be relatively small and would not result in CO hotspots. Additionally, the construction-related vehicle trips are short-term, and will ceased once construction activities are completed. During operation, the project adds a total of 94 trips to the project site per day. Overall, it is unlikely that local intersections will form a CO hotspot in comparison to the AQMP’s 2003 study, which estimates 100,000 vehicles per day will cause the formation of a CO hotspot. Therefore, impacts are considered less than significant.

### **Toxic Air Contaminants**

Concentrations of toxic air contaminants (TACs), are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.



## Construction

Intermittent construction activities associated with the proposed project would result in short-term emissions of diesel particulate matter (DPM), which the State has identified as a TAC. During construction, the exhaust of off-road heavy-duty diesel equipment would emit diesel particulate matter during general construction activities, such as site grading, excavation, trenching, materials transport and handling, and building construction.

DPM poses a carcinogenic health risk that is generally measured using an exposure period of 30 years for sensitive residential receptors, according to the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA Guidance), which was updated in 2015 with new exposure parameters including age sensitivity factors (OEHHA 2015). Sensitive receptors are located to the southeast of the project area; however, localized DPM emissions (strongly correlated with PM<sub>2.5</sub> emissions) are minimal and are below localized thresholds as presented in Table 5. Although the localized analysis does not directly measure health risk impacts, it does provide data that can be used to evaluate the potential to cause health risk impacts. The very low level of PM<sub>2.5</sub> emissions coupled with the short-term duration of construction activity resulted in an overall low level of DPM concentrations in the project area. Furthermore, compliance with the CARB airborne toxic control measures (ATCM) anti-idling measure, which limits idling to no more than 5 minutes at any location for diesel-fueled commercial vehicles, further minimized diesel particulate matter emissions in the project area. Sensitive receptors would be exposed to emissions below thresholds and construction TAC impacts are less than significant.

## Operations

The proposed project will include new on-site stationary equipment, specifically a diesel emergency generator. The stationary emission source is subject to air permitting with the SCAQMD and the TACs impact will be minimized in accordance with SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants). Specifically, the Rule 1401 limits cancer risk to be no greater than one in one million ( $1.0 \times 10^{-6}$ ) at any receptor location if the permit unit is constructed without TBACT, and 10 in a million if permit unit is constructed with TBACT; the cumulative increase in hazard index (chronic or acute) shall be no greater than 1. The CEQA significance thresholds are 10 in a million for cancer risk and 1 for hazard index. The proposed project would be required to obtain air permits and operate within the SCAQMD's guidelines and permit conditions. Therefore, the proposed project would not expose surrounding sensitive receptors to TAC emissions. Impacts would be considered less than significant.

In addition, TACs could be emitted as part of periodic maintenance operations, cleaning, painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these uses are expected to be occasional and result in minimal exposure to off-site sensitive receptors as the proposed project would generate approximately 10 truck trips per day. Therefore, the proposed project would not expose surrounding sensitive receptors to TAC emissions and impacts would be considered less than significant.

e) **Less Than Significant Impact.**

**Construction**

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road equipment. SCAQMD Rule 1113 (Architectural Coatings) limits the amount of VOCs from architectural coatings and solvents. According to the SCAQMD CEQA Air Quality Handbook, construction equipment is not a typical source of odors. Odors from the combustion of diesel fuel would be minimized by complying with the CARB ATCM that limits diesel-fueled commercial vehicle idling to 5 minutes at any given location, which was adopted in 2004. The project would also comply with SCAQMD Rule 402 (Nuisance), which prohibits the emissions of nuisance air contaminants or odorous compounds. Through adherence with mandatory compliance with SCAQMD Rules and state measures, construction activities and materials would not create objectionable odors. The nearest existing sensitive receptors are residents located approximately 920 feet (280 meters) to the southeast of the project site. Construction of the project's proposed uses would not be expected to generate nuisance odors at nearby sensitive receptors.

**Operations**

Operation of the project has the potential to emit odors from the following processes; cannabis cultivation, harvesting, drying, extraction, packaging, and production of cannabis products. During the cultivation of cannabis, potentially strong odors would be emitted from the plants, particularly mature (i.e., flowering) plants, which are of primary concern to nearby sensitive receptors. Other odor sources would include the use or storage of fertilizers; soil storage or composting areas; or the use of diesel-powered equipment, which emit DPM. These odors could potentially affect nearby sensitive receptors. The cannabis plants will be grown within a building which will help contain odors for cultivation and manufacturing. However, odors may still be emitted through the ventilation systems from the enclosed cultivation and manufacturing areas, and may potentially be concentrated. Additionally, fertilizers and soil or compost piles may contain decaying organic material that may create an objectionable odor. The intensity of the odor perceived by a receptor would depend on the distance of the receptor from the soil or compost stockpiling area and the amount and quality of the exposed material. Most diesel-powered equipment or vehicles would be operating for a limited amount of time in any given location and would not act as a substantial odor source. These other potential odors are generally not anticipated to be perceived as substantially adverse, especially in comparison to the strong odor of cannabis. The degree to which an individual or finds the odor of cannabis plants objectionable varies greatly, but would be a potentially significant impact.

The Carson Municipal Code Ordinance No. 17-1637, Section 15.120(C), states that a commercial cannabis operation shall have an air treatment system that ensures off-site odors shall not result from its activities. This requirement at a minimum means that the

commercial cannabis operation shall be designed to provide sufficient odor absorbing ventilation and exhaust systems so that any odor generated inside the location of the commercial cannabis operation is not detected outside the building on adjacent properties or public rights-of-way, or within any other unit located within the same building as the commercial cannabis operation, if the use occupies only a portion of a building.

The proposed project shall develop an odor control plan which would be sent to the City of Carson for approval prior to project implementation. The odor control plan would ensure that odors and air circulation at the project site would not impact employees' health and welfare, nor the surrounding areas. The project proposes to use odor control devices and techniques to ensure that odors from the facility are not detectable off-site. An absorbing ventilation and exhaust system would be installed which will prohibit odors generated inside the facility from being detected outside the facility, anywhere on the adjacent property or public right-of-way, exterior or interior common areas, or within any other unit located inside the same building as the cannabis operation.

As part of the plan to reduce odors produced from growing and processing, the temperature and humidity levels within the building will be continuously monitored and superior ventilation systems would be installed to ensure that air flow is constantly circulating. Moreover, employees will monitor odor levels and any emissions throughout the building. Additionally, the facility will use air-tight sealed doors and windows on all rooms where cannabis plants and products will be stored to help prevent odors from leaking into other rooms in the facility or outdoors.

The project would install a complete HVAC air purification system that uses 10-ton commercial HVAC units, similar to those used in high-grade hospitals and surgical facilities, to ensure that odor of medical cannabis will not emanate beyond the walls of the building. These systems use broad spectrum, high-intensity ultraviolet lights targeted on a hydrated quad-metallic catalyst, which uses ambient moisture to generate hydroperoxides and hydroxides that are propelled into the cultivation facility, to provide active microbial and odor mitigation.

Although the operation of the project has the potential to emit odors from the production and manufacturing of cannabis that could be considered objectionable by a substantial number of people, the project will comply with the Carson Municipal Code Ordinance No. 17-1637, Section 15.120(C), which requires that all medical cannabis businesses install an air treatment system that prevents odors from being detected outside the building. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances. Therefore, potential operational source odor impacts are considered to be less than significant as they would not be considered objectionable to a substantial number of people.

## **References**

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## Biological Resources

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>4. BIOLOGICAL RESOURCES — Would the project:</b>  |                                       |   |                                     |                                     |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact with Mitigation.** The project site primarily consists of bare ground and disturbed areas containing non-native plants such as Russian thistle (*Salsola tragus*). The project site also contains a row of ornamental landscaping adjacent to the Main Street sidewalk. Ornamental vegetation occurring on site includes Chinese elm (*Ulmus parvifolia*), yucca (*Yucca* sp.), Chinese juniper (*Juniperus chinensis*) which provides suitable nesting habitat for migratory birds protected under the Federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. The MBTA and California Fish and Game Code prohibit the take or destruction of migratory birds/raptors, their nests, and/or eggs. Impacts on nesting birds protected by the MBTA and similar provisions of the Fish and Game Code could occur if work is conducted during the breeding season (February 1 through August 15). However, the proposed project will adhere to all existing laws and regulations pertaining to a project, including compliance with the MBTA. The project site does not contain suitable habitat for any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS). Project implementation would include compliance with the MBTA through **MM-BIO-1**, and impacts would be less than significant.

- b) **No Impact.** The project site comprises bare ground, disturbed areas, and ornamental vegetation. Surrounding areas are in similar condition as they are either developed, disturbed, or contain ornamental vegetation. There is no riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or USFWS on the project site. Therefore, no impact would occur.
- c) **No Impact.** Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE.

No federally protected wetlands are present within the proposed project site (USACE 2015). Therefore, the proposed project would not affect any federally protected wetlands.

- d) **Less Than Significant Impact.** The project site is comprised of bare ground, disturbed areas, contains ornamental vegetation and is located in an urban area. The project site is also surrounded by areas of a similar makeup containing disturbed and developed areas as well as ornamental vegetation. The project site does not connect two or more areas containing native plant communities and is not within any habitat linkages identified in the *South Coast Missing Linkages* report (South Coast Wildlands 2008). Therefore, the project site would not interfere with the movements of wildlife or wildlife corridors. As discussed above in Issue 4 (a), potential impacts on migratory birds and raptors would be avoided because the City of Carson would enforce all existing laws and regulations, including the MBTA, to avoid impacts on migratory birds. Impacts would be less than significant.
- e) **No Impact.** The project site is within the City of Carson’s tree protection ordinance that preserves and protects city trees (City of Carson 2018). Trees that occur on the project site qualify as City of Carson trees as they occur on a City of Carson–owned parcel currently undergoing a transfer and are therefore protected under the City of Carson’s tree protection ordinance. Existing trees will be removed to accommodate the project. All project activities that occur around City of Carson trees, including trimming or removal, will be done so according to the protective measures found in the City of Carson’s Tree Preservation and Protection ordinance. If required, replacement trees will be installed according to the City of Carson’s protective tree ordinance. The project would not conflict with any other local policies and/or ordinances protecting biological resources. There would be no impact.
- f) **No Impact.** The project site contains bare ground, disturbed areas, ornamental vegetation and is located in an urban area. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat

conservation plans that occur on the project site. Therefore, implementation of the proposed project would not conflict with applicable conservation plans, and no impact would occur.

### **Mitigation Measure**

**MM-BIO-1:** Any construction activities that occur during the nesting season (February 15 to August 31) shall require that all suitable habitat (i.e., trees and shrubs) be surveyed for the presence of nesting birds by a qualified biologist, retained by the Applicant as approved by the City of Carson before commencement of clearing and prior to grading permit issuance.

A preconstruction survey by a qualified biologist shall be conducted within 50 feet of vegetation no more than 7 days prior to construction occurring and immediately before construction commences. If nests are observed, an appropriate buffer in compliance with the MBTA shall delineated, flagged, and avoided until the qualified biological monitor has verified that the young have fledged or the nest has otherwise become inactive.

### **References**

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## Cultural Resources

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>5. CULTURAL RESOURCES — Would the project:</b>   |                                       |   |                                     |                          |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?    | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?       | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                          | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |

### Discussion

The information provided in this section is based on a cultural resources records search, prepared by ESA in September 2017, of the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC); a Sacred Lands File (SLF) search commissioned through the Native American Heritage Commission (NAHC); and a paleontological resources records search commissioned from the Natural History Museum of Los Angeles County (NHMLAC) for the City of Carson 2017 Existing Conditions Report.

- a) **Less Than Significant.** A significant impact would occur if the proposed project would substantially alter the environmental context of or remove identified historical resources. A historical resource is defined in Section 15064.5(a)(3) of the State 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 those 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. Resources listed in or determined eligible for the California Register, included in a local register, or identified as significant in a historic resource survey are also considered historical resources under CEQA. Historic aerial maps were examined in order to provide historical information about the project area and to contribute to an assessment of the project area's sensitivity for the presence of cultural resources. Available historic maps include aerials of the project site from 1952 to present day. The aerials indicate that the project site has remained undeveloped since at least 1952 (Netronline 2018). Neither the records search (a cultural resource records search was prepared by ESA in September 2017, of the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC); a Sacred Lands File (SLF) search commissioned through the Native American Heritage Commission (NAHC) to support the 2017 Existing Conditions Report) or historic areal maps research resulted in the identification of existing or potential historical resources in the project



area. There are no recorded resources on the project site or within the project vicinity and the buildings nearest the site are less than 50 years old. Thus, a less than significant impact would occur to a historic resource located on the proposed project site.

- b) **Less Than Significant Impact With Mitigation.** A significant impact would occur if a known or unknown archaeological resource would be removed, altered, or destroyed as a result of the proposed development. Section 15064.5(a)(3)(D) of the State CEQA Guidelines generally defines archaeological resources as any resource that “has yielded, or may be likely to yield, information important in prehistory or history.” Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community.

The proposed project would develop two one-story buildings on a 0.66-acre vacant lot. According to the cultural records search, the proposed project is not located on or within 500 feet from a known archeological documented site. The nearest previously recorded cultural resource identified is Trinomial CA-LAN 000794, which is a prehistoric archaeological site consisting of a scatter of shell and artifacts recorded in 1977. Trinomial CA-LAN 000794 is located approximately 1,800 feet from the project site. The records search indicated that no other cultural resources have been previously recorded near the project site.

Further, the SLF records search revealed that no known Native American resources from the NAHC database have been recorded within the City of Carson; however, the NAHC noted that “the absence of specific site information in the SLF does not indicate the absence of Native American cultural resources in any Area of Potential Effect.” Please refer to IS/MND Section 16, Tribal Cultural Resources, for more details.

Though project site does not contain any known archaeological resource, it is possible that unknown archaeological resources occur under the project site. The project site has been subject to substantial disturbance and no grading or demolition would occur as part of this project; however, since the project could involve ground-disturbance activities such as grading and no geotechnical study has been performed for the project site, there exist the possibility that project actions could unearth, expose, or disturb subsurface archaeological that may qualify as unique archaeological resources under CEQA. If any such resources were found to be significant, the proposed project could result in a significant impact to archaeological resources pursuant to Section 15064.5. Implementation of Mitigation Measures CUL-1 and CUL-2 would reduce potential impacts related to archaeological resources. Therefore, with the mitigation measures, impacts associated with archaeological resources would be less than significant.

- c) **Less Than Significant Impact With Mitigation.** Project implementation would result in a significant impact if excavation or construction activities associated with the proposed project would disturb paleontological or unique geological features. A citywide geological and paleontological review of the project area was prepared in the Existing

Conditions Report. The project area is located within the northerly end of end of the Peninsular Ranges geomorphic province. The Peninsular Ranges province encompasses areas from the Los Angeles Basin south of the Santa Monica Mountains to the tip of Baja California and includes the San Jacinto and Santa Monica Mountain Ranges and Santa Catalina Island. The most noticeable landforms within the City of Carson are the Dominguez Hills and the Dominguez Gap. The proposed project falls within the Dominguez Hills, which are located in an area between SR 91 and on the north and Del Amo Boulevard on the south and represents the central portion of the Newport-Inglewood fault zone. The Dominguez Gap is situated between the Dominguez Hills and the northwestern extension of Signal Hill and represents the area's northwest-trending faults and folds.

The results from the citywide paleontological records search performed by the City of Carson in the 2017 Existing Conditions Report identifies seven vertebrate localities from older Quaternary deposits are located within the boundaries of the city and that several other localities from the same sedimentary deposits occur nearby. Old lagoonal deposits (from the Dominguez Channel) are located at the surface in the northwestern portion of the city, where the project site is located. In the central and eastern portions of the city there are surface deposits composed of younger Quaternary alluvium. Otherwise, surface deposits in the city (including the elevated terrain of the Dominguez Hill) consist of older Quaternary Alluvium. The younger Quaternary deposits are not known for being fossiliferous in the uppermost layers; however, at depth these deposits are underlain by older Quaternary deposits, which have produced an assortment of vertebrate fossil localities. The NHMLAC has indicated deeper excavations in the city reaching down into older Quaternary deposits, as well as excavations in older Quaternary deposits found at the surface have the potential for producing vertebrate fossils.

The closest location to the project site is LACM 1643 located approximately 3,000 feet southwest of the project site (near the intersection of 190th Street and Annalee Avenue), which yielded a fossil specimen of mammoth at a depth of 8 to 10 feet below the surface. Thus, while no fossil localities have been previously recorded within the immediate project area, since the project is located in the northwestern portion of the city, on or near old lagoonal deposits are located, it is possible that unknown subsurface resources occur under the project site during construction activities such as trenching. While the depth of the project disturbance is not known, and there is the potential for ground disturbance to extend into older Quaternary deposits and thus encounter paleontological resources. Ground-disturbing activities for the proposed project could therefore result in a significant impact to unique paleontological resources under CEQA. However, with the implementation of Mitigation Measures CUL-3 and CUL-4, impacts to paleontological resources would be reduced to less than significant.

- d) **Less Than Significant Impact with Mitigation.** A significant impact would occur if previously interred human remains would be disturbed during excavation of the project site. No human remains are known to exist within or adjacent to the project area and it is unlikely that the proposed project would disturb unknown human remains. However,

because the proposed project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. With the incorporation of Mitigation Measure CUL-5, which requires compliance with State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, any project-related impacts to human remains would ensure that any potential impacts remain less than significant.

### **Mitigation Measures**

**MM CUL-1:** Prior to earth moving activities, a qualified archaeologist meeting the Secretary of the Interior's professional qualifications standards for archaeology shall be retained. The qualified archaeologist shall conduct cultural resources sensitivity training for all construction personnel. The training shall include a module provided by the qualified paleontologist. Construction personnel shall be informed of the types of cultural resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery. The responsible party shall ensure that construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.

**MM CUL-2:** In the event of the discovery of historical, archaeological, or Native American cultural materials, the contractor shall immediately cease all work activities in the vicinity (within approximately 50 feet) of the discovery. After cessation of excavation, the contractor shall immediately contact the responsible party and shall not resume work until the qualified archaeologist has assessed the discovery and any recommended treatment has been fully implemented. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA, avoidance shall be the preferred manner of mitigation. In the event that avoidance is demonstrated to be infeasible, a Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist in consultation with the lead agency. The lead agency shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature.

Archaeological materials recovered during any investigation shall be curated at an accredited curatorial facility. The report(s) documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to the lead agency and to the South Central Coastal Information Center.

**MM CUL-3:** Prior to the start of any earth moving activities, a qualified paleontologist meeting the Society of Vertebrate Paleontology's professional criteria shall be retained by the responsible party to prepare and implement a Paleontological Resources Mitigation and Monitoring Plan (Plan). The Plan shall address procedures and locations for paleontological resources monitoring; microscopic examination of samples where applicable; the evaluation, recovery, identification, and curation of fossils, and the preparation of a final mitigation report.

**MM CUL-4:** Paleontological resources monitoring shall be conducted by qualified paleontological monitors, under the supervision of the qualified paleontologist, in areas specified by the Plan. Locations of monitoring will include areas where excavation may extend into Older Quaternary deposits based on geotechnical findings and construction design plans. In the event fossils are exposed during earth moving, the monitor shall have

the authority to halt or redirect construction activities to other work areas so the find can be evaluated. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Based on observations of soil stratigraphy or other factors, and in consultation with the lead agency, the level of monitoring may be reduced.

**MM CUL-5:** In the event that human remains are uncovered during project excavation, the contractor shall halt work in the vicinity (within 100 feet) of the find and contact the Los Angeles County Coroner in accordance with Health and Safety Code Section 7050.5. If the Coroner determines the remains are Native American in origin, the Coroner shall contact the Native American Heritage Commission. As provided in Public Resources Code Section 5097.98, the NAHC shall identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent shall be afforded the opportunity to provide recommendations concerning the future disposition of the remains and any associated grave goods as provided in Public Resources Code 5097.98.

### **References**

City of Carson. Existing Conditions Report, Volume 1: Chapters 5-8. January 2018. Accessed: October 2018. Available at: <https://www.carson2040.com/reports-and-products/>

Netronline. Historic Aerials. Accessed: October 2018. Available at: <https://www.historicaerials.com/viewer>

## Geology, Soils, and Seismicity

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>6. GEOLOGY and Soils —</b>  |                                       |   |                                     |                                     |
| <b>Would the project:</b>  |                                       |   |                                     |                                     |
| 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.) | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| ii) Strong seismic ground shaking?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iii) Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iv) Landslides?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?   | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

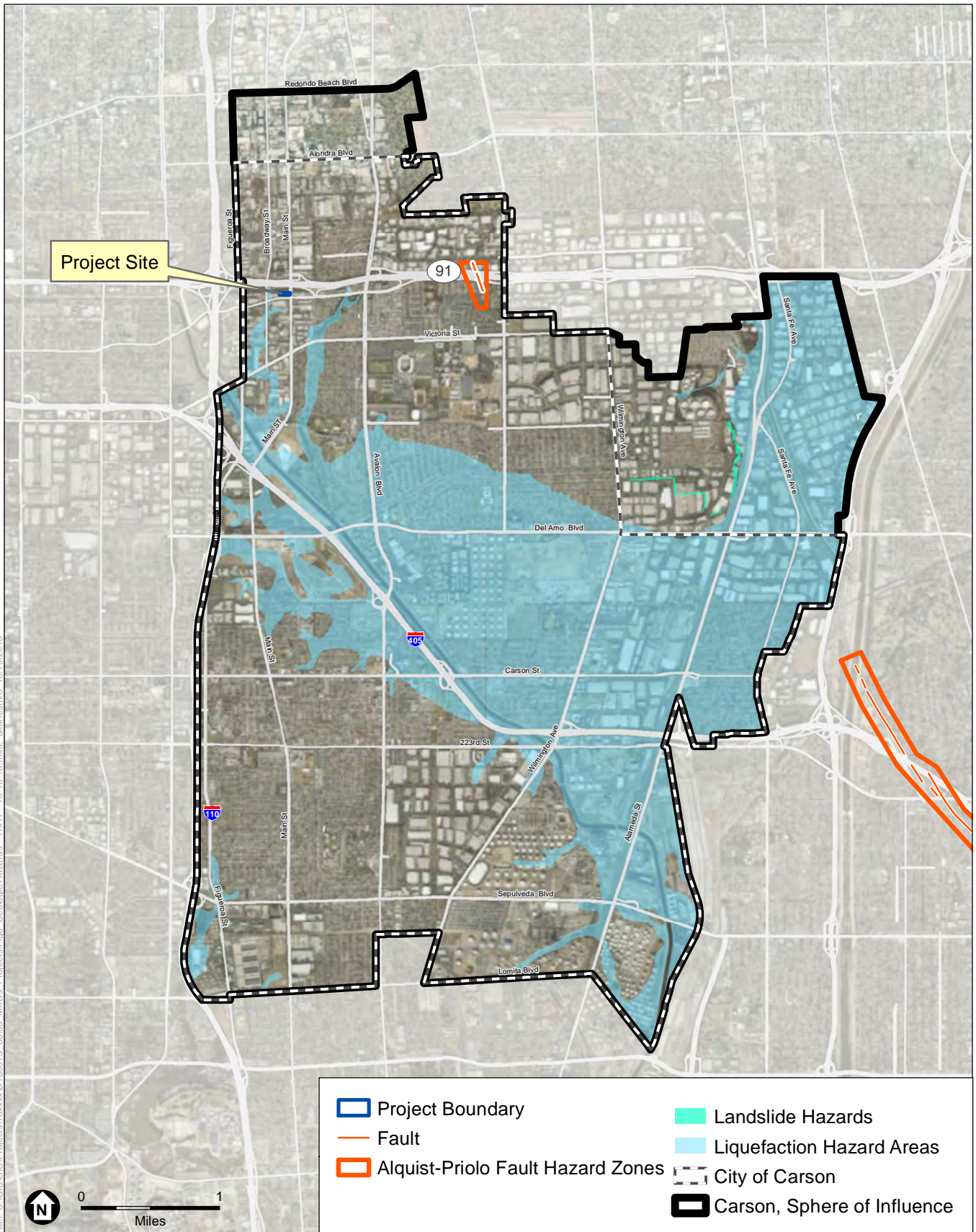
The project site is located in the City of Carson, which is situated in the northerly end of the Peninsular Ranges Geomorphic Province of Southern California. This geomorphic province encompasses an area that extends approximately 125 miles from the Transverse Ranges and the Los Angeles River Basin south to the Mexican border and beyond another approximately 775 miles to the tip of Baja California. The Peninsular Ranges province varies in width from approximately 30 to 100 miles and is characterized by northwest-trending mountain range blocks separated by similarly trending faults.

According to the Seismic Hazard Zone Report for the Torrance Quadrangle, the project site is underlain by older alluvial deposits with, locally, a veneer of older, largely stabilized dune sands. Groundwater is deep under the project site and deposits are generally described as dense to very dense sands and silty sands.

Southern California is a seismically active region. The project site lies within the southwestern block of the Los Angeles Basin, which is bounded by the Newport-Inglewood zone of deformation. The Avalon-Compton fault, part of the Newport-Inglewood – Rose Canyon fault

zone, is the closest active fault to the project site. The Avalon-Compton fault is located immediately east of Avalon Boulevard and north of the Artesia Freeway (SR 91), approximately 1.25 miles northeast from the project site. Historically, the Avalon-Compton fault and regional shear zone has moderate to high seismic activity with numerous earthquakes greater than Richter magnitude four. The Newport-Inglewood fault extends from the southern edge of the Santa Monica Mountains southeastward to an area offshore of Newport Beach. The Newport-Inglewood fault zone is considered active based on historic earthquakes; the 1933 Long Beach Earthquake is attributed to the Newport-Inglewood fault zone. The maximum probable earthquake along this fault zone is between 6.0 and 7.4. Other potentially active faults in the region include the Palos Verdes fault zone, Elsinore-Whittier fault zone, Santa Monica fault zone, San Jacinto fault zone and the San Andreas fault zone. **Figure 6**, Geologic Hazards Map, depicts the faults, Alquist-Priolo fault zones, and landslide and liquefaction hazards in relation to the project site.

- a.i) **Less Than Significant Impact.** The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along active faults in California. The project site does not lie within an Alquist-Priolo Earthquake Fault Zone as shown on Figure GEO-1. As stated above, the closest active fault trace, mapped in accordance with the Alquist-Priolo Earthquake Fault Zoning Act, is the Avalon-Compton fault located approximately 1.25 miles northeast of the project site. Surface rupture would be most likely to occur along previously established fault traces. Since there are no mapped faults across the project site, surface rupture due to faulting is considered unlikely. In addition, construction of the proposed project would be subject to the California Building Code (CBC) and Uniform Building Code (UBC) as adopted by the City of Carson. Thus, the proposed project would not result in any significant impacts in relation to a rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Map.
- a.ii) **Less Than Significant Impact.** An earthquake of moderate to high magnitude generated within the area could cause significant ground shaking at the project site. The exact degree of shaking experienced at a given location depends on many factors, such as: the magnitude and duration of the seismic event, the distance from a given site to the zone of rupture (i.e., hypocenter), local site-specific geologic conditions (i.e., nature, thickness, and extent of underlying soil and/or bedrock), and broader, often regional geologic factors such as basin geometry. In general, the severity of seismic ground shaking tends to abate with increasing distance from the event hypocenter. Seismic ground shaking, if sufficiently intense and sustained, can result in significant damage to, or catastrophic failure of buildings or other man-made structures. If an earthquake were to occur, the project site could expect to feel potential ground shaking at a Modified Mercalli intensity of VII, very strong shaking with moderate damage, with a chance of damage at 2 to 5 percent (USGS 2016)(USGS 2017).



Path: U:\GIS\GIS\Projects\16xxxx\1606573\_08\03\_MXD\Projects\Fig6\_Geologic Hazards - 11x17 - 10-10-18.mxd - dkaneshiro - 10/10/2018

SOURCE: NAIP, 2016 (Aerial); CGS

Focal Cannabis Facility

**Figure 6**  
Geologic Hazards Map



The potential for damage to buildings results from seismic-related events including ground shaking, ground failure, and ground displacement. To reduce these impacts, construction of the project would be required to conform to the seismic design parameters of the current CBC and UBC as adopted by the City of Carson. The City of Carson would be responsible for the review of all project plans for grading, foundation, infrastructure, and all other relevant construction permits. Compliance with applicable regulations would reduce potential impacts related to strong seismic ground shaking to a less than significant level.

- a.iii) **Less Than Significant Impact.** Liquefaction is a process whereby strong seismic shaking causes unconsolidated, water-saturated sediment to temporarily lose strength and behave as a fluid. This process can lead to near-surface or surface ground failure that can result in extensive damage to or catastrophic failure of buildings, roads, utility lines, and other man-made structures. In general, for the effects of liquefaction to be manifested at the surface, groundwater levels must be within 50 feet of the ground surface and soils within the saturated zone must also be susceptible for liquefaction. According to the Water Replenishment District of Southern California, the Gage aquifer is found at depths of 230 to 270 feet below ground surface (bgs) in the vicinity of the project site (Water Replenishment District of Southern California 2018). As shown on Figure GEO-1, the project site does not lie within a liquefaction zone, although, there are liquefaction hazard areas south and west of the project site (California Department of Conservation 1999). The liquefaction hazard areas are primarily located near water, in alluvial and former slough areas within the City of Carson. Since the project site does not lie within a liquefaction hazard zone and the depth to groundwater is greater than 100 feet bgs the potential for liquefaction at the project site is considered to be low.

Liquefaction can also manifest as lateral ground spreading or flow, localized sand boils (i.e., eruptions of fluidized sediment), or rapid subsidence and an accompanying loss of bearing strength. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures. The project site is relatively flat and lacks an adjacent free face to drive lateral spreading. The site is underlain by older alluvial deposits which are generally described as dense to very dense sands and silty sand (California Department of Conservation 1998). This type of soil has a low liquefaction susceptibility (California Department of Conservation 1998). Thus, the potential for lateral spreading, localized sand boils, or rapid subsidence is considered low at the project site.

As described above, the potential for liquefaction and seismic induced ground failure is considered to be low at the project site due to the depth to groundwater and type of soil which underlie the site. Additionally, compliance with seismic design parameters of the current CBC and UBC, as adopted by the City of Carson, would further reduce potential liquefaction and seismically induced ground failure impacts. The City of Carson would be responsible for the review of all project plans for grading, foundation, infrastructure, and all other relevant construction permits. Compliance with applicable regulations



- would reduce potential impacts related to seismic related ground failure, including liquefaction, to less than significant.
- a.iv) **No Impact.** The project site and surrounding area are relatively flat, making the possibility of a landslide highly unlikely. Moreover, the proposed project would not involve significant changes to site topography. Thus, there is no potential for landslides to occur on or near the project site as a result of the proposed project. Additionally, as shown in Figure GEO-1, the project site does not lie within a landslide hazard zone. Therefore, there are no impacts related to landslides.
- b) **Less Than Significant Impact.** Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. The project site is a vacant lot that is covered with compacted bare soil and minimal vegetation. Erosion can occur by varying processes and may occur at the project site where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. As identified in the Carson 2040 General Plan Update Existing Conditions Report, soils within the City of Carson generally have low to moderate erosion potential, with the exception of the Oakley sand which has a moderate to high erosion potential (City of Carson 2018). As shown in the County of Los Angeles General Plan Update EIR, the project site is primarily underlain by Ramona loam which has a low to moderate erosion potential and a high shrink swell potential (County of Los Angeles 2014).

During construction, the project site would be subject to ground-disturbing activities (e.g., site clearing, grading, foundation and infrastructure construction, installation of utilities). These activities would expose fresh soils for a limited time, allowing for possible erosion. Wind erosion would be minimized through soil stabilization measures required by the SCAQMD Rule 403 (Fugitive Dust), such as daily watering. Potential for water erosion would be reduced by implementation of standard erosion control measures imposed during site preparation and grading activities as set forth in the Carson Municipal Code. Therefore, erosion impacts related to construction, would be less than significant by complying with the applicable regulatory standards.

Following project construction, the site would be developed with buildings and paved areas and would have minimal to no areas of topsoil. Thus, impacts due to erosion of topsoil would be less than significant with compliance to applicable regulatory requirements.

- c) **Less Than Significant Impact With Mitigation.** As discussed above under a.ii). through a.iv), the site is underlain by older alluvial deposits which are generally described as dense to very dense sands and silty sands, which have a low liquefaction potential. The site is relatively flat and groundwater beneath the site is deeper than 100 feet bgs. Thus, impacts from on- or off-site landslides, lateral spreading, and liquefaction would be less than significant.

Unstable soils would include compressible/collapsible soils. Compressible soils generally undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. The project would involve construction upon existing soils which are generally unconsolidated alluvial deposits and possibly undocumented fill soils which may be potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils there is the potential for differential settlement which is a potentially significant impact.

As described above, the potential for compressible/collapsible soils is considered to be moderate at the project site due to the type of soils which underlie the site. With implementation of MM GEO-1, impacts associated with unstable soils that could result in lateral spreading or collapse would be less than significant. MM GEO-1 shall be implemented prior to final project design to ensure that people or structures are not exposed to hazards associated with unstable soils. Additionally, compliance with seismic design parameters of the current CBC and UBC, as adopted by the City of Carson, would further reduce potential unstable soil impacts. Thus, compliance with MM GEO-1 and applicable regulations would reduce potential impacts related to unstable soils and liquefaction, to less than significant.

Subsidence is a general lowering of the ground surface over a large area, and is generally attributed to lowering of the groundwater levels, or extraction of oil, gas or geothermal energy. Subsidence has previously occurred within the City of Carson as a result of previous oil withdrawal within the Dominguez and Wilmington Oil. The City of Carson has maintained control of any further subsidence within the City of Carson. No large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring or planned at the site or in the general site vicinity. Thus, there appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the project site. Therefore, impacts relating to subsidence would be less than significant.

- d) **Less Than Significant Impact With Mitigation.** Expansive soils include clay minerals that are characterized by their ability to undergo significant volume change (shrink or swell) due to variation in moisture content. As discussed above, the project site is primarily underlain by Ramona loam which has a high shrink swell potential. Soils with shrink-swell or expansive properties typically occur in fine-grained sediments and cause damage through volume changes as a result of a wetting and drying process. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

As described above, the potential for expansive soils is considered high due to the type of soils which underlie the site, resulting in a potentially significant impact. With implementation of MM GEO-1, impacts associated with expansive soils would be less than significant. MM GEO-1 shall be implemented prior to final project design to ensure that people or structures are not exposed to hazards associated with expansive soils. If

expansive soils are found at the site, the project would be designed with structural design recommendations to reduce the impacts from expansive soils. These could include over-excavation and replacement with non-expansive soils, soil treatment, moisture management, and/or specific structural design for expansive soil conditions. Additionally, compliance with seismic design parameters of the current CBC and UBC, as adopted by the City of Carson, would further reduce potential expansive soil impacts. Thus, compliance with Mitigation Measure GEO-1 and applicable regulations would reduce potential impacts related to expansive soils, to less than significant.

- e) **No Impact.** The project site is located in an urbanized area where municipal wastewater infrastructure already exists. The project would be required to connect to the existing infrastructure and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

### **Mitigation Measure**

**MM GEO-1:** Prior to the issuance of grading or building permits, the Applicant shall submit a geotechnical report, prepared by a registered civil engineer or certified engineering geologist, to the City of Carson, for review and approval. The project shall comply with the Uniform Building Code Chapter 18. Division 1 Section 1804.5 Liquefaction Potential and Soil Strength Loss. The geotechnical report shall assess potential consequences of any liquefaction and soil strength loss, estimation of settlement, lateral movement or reduction in foundation soil-bearing capacity, and discuss mitigation measures that may include building design consideration. Building design considerations shall include, but are not limited to: ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements or any combination of these measures.

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## Greenhouse Gas Emissions

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>7. GREENHOUSE GAS EMISSIONS —<br/>Would the project:</b>   |                                       |   |                                     |                          |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?       | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact.** Gases that trap heat in the atmosphere are called GHGs. The major concern with GHGs is that increases in their concentrations are causing global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long term global temperature increases.

The State of California defines GHGs as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Because different GHGs have different global warming potentials (GWPs) and CO<sub>2</sub> is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO<sub>2</sub> equivalents (CO<sub>2</sub>e). For example, CH<sub>4</sub> has a GWP of 25 (over a 100-year period); therefore, 1 metric ton (MT) of CH<sub>4</sub> is equivalent to 25 MT of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e). The State uses the GWP ratios available from the United Nations Intergovernmental Panel on Climate Change (IPCC) and published in the *Fourth Assessment Report (AR4)*. By applying the GWP ratios, project-related CO<sub>2</sub>e emissions can be tabulated in metric tons (MT) per year. Large emission sources are reported in million metric tons (MMT) of CO<sub>2</sub>e.<sup>1</sup>

Some of the potential effects of global warming in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more forest fires, and more drought years (CARB 2008). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC 2001):

- Higher maximum temperatures and more hot days over nearly all land areas

<sup>1</sup> A metric ton is 1,000 kilograms; it is equal to approximately 1.1 U.S. tons and approximately 2,204.6 pounds.

- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas
- Reduced diurnal temperature range over most land areas
- Increase of heat index over land areas
- More intense precipitation events

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

California generated 429.4 MMTCO<sub>2</sub>e in 2016. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2016, accounting for approximately 39 percent of total GHG emissions in the state. This sector was followed by the industrial sector (21 percent) and the electric power sector (including both in-state and out-of-state sources) (16 percent) (CARB 2018).

Impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and toxic air contaminants. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, it is clear that the quantity is enormous, and no single project would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

The City of Carson has not adopted a threshold of significance for GHG emissions that would be applicable to this project. In December 2008, the SCAQMD adopted a 10,000 MTCO<sub>2</sub>e per year significance threshold for industrial facilities for projects in which the SCAQMD is the lead agency. Although SCAQMD has not formally adopted a significance threshold for GHG emissions generated by a project for which SCAQMD is not the lead agency, or a uniform methodology for analyzing impacts related to GHG emissions on global climate change, in the absence of any industry-wide accepted standards, the SCAQMD's significance threshold of 10,000 MTCO<sub>2</sub>e per year for projects is the most relevant air district-adopted GHG significance threshold and is used as a benchmark for the proposed project. It should be noted that the SCAQMD's significance threshold of 10,000 MTCO<sub>2</sub>e per year for industrial projects is intended for long-term operational GHG emissions. The SCAQMD has developed guidance for the determination of the significance of GHG construction emissions that recommends that total emissions from construction be amortized over an assumed project lifetime of 30 years and added to operational emissions and then compared to the threshold (SCAQMD 2008).

The justification for the threshold is provided in SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* ("SCAQMD Interim GHG Threshold"). The SCAQMD Interim GHG Threshold identifies a screening threshold to determine whether additional analysis is required. As stated by the SCAQMD:

*the...screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects...the policy objective of [SCAQMD's] recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that [SCAQMD] staff estimates that these GHG emissions would account for slightly less than one percent of future 2050 statewide GHG emissions target (85 [MMTCO<sub>2</sub>e per year]). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to [Best Available Control Technology (BACT)] for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.*

Thus, based on guidance from the SCAQMD, if an industrial project would emit GHGs less than 10,000 MTCO<sub>2</sub>e per year, the project would not be considered a substantial GHG emitter and GHG emission impact would be less than significant, requiring no additional analysis and no mitigation.

CEQA Guidelines 15064.4 (b)(1) states that a lead agency may use a model or methodology to quantify GHGs associated with a project. In September 2016, the SCAQMD in conjunction with CAPCOA released the latest version of the CalEEMod (Version 2016.3.2). The purpose of this model is to estimate construction-source and operational-source emissions from direct and indirect sources. Accordingly, the latest version of CalEEMod has been used for this project to estimate the project's emission impacts.

## Construction Emissions

Construction activities associated with the project would result in emissions of CO<sub>2</sub> and to a lesser extent CH<sub>4</sub> and N<sub>2</sub>O. Construction-period GHG emissions were quantified based on the same construction schedule, activities, and equipment list as described in Issue 3 (b). To amortize the emissions over the life of the project, the SCAQMD recommends calculating the total GHG emissions attributable to construction activities, dividing it by a 30-year project life, and then adding that number to a project's annual operational-phase GHG emissions. As such, construction emissions were amortized over a 30-year period and included in the project's annual operational-phase GHG emissions.

## Operational Emissions

### GHG Emissions

Operational activities associated with the project would result in emissions of CO<sub>2</sub> and to a lesser extent CH<sub>4</sub> and N<sub>2</sub>O. Operational sources of GHG emissions would include mobile sources from vehicles traveling to and from the site, and indirect GHG emissions from export of electricity.

During operations, a maximum of 94 vehicle trips per day is expected. GHG emissions from mobile sources were calculated based on the trips per day, GHG emission factors for transportation fuels, and trip distances in CalEEMod.

Emissions of GHGs also resulted from electricity demand to power the on-site equipment and lighting. Electricity-related GHG emissions are based on the maximum electricity demand for project equipment, assuming maximum operating loads and equipment running hours, and CO<sub>2</sub> intensity factors for Southern California Edison.

## Emissions Summary

The project's annual GHG emissions are shown in **Table 7**. As shown, the project's total GHG emissions would be below the SCAQMD's proposed screening level for industrial/stationary source projects of 10,000 MTCO<sub>2</sub>e. The project would result in a less than significant impact with respect to GHG emissions.

**TABLE 7**  
**ANNUAL PROJECT GREENHOUSE GAS EMISSIONS**

| <b>Emissions Sources</b>  | <b>CO<sub>2</sub>e (Metric Tons per Year) <sup>a</sup></b> |
|---------------------------|--|
| Area                      | <1   |
| Electricity               | 854  |
| Natural Gas               | 15   |
| Mobile                    | 175  |
| Waste                     | 8  |
| Water                     | 17   |
| Off-Road                  | 35   |
| Stationary                | 13   |
| Construction <sup>b</sup> | 6  |
| <b>Project Total</b>      | <b>1,124</b>   |



| Emissions Sources                 | CO <sub>2</sub> e (Metric Tons per Year) <sup>a</sup> |
|-----------------------------------|---|
| SCAQMD GHG Significance Threshold | 10,000  |
| <b>Exceeds Threshold?</b>         | <b>No</b>   |

<sup>A</sup> Totals may not add up exactly due to rounding in the modeling calculations.

<sup>B</sup> Construction emissions are amortized over 30 years.

SOURCE: ESA 2018

- b) **Less Than Significant Impact.** Although the City of Carson General Plan does not identify specific GHG or climate change policies or goals, the City’s Energy Efficiency Climate Action Plan (EECAP) aims to implement energy efficiency and GHG reduction efforts (Carson 2015). The project has been evaluated for consistency with the EECAP. According to the EECAP, the City is in the process of implementing strategies to reduce energy consumption across sections, which includes promoting commercial energy retrofits (Carson 2015). Consistent with this strategy, the project will use low-flow faucets and toilets, energy-efficient appliances, a high-efficiency ventilation systems, landscaping that would consist of native and drought-tolerant plants, and other green building features that conform to the California Green Building Code. Therefore, the proposed project would be consistent with the applicable GHG reduction strategies in the City’s EECAP.

With respect to relevant statewide GHG reduction strategies, in January 2007, the California Governor enacted Executive Order S-01-07, which mandates the following: (1) establish a statewide goal to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard (LCFS) for transportation fuels in California. CARB identified the LCFS as one of the nine discrete early actions in the Climate Change Scoping Plan. The LCFS regulations were approved by CARB in 2009 and established a reduction in the carbon intensity of transportation fuels by 10 percent by 2020 with implementation beginning on January 1, 2011. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In the proposed 2017 Climate Change Scoping Plan Update, CARB’s preferred recommendation includes increasing the stringency of the LCFS by reducing the carbon intensity of transportation fuels by 18 percent by 2030, up from the current target of 10 percent by 2020 (CARB 2017).

The Project’s highest GHG contributors are from mobile and electricity sources. These are highly regulated sources with measures implemented in the Scoping Plan to reduce GHG emissions from each. With respect to relevant statewide GHG reduction strategies, in January 2007, the California Governor enacted Executive Order S-01-07, which mandates the following: (1) establish a statewide goal to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard (LCFS) for transportation fuels in California. CARB identified the LCFS as one of the nine discrete early actions in the Climate Change Scoping Plan. The LCFS regulations were approved by CARB in 2009 and established a reduction in the carbon intensity of transportation fuels by 10 percent by 2020 with implementation

beginning on January 1, 2011. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In the proposed 2017 Climate Change Scoping Plan Update, CARB's preferred recommendation includes increasing the stringency of the LCFS by reducing the carbon intensity of transportation fuels by 18 percent by 2030, up from the current target of 10 percent by 2020 (CARB, 2017). Furthermore, as utility providers, such as Southern California Edison, continue to meet their Renewable Portfolio Standards, GHG emissions from electricity consumption will decrease in future years.

Overall, as the project would be consistent with the City's EECAP and contributes to the implementation of the LCFS, the project would not conflict with an applicable plan, policy, or regulation to reduce GHG emissions. As such, impacts would be considered less than significant.

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## Hazards and Hazardous Materials

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>8. HAZARDS AND HAZARDOUS MATERIALS —<br/>Would the project:</b>   |                                       |   |                                     |                                     |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact With Mitigation.** Exposure of the public or the environment to hazardous materials can occur through transportation accidents; environmentally unsound disposal methods; improper handling of hazardous materials or hazardous wastes (particularly by untrained personnel. The severity of these potential effects varies by type of activity, concentration and/or type of hazardous materials or wastes, and proximity to sensitive receptors.

Project construction activities may involve the use and transport of hazardous materials. Construction would involve the use of heavy equipment, which uses small amounts of oil and fuels. Construction activities that involve hazardous materials would be governed by several agencies, including the Environmental Protection Agency (EPA), Department of Transportation (DOT), California Division of Occupational Safety and Health (Cal/OSHA), and the California Department of Toxic Substances Control (DTSC). Construction contractors would be required to implement Best Management Practices

(BMPs) for handling hazardous materials during construction activities, including following manufacturers' recommendations and regulatory requirements for use, storage, and disposal of chemical products and hazardous materials used in construction; avoiding overtopping construction equipment fuel tanks; routine maintenance of construction equipment; and properly disposing of discarded containers of fuels and other chemicals. Construction contractors would be required to implement safety measures in accordance with the General Industry Safety Orders of the California Code of Regulations. All construction-related materials would be transported and disposed of in accordance with applicable codes and regulations. Compliance with applicable federal, state, and local standards is required; therefore, construction-related impacts in regards to the transport, use, or disposal of hazardous materials during construction would be less than significant.

Operation of the proposed project would not generate hazardous waste materials, but it would generate agricultural waste; expired or contaminated cannabis product and wastewater which contains concentrated nitrates and potassium. Upon expiration of any and all of its cannabis and any tainted or contaminated cannabis, the cannabis product will be removed and placed in secured trash bins in a quarantined secure storage area prior to destruction and final disposal. All plant waste would be composted using a mulching machine and then small amounts of cooking oil or other compostable items will be added to ensure that the compost mixture is unrecognizable and unusable. The composted waste would then be placed in a secured trash bins, within a locked storage room, prior to destruction and/or final disposal at an approved landfill. All runoff water from the cultivation process that cannot be recycled or discharged would be placed in a secured trash bin, within a locked storage room, prior to final disposal. All waste will be picked up by a certified third-party hazardous waste hauler.

Plants will be cultivated hydroponically, which is an environmentally friendly growing method. Hydroponics uses a recirculating system to recycle and reuse water. The project will also use a drip irrigation system utilizing the latest technology in fertigation reducing water waste to 10 to 15 percent. No pesticides will be used at the facility. Only fertilizers approved by the California Department of Food and Agriculture will be used. Fertilizers are often high in nitrogen and potassium; thus, the wastewater would also be expected to have concentrations of nitrogen and potassium. All runoff water from the cultivation process that cannot be recycled will be placed in a secured trash bin, within a locked storage room, prior to final disposal. All waste will be picked up by a certified third-party hazardous waste hauler.

Due to the volume of hazardous waste that will be used and stored on the project site for cultivation and extraction of cannabis, the Applicant will be required to submit a Hazardous Materials Business Plan (HMBP) to the County of Los Angeles Fire Department. The Los Angeles County Fire Department, as the State Certified Unified Program Agency (CUPA) in the County of Los Angeles is responsible for review and approval of the site specific HMBP that sets forth operational procedures, emergency contact information, emergency response plan for containment spills or release of vapors and other information required in the HMBP. Implementation of the HMBP will ensure

that an emergency response plan is in place in the event that hazardous materials are accidentally released, during operations and impacts will be less than significant.

Project operation would also use and produce typical hazardous materials and wastes, associated with industrial uses, such as fuel, paints, commercial cleansers, solvents, and lubricants. Large quantities of these materials are not expected to be stored on-site.

Storage of hazardous materials are regulated by applicable federal, state, and local regulations. Compliance with Mitigation Measures HAZ-1, the Carson Municipal Code Ordinance No. 17-1637, Section 15.140(E)(5)<sup>2</sup> and other federal, state and local requirements would serve to minimize health and safety risks to people or structures associated with routine use, transport, and disposal as well as accidental release of or exposure to hazardous materials. Therefore, operational impacts associated with the project related to use, transport, storage, or disposal of hazardous materials would be less than significant.

- b) **Less Than Significant Impact With Mitigation.** Construction of the project would involve hazardous material typical to construction, including gasoline, motor oils, paints, solvents, and other miscellaneous materials (e.g., engine oil). All potentially hazardous materials would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. The construction phase would involve the use of heavy equipment, which uses small amounts of oil and fuels and other potential flammable substances. During construction, equipment would require refueling and minor maintenance on location that could lead to fuel and oil spills. The contractor would be required to identify a staging area for storing materials.

The drivers/operators of the bulk delivery trucks or mobile re-fuelers are trained and equipped to respond to a fuel spill, should one occur. Additionally, operators of heavy-duty equipment are trained to remain alert and nearby during fueling of equipment, and spills, should they occur, should not reach the off-site environment. Construction contractors would be required to implement safety measures in accordance with the General Industry Safety Orders of the California Code of Regulations. All construction-related materials would be transported and disposed of in accordance with applicable codes and regulations. Compliance with applicable federal, state, and local standards is required; therefore, construction-related impacts in regards to significant risk of explosion or accidental release of hazardous materials would be less than significant.

The proposed project would result in the development of two buildings that would be used for the cultivation and manufacturing of medical cannabis. Due to the volume of hazardous waste that will be used and stored on the project site, the Applicant will be required to submit a HMBP to the County of Los Angeles Fire Department, as described

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<sup>2</sup> Carson Municipal Code Ordinance No. 17-1637, Section 15.140(E)(5), states that all hazardous material used, generated or associated with the operation must be disposed of in a manner which is approved by the Director before disposal occurs, and which is compliant with all local, State, and federal guidelines for the disposal of hazardous materials.

above under a). Implementation of the HMBP will ensure that an emergency response plan is in place in the event that hazardous materials are accidentally released during operations, and impacts will be less than significant.

Additionally, the Applicant proposes the inclusion of an extraction room that would use liquid butane to extract the oil from cannabis plant materials. Although butane is not a regulated substance, it is highly flammable and poses a potential risk to public safety, if not stored and processed properly. The Los Angeles County Fire Department will need to review the plans to ensure that they are designed adequately to minimize the risk to public safety (Mitigation Measure HAZ-2). The extraction room would be separated from other building facilities, would be vented properly, and the butane would be stored in a manner that isolates the material and contains it at specific temperatures. Compliance with Mitigation Measure HAZ-2 would render impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment less than significant.

- c) **No Impact.** There are no schools located within one-quarter mile of the project site. The nearest school is Ambler Avenue Elementary located approximately a half mile northeast from the proposed site. Thus, the project would not emit or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d) **No Impact.** The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. A review of regulatory databases maintained by county, State, and federal agencies found no documentation of hazardous materials violations or discharge on the project site.

There are no Superfund sites within the vicinity of the project site. All environmental cleanups and permitted hazardous material facilities are included in the Envirostor database, including Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites. The nearest known occurrence (State Response site) is the Industrial Polychemical Service Corp. facility located at 17109 South Main Street (0.31 miles north of project). Therefore, the proposed project would not create a significant hazard to the public or environment.

- e) **No Impact.** The Compton/Woodley Airport is the closest airport to the subject site and it does not have an airport influence area plan. It is located approximately 2.3 miles northeast of the project site. Operation of the proposed project would not interfere with airport operations. Thus, the project would not result in safety hazards for people living or working in the area.
- f) **No Impact.** The site is located approximately 1.05 miles north of the Goodyear Blimp Base Airport. The proposed project would involve the construction of two one-story buildings that would be 20 feet tall up to the top of the parapet. According to the Blimp Port Special Use Development Standards Compliance, the maximum building height is 20 feet unless otherwise approved by a CUP. Thus, the proposed projects building height

is allowable. Moreover, the project would not interfere with operation of the Goodyear Blimp. Thus, the project would not result in safety hazards for people living or working in the area.

- g) **Less Than Significant Impact:** A portion of the project site fronts South Main Street, which is designated as a local evacuation route in the City of Carson General Plan Safety Element. Construction and Operation of the project would not require activities that would interfere with this evacuation route. Construction activities would not block access to the project site or other nearby facilities or block the roadway. A construction plan will be prepared and submitted to the City of Carson for review to ensure that the project does not interfere with emergency access during development. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan during construction activities would be less than significant.

Operation of the proposed project would not significantly alter the existing circulation pattern in the project area or adversely impact evacuation plans. Access to the project site would be from one driveway (ingress and egress) accessible from South Main Street. The driveway would extend the length of the two buildings from east to west providing access to surface parking for the proposed project located on the east end of the property. Deliveries and pickup of products would be scheduled whenever possible before or after normal hours. Proposed parking and circulation plans will be reviewed by the fire and police departments to ensure that driveways and roads are adequate for emergency vehicles. Operation of the project would not impair or interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts relating to interference with an adopted emergency response or evacuation plan from project operations would be less than significant.

- h) **No Impact.** The proposed project would be located within a highly built up industrial area and is not adjacent to any wildlands. The project would be by the Los Angeles County Fire Department. According to the California Department of Forestry and Fire Protection (CAL FIRE), the proposed project is not located within a Very High Fire Hazard Severity Zone (CAL FIRE 2011). Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, and no impact would occur.

### **Mitigation Measures**

**MM HAZ-1:** Prior to commencing operation of the cannabis cultivation facility (Certificate of Occupancy), the Applicant will be required to show the City proof of contract with a licensed hazardous waste hauler that will be responsible for removing all hazardous wastewater and solid waste generated at the project site.

**MM HAZ-2:** Any and all equipment, facilities, connections and building components required for cannabis extraction shall be submitted to the Los Angeles County Fire Department for review and approval. Should extraction of cannabinoids be included in the building plans, no building permit shall be issued until the Los Angeles County Fire Department provides the City with written authorization to issue the permit.

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## Hydrology and Water Quality

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>9. HYDROLOGY AND WATER QUALITY —<br/>Would the project:</b>  |                                       |   |                                     |                                     |
| a) Violate any water quality standards or waste discharge requirements?   | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact With Mitigation.** Stormwater runoff within the City of Carson is typical of urbanized areas and includes pollutants from motor vehicles and other transportation related uses (parking lots). Pollutants include hydrocarbons, oil, grease, sediment and heavy metals. Pollutants associated with landscape maintenance are also likely to be present in stormwater runoff. These pollutants include nutrients from fertilizers and herbicides and pesticides. Trash is also an expected pollutant. Fecal coliform bacteria and other pollutants are typically found in stormwater runoff from land uses similar to those within the City of Carson. Most urban storm water discharges are considered non-point sources. Runoff from the project site ultimately drains to Dominguez Creek, which is located approximately 0.75 miles west of the site.

Dominguez Creek drains to the Los Angeles River, and is thus located within the larger Los Angeles River Watershed. The Los Angeles River ultimately discharges to the Los Angeles Harbor. According to the Los Angeles RWQCB 303(d) list of impaired water segments, Dominguez Creek has Total Maximum Daily Loads (TMDLs) established for: cadmium, copper, lead, zinc, DDT, PCBs, Chlordane, PAHs, benthic community and Sediment toxicity effects. The Dominguez Channel is 303(d) listed impaired for the following: ammonia and coliform bacteria. Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations in Dominguez Channel are the following: arsenic, chromium, silver, nickel, mercury, and thallium.

During construction, the project site would be subject to ground-disturbing activities (e.g., site clearing, grading, foundation and infrastructure construction, installation of utilities). These activities would expose fresh soils for a limited time, allowing for possible erosion. Wind erosion would be minimized through soil stabilization measures required by the SCAQMD Rule 403 (Fugitive Dust), such as daily watering. Erosion from runoff could contain pollutants from heavy equipment or construction related materials, such as diesel, gasoline, oils, grease, solvents, lubricants, or other petroleum products which have the tendency to mix with water, and if not contained, would create the potential for a pollutant discharge from the project site. The potential for pollutant discharges from the site would be reduced by implementation of standard erosion control measures imposed during site preparation and grading activities as set forth in the Carson Municipal Code. As the site is less than 1 acre, they do not have to apply for coverage under the Construction General Permit. However, to alleviate the potential for pollutant discharge, the Applicant would use Best Management Practices (BMPs) to prevent soil erosion and to contain the potential for discharge of construction related pollutants that could contaminate nearby water resources. BMPs could include: temporary soil stabilization, temporary sediment control, wind erosion control, tracking control, non-stormwater management, waste management and materials pollution control. Compliance with applicable regulatory requirements would ensure that construction of the proposed project would not violate any water quality standards or waste discharge requirements.

According to the Water Replenishment District of Southern California, the Gage aquifer is found at depths of 230 to 270 feet below ground surface (bgs) in the vicinity of the project. Based on the depths to groundwater at the site, construction dewatering is not anticipated to be required. However, should shallow perched groundwater be encountered that would require dewatering, the project would apply for coverage and adhere to the monitoring and reporting program under RWQCB Order No. R8-2009-0003. If dewatering is required, any groundwater that was found to be contaminated would be properly treated prior to being discharged. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. Compliance with regulatory requirements would ensure that dewatering activities would not result in the exceedance of water quality standards during construction, including TMDL limits applicable to the Dominguez Channel, resulting in less than significant impacts.

During construction, materials such as fuels or solvents would be stored on-site. The potential for a spill or release of construction related chemicals during construction would be generally small because of the localized, short-term nature of the releases. Applicable regulations require measures regarding the handling of these types of materials and action protocols if a spill or release does occur. In addition, the site-specific health and safety plan would include measures to appropriately handle an on-site accidental release of fuel or other material from the equipment, resulting in a less than significant impact.

Compliance with the requirements and regulations that require construction phase BMPs are considered protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Dominguez Channel, and regulate waste discharge requirements minimizing the potential for contributing additional sources of polluted runoff during construction. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

Stormwater discharge is generated by rainfall that runs off the land and impervious surfaces such as paved streets, parking lots, and rooftops. Currently, stormwater on the site drains via sheet flow to storm drains located along South Main Street and East Albertoni Street. Following project construction, the site would be developed with buildings and paved areas and would have minimal to no areas of topsoil. The site would be 100 percent impervious surfaces. Post construction site drainage would still drain to the storm drains located along South Main Street and East Albertoni Street. Stormwater discharge may include pollutants of concern, which are expected to be generated by the project that could affect stormwater. During project operation, pollutants of concern within runoff may include, but are not limited to, pollutants such as hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, and trash. This runoff can flow directly into storm drains and continue untreated into the Dominguez Channel. Untreated stormwater runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats. Implementation of Mitigation Measure HYD-1 would satisfy Carson Municipal Code and MS4 permit requirements and would ensure compliance with water quality standards for stormwater runoff. Therefore, implementation of these programs and regulatory requirements would reduce stormwater pollutants that could affect water quality from the project site, thus reducing impacts related to stormwater pollution and water quality to less than significant levels.

In addition, compliance with City of Carson Low Impact Development standards and MS4-permit requirements would ensure that operation of the project would reduce potential violation of waste discharge requirements to a less-than significant level.

Operation of the facility involves the cultivation of cannabis plants. The plants will be cultivated hydroponically, which is an environmentally friendly growing method. Hydroponics uses a recirculating system to recycle and reuse water. The project will also use a drip irrigation system utilizing the latest technology in fertigation, thus reducing water waste to 10 to 15 percent. No pesticides will be used at the facility. Only fertilizers

approved by the California Department of Food and Agriculture will be used. Fertilizers are often high in nitrogen and potassium; thus, the wastewater would also be expected to have concentrations of nitrogen and potassium. All runoff water from the cultivation process, that cannot be recycled, will be placed in a secured trash bin, within a locked storage room, prior to final disposal. All waste would be picked up by a certified third-party hazardous waste hauler. Thus, no water from cultivation or extraction of the cannabis plants would be discharged, which would be protective of water quality and would prevent a substantial violation of water quality standards, including TMDL limits applicable to the Dominguez Channel.

Compliance with Mitigation Measure HYD-1 and all applicable requirements, and other rules and regulations, such as development and implementation of a Water Quality Management Plan, Stormwater Pollution Prevention Plan, and implementation of BMPs to reduce or eliminate impacts would ensure that a violation of water quality or standards or waste discharge requirements would not occur.

- b) **Less Than Significant Impact.** Construction activities are not expected to have excavation activities below the normal or historic high groundwater levels, which range from 230 to 270 feet below ground surface. However, if seepage or perched groundwater is encountered during construction, which is unlikely, dewatering may be necessary. Any seepage encountered during construction would be mitigated, as needed, by constructing small drainage swales from the base of the excavations to temporary sump pits or stormwater/LID features on-site. If dewatering is required, any groundwater that was found to be contaminated would be properly treated prior to being discharged in accordance with permit requirements. Uncontaminated groundwater may be treated and pumped to the storm drain system or used for on-site dust control purposes. If seepage is encountered, it would not substantially deplete groundwater supplies and would not result in a net deficit in aquifer volume, or lower the groundwater table resulting in a less than significant impact.

Any discharges of groundwater during construction would comply with applicable permits and federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for a release of contaminants into the groundwater as a result of project construction. Water use may temporarily increase for a limited extent during construction for general site activities including cleaning of tools and equipment, wet trades, and dust suppression. However, this increase would be temporary and is not expected to deplete groundwater resources. Therefore, construction-phase impacts relating to depletion of groundwater supplies or groundwater recharge would be less than significant.

Water supply to the City of Carson comes from the Metropolitan Water District (MWD), the California Water Service Company's Rancho Dominguez District (CWS), and the Golden State Water Company (GSW). CWS serves most of the City of Carson. They use a combination of local groundwater and surface water, purchased from MWD which is imported from the Colorado River and the State Water Project in Northern California.

The CWS Dominguez water system includes 374 miles of pipeline, nine active wells, 12 storage tanks and seven MWD connections (California Water Services 2017). GSW serves portions of the city of Carson, primarily the northwest corner. They provide a blend of groundwater from the West and Central Coast groundwater basins and imported water from the California River Aqueduct and State Water Project imported from MWD (Golden State Water Company 2016). The project would obtain water from supplier that uses groundwater sources. As discussed further under Utilities and Service Systems, there is sufficient water available to supply the project; thus, groundwater supplies would not be significantly depleted as a result of project implementation.

Additionally, although the existing site is undeveloped, it is somewhat impervious due to compaction of subgrade from previous uses and the type of soil at the site which has low permeability and rapid runoff (National Cooperative Soil Survey 2003). Implementation of the project would increase the amount of impervious surfaces at the site, but groundwater recharge doesn't take place at the site as it is in the middle of a heavily industrial area. Therefore, project implementation would not significantly affect groundwater recharge or deplete groundwater resources resulting in a less than significant impact.

Project implementation would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The proposed project would not access directly any underlying groundwater resources. Project water supply would could potentially come from groundwater resources, as all City of Carson water supplies use groundwater, but would not substantially deplete these resources. There is sufficient water supply for the projected water demands of the project such that there would be no depletion of groundwater supplies. Although the amount of impervious surfaces would increase with implementation of the proposed project, groundwater recharge does not occur at the site as it's in the middle of an industrial area. The rate of infiltration needed to support groundwater recharge would not be substantially decreased. Furthermore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

- c) **Less Than Significant With Mitigation.** The proposed project would require minimal grading which could affect drainage at the site. However, professional engineering practices would prevent substantial alterations to drainage patterns and/or erosion on-site or off-site. The site is currently undeveloped and is somewhat impervious due to compaction of subgrade from previous uses and the type of soil at the site. The proposed project would increase the impervious surfaces at the site. However, the project would not substantially alter the existing drainage pattern of the site or result in substantial erosion or siltation. Standard construction phase BMPs, required as part of the permitting process, would decrease the potential for significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, there are no stream or rivers nearby whose course would be altered by the project. Therefore, project construction would not substantially alter drainage patterns or result in substantial erosion or siltation occurring on-site or off-site resulting in less than significant impacts.

Implementation of Mitigation Measure HYD-1 would ensure that operation of the proposed project would not substantially alter drainage patterns across the site, thereby reducing the potential for erosion or siltation on-site or off-site. In addition, because there are no rivers or streams in the vicinity, the project would not alter a river or stream. Therefore, long-term impacts on drainage patterns across the project site that could result in substantial erosion and siltation on-site or off-site would be less than significant.

Therefore, project implementation would not substantially alter the existing drainage pattern at the site nor would it alter the course of a stream or river. Compliance with permit requirements, Mitigation Measure HYD-1 and other local regulations that require BMPs and source control measures would restrict substantially altering the drainage pattern and require measures to control erosion or siltation. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less than-significant level.

- d) **Less Than Significant With Mitigation.** Although minimal grading would occur throughout the site, the resultant ground disturbance would be spread over the site and would not significantly alter the overall topography, as the site has been previously graded, nor cause there to be flooding on-site or off-site. Water would be temporarily used during construction of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate, or evaporate. Therefore, construction of the project would not result in a substantial increase in the rate or amount of surface runoff or cause flooding on-site or off-site and impacts would be less than significant.

The rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. The project would not alter the amount or intensity of precipitation, nor would it alter the course of any streams or rivers located on or around the project site. Currently, surface runoff at the site is via sheet flow to the storm drains. The project would not substantially alter the topography or existing drainage pattern of the site, area, or receiving waters, or result in on-site or off-site flooding. Although the project would increase the amount of impervious surfaces at the site, its hydrologic boundaries would closely match existing conditions. Thus, the rate of stormwater across the site would not increase. Implementation of Mitigation Measure HYD-1 would ensure that the project is designed to meet drainage control requirements to ensure that peak runoff volumes are reduced. In addition, because there are no rivers or streams in the vicinity, the project would not alter a river or stream. Therefore, long-term impacts on drainage patterns across the project site that could result in substantial increased rate or volume of stormwater runoff resulting in flooding on-site or off-site would be less than significant.

- e) **Less Than Significant with Mitigation.** Water would be used during the temporary construction phases of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate.

Therefore, the project would not result in a substantial increase in the rate or amount of surface runoff and would not exceed the capacity of existing or planned stormwater drainage systems and impacts would be less than significant.

The project site is currently undeveloped and is somewhat impervious due to compaction of subgrade from previous uses and the type of soil at the site. The proposed project would increase the impervious surfaces at the site. Currently, surface runoff at the site is via sheet flow to the storm drains. The project would not substantially alter the topography or existing drainage pattern of the site. Although the project would increase the amount of impervious surfaces at the site, its hydrologic boundaries would closely match existing conditions. Thus, the rate of stormwater across the site would not increase. Implementation of Mitigation Measure HYD-1, would ensure that stormwater runoff would not supply additional sources of polluted runoff and would not exceed the capacity of existing or planned stormwater drainage systems as it has to be designed to hold 100 percent of the stormwater quality runoff volume. As a result, project implementation isn't expected to increase stormwater volumes or rates of discharge or add additional pollutants to stormwater drainage systems. Thus, impacts would be less than significant.

Project implementation could create potentially polluted runoff water that could exceed the capacity of existing or planned stormwater drainage systems. Compliance with applicable permits, Carson Municipal Code, Mitigation Measure HYD-1, and other local regulations that require BMPs and source control measures would restrict stormwater runoff and polluted runoff. Therefore, compliance with applicable regulatory requirements would reduce potentially significant impacts to a less-than-significant level.

- f) **Less Than Significant With Mitigation.** Impact a) through Impact e) discuss potential impacts associated with the degradation of water quality during construction. The project would be required to adhere to permit conditions, Mitigation Measure HYD-for control of stormwater flow requirements, discharges and protection of water quality. Therefore, implementation of these programs and regulatory requirements would reduce stormwater pollutants that could affect water quality from the project site, thus reducing impacts related to stormwater pollution and water quality to less-than significant levels.

Issue 9 (a) through Issue 9 (e) discuss potential impacts associated with the degradation of water quality during operation. Implementation of Mitigation Measure HYD-1 would satisfy MS4 permit requirements and would ensure compliance with water quality standards for stormwater runoff. Therefore, implementation of these programs and regulatory requirements would reduce stormwater pollutants that could affect water quality from the project site, thus reducing impacts related to stormwater pollution and water quality to less-than significant levels.

- g) **No Impact.** The proposed project site does not lie within a 100-year floodplain as mapped on federal Flood Hazard Boundary or FIRM or other flood hazard delineation maps. In addition, the project site is located in Zone X on the FIRM panel, which indicates that it is outside the 500-year floodplain area. Moreover, the proposed project

- would not place housing within a 100-year flood hazard area. Therefore, no impact to related to placing housing within a 100-year floodplain would occur as a result of implementation of the proposed project.
- h) **No Impact.** The proposed project site does not lie within a 100-year floodplain as mapped on federal Flood Hazard Boundary or FIRM or other flood hazard delineation maps. In addition, the project site is located in Zone X on the FIRM panel, which indicates that it is outside the 500-year floodplain area. Moreover, the proposed project would not place any structures within a 100-year flood hazard area that would impede or redirect flood flows. Therefore, no impact to existing floodplains from structures that would impede or redirect flood flows would occur as a result of implementation of the proposed project.
- i) **No Impact.** Dam inundation areas are mapped by dam owners and submitted to the California Office of Emergency Services. The City of Carson is not located in close proximity to a dam. Therefore, dam failure, and subsequent inundation, is not a concern at the project site. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam.
- j) **No Impact.** A tsunami is a sea wave or series of sea waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The City of Carson is located approximately 5.9 miles inland from the Pacific Ocean and 2.2 miles inland from the Los Angeles/Long Beach Harbor area. Tsunami inundation areas are mapped by the California Geological Survey, part of the California Department of Conservation. Based on maps on the California Department of Conservation website<sup>3</sup>, the City of Carson is not located in a potential inundation area resulting from a tsunami. Therefore, tsunamis are not a concern at the project site. A seiche is a surface wave that oscillates in an enclosed water body, such as a reservoir, lake, or pond, when the water body is shaken, usually by an earthquake. There are no enclosed water bodies within the City of Carson so damage from seiches is not expected at the project site. Mudflow is a combination of water, rock, debris and soil resulting from surface erosion. Areas susceptible to mudflows are primarily canyon areas or areas along the bases of mountain slopes. The project site is not located next to any canyons or mountain slopes. Therefore, mudflows are not expected to occur at the project site. Therefore, the proposed project would not experience inundation by seiche, tsunami, or mudflow.

## Mitigation Measures

**Mitigation Measure-HYD-1:** Prior to final project design, a Low Impact Development (LID) Plan would be developed by the Applicant and submitted to the City of Carson for approval. The LID Plan is required because the project is classified as a “Planning Priority Project” per the CMC Ord. 96-1101, § 1 and must comply with requirements of

<sup>3</sup> California Department of Conservation, 2015. Tsunami Inundation Maps. Available at: <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=tsunami>, Accessed December 2017.



Section 5809 Storm Water Pollution Control Measures for New Development and Redevelopment Projects. The project will result in 10,000 square feet or more of the impervious surfaces which was not subject to post-construction stormwater quality control requirements. Therefore, all stormwater runoff generated at the project site must be treated.

## **References**

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- National Cooperative Soil Survey, 2003. Ramona Series. Available at: [https://soilseries.sc.egov.usda.gov/OSD\\_Docs/R/RAMONA.html](https://soilseries.sc.egov.usda.gov/OSD_Docs/R/RAMONA.html). Accessed October 2018.
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## Land Use and Land Use Planning

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>10. LAND USE AND LAND USE PLANNING —</b>   |                                       |   |                                     |                                     |
| <b>Would the project:</b>   |                                       |   |                                     |                                     |
| a) Physically divide an established community?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **No Impact.** The project site is located in an urbanized area in an existing industrial neighborhood. The development of the proposed project would not physically divide an established community because the project site is surrounded by, but does not prevent access to, any of the existing adjacent land uses. The site is vacant and surrounded by commercial uses on the north, commercial and light industrial uses to the south and west, and a hotel to the south, and development of the site would not divide any established communities. The proposed project would be compatible with surrounding land uses and would not result in changes to the surrounding neighborhood. As a result, no impacts are anticipated to occur regarding dividing an established community.

- b) **Less Than Significant Impact.** The of Carson’s General Plan designates the project site’s land use as Light Industrial, which is intended to provide a variety of industrial uses and to limit those involving hazardous and nuisance effects. The proposed project would require a Zone Text Amendment to allow cannabis uses subject to a Development Agreement pursuant to the City of Carson Cannabis Operations Ordinance No. 17-1637.

In addition to the issuance of a Commercial Cannabis Operation Permit, the proposed project would enter into a development agreement setting forth the terms and conditions of the proposed project’s operation. The project is being designed consistent with development standards contained in the zoning ordinance and the City of Carson Cannabis Operations Ordinance. The proposed project would not conflict with the current land use designation for the project site or those nearby, and would not conflict with any land use plan, policy, or regulation. Therefore, impacts would be less than significant.

- c) **No Impact.** The project site is located in an urbanized area in an existing industrial neighborhood. The project area is completely surrounded by existing development, and no sensitive habitat exists within or in areas surrounding the project site. No habitat conservation plans or natural community conservation plans are in place or applicable to the project area. As a result, no impacts are anticipated to occur regarding any applicable habitat conservation plans or natural community conservation plans.

**References**

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## Mineral Resources

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>11. MINERAL RESOURCES — Would the project:</b>  |                                       |   |                                     |                                     |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                 | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **No Impact.** The project site is located in the City of Carson in an urbanized area, on a developed parcel with surrounding industrial uses. According to the Los Angeles County Conservation and Natural Resources Element and the California Department of Conservation (CDC), the project site is in Mineral Resource Zone 2 (MRZ-2), as identified in Figure 9.6, Mineral Resources (Los Angeles County 2015), and the CDC Mineral Lands Classification Map (CDC 1982). No mineral extraction or other mining operations have historically or currently occur within the project site, nor would the project result in the loss of availability of any known mineral resource. Therefore, no impact to a known mineral resource would occur.
- b) **No Impact.** As described above, the project site is in MRZ-2 as identified by the Los Angeles County Conservation and Natural Resources Element and the CDC. While the project is within an MRZ-2 zone, no mineral extraction or other mining operations have historically or currently occur within the project site, nor would the project result in the loss of availability of any locally important mineral resource. Further, the project site is not identified as an area that contains known mineral resources in the City’s General Plan EIR (City of Carson 2002). Therefore, no impact would occur to a locally important mineral resources.

### References

- California Department of Conservation, Division of Mines and Geology. Mineral Lands Classification Map. 1982. Available at: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR\\_143/PartIV/Plate\\_4-21.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_143/PartIV/Plate_4-21.pdf). Accessed October 2018.
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- Los Angeles County, Department of Regional Planning. Figure 9.6, Mineral Resources. 2015. Available at: [http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_2014-FIG\\_9-6\\_mineral\\_resources.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-6_mineral_resources.pdf). Accessed October 2018.

## Noise

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>12. NOISE — Would the project result in:</b>   |                                       |   |                                     |                                     |
| a) Exposure of persons to or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **Less Than Significant With Mitigation.** Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound (Caltrans 2013, Section 2.2.1).

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale (i.e., not linear) that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. In a non-controlled environment, a change in sound level of 3 dB is considered “just perceptible,” a change in sound level of 5 dB is considered “clearly noticeable,” and a change in 10 dB is perceived as a doubling of sound volume (Caltrans 2013, Section 2.1.3). Pressure waves traveling through air exert a force registered by the human ear as sound (Caltrans 2013, Section 2.1.3).

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured

using an electronic filter that deemphasizes the frequencies below 1,000 hertz (Hz) and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements (Caltrans 2013, Section 2.1.3).

An individual's noise exposure is a measure of noise over a period of time, whereas a noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual. These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts (Caltrans 2013, Section 2.2.2.1).

The time-varying characteristic of environmental noise over specified periods of time is described using statistical noise descriptors in terms of a single numerical value, expressed as dBA. The most frequently used noise descriptors are summarized below (Caltrans 2013, Section 2.2.2.2):

- L<sub>eq</sub>:** The L<sub>eq</sub>, or equivalent sound level, is used to describe the noise level over a specified period of time, typically 1-hour, i.e., L<sub>eq</sub>(1), expressed as L<sub>eq</sub>. The L<sub>eq</sub> may also be referred to as the "average" sound level.
- L<sub>max</sub>:** The maximum, instantaneous noise level.
- L<sub>min</sub>:** The minimum, instantaneous noise level.
- L<sub>x</sub>:** The noise level exceeded for specified percentage (x) over a specified time period; i.e., L<sub>50</sub> and L<sub>90</sub> represent the noise levels that are exceeded 50 90 percent of the time specified, respectively.
- L<sub>dn</sub>:** The L<sub>dn</sub> is the average noise level over a 24-hour day, including an addition of 10 dBA to the measured hourly noise levels between the hours of 10:00 PM to 7:00 AM to account nighttime noise sensitivity. L<sub>dn</sub> is also termed the day-night average noise level or DNL.

**CNEL:** Community Noise Equivalent Level (CNEL), is the average noise level over a 24-hour day that includes an addition of 5 dBA to the measured hourly noise levels between the evening hours of 7:00 PM to 10:00 PM and an addition of 10 dBA to the measured hourly noise levels between the nighttime hours of 10:00 PM to 7:00 AM to account for noise sensitivity during the evening and nighttime hours, respectively. CNEL and Ldn noise levels typically differ by less than 1 dBA and are generally interchangeable.

### City of Carson Municipal Code

The City of Carson Municipal Code, under Chapter 5 (Noise Control Ordinance) Section 5500, adopts the Los Angeles County Noise Control ordinance.

### Exterior Noise Standards

Pursuant to Los Angeles County Municipal Code, Section 12.08.390 (Exterior Noise Standards), exterior noise levels should not exceed 50 dBA between the hours of 7:00 AM and 10:00 PM at residential uses during the daytime, 45 dBA between the hours of 10:00 PM and 7:00 AM at residential uses during the nighttime, 65 dBA at commercial uses, and 70 dBA at industrial uses. The County's exterior noise standards are summarized in **Table 8**, *Los Angeles County Exterior Noise Standards*.

**TABLE 8**  
**LOS ANGELES COUNTY EXTERIOR NOISE STANDARDS**

| Noise Zone | Designated Noise Zone Lane Use (Receptor Property) | Time Interval                  | Exterior Noise Level (dB) |
|------------|--|--------------------------------|---------------------------|
| I          | Noise-sensitive area                               | Anytime                        | 45                        |
| II         | Residential Properties                             | 10:00 PM – 7:00 AM (nighttime) | 45                        |
|            |  | 7:00 AM – 10:00 PM             | 50                        |
| III        | Commercial Properties                              | 10:00 PM – 7:00 AM (nighttime) | 55                        |
|            |  | 7:00 AM – 10:00 PM             | 65                        |
| IV         | Industrial Properties                              | Anytime                        | 70                        |

SOURCE: Los Angeles County Municipal Code Section 12.08.390 (Exterior Noise Standards)

Further, the County Noise Ordinance establishes the following standards based on the duration of the noise-generating activity:

- Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour.
- Standard No. 1 shall be the applicable noise level; or, if the ambient L50 exceeds the forgoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.

- Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour.
- Standard No. 2 shall be the applicable noise level from Standard 1 plus 5 dB(A); or, if the ambient L25 exceeds the forgoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.
- Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour.
- Standard No. 3 shall be the applicable noise level from Standard 1 plus 10 dB(A); or, if the ambient L8.3 exceeds the forgoing level, then the ambient L8.3 becomes the exterior noise level for Standard No. 3.
- Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour.
- Standard No. 4 shall be the applicable noise level from Standard 1 plus 15 dB(A); or, if the ambient L1.7 exceeds the forgoing level, then the ambient L1.7 becomes the exterior noise level for Standard No. 4.

Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from Standard 1 plus 20 dB(A); or, if the ambient L0 exceeds the forgoing level, then the ambient L0 becomes the exterior noise level for Standard No. 4.

### **Construction Noise Standards**

Pursuant to Section 12.08.440 of the Los Angeles County Code, noise sources created by construction are prohibited between the hours of 7:00 PM and 7:00 AM Monday through Saturday or any time on Sundays or holidays. The City of Carson Municipal Code Section 5502(c) amends Los Angeles County Code Section 12.8.440 to require that for affected residential receptors between the hours of 7:00 AM and 8:00 PM, maximum noise levels for nonscheduled, intermittent, short-term operation (less than 20 days) of mobile equipment shall not exceed 75 dBA at a single-family residences, 80 dBA at multi-family residences, or 85 dBA for semi-residential/commercial use. The maximum noise level for repetitively scheduled and relatively long-term (periods of 21 days or more) of construction equipment shall not exceed 65 dBA at single-family residences, 70 dBA at multi-family residences, or 70 dBA at semi-residential/commercial uses between the hours of 7:00 AM and 8:00 PM. For commercial receptors, the maximum noise level generated by mobile or stationary equipment shall not exceed 85 dBA.

### **City of Carson General Plan**

In addition to the Los Angeles County's noise standards, the City of Carson has also established noise guidelines in the Noise Element of the City's General Plan that are used for planning purposes, see **Table 9, Noise and Land Use Compatibility Matrix**. These guidelines are based, in part, on the community noise compatibility guidelines established by the California State Governor's Office of Planning and Research and are intended for



use in assessing the compatibility of various land use types with a range of noise levels (California 2013).

**TABLE 9  
NOISE AND LAND USE COMPATIBILITY MATRIX**

| Land Use Categories  | Community Noise Exposure<br>L <sub>dn</sub> or CNEL |                          |                       |                      |
|--|---|--------------------------|-----------------------|----------------------|
|  | Normally Acceptable                                 | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Residential-Low Density                                    | 50-60   | 60-65                    | 65-75                 | 75-85                |
| Residential Multi- Family                                  | 50-60   | 60-65                    | 65-75                 | 75-85                |
| Transient Lodging, Hotel, Motel                            | 50-65   | 65-70                    | 70-80                 | 80-85                |
| Schools, Libraries, Churches, Hospitals, Nursing Homes     | 50-60   | 60-65                    | 65-80                 | 80-85                |
| Auditoriums, Concert Halls, Amphitheaters                  | NA  | 50-65                    | NA                    | 65-85                |
| Sports Arenas, Outdoor Spectator Sports                    | NA  | 50-70                    | NA                    | 70-85                |
| Playgrounds, Neighborhood Parks                            | 50-70   | NA                       | 70-75                 | NA                   |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | 50-70   | NA                       | 70-80                 | 80-85                |
| Office Buildings, Business, Commercial, Professional       | 50-67.5   | 67.5-75                  | 75-85                 | NA                   |
| Agriculture, Industrial, Manufacturing, Utilities          | 50-70   | 70-75                    | 75-85                 | NA                   |

**Normally Acceptable:** Specified land use is satisfactory, based upon the assumption buildings involved are conventional construction, without any special noise insulation.

**Conditionally Acceptable:** New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will suffice.

**Normally Unacceptable:** New construction or development generally should be discouraged. A detailed analysis of the noise reduction requirements must be made and noise insulation features included in the design of a project.

**Clearly Unacceptable:** New construction or development should generally not be undertaken.

SOURCE: U.S. Department of Housing and Urban Development Guidelines and State of California Standards

### Thresholds of Significance

With respect to the community noise assessment, changes in noise levels of less than 3 dBA are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase.

Therefore, the significance threshold for mobile source noise is based on human perceptibility to changes in noise levels (increases) with consideration of existing ambient noise conditions and the City's land use noise compatibility guidelines.

Therefore, the project would result in a significant noise impact if:

- Exposure or persons or generation of noise levels in excess of standards established in the local general plan or noise ordinance, and applicable standards of other agencies.
- Project-related off-site traffic increase ambient noise levels by 5 dBA CNEL or more along roadway segments with sensitive receptors, and the resulting noise level occurs

on a noise-sensitive land use within an area categorized as either “normally acceptable” or “conditionally acceptable”; or causes ambient noise levels to increase by 3 dBA CNEL or more and the resulting noise occurs on a noise-sensitive land use within an area categorized as either “normally unacceptable” or “clearly unacceptable.”

### Existing Conditions

The project site is bounded by Broadway on the west, Albertoni Street on the south, SR 91 to the north, and Main Street to the east. The project site is in a highly urbanized area surrounded by a mix of land uses, including commercial, warehouse, light industrial, automotive, and manufacturing uses. The project site is bordered to the east by Main Street and commercial uses, a three-story hotel (Carson Plaza Hotel) and West Albertoni Street to the south, nursery uses (Centeno’s Nursery and Landscaping) and the SR 91 to the north. To the west is a two-story multi-tenant warehouse/light manufacturing building and South Broadway.

To quantify the existing noise environment of the project site, one short-term (15-minute) noise measurement was conducted at location R1, which is northeast of the Carson Plaza Hotel, south of the project site. Ambient sound measurements were conducted on Tuesday, October 9, 2018, approximately 80 feet north from the northwest corner of S. Main Street and East Albertoni Street, to characterize the existing noise environment in the project vicinity.

The ambient noise measurements were conducted in accordance with the City’s standards. The ambient noise measurements were conducted using a Larson-Davis Model LxT Sound Level Meter (SLM). The Larson-Davis LxT SLM is a Type 1 standard instrument, as defined in the American National Standard Institute (ANSI) S1.4. The SLMs were calibrated and operated according to manufacturer specifications. The SLM microphone was placed at a height of 5 feet above ground level.

These monitoring locations provide a representative characterization of the existing noise conditions within the vicinity of the project site. The results of the ambient noise measurement data are summarized in **Table 10, Summary of Ambient Noise Measurements**. As shown in Table 10, the measured  $L_{eq}$  is 73 dBA.

**TABLE 10  
NOISE AND LAND USE COMPATIBILITY MATRIX**

| Site ID                            | Monitoring Date(s) | Start Time | End Time | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_{10}$ | $L_{50}$ | $L_{90}$ |
|------------------------------------|--------------------|------------|----------|----------|-----------|-----------|----------|----------|----------|
| R1 NE Corner of Carson Plaza Hotel | 10/9/2018          | 9:36 AM    | 9:51 AM  | 73       | 89        | 64        | 76       | 70       | 66       |

SOURCE: ESA, 2018.

## Construction Noise

Construction of the project is estimated to require 12 months, starting as early as May 2020. Construction activities would include site preparation, grading, trenching, paving, building construction. Construction hours would occur in accordance with the County of Los Angeles construction noise standards, which prohibit construction between the hours of 7:00 PM and 7:00 AM Monday through Saturday or any time on Sunday and holidays. Parking for the construction workers would be provided on the project site or will be leased from nearby off-site parking areas.

The analysis includes consideration of construction noise effects on noise-sensitive receivers in the vicinity of the project site due to the operation of construction equipment (on-site construction activities) and haul trucks (off-site construction activities).

### On-Site Construction Activities

Noise from construction activities would be generated by the operation of vehicles and equipment involved during various stages of construction: demolition, excavation, foundation construction, and building construction. The noise levels generated by construction equipment would vary depending on factors such as the type and number of equipment, the specific model (horsepower rating), the construction activities being performed, and the maintenance condition of the equipment. Construction noise associated with the project was analyzed using a mix of typical construction equipment, estimated durations, and construction phasing, based on construction equipment data provided by the Applicant and assumptions derived from similar projects. Consistent with Section 12.08.440 of the Los Angeles County Code, the construction noise levels estimated at the property line of the closest sensitive receptor location. As previously stated the project site is surrounded by a mix of land uses, including commercial, warehouse, light industrial, automotive, and manufacturing uses. There are no residential land uses within 500 feet of the project site. The closest sensitive receptor to the proposed project is the Carson Plaza Hotel, located approximately 20 feet south of the project site. It is conservatively assumed that multiple equipment would operate simultaneously. In reality equipment would likely be dispersed throughout the project site; therefore, the noise levels represent a conservative maximum and actual noise levels could be lower. **Table 11, Construction Equipment and Estimated Noise Levels**, presents the list of construction equipment including approximate quantities per construction phase with reference noise levels.

**TABLE 11  
CONSTRUCTION EQUIPMENT AND ESTIMATED NOISE LEVELS**

| Construction Phase and Equipment | Noise Level $L_{max}$<br>at 50 ft (dBA) | Equipment<br>Usage Factor<br>(%) | Hourly<br>Quantity | Estimated Hourly<br>Noise Level $L_{eq}$ at the<br>Carson Plaza Hotel<br>(dBA) per Phase |
|----------------------------------|---|----------------------------------|--------------------|--|
| <b>Site Preparation</b>          |   |                                  |                    |  |
| Graders                          | 85                                      | 40                               | 1                  | 89   |
| Tractor/Loader/Backhoe           | 80                                      | 25                               | 1                  |  |

| Construction Phase and Equipment | Noise Level $L_{max}$ at 50 ft (dBA) | Equipment Usage Factor (%) | Hourly Quantity | Estimated Hourly Noise Level $L_{eq}$ at the Carson Plaza Hotel (dBA) per Phase |
|----------------------------------|--------------------------------------|----------------------------|-----------------|---|
| <b>Grading/Excavation</b>        |                                      |                            |                 |   |
| Concrete Saw                     | 90                                   | 20                         | 1               | 91  |
| Dozer                            | 82                                   | 40                         | 1               |   |
| Tractor/Loader/Backhoe           | 80                                   | 25                         | 2               |   |
| <b>Drainage/Utils/Sub-Grade</b>  |                                      |                            |                 |   |
| Graders                          | 85                                   | 40                         | 1               | 89  |
| Tractor/Loader/Backhoe           | 80                                   | 25                         | 1               |   |
| <b>Foundation/Concrete Pour</b>  |                                      |                            |                 |   |
| Crane                            | 81                                   | 16                         | 1               | 81  |
| Forklift                         | 75                                   | 10                         | 2               |   |
| Tractor/Loader/Backhoe           | 80                                   | 25                         | 2               |   |
| <b>Building Construction</b>     |                                      |                            |                 |   |
| Crane                            | 81                                   | 16                         | 1               | 81  |
| Forklift                         | 75                                   | 10                         | 2               |   |
| Tractor/Loader/Backhoe           | 80                                   | 25                         | 2               |   |
| <b>Architectural Coating</b>     |                                      |                            |                 |   |
| Air Compressor                   | 78                                   | 20                         | 1               | 79  |
| <b>Paving</b>                    |                                      |                            |                 |   |
| Cement and Mortar Mixers         | 79                                   | 40                         | 4               | 77  |
| Pavers                           | 77                                   | 50                         | 1               |   |
| Rollers                          | 80                                   | 20                         | 1               |   |
| Tractor/Loader/Backhoe           | 80                                   | 25                         | 2               |   |

Note: Noise Levels at 50 ft and Usage Factor are derived from Federal Highway Administration's Roadway Construction Noise Model User's Guide. Usage factors are the ratio of the time that a piece of equipment is in use to the total time that it could be in use. Usage factors are typically attributable to multiple pieces of equipment operating simultaneously.

SOURCE: ESA, 2018.

The estimated noise levels, shown in Table 11, assumes the project contractor(s) would equip the construction equipment, stationary or mobile, with properly operating and maintained noise mufflers, consistent with the manufacturers' standard operation procedures. These assumptions represent a worst-case noise scenario as all construction equipment used in a given phase would not typically operate concurrently and at full power, and the location of activities is routinely spread across the construction site, rather than concentrated close to the nearest noise-sensitive receptors.

As shown in Table 11, estimated construction noise levels at the nearest sensitive receptor, Carson Plaza Hotel, range from 77 to 91 dBA  $L_{eq}$ . The Los Angeles County Code limits construction noise levels to 70 dBA  $L_{max}$  for commercial receptors between the hours of 7:00 AM and 8:00 PM. The project construction noise levels per phase would exceed 70 dBA  $L_{max}$  at the nearest commercial source, the Carson Plaza Hotel.

Therefore, project construction noise would be considered a potentially significant impact due to the potential exceedance of the 70 dBA  $L_{\max}$  standard at a commercial receptor. Therefore, Mitigation Measures NOISE-1 to NOISE-4 are prescribed for the project.

Implementation of MM NOISE-1 through NOISE-4, would require the implementation of noise reduction devices and techniques during construction at the project site, which would reduce noise levels generated by the construction of the project to the maximum extent that is technically feasible.

MM NOISE-1 would provide at least 10 dBA noise reduction at all off-site sensitive receptor locations.<sup>4</sup> Implementation of MM NOISE-4 would further reduce the construction noise levels by an additional 15 dBA, resulting in a decrease in construction noise levels from 91 dBA to 66 dBA 20 feet from the construction activity. Therefore, noise-sensitive receivers located at the nearest commercial use to the south project site would experience noise levels below the 70 dBA  $L_{\max}$  at commercial receptors. MM Noise-2 would help to ensure the proper implementation of MM NOISE-1, MM NOISE-3, and MM NOISE-4. Therefore, with implementation of these mitigation measures, the potentially significant noise impacts during project construction would be reduced to a less than significant level.

The project would comply with Section 12.08.440 of the Los Angeles County Code; the project's construction activities, including delivery and haul routes, would be restricted to hours between 7:00 PM and 7:00 AM Monday through Saturday or any time on Sundays or holidays.

Therefore, with respect to a violation of the noise standards and regulations established in the Los Angeles County Code, potentially significant noise impacts during project construction would be reduced to a less than significant level through compliance with applicable regulations and implementation of the prescribed mitigation measures.

#### **Off-Site Construction Activities**

Construction truck and vehicle trips would be generated primarily by construction workers commuting to and from the work site and by trucks hauling materials and equipment to and from the project site. Construction trucks and vehicles would use the regional circulation system as well as the main roadways within Carson. Traffic entering and leaving the site would include workers' daily arrival and departure, equipment deliveries, hauling of excavation spoil, concrete deliveries, and other construction related traffic. While construction of the proposed project would temporarily generate additional truck and vehicle trips within Carson and the regional circulation system, traffic levels would not substantially increase and would be temporary in nature as traffic levels would return to pre-construction conditions once construction is complete.

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<sup>4</sup> P.D. Schomer and B. Homans, Construction Noise; Specification, Control, Measurement, and Mitigation. Technical Report E-53, Construction Engineering Research Laboratory, April 1975

Construction would occur mainly Monday through Friday, between the hours of 7:00 AM and 7:00 PM. However, if occasional nighttime and weekend work is needed, the City will obtain a noise variance for any work occurring outside the hours of 7:00 AM and 7:00 PM, and for any holiday or weekend work, in compliance with local regulations. Construction noise could impact sensitive receptors during construction resulting in noise impacts to sensitive receptors.

Implementation of Mitigation Measures NOISE-1 to NOISE-4 would lessen construction noise and ensure that impacts at sensitive receptors would be minimized. Mitigation Measures NOISE-1 to NOISE-4 require the implementation of noise reduction devices and techniques during construction at the project site, which would reduce noise levels generated by the construction of the project to the maximum extent that is technically feasible. Therefore, off-site construction traffic noise impacts would be less than significant.

### **Operational Noise**

The existing noise environment in the project vicinity is dominated by traffic noise from nearby roadways, as well as nearby commercial activities. Long-term operation of the project would have a minimal effect on the noise environment in proximity to the project site. Noise generated by the Project would result primarily from the added operation of the building mechanical equipment. Implementation of the Project would involve industrial manufacturing activity. While the majority of activities would occur within the proposed building, deliveries, materials and component movements, refuse and recycling noise sources, and product unloading and loading from delivery trucks would be undertaken in the open and include equipment that would generate noise.

#### *Stationary Noise Sources*

The operation of mechanical equipment that would be installed for the new facility, such as air conditioners, fans, generators, and related equipment, would generate audible noise levels in proximity to the equipment. Mechanical equipment would typically be located on rooftops or within buildings, shielded from nearby land uses to attenuate noise and avoid conflicts with adjacent uses. All building outdoor mounted mechanical and electrical equipment would be designed to meet the requirements of Municipal Code, Section 12.08.390. A conservative exterior noise level reference for air condenser units, the primary source of noise from fixed mechanical equipment, is 81.9 dBA  $L_{eq}$  measured at a distance of 5 feet based on a review of noise data from several large shopping center projects in Southern California (Moreno Valley, 2015 and Pomona, 2014).

The specific location of stationary equipment within the Project Site is not yet known. However, a conservative estimation would be an assumed distance of 50 feet from the nearest sensitive receptor, the Carson Plaza Hotel, the noise level would attenuate to 61.9 dBA  $L_{eq}$ . This would exceed the significant threshold of 55 dBA at commercial land uses. Therefore, environmental impacts related to the exposure of persons to or generation of

noise levels in excess of established standards during long-term operation of the proposed Project would be potentially significant.

Implementation of mitigation measure NOI-5 requires standard noise control devices for all stationary equipment and prohibits locating such equipment within 110 feet of the property line. At a distance of 110 feet, noise levels would attenuate to 55 dBA  $L_{eq}$ , without consideration of noise level reductions provided by noise control devices. Therefore, impacts would be reduced to less than significant levels.

#### *Loading Area Noise Sources*

Loading and unloading activities would most likely occur on the northern portion of the Project Site. Vehicle access to the loading areas would be from the entrance along Main Street, located along the eastern segment of the Project Site. Loading area activities including truck movements, idling, and loading/unloading operations would generate noise levels that have the potential to adversely impact adjacent land uses during Project operations. Based on measured noise levels, delivery truck idling (at loading area) would generate noise levels of approximately 75 dBA ( $L_{eq}$ ) at a 5-foot distance. The nearest sensitive receptor includes a commercial land use adjacent to the south of the Project Site and is located within approximately 20 feet. Accounting for distance attenuation of 6 dBA per doubling of distance,<sup>5</sup> noise levels experienced at the nearest commercial land use would be approximately 63 dBA, which exceeds the significance threshold of 55 dBA for commercial uses. Noise levels at the park associated with the Tesoro Campus would be approximately 48 dBA at the park associated with the Tesoro Campus which would not exceed the significance threshold of 55 dBA at a commercial land use. However, noise levels would be approximately 63 dBA at the hotel which would result in a potentially significant impact. Therefore, Mitigation Measures NOISE-6 is prescribed for the Project.

Implementation of mitigation measure NOI-6 prohibits locating the loading and unloading areas within 110 feet of the property line. At a distance of 110 feet, noise levels would attenuate to 49 dBA, without consideration of noise level reductions provided by noise control devices. Therefore, impacts would be reduced to less than significant levels.

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<sup>5</sup> Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as “spherical spreading.” Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically “hard” sites for each doubling of distance from the reference measurement, Caltrans, Technical Noise Supplement, September, 2013.

### *Refuse and Recycling Noise Sources*

The moving of trash and recycling bins generate noise levels that have a potential to adversely impact adjacent land uses during long-term Project operations. Dumpsters would be wheeled manually. The moving of trash and recycling bins manually would generate noise levels approximately 60 dBA  $L_{max}$  at 3 feet distance. The nearest noise-sensitive uses, the car dealership, is located approximately 20 feet from the Project Site. Based on a noise level source strength of 60 dBA at a reference distance of 3 feet, and accounting for distance attenuation (6 dBA per doubling of distance)<sup>6</sup>, moving trash bin noise would be approximately 46 dBA at the commercial land use property lines. Additionally, the moving of trash and recycle bins would not increase existing ambient noise levels of at the park and nearest residential land uses. Therefore, noise from refuse collection areas at off-site sensitive receptor locations would not exceed the threshold. As such, operational noise impacts would be less than significant.

### *Off-Site Operational Traffic Noise*

Operation of the proposed project would result in a slight increase in traffic volumes within the Project area. Doubling existing traffic would result in an increase in 3 dBA.<sup>7</sup> However, the Project Site is located directly adjacent to SR-91, which accommodates up to 56,000 vehicles per day within the segment that that traverses through the Los Angeles County segment of the highway.<sup>8</sup> It is anticipated the proposed project would generate approximately 94 vehicle trips per day, including 12 peak hour AM trips, and 13 peak hour PM trips. The increase in daily traffic resulting from the operation of the Project would not generate enough traffic to increase traffic noise levels by 3 dBA. As such, operational noise impacts would be less than significant.

- b) **Less Than Significant.** Ground-borne vibration from development is primarily generated from the operation of construction equipment and from vehicle traffic. Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. The vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as ground-borne noise. Vibration levels for potential structural damage is described in terms of the peak particle velocity (PPV) measured in inches per second (in/sec).

<sup>6</sup> Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as “spherical spreading.” Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically “hard” sites for each doubling of distance from the reference measurement, Caltrans, Technical Noise Supplement, September, 2013.

<sup>7</sup> Caltrans, Technical Noise Supplement, September, 2013. Page 2-15.

<sup>8</sup> Caltrans, Performance Measurement System (PeMS). Date accessed October 18, 2018.



Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. If traffic, typically heavy trucks, does induce perceptible building vibration, it is most likely an effect of low-frequency airborne noise or ground characteristics.

Building structural components also can be excited by high levels of low-frequency airborne noise (typically less than 100 Hz). The many structural components of a building, excited by low-frequency noise, can be coupled together to create complex vibrating systems. The low-frequency vibration of the structural components can cause smaller items such as ornaments, pictures, and shelves to rattle, which can cause annoyance to building occupants.

Human sensitivity to vibration varies by frequency and by receiver. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes. Ground-borne vibration related to human annoyance is generally related to root mean square (rms) velocity levels, and expressed as velocity in decibels (VdB).

### **Regulatory Framework**

Pursuant to Section 12.08.560 (Vibration) of the Los Angeles Municipal Code, as adopted by the City of Carson, operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public right-of-way is prohibited.

With respect to ground-borne vibration from construction activities, Caltrans has adopted guidelines/recommendations to limit ground-borne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity. With respect to residential and commercial structures, Caltrans' technical publication, titled Transportation- and Construction-Induced Vibration Guidance Manual, provides a vibration damage potential threshold criteria of 0.5 inches per second PPV for historic and older buildings, 1.0 inch-per-second PPV for newer residential structures, and 2.0 inches per second PPV for modern industrial/commercial buildings. In addition, the guidance also sets 0.035 PPV as the threshold for "Distinctly Perceptible" human response to steady state vibration (Caltrans 2004).

According to the Federal Transit Administration (FTA), ground vibrations from construction activities very rarely reach the level that can damage structures. A possible exception is the case of old, fragile buildings of historical significance where special care must be taken to avoid damage. The construction activities that typically generate the most severe vibrations are blasting and impact pile driving, which would not be used for

the project. The project would use construction equipment, such as use of graders, loaders, and pavers, which would generate ground-borne vibration during excavation and foundation activities. Based on the vibration data by the FTA, typical vibration velocities from the operation of a large bulldozer would be approximately 0.089 inches per second PPV at 25 feet from the source of activity.

### **Construction Vibration**

As previously stated the project site is surrounded by a mix of land uses, including commercial, warehouse, light industrial, automotive, and manufacturing uses. There are no residential land uses within 500 feet of the project site. The closest sensitive receptor to the proposed project is the Carson Plaza Hotel, located approximately 20 feet south of the project site. This hotel would be exposed to vibration velocities up to 0.124 inches per second PPV. These values would not exceed the 2.0 inches per second PPV significance threshold (modern industrial/commercial buildings), therefore vibration impacts during excavation phase would be less than significant.

With respect with human perception, as discussed above, the nearest off-site commercial building is located adjacent and to the south of the project site, which would be exposed to vibration velocities up to 0.124 inches per second PPV. As this value exceeds the 0.035 inches per second (PPV) perception threshold, vibration impacts during grading/excavation phase would be potentially significant without implementation of a mitigation measure.

### **Operational Vibration**

Once construction activities have been completed, there would be no substantial sources of vibration activities from the project site. The project's operations would include industrial-grade stationary mechanical and electrical equipment, such as pumps, compressor units, and exhaust fans, which would produce limited levels of vibration, which would produce limited levels of vibration. In addition, the primary sources of transient vibration would include passenger vehicle circulation within the proposed parking area and delivery truck traveling to and from the project site, which also produce limited levels of vibration. These sources would generate substantially lower levels of vibration identified above for construction. Therefore, vibration impacts during project operation would be less than significant.

- c) **Less Than Significant.** The existing noise environment in the project area is dominated by traffic noise from nearby roadways, as well as industrial activities. Long-term operation of the project would not have a significant effect on the community noise environment in proximity to the project area. Noise sources that would have potential noise impacts include: off-site vehicle traffic and facility equipment. Motor vehicle travel on local roadways attributable to the project, as discussed above, would have a less than significant impact on community noise levels. Noise levels associated with on-site operations (e.g., emergency generator) are also considered less than significant as discussed above. As such, noise impacts would be less than significant.

- d) **Less Than Significant With Mitigation.** Temporary or periodic increases in noise levels would occur in the immediate vicinity during construction activities associated with the proposed projects. Above, the construction activities would expose nearby existing Carson Plaza Hotel to increased noise levels as high as 91 dBA  $L_{max}$  at 20 feet, which would be a substantial noise increase over existing ambient noise levels, but would be temporary and typical of day-time construction activities. Nevertheless, construction noise could impact sensitive receptors during construction resulting in noise impacts to sensitive receptors. However, implementation of Mitigation Measures NOISE-1 to NOISE-4 would lessen construction noise and ensure that impacts at sensitive receptors would be minimized. Therefore, construction noise impacts would be less than significant.
- e) **No Impact.** The project area is not located within an airport land use plan area or within 2 miles of a public airport or public use airport. Therefore, construction or operation of the project would not expose people to excessive airport related noise levels. No impact would occur.
- f) **No Impact.** The project area is not located within the vicinity of a private airstrip, or heliport or helistop. Therefore, the project would not expose people residing or working in the project area to excessive noise levels from such uses. No impact would occur.

### **Mitigation Measures**

**MM NOISE-1:** Noise-generating equipment operated at the project site shall be equipped with the most effective noise control devices, i.e., mufflers, lagging, and/or motor enclosures. All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, would be generated.

**MM NOISE-2:** The Applicant shall designate a construction relations officer to serve as a liaison with surrounding residents and property owners who is responsible for responding to any concerns regarding construction noise and vibration. The liaison's telephone number(s) shall be prominently displayed at the project site. Signs shall also be posted at the project site that includes permitted construction days and hours.

**MM NOISE-3:** Construction and demolition activities shall be scheduled so as to avoid operating several heavy pieces of equipment simultaneously.

**MM NOISE-4:** The project shall provide a temporary 15-foot-tall construction barrier along property lines facing adjacent off-site commercial buildings and be equipped with noise blankets capable of achieving sound level reductions of at least 15 dBA between the project construction site and the off-site commercial uses. Temporary noise barriers shall be used to block the line-of-sight between the construction equipment and the noise-sensitive receptors. The temporary barrier shall remain in place until windows have been installed. Standard construction protective fencing with green screen or pedestrian barricades for protective walkways shall be installed along property lines facing streets or commercial buildings. All temporary barriers, fences, and walls shall have gate access as needed for construction activities, deliveries, and site access by construction personnel.

**MM NOISE-5** All stationary mechanical equipment shall be equipped with standard noise control devices such as sound attenuators, acoustics louvers, or sound

screen/parapet walls. In addition, all stationary mechanical equipment shall be located greater than 110 feet from the property line. Equipment specifications, design, and location shall be submitted and reviewed during the Design Review process.

**MM NOISE-6** All loading and unloading areas shall be located greater than 110 feet from the property line. Design and location shall be submitted and reviewed during the Design Review process

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## Population and Housing

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>13. POPULATION AND HOUSING — Would the project:</b>  |                                       |   |                                     |                                     |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### ***Discussion***

- a) **No Impact.** The proposed project would involve the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The proposed project does not include residential uses and would not result in direct population growth. The proposed project would result in the creation of approximately 29 employees and substantial indirect new population growth is not expected. The proposed project is served by roads, infrastructure, and utilities, and would not extend infrastructure or foster growth beyond that planned in the City of Carson General Plan. Thus, there would be no impacts related to construction of infrastructure as a result of population growth.
- b-c) **No Impact.** The proposed project is located on a vacant parcel within the City of Carson and no housing would be removed as part of the proposed project. Therefore, development of the project would not displace any homes or persons.

## Public Services

| Issues (and Supporting Information Sources):   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| <b>14. PUBLIC SERVICES — Would the project:</b>  |                                |  |                                     |                                     |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government 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 following public services: |                                |  |                                     |                                     |
| i) Fire protection?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| ii) Police protection?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iii) Schools?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| iv) Parks?   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| v) Other public facilities?  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a.i) **Less Than Significant.** The project site is currently served by the Los Angeles County Fire Department (LACFD). The LACFD respond from six fire stations located within the City of Carson and the closest station to the project site is Station #79 located 1 mile southwest of the project site at 18030 S. Vermont Avenue.

The proposed project consists of the construction and operation of a 13,557 square foot facility that would provide cannabis cultivation, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. As the project site is currently vacant, there would be an increase in use of the project site, which would increase demand for fire services, but it is anticipated the existing fire personnel would be adequate to address the increase in demand.

The proposed project has would include a fire prevention plan as required by the City of Carson. The proposed project would comply with applicable local and state requirements including the City of Carson Municipal Code regarding fire prevention and suppression. The project would include a fire alarm system, sprinklers, fire extinguishers, and a fire prevention plan. In addition, the LACFD will review and comment on individual site plans, at the time when an application for the development of the proposed project is submitted.

Therefore, compliance with the City of Carson's Municipal Code and incorporation of fire prevention systems, would result in a less than significant impact.

- a.ii) **Less Than Significant.** The project site is currently served by the Los Angeles County Sheriff's Department (LASD). The closest police station to the project site is the Carson Station located 3 miles south of the project site at 21356 S. Avalon Boulevard.

Per City requirement, the proposed project would include a Security to address potential safety and security concerns that may occur due to the presence of cannabis plants and products.

During operation of the proposed project, access to the into the project site via the driveway would be gated and controlled. All access doors would be secured by electronic locking doors controlled by security personnel, and would require keycards and/or electronic passcodes. An intrusion/burglar alarms system would be installed and the project site would be monitored at all times by either on-site security or a third-party monitoring and security company.

The proposed project would include security guards on duty 24-hours a day, 7-days a week. Duties of security personnel would include station duties at the main entrance; patrol checks of the interior and exterior of the facility and parking areas; and manning of the loading areas for distributors and transport. Furthermore, flood and security lighting would be strategically installed in and around the building for employee safety at closing and opening times in the evening and in the morning.

Therefore, compliance with the City of Carson’s Municipal Code and incorporation of security policies and systems, would result in a less than significant impact.

- a.iii-v) **No Impact.** The proposed project would not include the construction of residential or other uses that would induce population growth that would trigger increased demand for schools, parks, libraries and other public facilities. Therefore, demand for schools, parks, and other public facilities would not increase as a result of the proposed project.

## **References**

City of Carson. Existing Conditions Report, Volume 1: Chapters 5-8. January 2018. Accessed: October 2018. Available at: <https://www.carson2040.com/reports-and-products/>

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## Recreation

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|--|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>15. RECREATION:</b>   |                                       |   |                                     |                                     |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?                        | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **No Impact.** The project site is a rectangular shaped vacant lot covered with bare soil, grass, and low-lying vegetation, which does not contain existing recreational facilities; the closest recreational facility is Walnut Mini Park, located 0.46 miles northeast of the project site (City of Carson 2018). Additionally, the closest full-size park is Stevenson Park located approximately 1 mile east of the project site. The proposed project components would be operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation, and as such, are not recreational. The proposed project would not result in a substantial increase in the city of Carson's population since the employees and visitors of the proposed project would likely already live in or near the project area. Thus the project would not result in an increase in use of neighborhood and regional parks or contribute to the potential need for additional parkland. Therefore, no impacts would occur.
- b) **No Impact.** The proposed project would include the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The proposed project does not include the development of recreational facilities or require the construction or expansion of recreational facilities. The proposed project would not result in a substantial increase in the City of Carson's or population since the employees of the proposed operations consisting of cultivation, manufacturing, and storage of cannabis products, would likely already live in or near the highly urbanized project area. Thus, the project would not result in the construction or expansion of recreational facilities. Therefore, no impact would occur.

### References

City of Carson. Existing Conditions Report, Volume 1: Chapters 5-8. January 2018. Accessed: October 2018. Available at: <https://www.carson2040.com/reports-and-products/>

## Transportation and Traffic

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>                    |
|---|---------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>16. TRANSPORTATION/TRAFFIC —</b>   |                                       |   |                                     |                                     |
| <b>Would the project:</b>   |                                       |   |                                     |                                     |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact.** Construction of the proposed project would temporarily increase local traffic due to the transport and delivery of construction equipment and materials. Project area access would be provided South Main Street. The Los Angeles County Metropolitan Transit Authority (Metro) serves the project site and area. Specifically, Metro bus line #246 operates bus line in the immediate area.

Direct construction traffic impacts, such as local congestion and disruption of traffic flow from construction of the proposed project would be temporary. Construction activities that would generate off-site traffic would include the delivery of construction vehicles and equipment to the project area, the daily arrival and departure of construction workers, the off-hauling of excavated soil, and the delivery of materials throughout the construction period. The estimated haul truck traffic would vary depending on the construction activity; however, it is estimated that the excavation of soil within the project area would occur intermittently for approximately 15 total working days from 5/18/2020 through 6/5/2020. Approximately 10 truck haul trips would occur each day over this period of excavation.

The haul trucks would exit the staging area and travel approximately 300 feet along South Main Street to the SR 91 on ramp. The addition of haul truck trips along South

Main Street would not substantially affect capacity of the roadways. Therefore, no significant construction traffic impacts would occur from off-site construction traffic.

Construction-generated traffic would be temporary, and therefore, would not result in any long-term degradation in operating conditions on local roadways used for the project. The primary impact of construction-related traffic would be a temporary and intermittent lessening of the capacities of the roads in the project area because of the slower movements of larger turning radii of construction trucks compared to passenger vehicles. Drivers could experience delay if they were traveling behind a heavy truck. The impact from construction generated traffic from the proposed project would be less than significant.

Additionally, operationally, it is anticipated the proposed project would generate approximately 94 vehicle trips per day, including 12 peak hour AM trips, and 13 peak hour PM trips.

- b) **Less Than Significant Impact.** Congestion management programs (and level of service standards established by congestion management agencies) are intended to monitor and address long-term traffic conditions related to future development that generate permanent (ongoing) traffic increases, and do not apply to temporary impacts associated with construction projects. Proposed project construction would be transitory in nature, and effects on roadway operations would be temporary.

The Metro Congestion Management Program (CMP), required by Caltrans, includes two locations within Carson. One is an arterial intersection that has since been removed from the program and the other is located on I-405. They are: Alameda Street and Del Amo Boulevard Intersection (no longer CMP and arterial I-405 at Del Amo Boulevard Overpass Freeway.<sup>9</sup> The proposed project is located over 2 miles north east of the Overpass. Additionally, regional access to the project site would likely be through use of SR 91 via I-405, and the Del Amo Boulevard Overpass is not a likely route the proposed project traffic would use.

Moreover, the CMP guidelines state that an analysis of potential impacts to CMP mainline freeway monitoring locations is required where the proposed project will add 150 or more trips during either the AM or PM peak hours of adjacent street traffic. Since fewer than 150 trips would be added during the AM or PM peak hours in either direction at any of the freeway segments in the vicinity of the study area, no further CMP freeway segment analysis is required and the impact would be less than significant.

- c) **No Impact.** A significant impact would occur if the proposed project would cause a change in air traffic patterns that would result in a substantial safety risk. The proposed project does not include an aviation component or include features that would interfere with air traffic patterns. Therefore, no impact would occur.

<sup>9</sup> Source: Congestion Management Program, Metro, 2010 [https://www.metro.net/projects/congestion\\_mgmt\\_pgm/](https://www.metro.net/projects/congestion_mgmt_pgm/)

- d) **No Impact.** The proposed project would be implemented along an existing roadway and does not include the construction or design of any roadway infrastructure that would cause a safety risk to vehicle operations. Neither construction nor operation of the proposed project would adversely alter the physical configuration of the existing roadway network serving the area, and would not introduce unsafe design features. The movement of industrial materials to and from the project site is compatible with the surrounding industrial uses. The proposed project also would not introduce uses (types of vehicles) that are incompatible with existing uses already served by the area's road system. There would be no impact.
- e) **Less Than Significant.** The project site is located in an established urban area that is well served by a roadway network. The proposed project would not include any alterations of existing roadway features (e.g., road realignment) that would create a permanent change to access for emergency vehicles. During construction of the proposed project, heavy construction-related vehicles could interfere with emergency response to the site (e.g., slowing vehicles traveling behind the truck). However, such delays would be infrequent and brief (drivers are required to pull over to allow an emergency vehicle on call to pass), and contract specifications for the project would ensure that emergency vehicle access on area roadways would be maintained at all times.

Any emergency vehicles accessing the project site would be from an access driveway off of South Main Street that would be designed in conformance with the City of Carson Municipal Code Standards. Project site access and circulation plans would be reviewed by the City of Carson, the Los Angeles County Fire Department and the Los Angeles County Sheriff's Department. Thus, impacts would be less than significant.

- f) **No Impact.** The proposed project would not directly or indirectly eliminate alternative transportation corridors or facilities (e.g., bus stops). In addition, the project would not preclude increased alternative transportation services. Therefore, the project would not conflict with adopted policies, plans, or programs supporting alternative transportation. As mentioned above, the proposed project would not impede non-motorized travel or public transportation in the project vicinity; it would not decrease the performance or safety of such facilities. As a result, there would be no impact.

## **References**

Institute of Transportation Engineers, (ITE) Trip Generation Rates 9<sup>th</sup> Edition

## Tribal Cultural Resources

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|--|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>17. Tribal Cultural Resources —</b>   |                                       |   |                                     |                          |
| Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:                              |                                       |   |                                     |                          |
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Discussion

a-b) **Less Than Significant Impact.** In compliance with the requirements of AB 52 and in order to identify potential impacts to tribal cultural resources, the City submitted notification and request to consult letters to five (5) Native American individuals and organizations on the City's AB 52 Notification List on October 18, 2018, and conducted follow-up Native American consultation pursuant to AB 52. In particular, letters were sent to the following California Native American tribes:

- Sandonne Goad, Gabrielino/Tongva Nation
- Charles Alvarez, Gabrieleno-Tongva Tribe
- Andrew Salas, Gabrieleño Band of Mission Indians—Kizh Nation
- Robert Dorame, Gabrielino Tongva Indians of California Tribal Council
- Anthony Morales, Gabrielino/Tongva San Gabriel Band of Mission Indians

These notification letters are provided in Appendix D of this MND. The City has not received any responses from the Native American community to date.

## Utilities and Service Systems

| <i>Issues (and Supporting Information Sources):</i>   | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|---|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>18. UTILITIES AND SERVICE SYSTEMS —<br/>Would the project:</b>   |                                       |   |                                     |                          |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                            | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                     | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="checkbox"/>              | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact.** The proposed project will not exceed wastewater treatment requirements applicable by the Los Angeles Regional Water Quality Control Board (LARWQCB) for the Joint Water Pollution Control Plan (JWPCP) operated by the Los Angeles County Sanitation District (LACSD). The proposed project shall cultivate hydroponically and would recapture and reuse wastewater. In its cultivation operations, the proposed project would not use pesticides and would use only fertilizers that are approved by the California Department of Food and Agriculture. Irrigation water for cannabis cultivation will likely exceed water quality requirements of the LARWQCB for cultivation due to the addition of fertilizers. Once the cannabis irrigation water is no longer usable, it will be stored in a separate storage tank and hauled away by a third-party licensed hazardous waste removal company. Therefore, any agricultural wastewater on-site will not enter the sewer system.

With adherence to LARWQCB requirements and documentation of any total dissolved solids from wastewater recycling activities, impacts in regard to the project in violating waste discharge requirements will be reduced to less than significant.

- b) **Less Than Significant Impact.** The JWPCP currently treats wastewater generated by the project area. The JWPCP provides primary and secondary treatment for an average of

258 million gallons per day (mgd) of wastewater from the Los Angeles region. JWPCP has the capacity to treat 400 mgd and is the largest of LACSD's treatment plant (LACSD 2018). The proposed project includes the construction of two one-story buildings totaling 13,357 square feet on a 0.66-acre vacant lot. This would increase wastewater generation compared to existing conditions. Therefore, wastewater generation would be greater than what currently exists at the project site, but would represent a fraction of a percent of the JWPCP's remaining daily treatment capacity and would not result in new wastewater treatment facilities or expansion of existing facilities.

Water supply to the City of Carson comes from the Metropolitan Water District (MWD), the California Water Service Company's Rancho Dominguez District (CWS), and the Golden State Water Company (GSW). CWS serves most of the city of Carson. They use a combination of local groundwater and surface water, purchased from MWD which is imported from the Colorado River and the State Water Project in Northern California.

The GSW would provide sufficient supplies of water to support the proposed project's construction and operation and no new entitlements, or resources, would be required to meet the expected project water supply demand. The proposed project estimates an annual water demand of 80,000 gallons per year (0.25 AFY), which is an average amount for the cannabis industry. While the proposed project would result in a net increased water demand of 80,000 gallons per year at the project site, net demand would be a fraction of the City of Carson's existing supply. As such, the proposed project would not result in new water facilities or expansion of existing facilities.

- c) **Less Than Significant With Mitigation.** As previously mentioned above in Issue 9 (e), the project site is currently undeveloped and is somewhat impervious due to compaction of subgrade from previous uses and the type of soil at the site. Project implementation could create potentially polluted runoff water that could exceed the capacity of existing or planned stormwater drainage systems. Compliance with applicable permits, Carson Municipal Code, Mitigation Measure **HYD-1**, and other local regulations that require BMPs and source control measures would allow the proposed project to avoid construction of new stormwater drainage facilities or expansion of existing facilities.
- d) **Less Than Significant Impact.** Water supply to the City of Carson comes from the Metropolitan Water District (MWD), the California Water Service Company's Rancho Dominguez District (CWS), and the Golden State Water Company (GSW). CWS serves most of the City of Carson. They use a combination of local groundwater and surface water, purchased from MWD which is imported from the Colorado River and the State Water Project in northern California. The CWS Dominguez water system includes 374 miles of pipeline, nine active wells, 12 storage tanks and seven MWD connections. GSW serves portions of the City of Carson, primarily the northwest corner. They provide a blend of groundwater from the West and Central Coast groundwater basins and imported water from the California River Aqueduct and State Water Project imported from MWD. Domestic Water Supply for the service areas of the project will be provided by CVWD.

The proposed project is located within the CWS Rancho Dominguez District service area. According to the reliability data in the California Water Service 2015 Urban Water Management Plan for Dominguez District (UWMP), CWS has sufficient supply to meet a total water demand of 46,971 acre feet per year (AFY) by the year 2040 (CWS, 2016). CWS has measures to reduce the demand through reduce water consumption through conservation programs, educational programs, and rebates.

Since the proposed project is only expected to generate 0.25 AFY, which translates into a less than 0.001 percent of the 46,971 AFY accounted for in the UWMP, it is anticipated that the proposed project's construction and operational would be met, and no new entitlements, or resources, would be required to meet the expected project water supply demand. Therefore, impacts would be less than significant.

- e) **Less Than-Significant Impact.** As previously mentioned above in Issue 18 (b), construction and operation of the proposed project would result in an increase in wastewater generation. The proposed project includes the construction of two one-story buildings totaling 13,357 square feet on a 0.66-acre vacant lot. This would increase wastewater generation compared to existing conditions, but would represent a fraction of a percent of the JWPCP's remaining daily treatment capacity. As such, JWPCP is considered to have adequate remaining capacity to serve the proposed project and impacts would be less than significant.
- f) **Less Than Significant Impact.** Waste Management Incorporated provides residential, commercial, and industrial waste collection service for the City of Carson. Waste Management collects approximately 34,000 tons from residential customers, 40,750 tons from commercial customers and 26,600 tons from industrial customers per year. The disposal service uses traditional methods of solid waste collection using standard trash trucks and crews. The service also includes pickup of sorted recyclable materials, which are taken directly to a company to separate and sell. In 2016, about 55 percent of Carson's solid waste went to the El Sobrante Landfill in Corona, about 25 percent went to H.M. Holloway Inc. Landfill in Lost Hills, and the other 20 percent went to 12 other landfills throughout the Los Angeles area. According to Calrecycle, the El Sobrante Landfill has a remaining capacity of about 145 million tons, and it is expected to remain in operation until 2045. The H.M. Holloway Inc. Landfill has a remaining capacity of approximately 7 million tons, and is expected to remain in operation until 2030.

The proposed project will compost all plant waste (stems, leaves, unusable product) using a mulching machine to reduce impacts to solid waste. Because the project site is currently vacant, operation of the proposed project would increase the site's solid waste disposal demand, but would still be a small portion of the total capacity provided by regional landfills. Additionally, the project proponent would be required to prepare and submit a Cannabis Soil, Plant Material, and Solid Waste Management Plan, as per Mitigation Measure MM UE-1.



Therefore, with implementation of Mitigation Measure MM UE-1, the proposed project would be served by a landfill with sufficient capacity to support the solid waste disposal needs, and impacts would be less than significant.

- g) **Less Than Significant Impact With Mitigation.** The proposed project will comply with federal, State, and local statutes, and regulations in regard to solid waste. As adopted by the City of Carson, AB 939 requires that all California jurisdictions prepare a Source Reduction Recycling Element (SRRE) that demonstrates how the City of Carson will divert 50 percent of their jurisdiction's waste stream from disposal into landfills each year. According to the requirements of the City of Carson's SRRE a private company provides waste collection services for the City of Carson. The disposal service uses traditional methods of solid waste collection, with standard trash trucks and crews. The service also includes the pickup of sorted recyclable materials, which are taken directly to a company that separates and sells them.

In 2016, California passed the Medical and Adult-Use Cannabis Regulation and Safety (MAUCRSA) to establish a comprehensive system to control and regulate the cultivation, distribution, transport, storage, manufacturing, processing, and sale of both medicinal cannabis and medical cannabis product and adult-use cannabis and adult-use cannabis products. MAUCRSA requires designated secured areas for cannabis waste and a cannabis waste management plan.

To comply with MAUCRSA, the proposed project has developed a detailed cannabis waste disposal plan. The proposed project will contract with a waste hauler permitted to transport the solid waste for final destruction by an acceptable waste facility pursuant to MAUCRSA and City of Carson law. The proposed project will provide the Department of Food and Agriculture with the information for the waste hauler permitted to transport cannabis waste including the name, business address, and primary contact information. The proposed project will retain documentation from the waste hauler that indicates the date and time of each collection of cannabis waste at the licensed premises.

With the proposed project's adherence to AB 939 waste diversion goals, compliance with the City of Carson's SRRE, and compliance with MAUCRSA, impacts in regard to compliance with federal, State, and local statutes will be reduced to less than significant.

### **Mitigation Measure**

**MM UE-1: Cannabis Soil, Plant Material, and Waste Management.** Each Licensee shall prepare and submit a Cannabis Soil, Plant Material, and Solid Waste Management Plan for the cannabis site, which describes the type and amount of solid waste that would be generated. The Plan shall maximize to the extent practicable composting of soil and cannabis plant waste on-site, and implement BMPs for solid waste handling. Transfer of cannabis plant waste material from the site shall only occur as allowed by state regulations, either through pre-treatment on-site to render the waste acceptable to licensed landfill or composting facilities, or using a commercial hauler that meets state regulations for the treatment and disposal of cannabis waste.

## **References**

CalRecycle Solid Waste Information System, 2017. Facility/Site Summary Details: El Sobrante Landfill. Available at [www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0217/Detail](http://www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0217/Detail). Accessed October 2018

CalRecycle Solid Waste Information System, 2017. Facility/Site Summary Details: El Sobrante Landfill. Available at <http://www.calrecycle.ca.gov/SWFacilities/Directory/15-AA-0308/Detail>. Accessed October 2018

California State Code

[https://static.cdfa.ca.gov/MCCP/document/7.13.18%20CDFA%20Regulation%20Text\\_FINAL.PDF](https://static.cdfa.ca.gov/MCCP/document/7.13.18%20CDFA%20Regulation%20Text_FINAL.PDF)

Los Angeles County Sanitation District, 2018. Joint Water Pollution Control Plant. Available at <https://www.lacsd.org/wastewater/wwfacilities/jwpcp/>. Accessed October 2018.

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## Energy

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|--|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>Energy — Would the project:</b>   |                                       |   |                                     |                          |
| a) Would the Project cause wasteful, inefficient, and unnecessary use of energy?   | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Would the Project result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Discussion

Appendix G of the State CEQA Guidelines does not provide any checklist items for the evaluation of impacts related to energy resources. As discussed above, Appendix F of the CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3), which states that an EIR shall include the topics listed for consideration, to the extent applicable, and a detailed statement setting forth “[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.”

- a) **Less than Significant Impact.** The project would consume energy during construction activities primarily from on- and off-road vehicle fuel consumption in the form of diesel, gasoline, and electricity from water conveyance for dust control. Project operation would consume energy from activities including cannabis cultivation, harvesting, drying, extraction, packaging, production of cannabis products, energy use from general building operations (HVAC, lighting, cultivation processes) and mobile sources (product transport and delivery, customer trips, etc.) and would increase operational energy use. The analysis below includes the project’s energy requirements and energy use efficiencies by energy type for each stage of the project (construction and operations).

#### Construction

The project would consume energy during construction activities, primarily from on- and off-road vehicle fuel consumption in the form of diesel, gasoline, and electricity from water conveyance for dust control. The analysis below includes the project’s energy requirements and energy use efficiencies by energy type for each stage of the project.

The estimated fuel usage for off-road equipment is based on the number and type of equipment that would be used during construction activities, hour usage estimates, the total duration of construction activities, and hourly equipment fuel consumption factors from the CARB OFFROAD model, which was used in the project’s air quality analysis. On-road vehicles would include trucks to haul material to and from the project site, vendor trucks to deliver supplies necessary for project construction, and fuel used for employee commute trips. Lighting, and other processes associated with grid electricity,

would be provided using generator sets running on diesel fuel. Electricity used from water conveyance for dust control was calculated using assumptions for gallons used per acre per day and CalEEMod water conveyance intensity factors were applied to calculate total construction electricity consumption. Construction activities typically do not involve the consumption of natural gas. **Table 12** summarizes the project's total and annual fuel and electricity consumption from construction activities.

**TABLE 12**  
**SUMMARY OF ENERGY CONSUMPTION DURING PROJECT CONSTRUCTION**

| Fuel Type                                   | Quantity         |
|---|------------------|
| <b>Gasoline</b>                             | <b>gallons</b>   |
| On-Road Construction Equipment              | 1,629            |
| Off-Road Construction Equipment             | 0                |
| <b>Total Gasoline</b>                       | <b>1,629</b>     |
| <b>Diesel</b>                               | <b>gallons</b>   |
| On-Road Construction Equipment              | 1,037            |
| Off-Road Construction Equipment             | 16,465           |
| <b>Total Diesel</b>                         | <b>17,502</b>    |
| <b>Electricity</b>                          | <b>kWh</b>       |
| Water Conveyance for Dust Control           | 6,050            |
| <b>Project Length</b>                       | <b>1.0 years</b> |
| <b>Annual Average Gasoline Use (gal)</b>    | <b>1,629</b>     |
| <b>Annual Average Diesel Use (gal)</b>      | <b>17,502</b>    |
| <b>Annual Average Electricity Use (kWh)</b> | <b>6,050</b>     |
| SOURCE: ESA, 2018                           |                  |

The energy use summary provided above in Table 12 represents the amount of energy that could potentially be consumed during project construction based on a conservative set of assumptions, provided in Appendix C, of this Draft IS/MND. As shown, on- and off-road vehicles would consume an estimated 1,629 gallons of gasoline, approximately 17,502 gallons of diesel fuel, and approximately 6,050 kWh of electricity throughout the project's construction. For comparison purposes, the fuel usage during project construction would represent approximately 0.00005 percent of the 2016 annual on-road gasoline-related energy consumption and 0.003 percent of the 2016 annual diesel fuel-related energy consumption in Los Angeles County. Electricity would represent approximately 0.000007 percent of Southern California Edison's (SCE's) total electricity sales for 2017. Detailed calculations are shown in Appendix C, of this Draft IS/MND.

The project construction contractors would comply with applicable CARB regulations governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. CARB adopted an ATCM to limit heavy-duty diesel motor

vehicle idling time in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. CARB approved the Truck and Bus regulation to reduce NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from existing diesel vehicles operating in California. In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models.

While intended to reduce construction criteria pollutant emissions, compliance with the above anti-idling and emissions regulations would also result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy. According to the CARB staff report that was prepared at the time the anti-idling ATCM was being proposed for adoption in late 2004/early 2005, the regulation was estimated to reduce non-essential idling and associated emissions of diesel particulate matter and NO<sub>x</sub> emissions by 64 and 78 percent respectively in analysis year 2009.

These reductions in emissions are directly attributable to overall reduced idling times and fuel combustion as a result of compliance with the regulation. Project compliance with CARB regulations would result in energy savings of approximately 80 gallons of diesel fuel, assuming a fuel reduction equivalent to the percent reduction of diesel particulate matter or NO<sub>x</sub> as estimated by CARB for 2009 (the lesser value, i.e., 64 percent, is used as a conservative assumption). Heavy-duty engines continue to become more efficient and reduction amounts may lessen in the future due to this. Although the energy savings cannot be accurately quantified, the project would still reduce consumption of diesel fuel under the anti-idling measure. Construction electricity use would be temporary, sporadic, and would cease upon completion of the project. Electricity for water conveyance would only be used when necessary to prevent fugitive dust and would decrease after completion of excavation and paving phases when the site is paved and has less dust to control. Thus, construction of the proposed project would use energy necessary to build the project, but would not result in the wasteful, inefficient, and unnecessary use of energy and impacts would be less than significant.

## Operations

During operation of the project, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting of the cultivation area; and the use of electronics, equipment, and appliances. Energy would also be consumed during project operations related to water usage, solid waste disposal, and vehicle trips. **Table 13** summarizes the project's operational energy sources in comparison to SCE, SoCalGas, and Los Angeles County transportation fuel consumption.

**TABLE 13**  
**PROJECT OPERATIONAL ENERGY USAGE AND REGIONAL ENERGY SUPPLY**

| <b>Source</b>  | <b>Natural Gas Per Year (cubic feet)</b> | <b>Electricity Per Year (million kWh)</b> | <b>Diesel Fuel Per Year (gallons)</b> | <b>Gasoline Fuel Per Year (gallons)</b> |
|--|--|---|---------------------------------------|---|
| SoCalGas (2018) <sup>a</sup> / SCE (2017) <sup>b</sup>         | 928,560,000,000                          | 85,879                                    | —                                     | —                                       |
| Los Angeles County (Transportation Sector) (2016) <sup>c</sup> | —  | —   | 580,769,231                           | 3,577,000,000                           |
| Building Electricity and Cultivation Processes                 | 269,721                                  | 2.71 <sup>d</sup>                         | —                                     | —                                       |
| Mobile Sources   | —  | —   | 1,951 <sup>e</sup>                    | 17,323 <sup>e</sup>                     |
| Emergency Generator  | —  | —   | 1,287                                 | —                                       |
| <b>Total</b>   | <b>269,721</b>                           | <b>2.71</b>                               | <b>3,238</b>                          | <b>17,323</b>                           |
| Percent of SoCalGas / SCE                                      | 0.00003%                                 | 0.003%                                    | —                                     | —                                       |
| Percent of Los Angeles County (Transportation Sector)          | —  | —   | 0.0006%                               | 0.0005%                                 |

## NOTES:

- <sup>a</sup> California Gas and Electric Utilities, 2018 California Gas Report, 2018. Available at: [https://www.socalgas.com/regulatory/documents/cgr/2018\\_California\\_Gas\\_Report.pdf](https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf). Accessed October 2018
- <sup>b</sup> Southern California Edison. 2017 Financial and Statistical Report. Available at <https://www.edison.com/content/dam/eix/documents/investors/sec-filings-financials/2017-financial-statistical-report.pdf>. Accessed October 2018.
- <sup>c</sup> California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016, [http://www.energy.ca.gov/almanac/transportation\\_data/gasoline/2016\\_A15\\_Results.xlsx](http://www.energy.ca.gov/almanac/transportation_data/gasoline/2016_A15_Results.xlsx). Accessed October 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.
- <sup>d</sup> Project electricity was calculated using Oregon Department of Energy's Indoor Cannabis Cultivator Energy Use Estimator. Available at: <https://energy.odoe.state.or.us/cannabis.html>. Accessed 2018.
- <sup>e</sup> Project gasoline and diesel are calculated based on the estimated VMT and fuel consumption factors from EMFAC2014. Electricity and natural gas are calculated in Issue 7, Greenhouse Gas Emissions, using CalEEMod (includes water-related electricity for conveyance and treatment).

SOURCE: ESA, 2018.

The project would increase demand for electricity including what is needed to support building operations. As shown in Table 13, the project would result in a projected consumption of electricity totaling approximately 2.71 million kWh per year and represent 0.003 percent of SCE's total sales in 2017. The project has been evaluated for consistency with the EECAP. According to the EECAP, the City is in the process of implementing strategies to reduce energy consumption across sections, which includes promoting commercial energy retrofits (Carson 2015). Consistent with this strategy, the project will use low-flow faucets and toilets, energy-efficient appliances, a high-efficiency ventilation systems, landscaping that would consist of native and drought-tolerant plants, and other green building features that conform to the California Green Building Code and would be consistent with energy reduction strategies in the City's EECAP.

As discussed above, the project would comply with the applicable provisions of Title 24, City of Carson's EECAP, and the CALGreen Code in effect at the time of building permit issuance. As such, the project would minimize energy demand. Therefore, with

the incorporation of these features, operation of the project would not result in the wasteful, inefficient, and unnecessary consumption of electricity.

The project would increase the demand for natural gas resources. The project's estimated operational natural gas demand is provided in Table 13. As shown in Table 13, the project is projected to generate an annual demand for natural gas totaling approximately 269,721 cubic feet. As would be the case with electricity, the project would comply with the applicable provisions of Title 24, City of Carson's EECAP, and the CALGreen Code in effect at the time of building permit issuance to minimize natural gas demand. As such, they would minimize energy demand. Therefore, with the incorporation of these features, operation of the project would not result in the wasteful, inefficient, and unnecessary consumption of natural gas, and impacts would be less than significant.

As discussed in Issue 3, *Air Quality*, of this Draft IS/MND, SCAG predicted Carson's employment growth between 2012 and 2040 to be 11,200 jobs (SCAG, 2016). The estimated 25 new FTE employees generated by the proposed project are well within SCAG's employment growth assumptions for Carson. During each operation day, the proposed project has a maximum of 94 mobile source trips associated with the delivery of materials, pickup of products, employee trips, and other miscellaneous vehicle trips. As discussed in Issue 16, Transportation and Traffic, this project does not have a significant impact on transportation or traffic in the project vicinity. Furthermore, the project has a planned and existing network of bike and bus transit that could be used to access the site. Therefore, since the project is consistent with SCAG growth projections and has a less than significant traffic impact based on the low number of trucks, the project's fuel consumption would not result in the wasteful, inefficient, and unnecessary consumption of fuel and impacts would be less than significant.

- b) **Less than Significant Impact.** Construction of the project would result in a temporary increase in demand for electricity, gasoline, and diesel. The project's energy consumption primarily would result from on- and off-road fuel use from construction related vehicles and electricity from water conveyance for dust control. Natural gas would not be used during project construction. These activities make up small percentages of total energy supplies and would cease after the 12-month construction period. Thus, construction would not cause a permanent increase in demand and impacts would be less than significant.

Project operation will increase the demand for electricity resources including for water supply, conveyance, distribution, and treatment. The project's estimated operational electricity demand, including from water demand, is provided in Table 13. As shown in Table 13, the project would result in a projected consumption of electricity totaling 2.71 million kWh. While the project would generate an increase in electricity demand, the demand would be extremely minimal with respect to SCE supplies, approximately 0.003% of total sales in 2017 and it is not anticipated that additional power generation facilities would be required to serve the proposed project, or that the demand would exceed capacity of energy providers. Impacts would be less than significant.

The project would increase the demand for natural gas resources. Natural gas services for the proposed project are provided by the Southern California Gas Company (SoCalGas). As shown in Table 13, the project is projected to generate an annual demand for natural gas totaling approximately 269,721 cubic feet (cf). According to the 2018 California Gas Report, SoCalGas is forecasted to require 2,544 million cf per day in the year 2021, the project's buildout year (California Gas and Electrical Utilities 2018). The project's increased natural gas demand accounts for approximately 0.00003 percent of SoCalGas's projected natural gas demand for the year 2021. Therefore, it is anticipated that SoCalGas's existing and planned natural gas supplies would be sufficient to support the project's demand for natural gas. Therefore, impacts related to natural gas would be less than significant.

The project would increase the demand for fuel resources. The project's estimated operational gasoline and diesel fuel use is provided in Table 13. As shown in Table 13, the project is projected to generate an annual demand for gasoline totaling approximately 17,323 gallons per year and generate annual demand for diesel totaling approximately 3,238 gallons.

Mobile source emissions result from employees traveling to and from the project site, use of on-site vehicles, trucks carrying waste to the project site from collection routes, trucks, and truck deliveries and pickups. Mobile source emissions are based on the number of inbound and outbound truck trips and the number of employee trips to and from the project site. Mobile emissions from these sources were estimated using emission factors from CARB's Motor Vehicle Emissions Inventory EMFAC model. The most recent version is EMFAC 2014, which "represents [California Air Resources Board's] current understanding of motor vehicle travel activities and their associated emission levels." The estimated mobile operational emissions for gasoline, and diesel are provided in Table 13. The project's fuel consumption accounts for a small percentage of the entire Los Angeles County, with gasoline accounting for approximately 0.0005 percent, and diesel accounting for 0.0006 percent. Impacts related to fuel consumption would be less than significant.

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## Mandatory Findings of Significance

| <i>Issues (and Supporting Information Sources):</i>  | <i>Potentially Significant Impact</i> | <i>Less Than Significant with Mitigation Incorporated</i> | <i>Less Than Significant Impact</i> | <i>No Impact</i>         |
|--|---------------------------------------|---|-------------------------------------|--------------------------|
| <b>19. MANDATORY FINDINGS OF SIGNIFICANCE —</b>  |                                       |   |                                     |                          |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/>              | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Discussion

- a) **Less Than Significant Impact.** As discussed above, the proposed project would not degrade the habitat of a fish or wildlife species due to the lack of suitable habitat on the project site. The project site does not contain significant historical resources that would be impacted by project implementation. Compliance with mitigation identified would ensure impacts associated with cultural resources would be reduced to less than significant. Therefore, impacts would be less than significant.
- b) **Less Than Significant Impact.** A cumulative impact would occur if the proposed project would result in an incrementally considerable contribution to a significant cumulative impact in consideration of past, present, and reasonably foreseeable future projects for each resource area. No direct or indirect significant impacts were identified for the proposed project, and no mitigation measures are required. It is not anticipated that there would be a substantial number of concurrent construction projects in the vicinity such that the proposed project would contribute to a temporary cumulative impact. Because no impacts are anticipated with implementation of the proposed project, there would be no cumulative impacts once the project is completed. Therefore, the proposed project would not result in a cumulatively considerable impact.
- c) **Less Than Significant Impact.** The proposed project would not result in environmental impacts that would affect the health or safety of human beings, directly or indirectly. Therefore, impacts would be less than significant and there would be no additional significant effects.

Appendix A  
**Air Quality and Greenhouse Gas  
Emissions Worksheets**

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# **Construction AQ Emissions**

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**Air Quality Construction Analysis**

**Unmitigated Construction Scenario**

| Regional Emissions Summary |                                 | ROG       | NOX       | CO           | SO2          | Total PM10 | Total PM2.5 |
|----------------------------|---------------------------------|-----------|-----------|--------------|--------------|------------|-------------|
| Source                     |                                 | lb/day    |           |              |              |            |             |
| 1                          | Site Preparation - 2020         | 9         | 4         | <1           | <1           | 1          | <1          |
| 2                          | Grading/Excavation - 2020       | 22        | 14        | <1           | <1           | 4          | 2           |
| 1                          | Drainage/Utils/Sub-Grade - 2020 | 8         | 4         | <1           | <1           | 1          | <1          |
| 2                          | Foundation/Concrete Pour - 2020 | 28        | 13        | <1           | <1           | 2          | 1           |
| 1                          | Building Construction - 2020    | 12        | 10        | <1           | <1           | 1          | 1           |
| 1                          | Building Construction - 2021    | 11        | 9         | <1           | <1           | 1          | 1           |
| 13                         | Architectural Coating - 2021    | 2         | 2         | <1           | <1           | <1         | <1          |
| 1                          | Paving - 2021                   | 8         | 9         | <1           | <1           | 1          | <1          |
| <b>13</b>                  | <b>Daily Maximum Emissions</b>  | <b>28</b> | <b>14</b> | <b>&lt;1</b> | <b>&lt;1</b> | <b>4</b>   | <b>2</b>    |
| 75                         | SCAQMD Regional Threshold       | 100       | 550       | 150          | 150          | 150        | 55          |
| <b>No</b>                  | <b>Exceeds Threshold?</b>       | <b>No</b> | <b>No</b> | <b>No</b>    | <b>No</b>    | <b>No</b>  | <b>No</b>   |

**Air Quality Construction Analysis**

**Unmitigated Construction Scenario**

| Localized Emissions Summary     |  | NOX       | CO        | PM10 Total | Total PM2.5 |
|---------------------------------|--|-----------|-----------|------------|-------------|
| Source                          |  | lb/day    |           |            |             |
| Site Preparation - 2020         |  | 8         | 4         | 1          | <1          |
| Grading/Excavation - 2020       |  | 19        | 12        | 4          | 2           |
| Drainage/Utils/Sub-Grade - 2020 |  | 8         | 4         | 1          | <1          |
| Foundation/Concrete Pour - 2020 |  | 12        | 9         | 1          | 1           |
| Building Construction - 2020    |  | 12        | 9         | 1          | 1           |
| Building Construction - 2021    |  | 11        | 9         | 1          | 1           |
| Architectural Coating - 2021    |  | 2         | 2         | <1         | <1          |
| Paving - 2021                   |  | 8         | 8         | <1         | <1          |
| <b>Daily Maximum Emissions</b>  |  | <b>19</b> | <b>12</b> | <b>3.5</b> | <b>2.3</b>  |
| SCAQMD Localized Threshold      |  | 46        | 231       | 4          | 3           |
| <b>Exceeds Threshold?</b>       |  | <b>No</b> | <b>No</b> | <b>No</b>  | <b>No</b>   |



**Air Quality Construction Analysis**

| Regional Maximums Source        | ROG          | NOX          | CO           | SO2         | Total PM10  | Total PM2.5 |
|---------------------------------|--------------|--------------|--------------|-------------|-------------|-------------|
|                                 | lb/day       |              |              |             |             |             |
| Site Preparation - 2020         | 0.74         | 9.08         | 4.49         | 0.01        | 0.65        | 0.36        |
| Grading/Excavation - 2020       | 2.09         | 22.17        | 13.70        | 0.03        | 3.91        | 2.38        |
| Drainage/Utils/Sub-Grade - 2020 | 0.71         | 8.45         | 4.34         | 0.01        | 0.61        | 0.35        |
| Foundation/Concrete Pour - 2020 | 1.67         | 28.09        | 12.85        | 0.06        | 1.87        | 0.99        |
| Building Construction - 2020    | 1.22         | 12.24        | 9.53         | 0.02        | 0.82        | 0.66        |
| Building Construction - 2021    | 1.10         | 11.04        | 9.29         | 0.02        | 0.72        | 0.58        |
| Architectural Coating - 2021    | 12.81        | 2.04         | 2.50         | 0.00        | 0.15        | 0.13        |
| Paving - 2021                   | 1.00         | 7.94         | 8.96         | 0.02        | 0.61        | 0.44        |
| <b>Daily Maximum Emissions</b>  | <b>12.81</b> | <b>28.09</b> | <b>13.70</b> | <b>0.06</b> | <b>3.91</b> | <b>2.38</b> |

**Air Quality Construction Analysis**

| Summer Source                   | Onsite Emissions |              |              |             |                   |                    | Offsite Emissions |            |           |            |                   |                    |
|---------------------------------|------------------|--------------|--------------|-------------|-------------------|--------------------|-------------------|------------|-----------|------------|-------------------|--------------------|
|                                 | ROG              | NOX          | CO           | SO2         | Total PM10        | Total PM2.5        | ROG               | NOX        | CO        | SO2        | Total PM10        | Total PM2.5        |
|                                 | lb/day           |              |              |             |                   |                    | lb/day            |            |           |            |                   |                    |
| Site Preparation - 2020         | 0.69             | 8.43         | 4.09         | 0.01        | 0.54              | 0.33               | 0.05              | 0.65       | 0.40      | 0.00       | 0.11              | 0.03               |
| Grading/Excavation - 2020       | 1.92             | 18.84        | 12.38        | 0.02        | 3.51              | 2.26               | 0.17              | 3.29       | 1.32      | 0.01       | 0.40              | 0.12               |
| Drainage/Utils/Sub-Grade - 2020 | 0.69             | 8.43         | 4.09         | 0.01        | 0.54              | 0.33               | 0.03              | 0.02       | 0.25      | 0.00       | 0.07              | 0.02               |
| Foundation/Concrete Pour - 2020 | 1.16             | 12.20        | 9.04         | 0.02        | 0.68              | 0.63               | 0.49              | 15.70      | 3.62      | 0.05       | 1.19              | 0.36               |
| Building Construction - 2020    | 1.16             | 12.20        | 9.04         | 0.02        | 0.68              | 0.63               | 0.05              | 0.04       | 0.49      | 0.00       | 0.14              | 0.04               |
| Building Construction - 2021    | 1.05             | 11.00        | 8.84         | 0.02        | 0.59              | 0.54               | 0.05              | 0.03       | 0.45      | 0.00       | 0.14              | 0.04               |
| Architectural Coating - 2021    | 12.80            | 2.04         | 2.42         | 0.00        | 0.13              | 0.13               | 0.01              | 0.01       | 0.08      | 0.00       | 0.02              | 0.01               |
| Paving - 2021                   | 0.92             | 7.89         | 8.28         | 0.01        | 0.41              | 0.38               | 0.08              | 0.05       | 0.68      | 0.00       | 0.20              | 0.05               |
| <b>Regional Emissions</b>       | <b>ROG</b>       | <b>NOX</b>   | <b>CO</b>    | <b>SO2</b>  | <b>Total PM10</b> | <b>Total PM2.5</b> | <b>ROG</b>        | <b>NOX</b> | <b>CO</b> | <b>SO2</b> | <b>Total PM10</b> | <b>Total PM2.5</b> |
| Site Preparation - 2020         | 0.7              | 9.1          | 4.5          | 0.01        | 0.65              | 0.36               |                   |            |           |            |                   |                    |
| Grading/Excavation - 2020       | 2.1              | 22.1         | 13.7         | 0.03        | 3.91              | 2.38               |                   |            |           |            |                   |                    |
| Drainage/Utils/Sub-Grade - 2020 | 0.7              | 8.4          | 4.3          | 0.01        | 0.61              | 0.35               |                   |            |           |            |                   |                    |
| Foundation/Concrete Pour - 2020 | 1.7              | 27.9         | 12.7         | 0.06        | 1.87              | 0.99               |                   |            |           |            |                   |                    |
| Building Construction - 2020    | 1.2              | 12.2         | 9.5          | 0.02        | 0.82              | 0.66               |                   |            |           |            |                   |                    |
| Building Construction - 2021    | 1.1              | 11.0         | 9.3          | 0.02        | 0.72              | 0.58               |                   |            |           |            |                   |                    |
| Architectural Coating - 2021    | 12.8             | 2.0          | 2.5          | 0.00        | 0.15              | 0.13               |                   |            |           |            |                   |                    |
| Paving - 2021                   | 1.0              | 7.9          | 9.0          | 0.02        | 0.61              | 0.44               |                   |            |           |            |                   |                    |
| <b>Daily Maximum Emissions</b>  | <b>12.81</b>     | <b>27.89</b> | <b>13.70</b> | <b>0.06</b> | <b>3.91</b>       | <b>2.38</b>        |                   |            |           |            |                   |                    |

**Air Quality Construction Analysis**

| Winter Source                   | Onsite Emissions |              |              |             |                   |                    | Offsite Emissions |            |           |            |                   |                    |
|---------------------------------|------------------|--------------|--------------|-------------|-------------------|--------------------|-------------------|------------|-----------|------------|-------------------|--------------------|
|                                 | ROG              | NOX          | CO           | SO2         | Total PM10        | Total PM2.5        | ROG               | NOX        | CO        | SO2        | Total PM10        | Total PM2.5        |
|                                 | lb/day           |              |              |             |                   |                    | lb/day            |            |           |            |                   |                    |
| Site Preparation - 2020         | 0.69             | 8.43         | 4.09         | 0.01        | 0.54              | 0.33               | 0.05              | 0.65       | 0.39      | 0.00       | 0.11              | 0.03               |
| Grading/Excavation - 2020       | 1.92             | 18.84        | 12.38        | 0.02        | 3.51              | 2.26               | 0.17              | 3.33       | 1.32      | 0.01       | 0.40              | 0.12               |
| Drainage/Utils/Sub-Grade - 2020 | 0.69             | 8.43         | 4.09         | 0.01        | 0.54              | 0.33               | 0.03              | 0.02       | 0.22      | 0.00       | 0.07              | 0.02               |
| Foundation/Concrete Pour - 2020 | 1.16             | 12.20        | 9.04         | 0.02        | 0.68              | 0.63               | 0.51              | 15.89      | 3.82      | 0.04       | 1.19              | 0.36               |
| Building Construction - 2020    | 1.16             | 12.20        | 9.04         | 0.02        | 0.68              | 0.63               | 0.06              | 0.04       | 0.44      | 0.00       | 0.14              | 0.04               |
| Building Construction - 2021    | 1.05             | 11.00        | 8.84         | 0.02        | 0.59              | 0.54               | 0.06              | 0.04       | 0.41      | 0.00       | 0.14              | 0.04               |
| Architectural Coating - 2021    | 12.80            | 2.04         | 2.42         | 0.00        | 0.13              | 0.13               | 0.01              | 0.01       | 0.07      | 0.00       | 0.02              | 0.01               |
| Paving - 2021                   | 0.92             | 7.89         | 8.28         | 0.01        | 0.41              | 0.38               | 0.08              | 0.05       | 0.61      | 0.00       | 0.20              | 0.05               |
| <b>Regional Emissions</b>       | <b>ROG</b>       | <b>NOX</b>   | <b>CO</b>    | <b>SO2</b>  | <b>Total PM10</b> | <b>Total PM2.5</b> | <b>ROG</b>        | <b>NOX</b> | <b>CO</b> | <b>SO2</b> | <b>Total PM10</b> | <b>Total PM2.5</b> |
| Site Preparation - 2020         | 0.7              | 9.1          | 4.5          | 0.01        | 0.65              | 0.36               |                   |            |           |            |                   |                    |
| Grading/Excavation - 2020       | 2.1              | 22.2         | 13.7         | 0.03        | 3.91              | 2.38               |                   |            |           |            |                   |                    |
| Drainage/Utils/Sub-Grade - 2020 | 0.7              | 8.5          | 4.3          | 0.01        | 0.61              | 0.35               |                   |            |           |            |                   |                    |
| Foundation/Concrete Pour - 2020 | 1.7              | 28.1         | 12.9         | 0.06        | 1.87              | 0.99               |                   |            |           |            |                   |                    |
| Building Construction - 2020    | 1.2              | 12.2         | 9.5          | 0.02        | 0.82              | 0.66               |                   |            |           |            |                   |                    |
| Building Construction - 2021    | 1.1              | 11.0         | 9.2          | 0.02        | 0.72              | 0.58               |                   |            |           |            |                   |                    |
| Architectural Coating - 2021    | 12.8             | 2.0          | 2.5          | 0.00        | 0.15              | 0.13               |                   |            |           |            |                   |                    |
| Paving - 2021                   | 1.0              | 7.9          | 8.9          | 0.02        | 0.61              | 0.44               |                   |            |           |            |                   |                    |
| <b>Daily Maximum Emissions</b>  | <b>12.81</b>     | <b>28.09</b> | <b>13.69</b> | <b>0.06</b> | <b>3.91</b>       | <b>2.38</b>        |                   |            |           |            |                   |                    |

**Air Quality Construction Analysis**

| Localized Emissions<br>Source   | Onsite Emissions<br>lb/day |              |              |             |                   |                    | Total<br>PM2.5 |
|---------------------------------|----------------------------|--------------|--------------|-------------|-------------------|--------------------|----------------|
|                                 | ROG                        | NOX          | CO           | SO2         | Total PM10        | Total PM2.5        |                |
| Site Preparation - 2020         | 0.69                       | 8.43         | 4.09         | 0.01        | 0.54              | 0.33               |                |
| Grading/Excavation - 2020       | 1.92                       | 18.84        | 12.38        | 0.02        | 3.51              | 2.26               |                |
| Drainage/Utils/Sub-Grade - 2020 | 0.69                       | 8.43         | 4.09         | 0.01        | 0.54              | 0.33               |                |
| Foundation/Concrete Pour - 2020 | 1.16                       | 12.20        | 9.04         | 0.02        | 0.68              | 0.63               |                |
| Building Construction - 2020    | 1.16                       | 12.20        | 9.04         | 0.02        | 0.68              | 0.63               |                |
| Building Construction - 2021    | 1.05                       | 11.00        | 8.84         | 0.02        | 0.59              | 0.54               |                |
| Architectural Coating - 2021    | 12.80                      | 2.04         | 2.42         | 0.00        | 0.13              | 0.13               |                |
| Paving - 2021                   | 0.92                       | 7.89         | 8.28         | 0.01        | 0.41              | 0.38               |                |
| <b>Localized Emissions</b>      | <b>ROG</b>                 | <b>NOX</b>   | <b>CO</b>    | <b>SO2</b>  | <b>Total PM10</b> | <b>Total PM2.5</b> |                |
| Site Preparation - 2020         | 0.7                        | 8.4          | 4.1          | 0.01        | 0.54              | 0.33               |                |
| Grading/Excavation - 2020       | 1.9                        | 18.8         | 12.4         | 0.02        | 3.51              | 2.26               |                |
| Drainage/Utils/Sub-Grade - 2020 | 0.7                        | 8.4          | 4.1          | 0.01        | 0.54              | 0.33               |                |
| Foundation/Concrete Pour - 2020 | 1.2                        | 12.2         | 9.0          | 0.02        | 0.68              | 0.63               |                |
| Building Construction - 2020    | 1.2                        | 12.2         | 9.0          | 0.02        | 0.68              | 0.63               |                |
| Building Construction - 2021    | 1.0                        | 11.0         | 8.8          | 0.02        | 0.59              | 0.54               |                |
| Architectural Coating - 2021    | 12.8                       | 2.0          | 2.4          | 0.00        | 0.13              | 0.13               |                |
| Paving - 2021                   | 0.9                        | 7.9          | 8.3          | 0.01        | 0.41              | 0.38               |                |
| <b>Daily Maximum Emissions</b>  | <b>12.80</b>               | <b>18.84</b> | <b>12.38</b> | <b>0.02</b> | <b>3.51</b>       | <b>2.26</b>        |                |

Focal Strategies Cannabis-Construction - South Coast AQMD Air District, Summer

**Focal Strategies Cannabis-Construction**  
**South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses     | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|---------------|-------|----------|-------------|--------------------|------------|
| Manufacturing | 7.60  | 1000sqft | 0.17        | 7,600.00           | 0          |
| Manufacturing | 5.76  | 1000sqft | 0.13        | 5,757.00           | 0          |
| Parking Lot   | 11.00 | Space    | 0.11        | 4,400.00           | 0          |

**1.2 Other Project Characteristics**

|              |       |                  |     |                           |      |
|--------------|-------|------------------|-----|---------------------------|------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31   |
| Climate Zone | 8     |                  |     | Operational Year          | 2021 |

Utility Company      Southern California Edison

|                          |        |                          |       |                          |       |
|--------------------------|--------|--------------------------|-------|--------------------------|-------|
| CO2 Intensity (lb/MW/hr) | 702.44 | CH4 Intensity (lb/MW/hr) | 0.029 | N2O Intensity (lb/MW/hr) | 0.006 |
|--------------------------|--------|--------------------------|-------|--------------------------|-------|

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Emissions from "Mitigated" are used in the analysis and included dust measures required under SCAQMD Rule 403. Since Rule 403 dust measures are required, emissions in Mitigated tab are considered Unmitigated.

Land Use -

Construction Phase - Project Schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Construction Off-road Equipment Mitigation -

| Table Name           | Column Name  | Default Value | New Value |
|----------------------|--------------|---------------|-----------|
| tbiAreaCoating       | Area_Parking | 264           | 840       |
| tbiConstructionPhase | NumDays      | 5.00          | 10.00     |
| tbiConstructionPhase | NumDays      | 100.00        | 2.00      |
| tbiConstructionPhase | NumDays      | 100.00        | 180.00    |
| tbiConstructionPhase | NumDays      | 2.00          | 15.00     |
| tbiConstructionPhase | NumDays      | 1.00          | 10.00     |
| tbiConstructionPhase | NumDays      | 1.00          | 20.00     |
| tbiFleetMix          | HHD          | 0.03          | 0.00      |
| tbiFleetMix          | HHD          | 0.03          | 0.03      |
| tbiFleetMix          | LDA          | 0.55          | 0.00      |
| tbiFleetMix          | LDA          | 0.55          | 0.55      |
| tbiFleetMix          | LDT1         | 0.04          | 0.00      |
| tbiFleetMix          | LDT1         | 0.04          | 0.04      |
| tbiFleetMix          | LDT2         | 0.20          | 0.00      |
| tbiFleetMix          | LDT2         | 0.20          | 0.20      |

|                     |                   |             |             |
|---------------------|-------------------|-------------|-------------|
| tb\FleetMix         | LHD1              | 0.02        | 0.00        |
| tb\FleetMix         | LHD1              | 0.02        | 0.02        |
| tb\FleetMix         | LHD2              | 5.8510e-003 | 0.00        |
| tb\FleetMix         | LHD2              | 5.8510e-003 | 5.8620e-003 |
| tb\FleetMix         | MCY               | 4.8170e-003 | 0.00        |
| tb\FleetMix         | MCY               | 4.8170e-003 | 4.7770e-003 |
| tb\FleetMix         | MDV               | 0.12        | 0.00        |
| tb\FleetMix         | MDV               | 0.12        | 0.12        |
| tb\FleetMix         | MH                | 9.2500e-004 | 0.00        |
| tb\FleetMix         | MH                | 9.2500e-004 | 9.5600e-004 |
| tb\FleetMix         | MHD               | 0.02        | 0.00        |
| tb\FleetMix         | MHD               | 0.02        | 0.02        |
| tb\FleetMix         | OBUS              | 2.0700e-003 | 0.00        |
| tb\FleetMix         | OBUS              | 2.0700e-003 | 2.0370e-003 |
| tb\FleetMix         | SBUS              | 7.0700e-004 | 0.00        |
| tb\FleetMix         | SBUS              | 7.0700e-004 | 7.0500e-004 |
| tb\FleetMix         | UBUS              | 1.8770e-003 | 0.00        |
| tb\FleetMix         | UBUS              | 1.8770e-003 | 1.9440e-003 |
| tb\Grading          | AcresOfGrading    | 0.00        | 5.00        |
| tb\Grading          | MaterialExported  | 0.00        | 1,000.00    |
| tb\LandUse          | LandUseSquareFeet | 5,760.00    | 5,757.00    |
| tb\LandUse          | LotAcreage        | 0.10        | 0.11        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 4.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 4.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 7.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 7.00        | 8.00        |

|                     |                   |        |        |
|---------------------|-------------------|--------|--------|
| tblOffRoadEquipment | UsageHours        | 1.00   | 8.00   |
| tblOffRoadEquipment | UsageHours        | 6.00   | 8.00   |
| tblOffRoadEquipment | UsageHours        | 7.00   | 8.00   |
| tblTripsAndVMT      | HaulingTripNumber | 125.00 | 144.00 |
| tblTripsAndVMT      | HaulingTripNumber | 0.00   | 112.00 |
| tblTripsAndVMT      | VendorTripNumber  | 0.00   | 6.00   |
| tblTripsAndVMT      | VendorTripNumber  | 0.00   | 6.00   |
| tblTripsAndVMT      | VendorTripNumber  | 3.00   | 4.00   |
| tblTripsAndVMT      | VendorTripNumber  | 3.00   | 0.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 5.00   | 6.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 10.00  | 16.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 5.00   | 6.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 7.00   | 12.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 7.00   | 12.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 1.00   | 2.00   |





### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name               | Phase Type            | Start Date | End Date  | Num Days Week | Num Days | Phase Description |
|--------------|--------------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1            | Site Preparation         | Site Preparation      | 5/4/2020   | 5/17/2020 | 5             | 10       | 1                 |
| 2            | Grading/Excavation       | Grading               | 5/18/2020  | 6/5/2020  | 5             | 15       | 2                 |
| 3            | Drainage/Utils/Sub-Grade | Site Preparation      | 6/6/2020   | 7/3/2020  | 5             | 20       | 3                 |
| 4            | Foundation/Concrete Pour | Building Construction | 7/4/2020   | 7/7/2020  | 5             | 2        | 4                 |
| 5            | Building Construction    | Building Construction | 7/8/2020   | 3/16/2021 | 5             | 180      | 5                 |
| 6            | Architectural Coating    | Architectural Coating | 3/17/2021  | 3/30/2021 | 5             | 10       | 6                 |
| 7            | Paving                   | Paving                | 3/31/2021  | 4/6/2021  | 5             | 5        | 7                 |

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.11

Residential Indoor: 0; Residential Outdoor: 20,036; Non-Residential Indoor: 6,679; Non-Residential Outdoor: 264

#### OffRoad Equipment

| Phase Name               | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|--------------------------|---------------------------|--------|-------------|-------------|-------------|
| Site Preparation         | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Site Preparation         | Tractors/Loaders/Backhoes | 1      | 8.00        | 97          | 0.37        |
| Grading/Excavation       | Concrete/Industrial Saws  | 1      | 8.00        | 81          | 0.73        |
| Grading/Excavation       | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading/Excavation       | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Drainage/Utils/Sub-Grade | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Drainage/Utils/Sub-Grade | Tractors/Loaders/Backhoes | 1      | 8.00        | 97          | 0.37        |
| Foundation/Concrete Pour | Cranes                    | 1      | 8.00        | 231         | 0.29        |
| Foundation/Concrete Pour | Forklifts                 | 2      | 8.00        | 89          | 0.20        |
| Foundation/Concrete Pour | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Building Construction    | Cranes                    | 1      | 8.00        | 231         | 0.29        |

|                       |                           |   |      |     |      |
|-----------------------|---------------------------|---|------|-----|------|
| Building Construction | Forklifts                 | 2 | 8.00 | 89  | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97  | 0.37 |
| Architectural Coating | Air Compressors           | 1 | 8.00 | 78  | 0.48 |
| Paving                | Cement and Mortar Mixers  | 4 | 8.00 | 9   | 0.56 |
| Paving                | Pavers                    | 1 | 8.00 | 130 | 0.42 |
| Paving                | Rollers                   | 1 | 8.00 | 80  | 0.38 |
| Paving                | 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 |
|--------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Site Preparation         | 2                       | 6.00               | 6.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading/Excavation       | 4                       | 16.00              | 6.00               | 144.00              | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Drainage/Utils/Sub-Grade | 2                       | 6.00               | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Foundation/Concrete      | 5                       | 12.00              | 4.00               | 112.00              | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction    | 5                       | 12.00              | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating    | 1                       | 2.00               | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                   | 7                       | 18.00              | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Water Exposed Area

**3.2 Site Preparation - 2020**  
**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        |               |               |                    |               |               |               |                |               |               |          |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.5303        | 0.0000        | 0.5303        | 0.0573         | 0.0000        | 0.0573        |          |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        | 0.3353        | 0.3353        | 0.3353        | 0.3085         | 0.3085        | 0.3085        |          | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.5303</b> | <b>0.3353</b> | <b>0.8656</b> | <b>0.0573</b>  | <b>0.3085</b> | <b>0.3658</b> |          | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**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        |               |               |                    |               |                    |               |                |                    |               |          |                 |                 |               |     |                 |
| 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          |
| Vendor       | 0.0197        | 0.6296        | 0.1499        | 1.5400e-003        | 0.0384        | 3.1200e-003        | 0.0415        | 0.0111         | 2.9800e-003        | 0.0140        |          | 164.6691        | 164.6691        | 0.0103        |     | 164.9275        |
| Worker       | 0.0272        | 0.0183        | 0.2453        | 6.9000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          | 68.6651         | 68.6651         | 1.9700e-003   |     | 68.7144         |
| <b>Total</b> | <b>0.0469</b> | <b>0.6479</b> | <b>0.3952</b> | <b>2.2300e-003</b> | <b>0.1055</b> | <b>3.6300e-003</b> | <b>0.1091</b> | <b>0.0289</b>  | <b>3.4500e-003</b> | <b>0.0323</b> |          | <b>233.3341</b> | <b>233.3341</b> | <b>0.0123</b> |     | <b>233.6419</b> |

**Mitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Fugitive Dust |               |               |               |                    | 0.2068        | 0.0000        | 0.2068        | 0.0223         | 0.0000        | 0.0223        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        | 0.3353        | 0.3353        | 0.3353        | 0.3085         | 0.3085        | 0.3085        | 0.0000        | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.2068</b> | <b>0.3353</b> | <b>0.5421</b> | <b>0.0223</b>  | <b>0.3085</b> | <b>0.3309</b> | <b>0.0000</b> | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        |          |                 | 0.0000          | 0.0000        |     | 0.0000          |
| Vendor       | 0.0197        | 0.6296        | 0.1499        | 1.5400e-003        | 0.0384        | 3.1200e-003        | 0.0415        | 0.0111         | 2.9800e-003        | 0.0140        |          | 164.6691        | 164.6691        | 0.0103        |     | 164.9275        |
| Worker       | 0.0272        | 0.0183        | 0.2453        | 6.9000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          | 68.6651         | 68.6651         | 1.9700e-003   |     | 68.7144         |
| <b>Total</b> | <b>0.0469</b> | <b>0.6479</b> | <b>0.3952</b> | <b>2.2300e-003</b> | <b>0.1055</b> | <b>3.6300e-003</b> | <b>0.1091</b> | <b>0.0289</b>  | <b>3.4500e-003</b> | <b>0.0323</b> |          | <b>233.3341</b> | <b>233.3341</b> | <b>0.0123</b> |     | <b>233.6419</b> |

**3.3 Grading/Excavation - 2020**  
**Unmitigated Construction On-Site**

| Category      | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Fugitive Dust |               |                |                |               | 6.3831        | 0.0000        | 6.3831        | 3.3495         | 0.0000        | 3.3495        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 1.9167        | 18.8412        | 12.3776        | 0.0210        |               | 1.0194        | 1.0194        | 0.9537         | 0.9537        | 0.9537        |          | 2.021.5442        | 2.021.5442        | 0.4997        |     | 2,034.0360        |
| <b>Total</b>  | <b>1.9167</b> | <b>18.8412</b> | <b>12.3776</b> | <b>0.0210</b> | <b>6.3831</b> | <b>1.0194</b> | <b>7.4025</b> | <b>3.3495</b>  | <b>0.9537</b> | <b>4.3032</b> |          | <b>2,021.5442</b> | <b>2,021.5442</b> | <b>0.4997</b> |     | <b>2,034.0360</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Hauling      | 0.0729        | 2.6126        | 0.5198        | 7.4400e-003   | 0.1678        | 8.4200e-003   | 0.1762        | 0.0460         | 8.0600e-003   | 0.0540        |          | 804.7960          | 804.7960          | 0.0540        |     | 806.1462          |
| Vendor       | 0.0197        | 0.6296        | 0.1499        | 1.5400e-003   | 0.0384        | 3.1200e-003   | 0.0415        | 0.0111         | 2.9800e-003   | 0.0140        |          | 164.6691          | 164.6691          | 0.0103        |     | 164.9275          |
| Worker       | 0.0724        | 0.0487        | 0.6541        | 1.8400e-003   | 0.1788        | 1.3600e-003   | 0.1802        | 0.0474         | 1.2500e-003   | 0.0487        |          | 183.1068          | 183.1068          | 5.2600e-003   |     | 183.2384          |
| <b>Total</b> | <b>0.1650</b> | <b>3.2908</b> | <b>1.3239</b> | <b>0.0108</b> | <b>0.3850</b> | <b>0.0129</b> | <b>0.3979</b> | <b>0.1045</b>  | <b>0.0123</b> | <b>0.1168</b> |          | <b>1,152.5719</b> | <b>1,152.5719</b> | <b>0.0696</b> |     | <b>1,154.3121</b> |

**Mitigated Construction On-Site**

| Category      | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2        | Total CO2         | CH4           | N2O | CO2e             |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------|-------------------|---------------|-----|------------------|
| lb/day        |               |                |                |               |               |               |               |                |               |               |               |                  |                   |               |     |                  |
| Fugitive Dust |               |                |                |               | 2.4894        | 0.0000        | 2.4894        | 1.3063         | 0.0000        | 1.3063        |               |                  | 0.0000            |               |     | 0.0000           |
| Off-Road      | 1.9167        | 18.8412        | 12.3776        | 0.0210        | 1.0194        | 1.0194        | 1.0194        | 0.9537         | 0.9537        | 0.9537        | 0.0000        | 2.021.544        | 2.021.5442        | 0.4997        |     | 2,034.036        |
| <b>Total</b>  | <b>1.9167</b> | <b>18.8412</b> | <b>12.3776</b> | <b>0.0210</b> | <b>2.4894</b> | <b>1.0194</b> | <b>3.5088</b> | <b>1.3063</b>  | <b>0.9537</b> | <b>2.2600</b> | <b>0.0000</b> | <b>2,021.544</b> | <b>2,021.5442</b> | <b>0.4997</b> |     | <b>2,034.036</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2        | Total CO2         | CH4           | N2O | CO2e             |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------|-------------------|---------------|-----|------------------|
| lb/day       |               |               |               |               |               |               |               |                |               |               |          |                  |                   |               |     |                  |
| Hauling      | 0.0729        | 2.6126        | 0.5198        | 7.4400e-003   | 0.1678        | 8.4200e-003   | 0.1762        | 0.0460         | 8.0600e-003   | 0.0540        |          | 804.7960         | 804.7960          | 0.0540        |     | 806.1462         |
| Vendor       | 0.0197        | 0.6296        | 0.1499        | 1.5400e-003   | 0.0384        | 3.1200e-003   | 0.0415        | 0.0111         | 2.9800e-003   | 0.0140        |          | 164.6691         | 164.6691          | 0.0103        |     | 164.9275         |
| Worker       | 0.0724        | 0.0487        | 0.6541        | 1.8400e-003   | 0.1788        | 1.3600e-003   | 0.1802        | 0.0474         | 1.2500e-003   | 0.0487        |          | 183.1068         | 183.1068          | 5.2600e-003   |     | 183.2384         |
| <b>Total</b> | <b>0.1650</b> | <b>3.2908</b> | <b>1.3239</b> | <b>0.0108</b> | <b>0.3850</b> | <b>0.0129</b> | <b>0.3979</b> | <b>0.1045</b>  | <b>0.0123</b> | <b>0.1168</b> |          | <b>1,152.571</b> | <b>1,152.5719</b> | <b>0.0696</b> |     | <b>1,154.312</b> |

### 3.4 Drainage/Utils/Sub-Grade - 2020

#### Unmitigated Construction On-Site

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day        |               |               |               |                    |               |               |               |                |               |               |          |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.5303        | 0.0000        | 0.5303        | 0.0573         | 0.0000        | 0.0573        |          |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        |               | 0.3353        | 0.3353        |                | 0.3085        | 0.3085        |          | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.5303</b> | <b>0.3353</b> | <b>0.8656</b> | <b>0.0573</b>  | <b>0.3085</b> | <b>0.3658</b> |          | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

#### Unmitigated Construction Off-Site

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2 | Total CO2      | CH4                | N2O | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------|----------------|--------------------|-----|----------------|
| 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         |
| 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         |
| Worker       | 0.0272        | 0.0183        | 0.2453        | 6.9000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          |           | 68.6651        | 1.9700e-003        |     | 68.7144        |
| <b>Total</b> | <b>0.0272</b> | <b>0.0183</b> | <b>0.2453</b> | <b>6.9000e-004</b> | <b>0.0671</b> | <b>5.1000e-004</b> | <b>0.0676</b> | <b>0.0178</b>  | <b>4.7000e-004</b> | <b>0.0183</b> |          |           | <b>68.6651</b> | <b>1.9700e-003</b> |     | <b>68.7144</b> |



**Mitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day        |               |               |               |                    |               |               |               |                |               |               |               |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.2068        | 0.0000        | 0.2068        | 0.0223         | 0.0000        | 0.0223        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        |               | 0.3353        | 0.3353        |                | 0.3085        | 0.3085        | 0.0000        | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.2068</b> | <b>0.3353</b> | <b>0.5421</b> | <b>0.0223</b>  | <b>0.3085</b> | <b>0.3309</b> | <b>0.0000</b> | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2      | Total CO2      | CH4                | N2O | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| 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         |
| 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         |
| Worker       | 0.0272        | 0.0183        | 0.2453        | 6.9000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          | 68.6651        | 68.6651        | 1.9700e-003        |     | 68.7144        |
| <b>Total</b> | <b>0.0272</b> | <b>0.0183</b> | <b>0.2453</b> | <b>6.9000e-004</b> | <b>0.0671</b> | <b>5.1000e-004</b> | <b>0.0676</b> | <b>0.0178</b>  | <b>4.7000e-004</b> | <b>0.0183</b> |          | <b>68.6651</b> | <b>68.6651</b> | <b>1.9700e-003</b> |     | <b>68.7144</b> |

### 3.5 Foundation/Concrete Pour - 2020

#### Unmitigated Construction On-Site

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2  | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |            |                   |               |     |                   |
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        |          | 1,456.3883 | 1,456.3883        | 0.4710        |     | 1,468.1640        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> |               | <b>0.6818</b> | <b>0.6818</b> |                | <b>0.6273</b> | <b>0.6273</b> |          |            | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1640</b> |

#### Unmitigated Construction Off-Site

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Hauling      | 0.4253        | 15.2400        | 3.0324        | 0.0434        | 0.9786        | 0.0491        | 1.0277        | 0.2682         | 0.0470        | 0.3152        |          | 4,694.6436        | 4,694.6436        | 0.3150        |     | 4,702.5194        |
| Vendor       | 0.0131        | 0.4197         | 0.1000        | 1.0300e-003   | 0.0256        | 2.0800e-003   | 0.0277        | 7.3700e-003    | 1.9900e-003   | 9.3600e-003   |          | 109.7794          | 109.7794          | 6.8900e-003   |     | 109.9517          |
| Worker       | 0.0543        | 0.0365         | 0.4906        | 1.3800e-003   | 0.1341        | 1.0200e-003   | 0.1352        | 0.0356         | 9.4000e-004   | 0.0365        |          | 137.3301          | 137.3301          | 3.9500e-003   |     | 137.4288          |
| <b>Total</b> | <b>0.4928</b> | <b>15.6962</b> | <b>3.6229</b> | <b>0.0458</b> | <b>1.1383</b> | <b>0.0522</b> | <b>1.1905</b> | <b>0.3111</b>  | <b>0.0499</b> | <b>0.3610</b> |          | <b>4,941.7530</b> | <b>4,941.7530</b> | <b>0.3259</b> |     | <b>4,949.8999</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2     | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|---------------|---------------|-----|-------------------|
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        | 0.0000        | 1,456.3883        | 0.4710        | 0.4710        |     | 1,468.1639        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6273</b>  | <b>0.6273</b> | <b>0.6273</b> | <b>0.0000</b> | <b>1,456.3883</b> | <b>0.4710</b> | <b>0.4710</b> |     | <b>1,468.1639</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2     | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|---------------|---------------|-----|-------------------|
| Hauling      | 0.4253        | 15.2400        | 3.0324        | 0.0434        | 0.9786        | 0.0491        | 1.0277        | 0.2682         | 0.0470        | 0.3152        |          | 4,694.6436        | 0.3150        | 0.3150        |     | 4,702.5194        |
| Vendor       | 0.0131        | 0.4197         | 0.1000        | 1.0300e-003   | 0.0256        | 2.0800e-003   | 0.0277        | 7.3700e-003    | 1.9900e-003   | 9.3600e-003   |          | 109.7794          | 6.8900e-003   | 6.8900e-003   |     | 109.9517          |
| Worker       | 0.0543        | 0.0365         | 0.4906        | 1.3800e-003   | 0.1341        | 1.0200e-003   | 0.1352        | 0.0356         | 9.4000e-004   | 0.0365        |          | 137.3301          | 3.9500e-003   | 3.9500e-003   |     | 137.4288          |
| <b>Total</b> | <b>0.4928</b> | <b>15.6962</b> | <b>3.6229</b> | <b>0.0458</b> | <b>1.1383</b> | <b>0.0522</b> | <b>1.1905</b> | <b>0.3111</b>  | <b>0.0499</b> | <b>0.3610</b> |          | <b>4,941.7530</b> | <b>0.3259</b> | <b>0.3259</b> |     | <b>4,949.8999</b> |

**3.6 Building Construction - 2020**  
**Unmitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        |          | 1,456.3883        | 1,456.3883        | 0.4710        |     | 1,468.1640        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6273</b>  | <b>0.6273</b> | <b>0.6273</b> |          | <b>1,456.3883</b> | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1640</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0543        | 0.0365        | 0.4906        | 1.3800e-003        | 0.1341        | 1.0200e-003        | 0.1352        | 0.0356         | 9.4000e-004        | 0.0365        |          | 137.3301        | 137.3301        | 3.9500e-003        |     | 137.4288        |
| <b>Total</b> | <b>0.0543</b> | <b>0.0365</b> | <b>0.4906</b> | <b>1.3800e-003</b> | <b>0.1341</b> | <b>1.0200e-003</b> | <b>0.1352</b> | <b>0.0356</b>  | <b>9.4000e-004</b> | <b>0.0365</b> |          | <b>137.3301</b> | <b>137.3301</b> | <b>3.9500e-003</b> |     | <b>137.4288</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        | 0.0000        | 1,456.3883        | 1,456.3883        | 0.4710        |     | 1,468.1639        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6273</b>  | <b>0.6273</b> | <b>0.6273</b> | <b>0.0000</b> | <b>1,456.3883</b> | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1639</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2        | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|-----------------|-----------------|-----------------|--------------------|-----|-----------------|
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker       | 0.0543        | 0.0365        | 0.4906        | 1.3800e-003        | 0.1341        | 1.0200e-003        | 0.1352        | 0.0356         | 9.4000e-004        | 0.0365        | 137.3301        | 137.3301        | 137.3301        | 3.9500e-003        |     | 137.4288        |
| <b>Total</b> | <b>0.0543</b> | <b>0.0365</b> | <b>0.4906</b> | <b>1.3800e-003</b> | <b>0.1341</b> | <b>1.0200e-003</b> | <b>0.1352</b> | <b>0.0356</b>  | <b>9.4000e-004</b> | <b>0.0365</b> | <b>137.3301</b> | <b>137.3301</b> | <b>137.3301</b> | <b>3.9500e-003</b> |     | <b>137.4288</b> |

**3.6 Building Construction - 2021**  
**Unmitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Off-Road     | 1.0461        | 10.9992        | 8.8390        | 0.0150        | 0.5878        | 0.5878        | 0.5878        | 0.5408         | 0.5408        | 0.5408        |          | 1,456.6006        | 1,456.6006        | 0.4711        |     | 1,468.3779        |
| <b>Total</b> | <b>1.0461</b> | <b>10.9992</b> | <b>8.8390</b> | <b>0.0150</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5408</b>  | <b>0.5408</b> | <b>0.5408</b> |          | <b>1,456.6006</b> | <b>1,456.6006</b> | <b>0.4711</b> |     | <b>1,468.3779</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0507        | 0.0329        | 0.4521        | 1.3300e-003        | 0.1341        | 9.9000e-004        | 0.1351        | 0.0356         | 9.1000e-004        | 0.0365        |          | 132.8884        | 132.8884        | 3.5700e-003        |     | 132.9777        |
| <b>Total</b> | <b>0.0507</b> | <b>0.0329</b> | <b>0.4521</b> | <b>1.3300e-003</b> | <b>0.1341</b> | <b>9.9000e-004</b> | <b>0.1351</b> | <b>0.0356</b>  | <b>9.1000e-004</b> | <b>0.0365</b> |          | <b>132.8884</b> | <b>132.8884</b> | <b>3.5700e-003</b> |     | <b>132.9777</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Off-Road     | 1.0461        | 10.9992        | 8.8390        | 0.0150        | 0.5878        | 0.5878        | 0.5878        | 0.5408         | 0.5408        | 0.5408        | 0.0000        | 1,456.6006        | 1,456.6006        | 0.4711        |     | 1,468.3779        |
| <b>Total</b> | <b>1.0461</b> | <b>10.9992</b> | <b>8.8390</b> | <b>0.0150</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5408</b>  | <b>0.5408</b> | <b>0.5408</b> | <b>0.0000</b> | <b>1,456.6006</b> | <b>1,456.6006</b> | <b>0.4711</b> |     | <b>1,468.3779</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2        | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|-----------------|-----------------|-----------------|--------------------|-----|-----------------|
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker       | 0.0507        | 0.0329        | 0.4521        | 1.3300e-003        | 0.1341        | 9.9000e-004        | 0.1351        | 0.0356         | 9.1000e-004        | 0.0365        | 132.8884        | 132.8884        | 132.8884        | 3.5700e-003        |     | 132.9777        |
| <b>Total</b> | <b>0.0507</b> | <b>0.0329</b> | <b>0.4521</b> | <b>1.3300e-003</b> | <b>0.1341</b> | <b>9.9000e-004</b> | <b>0.1351</b> | <b>0.0356</b>  | <b>9.1000e-004</b> | <b>0.0365</b> | <b>132.8884</b> | <b>132.8884</b> | <b>132.8884</b> | <b>3.5700e-003</b> |     | <b>132.9777</b> |

**3.7 Architectural Coating - 2021**  
**Unmitigated Construction On-Site**

| Category        | ROG            | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Archit. Coating | 12.5048        |               |               |                    | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        |          |                 | 0.0000          |               |     | 0.0000          |
| Off-Road        | 0.2919         | 2.0358        | 2.4234        | 3.9600e-003        |               | 0.1255        | 0.1255        |                | 0.1255        | 0.1255        |          | 375.2641        | 375.2641        | 0.0258        |     | 375.9079        |
| <b>Total</b>    | <b>12.7966</b> | <b>2.0358</b> | <b>2.4234</b> | <b>3.9600e-003</b> |               | <b>0.1255</b> | <b>0.1255</b> |                | <b>0.1255</b> | <b>0.1255</b> |          | <b>375.2641</b> | <b>375.2641</b> | <b>0.0258</b> |     | <b>375.9079</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2 | NBio- CO2      | Total CO2      | CH4                | N2O | CO2e           |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Hauling      | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             |          |                | 0.0000         | 0.0000             |     | 0.0000         |
| 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         |
| Worker       | 8.4400e-003        | 5.4800e-003        | 0.0753        | 2.2000e-004        | 0.0224        | 1.6000e-004        | 0.0225        | 5.9300e-003        | 1.5000e-004        | 6.0800e-003        |          | 22.1481        | 22.1481        | 6.0000e-004        |     | 22.1630        |
| <b>Total</b> | <b>8.4400e-003</b> | <b>5.4800e-003</b> | <b>0.0753</b> | <b>2.2000e-004</b> | <b>0.0224</b> | <b>1.6000e-004</b> | <b>0.0225</b> | <b>5.9300e-003</b> | <b>1.5000e-004</b> | <b>6.0800e-003</b> |          | <b>22.1481</b> | <b>22.1481</b> | <b>6.0000e-004</b> |     | <b>22.1630</b> |



**Mitigated Construction On-Site**

| Category        | ROG            | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day          |                |               |               |                    |               |               |               |                |               |               |               |                 |                 |               |     |                 |
| Archit. Coating | 12.5048        |               |               |                    |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road        | 0.2919         | 2.0358        | 2.4234        | 3.9600e-003        |               | 0.1255        | 0.1255        |                | 0.1255        | 0.1255        | 0.0000        | 375.2641        | 375.2641        | 0.0258        |     | 375.9079        |
| <b>Total</b>    | <b>12.7966</b> | <b>2.0358</b> | <b>2.4234</b> | <b>3.9600e-003</b> |               | <b>0.1255</b> | <b>0.1255</b> |                | <b>0.1255</b> | <b>0.1255</b> | <b>0.0000</b> | <b>375.2641</b> | <b>375.2641</b> | <b>0.0258</b> |     | <b>375.9079</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2 | NBio- CO2      | Total CO2      | CH4                | N2O | CO2e           |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| 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         |
| 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         |
| Worker       | 8.4400e-003        | 5.4800e-003        | 0.0753        | 2.2000e-004        | 0.0224        | 1.6000e-004        | 0.0225        | 5.9300e-003        | 1.5000e-004        | 6.0800e-003        |          | 22.1481        | 22.1481        | 6.0000e-004        |     | 22.1630        |
| <b>Total</b> | <b>8.4400e-003</b> | <b>5.4800e-003</b> | <b>0.0753</b> | <b>2.2000e-004</b> | <b>0.0224</b> | <b>1.6000e-004</b> | <b>0.0225</b> | <b>5.9300e-003</b> | <b>1.5000e-004</b> | <b>6.0800e-003</b> |          | <b>22.1481</b> | <b>22.1481</b> | <b>6.0000e-004</b> |     | <b>22.1630</b> |

**3.8 Paving - 2021**  
**Unmitigated Construction On-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |               |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Off-Road     | 0.8580        | 7.8878        | 8.2789        | 0.0133        |               | 0.4121        | 0.4121        |                | 0.3837        | 0.3837        |          | 1,212.1151        | 1,212.1151        | 0.3477        |     | 1,220.8063        |
| Paving       | 0.0576        |               |               |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |          | 0.0000            | 0.0000            |               |     | 0.0000            |
| <b>Total</b> | <b>0.9157</b> | <b>7.8878</b> | <b>8.2789</b> | <b>0.0133</b> |               | <b>0.4121</b> | <b>0.4121</b> |                | <b>0.3837</b> | <b>0.3837</b> |          | <b>1,212.1151</b> | <b>1,212.1151</b> | <b>0.3477</b> |     | <b>1,220.8063</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0760        | 0.0493        | 0.6781        | 2.0000e-003        | 0.2012        | 1.4800e-003        | 0.2027        | 0.0534         | 1.3600e-003        | 0.0547        |          | 199.3326        | 199.3326        | 5.3600e-003        |     | 199.4666        |
| <b>Total</b> | <b>0.0760</b> | <b>0.0493</b> | <b>0.6781</b> | <b>2.0000e-003</b> | <b>0.2012</b> | <b>1.4800e-003</b> | <b>0.2027</b> | <b>0.0534</b>  | <b>1.3600e-003</b> | <b>0.0547</b> |          | <b>199.3326</b> | <b>199.3326</b> | <b>5.3600e-003</b> |     | <b>199.4666</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2        | Total CO2         | CH4           | N2O | CO2e             |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------|-------------------|---------------|-----|------------------|
|              | lb/day        |               |               |               |               |               |               |                |               |               |               |                  |                   |               |     |                  |
| Off-Road     | 0.8580        | 7.8878        | 8.2789        | 0.0133        | 0.4121        | 0.4121        | 0.4121        | 0.3837         | 0.3837        | 0.3837        | 0.0000        | 1,212.115        | 1,212.1151        | 0.3477        |     | 1,220.806        |
| Paving       | 0.0576        |               |               |               | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        |               | 1                | 0.0000            |               |     | 0.0000           |
| <b>Total</b> | <b>0.9157</b> | <b>7.8878</b> | <b>8.2789</b> | <b>0.0133</b> | <b>0.4121</b> | <b>0.4121</b> | <b>0.4121</b> | <b>0.3837</b>  | <b>0.3837</b> | <b>0.3837</b> | <b>0.0000</b> | <b>1,212.115</b> | <b>1,212.1151</b> | <b>0.3477</b> |     | <b>1,220.806</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0760        | 0.0493        | 0.6781        | 2.0000e-003        | 0.2012        | 1.4800e-003        | 0.2027        | 0.0534         | 1.3600e-003        | 0.0547        |          | 199.3326        | 199.3326        | 5.3600e-003        |     | 199.4666        |
| <b>Total</b> | <b>0.0760</b> | <b>0.0493</b> | <b>0.6781</b> | <b>2.0000e-003</b> | <b>0.2012</b> | <b>1.4800e-003</b> | <b>0.2027</b> | <b>0.0534</b>  | <b>1.3600e-003</b> | <b>0.0547</b> |          | <b>199.3326</b> | <b>199.3326</b> | <b>5.3600e-003</b> |     | <b>199.4666</b> |

Focal Strategies Cannabis-Construction - South Coast AQMD Air District, Winter

**Focal Strategies Cannabis-Construction  
South Coast AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses     | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|---------------|-------|----------|-------------|--------------------|------------|
| Manufacturing | 7.60  | 1000sqft | 0.17        | 7,600.00           | 0          |
| Manufacturing | 5.76  | 1000sqft | 0.13        | 5,757.00           | 0          |
| Parking Lot   | 11.00 | Space    | 0.11        | 4,400.00           | 0          |

**1.2 Other Project Characteristics**

|              |       |                  |     |                           |      |
|--------------|-------|------------------|-----|---------------------------|------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31   |
| Climate Zone | 8     |                  |     | Operational Year          | 2021 |

Utility Company Southern California Edison

|                         |        |                         |       |                         |       |
|-------------------------|--------|-------------------------|-------|-------------------------|-------|
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |
|-------------------------|--------|-------------------------|-------|-------------------------|-------|

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Emissions from "Mitigated" are used in the analysis and included dust measures required under SCAQMD Rule 403. Since Rule 403 dust measures are required, emissions in Mitigated tab are considered Unmitigated.

Land Use -

Construction Phase - Project Schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Construction Off-road Equipment Mitigation -

| Table Name           | Column Name  | Default Value | New Value |
|----------------------|--------------|---------------|-----------|
| tbiAreaCoating       | Area_Parking | 264           | 840       |
| tbiConstructionPhase | NumDays      | 5.00          | 10.00     |
| tbiConstructionPhase | NumDays      | 100.00        | 2.00      |
| tbiConstructionPhase | NumDays      | 100.00        | 180.00    |
| tbiConstructionPhase | NumDays      | 2.00          | 15.00     |
| tbiConstructionPhase | NumDays      | 1.00          | 10.00     |
| tbiConstructionPhase | NumDays      | 1.00          | 20.00     |
| tbiFleetMix          | HHD          | 0.03          | 0.00      |
| tbiFleetMix          | HHD          | 0.03          | 0.03      |
| tbiFleetMix          | LDA          | 0.55          | 0.00      |
| tbiFleetMix          | LDA          | 0.55          | 0.55      |
| tbiFleetMix          | LDT1         | 0.04          | 0.00      |
| tbiFleetMix          | LDT1         | 0.04          | 0.04      |
| tbiFleetMix          | LDT2         | 0.20          | 0.00      |
| tbiFleetMix          | LDT2         | 0.20          | 0.20      |

|                     |                   |             |             |
|---------------------|-------------------|-------------|-------------|
| tb\FleetMix         | LHD1              | 0.02        | 0.00        |
| tb\FleetMix         | LHD1              | 0.02        | 0.02        |
| tb\FleetMix         | LHD2              | 5.8510e-003 | 0.00        |
| tb\FleetMix         | LHD2              | 5.8510e-003 | 5.8620e-003 |
| tb\FleetMix         | MCY               | 4.8170e-003 | 0.00        |
| tb\FleetMix         | MCY               | 4.8170e-003 | 4.7770e-003 |
| tb\FleetMix         | MDV               | 0.12        | 0.00        |
| tb\FleetMix         | MDV               | 0.12        | 0.12        |
| tb\FleetMix         | MH                | 9.2500e-004 | 0.00        |
| tb\FleetMix         | MH                | 9.2500e-004 | 9.5600e-004 |
| tb\FleetMix         | MHD               | 0.02        | 0.00        |
| tb\FleetMix         | MHD               | 0.02        | 0.02        |
| tb\FleetMix         | OBUS              | 2.0700e-003 | 0.00        |
| tb\FleetMix         | OBUS              | 2.0700e-003 | 2.0370e-003 |
| tb\FleetMix         | SBUS              | 7.0700e-004 | 0.00        |
| tb\FleetMix         | SBUS              | 7.0700e-004 | 7.0500e-004 |
| tb\FleetMix         | UBUS              | 1.8770e-003 | 0.00        |
| tb\FleetMix         | UBUS              | 1.8770e-003 | 1.9440e-003 |
| tb\Grading          | AcresOfGrading    | 0.00        | 5.00        |
| tb\Grading          | MaterialExported  | 0.00        | 1,000.00    |
| tb\LandUse          | LandUseSquareFeet | 5,760.00    | 5,757.00    |
| tb\LandUse          | LotAcreage        | 0.10        | 0.11        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 4.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 4.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 6.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 7.00        | 8.00        |
| tb\OffRoadEquipment | UsageHours        | 7.00        | 8.00        |

|                     |                   |        |        |
|---------------------|-------------------|--------|--------|
| tblOffRoadEquipment | UsageHours        | 1.00   | 8.00   |
| tblOffRoadEquipment | UsageHours        | 6.00   | 8.00   |
| tblOffRoadEquipment | UsageHours        | 7.00   | 8.00   |
| tblTripsAndVMT      | HaulingTripNumber | 125.00 | 144.00 |
| tblTripsAndVMT      | HaulingTripNumber | 0.00   | 112.00 |
| tblTripsAndVMT      | VendorTripNumber  | 0.00   | 6.00   |
| tblTripsAndVMT      | VendorTripNumber  | 0.00   | 6.00   |
| tblTripsAndVMT      | VendorTripNumber  | 3.00   | 4.00   |
| tblTripsAndVMT      | VendorTripNumber  | 3.00   | 0.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 5.00   | 6.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 10.00  | 16.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 5.00   | 6.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 7.00   | 12.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 7.00   | 12.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 1.00   | 2.00   |





### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name               | Phase Type            | Start Date | End Date  | Num Days Week | Num Days | Phase Description |
|--------------|--------------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1            | Site Preparation         | Site Preparation      | 5/4/2020   | 5/17/2020 | 5             | 10       | 1                 |
| 2            | Grading/Excavation       | Grading               | 5/18/2020  | 6/5/2020  | 5             | 15       | 2                 |
| 3            | Drainage/Utils/Sub-Grade | Site Preparation      | 6/6/2020   | 7/3/2020  | 5             | 20       | 3                 |
| 4            | Foundation/Concrete Pour | Building Construction | 7/4/2020   | 7/7/2020  | 5             | 2        | 4                 |
| 5            | Building Construction    | Building Construction | 7/8/2020   | 3/16/2021 | 5             | 180      | 5                 |
| 6            | Architectural Coating    | Architectural Coating | 3/17/2021  | 3/30/2021 | 5             | 10       | 6                 |
| 7            | Paving                   | Paving                | 3/31/2021  | 4/6/2021  | 5             | 5        | 7                 |

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.11

Residential Indoor: 0; Residential Outdoor: 20,036; Non-Residential Indoor: 6,679; Non-Residential Outdoor: 264

#### OffRoad Equipment

| Phase Name               | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|--------------------------|---------------------------|--------|-------------|-------------|-------------|
| Site Preparation         | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Site Preparation         | Tractors/Loaders/Backhoes | 1      | 8.00        | 97          | 0.37        |
| Grading/Excavation       | Concrete/Industrial Saws  | 1      | 8.00        | 81          | 0.73        |
| Grading/Excavation       | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading/Excavation       | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Drainage/Utils/Sub-Grade | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Drainage/Utils/Sub-Grade | Tractors/Loaders/Backhoes | 1      | 8.00        | 97          | 0.37        |
| Foundation/Concrete Pour | Cranes                    | 1      | 8.00        | 231         | 0.29        |
| Foundation/Concrete Pour | Forklifts                 | 2      | 8.00        | 89          | 0.20        |
| Foundation/Concrete Pour | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Building Construction    | Cranes                    | 1      | 8.00        | 231         | 0.29        |

|                       |                           |   |      |     |      |
|-----------------------|---------------------------|---|------|-----|------|
| Building Construction | Forklifts                 | 2 | 8.00 | 89  | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97  | 0.37 |
| Architectural Coating | Air Compressors           | 1 | 8.00 | 78  | 0.48 |
| Paving                | Cement and Mortar Mixers  | 4 | 8.00 | 9   | 0.56 |
| Paving                | Pavers                    | 1 | 8.00 | 130 | 0.42 |
| Paving                | Rollers                   | 1 | 8.00 | 80  | 0.38 |
| Paving                | 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 |
|--------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Site Preparation         | 2                       | 6.00               | 6.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading/Excavation       | 4                       | 16.00              | 6.00               | 144.00              | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Drainage/Utils/Sub-Grade | 2                       | 6.00               | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Foundation/Concrete      | 5                       | 12.00              | 4.00               | 112.00              | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction    | 5                       | 12.00              | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating    | 1                       | 2.00               | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                   | 7                       | 18.00              | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Water Exposed Area

**3.2 Site Preparation - 2020**  
**Unmitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day        |               |               |               |                    |               |               |               |                |               |               |          |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.5303        | 0.0000        | 0.5303        | 0.0573         | 0.0000        | 0.0573        |          |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        |               | 0.3353        | 0.3353        |                | 0.3085        | 0.3085        |          | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.5303</b> | <b>0.3353</b> | <b>0.8656</b> | <b>0.0573</b>  | <b>0.3085</b> | <b>0.3658</b> |          | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| 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          |
| Vendor       | 0.0206        | 0.6290        | 0.1672        | 1.5000e-003        | 0.0384        | 3.1700e-003        | 0.0416        | 0.0111         | 3.0300e-003        | 0.0141        |          | 159.9077        | 159.9077        | 0.0111        |     | 160.1853        |
| Worker       | 0.0296        | 0.0200        | 0.2209        | 6.4000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          | 64.2219         | 64.2219         | 1.8400e-003   |     | 64.2679         |
| <b>Total</b> | <b>0.0503</b> | <b>0.6489</b> | <b>0.3880</b> | <b>2.1400e-003</b> | <b>0.1055</b> | <b>3.6800e-003</b> | <b>0.1091</b> | <b>0.0289</b>  | <b>3.5000e-003</b> | <b>0.0323</b> |          | <b>224.1296</b> | <b>224.1296</b> | <b>0.0129</b> |     | <b>224.4532</b> |

**Mitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day        |               |               |               |                    |               |               |               |                |               |               |               |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.2068        | 0.0000        | 0.2068        | 0.0223         | 0.0000        | 0.0223        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        | 0.3353        | 0.3353        | 0.3353        | 0.3085         | 0.3085        | 0.3085        | 0.0000        | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.2068</b> | <b>0.3353</b> | <b>0.5421</b> | <b>0.0223</b>  | <b>0.3085</b> | <b>0.3309</b> | <b>0.0000</b> | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| 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          |
| Vendor       | 0.0206        | 0.6290        | 0.1672        | 1.5000e-003        | 0.0384        | 3.1700e-003        | 0.0416        | 0.0111         | 3.0300e-003        | 0.0141        |          | 159.9077        | 159.9077        | 0.0111        |     | 160.1653        |
| Worker       | 0.0296        | 0.0200        | 0.2209        | 6.4000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          | 64.2219         | 64.2219         | 1.8400e-003   |     | 64.2679         |
| <b>Total</b> | <b>0.0503</b> | <b>0.6489</b> | <b>0.3880</b> | <b>2.1400e-003</b> | <b>0.1055</b> | <b>3.6800e-003</b> | <b>0.1091</b> | <b>0.0289</b>  | <b>3.5000e-003</b> | <b>0.0323</b> |          | <b>224.1296</b> | <b>224.1296</b> | <b>0.0129</b> |     | <b>224.4532</b> |

**3.3 Grading/Excavation - 2020**  
**Unmitigated Construction On-Site**

| Category      | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2                    | Total CO2         | CH4           | N2O | CO2e                         |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------------|-------------------|---------------|-----|------------------------------|
| lb/day        |               |                |                |               |               |               |               |                |               |               |          |                              |                   |               |     |                              |
| Fugitive Dust |               |                |                |               | 6.3831        | 0.0000        | 6.3831        | 3.3495         | 0.0000        | 3.3495        |          |                              | 0.0000            |               |     | 0.0000                       |
| Off-Road      | 1.9167        | 18.8412        | 12.3776        | 0.0210        |               | 1.0194        | 1.0194        |                | 0.9537        | 0.9537        |          | 2.021.544 <sup>2</sup>       | 2.021.5442        | 0.4997        |     | 2,034.036 <sup>0</sup>       |
| <b>Total</b>  | <b>1.9167</b> | <b>18.8412</b> | <b>12.3776</b> | <b>0.0210</b> | <b>6.3831</b> | <b>1.0194</b> | <b>7.4025</b> | <b>3.3495</b>  | <b>0.9537</b> | <b>4.3032</b> |          | <b>2.021.544<sup>2</sup></b> | <b>2,021.5442</b> | <b>0.4997</b> |     | <b>2,034.036<sup>0</sup></b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2                    | Total CO2         | CH4           | N2O | CO2e                         |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------------|-------------------|---------------|-----|------------------------------|
| lb/day       |               |               |               |               |               |               |               |                |               |               |          |                              |                   |               |     |                              |
| Hauling      | 0.0750        | 2.6461        | 0.5596        | 7.3100e-003   | 0.1678        | 8.5500e-003   | 0.1763        | 0.0460         | 8.1800e-003   | 0.0542        |          |                              | 789.9821          | 0.0564        |     | 791.3909                     |
| Vendor       | 0.0206        | 0.6290        | 0.1672        | 1.5000e-003   | 0.0384        | 3.1700e-003   | 0.0416        | 0.0111         | 3.0300e-003   | 0.0141        |          |                              | 159.9077          | 0.0111        |     | 160.1653                     |
| Worker       | 0.0790        | 0.0533        | 0.5889        | 1.7200e-003   | 0.1788        | 1.3600e-003   | 0.1802        | 0.0474         | 1.2500e-003   | 0.0487        |          |                              | 171.2584          | 4.9100e-003   |     | 171.3812                     |
| <b>Total</b> | <b>0.1746</b> | <b>3.3283</b> | <b>1.3157</b> | <b>0.0105</b> | <b>0.3850</b> | <b>0.0131</b> | <b>0.3981</b> | <b>0.1045</b>  | <b>0.0125</b> | <b>0.1169</b> |          | <b>1,121.148<sup>2</sup></b> | <b>1,121.1482</b> | <b>0.0724</b> |     | <b>1,122.957<sup>3</sup></b> |

**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        |                |                |               |               |               |               |                |               |               |               |                              |                   |               |     |                              |
| Fugitive Dust |               |                |                |               | 2.4894        | 0.0000        | 2.4894        | 1.3063         | 0.0000        | 1.3063        |               |                              | 0.0000            |               |     | 0.0000                       |
| Off-Road      | 1.9167        | 18.8412        | 12.3776        | 0.0210        | 1.0194        | 1.0194        | 1.0194        | 0.9537         | 0.9537        | 0.9537        | 0.0000        | 2.021.544 <sub>2</sub>       | 2.021.5442        | 0.4997        |     | 2,034.036 <sub>0</sub>       |
| <b>Total</b>  | <b>1.9167</b> | <b>18.8412</b> | <b>12.3776</b> | <b>0.0210</b> | <b>2.4894</b> | <b>1.0194</b> | <b>3.5088</b> | <b>1.3063</b>  | <b>0.9537</b> | <b>2.2600</b> | <b>0.0000</b> | <b>2,021.544<sub>2</sub></b> | <b>2,021.5442</b> | <b>0.4997</b> |     | <b>2,034.036<sub>0</sub></b> |

**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        |               |               |               |               |               |               |                |               |               |          |                              |                   |               |     |                              |
| Hauling      | 0.0750        | 2.6461        | 0.5596        | 7.3100e-003   | 0.1678        | 8.5500e-003   | 0.1763        | 0.0460         | 8.1800e-003   | 0.0542        |          | 789.9821                     | 789.9821          | 0.0564        |     | 791.3909                     |
| Vendor       | 0.0206        | 0.6290        | 0.1672        | 1.5000e-003   | 0.0384        | 3.1700e-003   | 0.0416        | 0.0111         | 3.0300e-003   | 0.0141        |          | 159.9077                     | 159.9077          | 0.0111        |     | 160.1653                     |
| Worker       | 0.0790        | 0.0533        | 0.5889        | 1.7200e-003   | 0.1788        | 1.3600e-003   | 0.1802        | 0.0474         | 1.2500e-003   | 0.0487        |          | 171.2584                     | 171.2584          | 4.9100e-003   |     | 171.3812                     |
| <b>Total</b> | <b>0.1746</b> | <b>3.3283</b> | <b>1.3157</b> | <b>0.0105</b> | <b>0.3850</b> | <b>0.0131</b> | <b>0.3981</b> | <b>0.1045</b>  | <b>0.0125</b> | <b>0.1169</b> |          | <b>1,121.148<sub>2</sub></b> | <b>1,121.1482</b> | <b>0.0724</b> |     | <b>1,122.957<sub>3</sub></b> |

**3.4 Drainage/Utils/Sub-Grade - 2020**  
**Unmitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day        |               |               |               |                    |               |               |               |                |               |               |          |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.5303        | 0.0000        | 0.5303        | 0.0573         | 0.0000        | 0.0573        |          |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        |               | 0.3353        | 0.3353        |                | 0.3085        | 0.3085        |          | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.5303</b> | <b>0.3353</b> | <b>0.8656</b> | <b>0.0573</b>  | <b>0.3085</b> | <b>0.3658</b> |          | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2 | Total CO2      | CH4                | N2O | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------|----------------|--------------------|-----|----------------|
| 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         |
| 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         |
| Worker       | 0.0296        | 0.0200        | 0.2209        | 6.4000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          |           | 64.2219        | 1.8400e-003        |     | 64.2679        |
| <b>Total</b> | <b>0.0296</b> | <b>0.0200</b> | <b>0.2209</b> | <b>6.4000e-004</b> | <b>0.0671</b> | <b>5.1000e-004</b> | <b>0.0676</b> | <b>0.0178</b>  | <b>4.7000e-004</b> | <b>0.0183</b> |          |           | <b>64.2219</b> | <b>1.8400e-003</b> |     | <b>64.2679</b> |

**Mitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day        |               |               |               |                    |               |               |               |                |               |               |               |                 |                 |               |     |                 |
| Fugitive Dust |               |               |               |                    | 0.2068        | 0.0000        | 0.2068        | 0.0223         | 0.0000        | 0.0223        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road      | 0.6853        | 8.4307        | 4.0942        | 9.7400e-003        |               | 0.3353        | 0.3353        |                | 0.3085        | 0.3085        | 0.0000        | 943.4872        | 943.4872        | 0.3051        |     | 951.1158        |
| <b>Total</b>  | <b>0.6853</b> | <b>8.4307</b> | <b>4.0942</b> | <b>9.7400e-003</b> | <b>0.2068</b> | <b>0.3353</b> | <b>0.5421</b> | <b>0.0223</b>  | <b>0.3085</b> | <b>0.3309</b> | <b>0.0000</b> | <b>943.4872</b> | <b>943.4872</b> | <b>0.3051</b> |     | <b>951.1158</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2 | Total CO2      | CH4                | N2O | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------|----------------|--------------------|-----|----------------|
| 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         |
| 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         |
| Worker       | 0.0296        | 0.0200        | 0.2209        | 6.4000e-004        | 0.0671        | 5.1000e-004        | 0.0676        | 0.0178         | 4.7000e-004        | 0.0183        |          |           | 64.2219        | 1.8400e-003        |     | 64.2679        |
| <b>Total</b> | <b>0.0296</b> | <b>0.0200</b> | <b>0.2209</b> | <b>6.4000e-004</b> | <b>0.0671</b> | <b>5.1000e-004</b> | <b>0.0676</b> | <b>0.0178</b>  | <b>4.7000e-004</b> | <b>0.0183</b> |          |           | <b>64.2219</b> | <b>1.8400e-003</b> |     | <b>64.2679</b> |



### 3.5 Foundation/Concrete Pour - 2020

#### Unmitigated Construction On-Site

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        |          | 1,456.3883        | 1,456.3883        | 0.4710        |     | 1,468.1640        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> |               | <b>0.6818</b> | <b>0.6818</b> |                | <b>0.6273</b> | <b>0.6273</b> |          | <b>1,456.3883</b> | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1640</b> |

#### Unmitigated Construction Off-Site

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Hauling      | 0.4376        | 15.4356        | 3.2644        | 0.0426        | 0.9786        | 0.0499        | 1.0284        | 0.2682         | 0.0477        | 0.3159        |          | 4,608.2290        | 4,608.2290        | 0.3287        |     | 4,616.4468        |
| Vendor       | 0.0138        | 0.4193         | 0.1114        | 1.0000e-003   | 0.0256        | 2.1100e-003   | 0.0277        | 7.3700e-003    | 2.0200e-003   | 9.3900e-003   |          | 106.6051          | 106.6051          | 7.4000e-003   |     | 106.7902          |
| Worker       | 0.0592        | 0.0400         | 0.4417        | 1.2900e-003   | 0.1341        | 1.0200e-003   | 0.1352        | 0.0356         | 9.4000e-004   | 0.0365        |          | 128.4438          | 128.4438          | 3.6800e-003   |     | 128.5359          |
| <b>Total</b> | <b>0.5105</b> | <b>15.8949</b> | <b>3.8175</b> | <b>0.0449</b> | <b>1.1383</b> | <b>0.0530</b> | <b>1.1913</b> | <b>0.3111</b>  | <b>0.0507</b> | <b>0.3618</b> |          | <b>4,843.2779</b> | <b>4,843.2779</b> | <b>0.3398</b> |     | <b>4,851.7729</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        | 0.0000        | 1,456.3883        | 1,456.3883        | 0.4710        |     | 1,468.1639        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6273</b>  | <b>0.6273</b> | <b>0.6273</b> | <b>0.0000</b> | <b>1,456.3883</b> | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1639</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Hauling      | 0.4376        | 15.4356        | 3.2644        | 0.0426        | 0.9786        | 0.0499        | 1.0284        | 0.2682         | 0.0477        | 0.3159        |          | 4,608.2290        | 4,608.2290        | 0.3287        |     | 4,616.4468        |
| Vendor       | 0.0138        | 0.4193         | 0.1114        | 1.0000e-003   | 0.0256        | 2.1100e-003   | 0.0277        | 7.3700e-003    | 2.0200e-003   | 9.3900e-003   |          | 106.6051          | 106.6051          | 7.4000e-003   |     | 106.7902          |
| Worker       | 0.0592        | 0.0400         | 0.4417        | 1.2900e-003   | 0.1341        | 1.0200e-003   | 0.1352        | 0.0356         | 9.4000e-004   | 0.0365        |          | 128.4438          | 128.4438          | 3.6800e-003   |     | 128.5359          |
| <b>Total</b> | <b>0.5105</b> | <b>15.8949</b> | <b>3.8175</b> | <b>0.0449</b> | <b>1.1383</b> | <b>0.0530</b> | <b>1.1913</b> | <b>0.3111</b>  | <b>0.0507</b> | <b>0.3618</b> |          | <b>4,843.2779</b> | <b>4,843.2779</b> | <b>0.3398</b> |     | <b>4,851.7729</b> |

**3.6 Building Construction - 2020**  
**Unmitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |                |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        |          | 1,456.3883        | 1,456.3883        | 0.4710        |     | 1,468.1640        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6273</b>  | <b>0.6273</b> | <b>0.6273</b> |          | <b>1,456.3883</b> | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1640</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0592        | 0.0400        | 0.4417        | 1.2900e-003        | 0.1341        | 1.0200e-003        | 0.1352        | 0.0356         | 9.4000e-004        | 0.0365        |          | 128.4438        | 128.4438        | 3.6800e-003        |     | 128.5359        |
| <b>Total</b> | <b>0.0592</b> | <b>0.0400</b> | <b>0.4417</b> | <b>1.2900e-003</b> | <b>0.1341</b> | <b>1.0200e-003</b> | <b>0.1352</b> | <b>0.0356</b>  | <b>9.4000e-004</b> | <b>0.0365</b> |          | <b>128.4438</b> | <b>128.4438</b> | <b>3.6800e-003</b> |     | <b>128.5359</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Off-Road     | 1.1604        | 12.1968        | 9.0353        | 0.0150        | 0.6818        | 0.6818        | 0.6818        | 0.6273         | 0.6273        | 0.6273        | 0.0000        | 1,456.3883        | 1,456.3883        | 0.4710        |     | 1,468.1639        |
| <b>Total</b> | <b>1.1604</b> | <b>12.1968</b> | <b>9.0353</b> | <b>0.0150</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6818</b> | <b>0.6273</b>  | <b>0.6273</b> | <b>0.6273</b> | <b>0.0000</b> | <b>1,456.3883</b> | <b>1,456.3883</b> | <b>0.4710</b> |     | <b>1,468.1639</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2        | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|-----------------|-----------------|-----------------|--------------------|-----|-----------------|
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker       | 0.0592        | 0.0400        | 0.4417        | 1.2900e-003        | 0.1341        | 1.0200e-003        | 0.1352        | 0.0356         | 9.4000e-004        | 0.0365        | 128.4438        | 128.4438        | 128.4438        | 3.6800e-003        |     | 128.5359        |
| <b>Total</b> | <b>0.0592</b> | <b>0.0400</b> | <b>0.4417</b> | <b>1.2900e-003</b> | <b>0.1341</b> | <b>1.0200e-003</b> | <b>0.1352</b> | <b>0.0356</b>  | <b>9.4000e-004</b> | <b>0.0365</b> | <b>128.4438</b> | <b>128.4438</b> | <b>128.4438</b> | <b>3.6800e-003</b> |     | <b>128.5359</b> |

**3.6 Building Construction - 2021**  
**Unmitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Off-Road     | 1.0461        | 10.9992        | 8.8390        | 0.0150        | 0.5878        | 0.5878        | 0.5878        | 0.5408         | 0.5408        | 0.5408        |          | 1,456.6006        | 1,456.6006        | 0.4711        |     | 1,468.3779        |
| <b>Total</b> | <b>1.0461</b> | <b>10.9992</b> | <b>8.8390</b> | <b>0.0150</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5408</b>  | <b>0.5408</b> | <b>0.5408</b> |          | <b>1,456.6006</b> | <b>1,456.6006</b> | <b>0.4711</b> |     | <b>1,468.3779</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        |          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        |          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker       | 0.0553        | 0.0360        | 0.4063        | 1.2500e-003        | 0.1341        | 9.9000e-004        | 0.1351        | 0.0356         | 9.1000e-004        | 0.0365        |          | 124.2801        | 124.2801        | 3.3300e-003        |     | 124.3634        |
| <b>Total</b> | <b>0.0553</b> | <b>0.0360</b> | <b>0.4063</b> | <b>1.2500e-003</b> | <b>0.1341</b> | <b>9.9000e-004</b> | <b>0.1351</b> | <b>0.0356</b>  | <b>9.1000e-004</b> | <b>0.0365</b> |          | <b>124.2801</b> | <b>124.2801</b> | <b>3.3300e-003</b> |     | <b>124.3634</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx            | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Off-Road     | 1.0461        | 10.9992        | 8.8390        | 0.0150        | 0.5878        | 0.5878        | 0.5878        | 0.5408         | 0.5408        | 0.5408        | 0.0000        | 1,456.6006        | 1,456.6006        | 0.4711        |     | 1,468.3779        |
| <b>Total</b> | <b>1.0461</b> | <b>10.9992</b> | <b>8.8390</b> | <b>0.0150</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5878</b> | <b>0.5408</b>  | <b>0.5408</b> | <b>0.5408</b> | <b>0.0000</b> | <b>1,456.6006</b> | <b>1,456.6006</b> | <b>0.4711</b> |     | <b>1,468.3779</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2        | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|-----------------|-----------------|-----------------|--------------------|-----|-----------------|
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        | 0.0000          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker       | 0.0553        | 0.0360        | 0.4063        | 1.2500e-003        | 0.1341        | 9.9000e-004        | 0.1351        | 0.0356         | 9.1000e-004        | 0.0365        | 124.2801        | 124.2801        | 124.2801        | 3.3300e-003        |     | 124.3634        |
| <b>Total</b> | <b>0.0553</b> | <b>0.0360</b> | <b>0.4063</b> | <b>1.2500e-003</b> | <b>0.1341</b> | <b>9.9000e-004</b> | <b>0.1351</b> | <b>0.0356</b>  | <b>9.1000e-004</b> | <b>0.0365</b> | <b>124.2801</b> | <b>124.2801</b> | <b>124.2801</b> | <b>3.3300e-003</b> |     | <b>124.3634</b> |

**3.7 Architectural Coating - 2021**  
**Unmitigated Construction On-Site**

| Category        | ROG            | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Archit. Coating | 12.5048        |               |               |                    | 0.0000        | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |          |                 | 0.0000          |               |     | 0.0000          |
| Off-Road        | 0.2919         | 2.0358        | 2.4234        | 3.9600e-003        |               | 0.1255        | 0.1255        |                | 0.1255        | 0.1255        |          | 375.2641        | 375.2641        | 0.0258        |     | 375.9079        |
| <b>Total</b>    | <b>12.7966</b> | <b>2.0358</b> | <b>2.4234</b> | <b>3.9600e-003</b> |               | <b>0.1255</b> | <b>0.1255</b> |                | <b>0.1255</b> | <b>0.1255</b> |          | <b>375.2641</b> | <b>375.2641</b> | <b>0.0258</b> |     | <b>375.9079</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2 | NBio- CO2      | Total CO2      | CH4                | N2O | CO2e           |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Hauling      | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             |          |                | 0.0000         | 0.0000             |     | 0.0000         |
| 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         |
| Worker       | 9.2200e-003        | 5.9900e-003        | 0.0677        | 2.1000e-004        | 0.0224        | 1.6000e-004        | 0.0225        | 5.9300e-003        | 1.5000e-004        | 6.0800e-003        |          | 20.7134        | 20.7134        | 5.6000e-004        |     | 20.7272        |
| <b>Total</b> | <b>9.2200e-003</b> | <b>5.9900e-003</b> | <b>0.0677</b> | <b>2.1000e-004</b> | <b>0.0224</b> | <b>1.6000e-004</b> | <b>0.0225</b> | <b>5.9300e-003</b> | <b>1.5000e-004</b> | <b>6.0800e-003</b> |          | <b>20.7134</b> | <b>20.7134</b> | <b>5.6000e-004</b> |     | <b>20.7272</b> |

**Mitigated Construction On-Site**

| Category        | ROG            | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| lb/day          |                |               |               |                    |               |               |               |                |               |               |               |                 |                 |               |     |                 |
| Archit. Coating | 12.5048        |               |               |                    |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |               |                 | 0.0000          |               |     | 0.0000          |
| Off-Road        | 0.2919         | 2.0358        | 2.4234        | 3.9600e-003        |               | 0.1255        | 0.1255        |                | 0.1255        | 0.1255        | 0.0000        | 375.2641        | 375.2641        | 0.0258        |     | 375.9079        |
| <b>Total</b>    | <b>12.7966</b> | <b>2.0358</b> | <b>2.4234</b> | <b>3.9600e-003</b> |               | <b>0.1255</b> | <b>0.1255</b> |                | <b>0.1255</b> | <b>0.1255</b> | <b>0.0000</b> | <b>375.2641</b> | <b>375.2641</b> | <b>0.0258</b> |     | <b>375.9079</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2 | NBio- CO2      | Total CO2      | CH4                | N2O | CO2e           |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| 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         |
| 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         |
| Worker       | 9.2200e-003        | 5.9900e-003        | 0.0677        | 2.1000e-004        | 0.0224        | 1.6000e-004        | 0.0225        | 5.9300e-003        | 1.5000e-004        | 6.0800e-003        |          | 20.7134        | 20.7134        | 5.6000e-004        |     | 20.7272        |
| <b>Total</b> | <b>9.2200e-003</b> | <b>5.9900e-003</b> | <b>0.0677</b> | <b>2.1000e-004</b> | <b>0.0224</b> | <b>1.6000e-004</b> | <b>0.0225</b> | <b>5.9300e-003</b> | <b>1.5000e-004</b> | <b>6.0800e-003</b> |          | <b>20.7134</b> | <b>20.7134</b> | <b>5.6000e-004</b> |     | <b>20.7272</b> |



**3.8 Paving - 2021**  
**Unmitigated Construction On-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
|              | lb/day        |               |               |               |               |               |               |                |               |               |          |                   |                   |               |     |                   |
| Off-Road     | 0.8580        | 7.8878        | 8.2789        | 0.0133        |               | 0.4121        | 0.4121        |                | 0.3837        | 0.3837        |          | 1,212.1151        | 1,212.1151        | 0.3477        |     | 1,220.8063        |
| Paving       | 0.0576        |               |               |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        |          | 0.0000            | 0.0000            |               |     | 0.0000            |
| <b>Total</b> | <b>0.9157</b> | <b>7.8878</b> | <b>8.2789</b> | <b>0.0133</b> |               | <b>0.4121</b> | <b>0.4121</b> |                | <b>0.3837</b> | <b>0.3837</b> |          | <b>1,212.1151</b> | <b>1,212.1151</b> | <b>0.3477</b> |     | <b>1,220.8063</b> |

**Unmitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0830        | 0.0539        | 0.6094        | 1.8700e-003        | 0.2012        | 1.4800e-003        | 0.2027        | 0.0534         | 1.3600e-003        | 0.0547        |          | 186.4202        | 186.4202        | 5.0000e-003        |     | 186.5451        |
| <b>Total</b> | <b>0.0830</b> | <b>0.0539</b> | <b>0.6094</b> | <b>1.8700e-003</b> | <b>0.2012</b> | <b>1.4800e-003</b> | <b>0.2027</b> | <b>0.0534</b>  | <b>1.3600e-003</b> | <b>0.0547</b> |          | <b>186.4202</b> | <b>186.4202</b> | <b>5.0000e-003</b> |     | <b>186.5451</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2        | Total CO2         | CH4           | N2O | CO2e             |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------|-------------------|---------------|-----|------------------|
|              | lb/day        |               |               |               |               |               |               |                |               |               |               |                  |                   |               |     |                  |
| Off-Road     | 0.8580        | 7.8878        | 8.2789        | 0.0133        | 0.4121        | 0.4121        | 0.4121        | 0.3837         | 0.3837        | 0.3837        | 0.0000        | 1,212.115        | 1,212.1151        | 0.3477        |     | 1,220.806        |
| Paving       | 0.0576        |               |               |               | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        |               | 1                | 0.0000            |               |     | 0.0000           |
| <b>Total</b> | <b>0.9157</b> | <b>7.8878</b> | <b>8.2789</b> | <b>0.0133</b> | <b>0.4121</b> | <b>0.4121</b> | <b>0.4121</b> | <b>0.3837</b>  | <b>0.3837</b> | <b>0.3837</b> | <b>0.0000</b> | <b>1,212.115</b> | <b>1,212.1151</b> | <b>0.3477</b> |     | <b>1,220.806</b> |

**Mitigated Construction Off-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
|              | 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       | 0.0830        | 0.0539        | 0.6094        | 1.8700e-003        | 0.2012        | 1.4800e-003        | 0.2027        | 0.0534         | 1.3600e-003        | 0.0547        |          | 186.4202        | 186.4202        | 5.0000e-003        |     | 186.5451        |
| <b>Total</b> | <b>0.0830</b> | <b>0.0539</b> | <b>0.6094</b> | <b>1.8700e-003</b> | <b>0.2012</b> | <b>1.4800e-003</b> | <b>0.2027</b> | <b>0.0534</b>  | <b>1.3600e-003</b> | <b>0.0547</b> |          | <b>186.4202</b> | <b>186.4202</b> | <b>5.0000e-003</b> |     | <b>186.5451</b> |

# Operational AQ Emissions

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**Regional Operational Emissions**

| <b>Summer Category</b> | <b>ROG</b>   | <b>NOx</b>    | <b>CO</b>     | <b>SO2<br/>lb/day</b> | <b>PM10 Total</b> | <b>PM2.5 Total</b> |
|------------------------|--------------|---------------|---------------|-----------------------|-------------------|--------------------|
| Area                   | 0.301        | 0.000         | 0.003         | 0.000                 | 0.000             | 0.000              |
| Energy                 | 0.008        | 0.075         | 0.063         | 0.000                 | 0.006             | 0.006              |
| Mobile                 | 0.196        | 1.028         | 2.934         | 0.011                 | 0.885             | 0.242              |
| Offroad                | 0.260        | 2.370         | 2.347         | 0.003                 | 0.168             | 0.155              |
| Stationary             | 0.525        | 9.983         | 5.714         | 0.000                 | 0.042             | 0.041              |
| <b>Total</b>           | <b>1.290</b> | <b>13.456</b> | <b>11.061</b> | <b>0.014</b>          | <b>1.101</b>      | <b>0.444</b>       |

| <b>Winter Category</b> | <b>ROG</b>   | <b>NOx</b>    | <b>CO</b>     | <b>SO2<br/>lb/day</b> | <b>PM10 Total</b> | <b>PM2.5 Total</b> |
|------------------------|--------------|---------------|---------------|-----------------------|-------------------|--------------------|
| Area                   | 0.301        | 0.000         | 0.003         | 0.000                 | 0.000             | 0.000              |
| Energy                 | 0.008        | 0.075         | 0.063         | 0.000                 | 0.006             | 0.006              |
| Mobile                 | 0.187        | 1.055         | 2.716         | 0.010                 | 0.885             | 0.242              |
| Offroad                | 0.260        | 2.370         | 2.347         | 0.003                 | 0.168             | 0.155              |
| Stationary             | 0.525        | 9.983         | 5.714         | 0.000                 | 0.042             | 0.041              |
| <b>Total</b>           | <b>1.281</b> | <b>13.484</b> | <b>10.843</b> | <b>0.014</b>          | <b>1.101</b>      | <b>0.444</b>       |

| <b>Daily Maximum Category</b>   | <b>ROG</b>   | <b>NOx</b>    | <b>CO</b>     | <b>SO2<br/>lb/day</b> | <b>PM10 Total</b> | <b>PM2.5 Total</b> |
|---------------------------------|--------------|---------------|---------------|-----------------------|-------------------|--------------------|
| Area                            | 0.301        | 0.000         | 0.003         | 0.000                 | 0.000             | 0.000              |
| Energy                          | 0.008        | 0.075         | 0.063         | 0.000                 | 0.006             | 0.006              |
| Mobile                          | 0.196        | 1.055         | 2.934         | 0.011                 | 0.885             | 0.242              |
| Offroad                         | 0.260        | 2.370         | 2.347         | 0.003                 | 0.168             | 0.155              |
| Stationary                      | 0.525        | 9.983         | 5.714         | 0.000                 | 0.042             | 0.041              |
| <b>Project Total</b>            | <b>1.290</b> | <b>13.484</b> | <b>11.061</b> | <b>0.014</b>          | <b>1.101</b>      | <b>0.444</b>       |
| SCAQMD Regional Significance Th | 55           | 55            | 550           | 150                   | 150               | 55                 |
| <b>Exceeds Threshold?</b>       | <b>No</b>    | <b>No</b>     | <b>No</b>     | <b>No</b>             | <b>No</b>         | <b>No</b>          |

Table for Report

| <b>Daily Maximum Category</b>   | <b>ROG</b> | <b>NOx</b> | <b>CO</b> | <b>SO2<br/>lb/day</b> | <b>PM10 Total</b> | <b>PM2.5 Total</b> |
|---------------------------------|------------|------------|-----------|-----------------------|-------------------|--------------------|
| Area                            | <1         | <1         | <1        | <1                    | <1                | <1                 |
| Energy                          | <1         | <1         | <1        | <1                    | <1                | <1                 |
| Mobile                          | <1         | 1          | 3         | <1                    | 1                 | <1                 |
| Offroad                         | <1         | 2          | 2         | <1                    | <1                | <1                 |
| Stationary                      | 1          | 10         | 6         | <1                    | <1                | <1                 |
| <b>Project Total</b>            | <b>1</b>   | <b>13</b>  | <b>11</b> | <b>&lt;1</b>          | <b>1</b>          | <b>&lt;1</b>       |
| SCAQMD Regional Significance Th | 55         | 55         | 550       | 150                   | 150               | 55                 |
| <b>Exceeds Threshold?</b>       | <b>No</b>  | <b>No</b>  | <b>No</b> | <b>No</b>             | <b>No</b>         | <b>No</b>          |

Localized Operational Emissions

| Summer Category | NOx           | CO           | PM10 Total lb/day | PM2.5 Total  |
|-----------------|---------------|--------------|-------------------|--------------|
| Area            | 0.000         | 0.003        | 0.000             | 0.000        |
| Energy          | 0.075         | 0.063        | 0.006             | 0.006        |
| Offroad         | 2.370         | 2.347        | 0.168             | 0.155        |
| Stationary      | 9.983         | 5.714        | 0.042             | 0.041        |
| <b>Total</b>    | <b>12.429</b> | <b>8.127</b> | <b>0.216</b>      | <b>0.202</b> |

| Winter Category | NOx           | CO           | PM10 Total lb/day | PM2.5 Total  |
|-----------------|---------------|--------------|-------------------|--------------|
| Area            | 0.000         | 0.003        | 0.000             | 0.000        |
| Energy          | 0.075         | 0.063        | 0.006             | 0.006        |
| Offroad         | 2.370         | 2.347        | 0.168             | 0.155        |
| Stationary      | 9.983         | 5.714        | 0.042             | 0.041        |
| <b>Total</b>    | <b>12.429</b> | <b>8.127</b> | <b>0.216</b>      | <b>0.202</b> |

| Daily Maximum Category                   | NOx           | CO           | PM10 Total lb/day | PM2.5 Total  |
|--|---------------|--------------|-------------------|--------------|
| Area                                     | 0.000         | 0.003        | 0.000             | 0.000        |
| Energy                                   | 0.075         | 0.063        | 0.006             | 0.006        |
| Offroad                                  | 2.370         | 2.347        | 0.168             | 0.155        |
| Stationary                               | 9.983         | 5.714        | 0.042             | 0.041        |
| <b>Project Total</b>                     | <b>12.429</b> | <b>8.127</b> | <b>0.216</b>      | <b>0.202</b> |
| SCAQMD Localized Significance Thresholds | 46.000        | 231.000      | 1.000             | 1.000        |
| <b>Exceeds Threshold?</b>                | <b>No</b>     | <b>No</b>    | <b>No</b>         | <b>No</b>    |

Table for Report

| Daily Maximum Category                   | NOx       | CO        | PM10 Total lb/day | PM2.5 Total  |
|--|-----------|-----------|-------------------|--------------|
| Area                                     | <1        | <1        | <1                | <1           |
| Energy                                   | <1        | <1        | <1                | <1           |
| Offroad                                  | 2         | 2         | <1                | <1           |
| Stationary                               | 10        | 6         | <1                | <1           |
| <b>Project Total</b>                     | <b>12</b> | <b>8</b>  | <b>&lt;1</b>      | <b>&lt;1</b> |
| SCAQMD Localized Significance Thresholds | 46        | 231       | 1                 | 1            |
| <b>Exceeds Threshold?</b>                | <b>No</b> | <b>No</b> | <b>No</b>         | <b>No</b>    |

Focal Strategies Cannabis-Operations - South Coast AQMD Air District, Summer

**Focal Strategies Cannabis-Operations  
South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses              | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Light Industry | 7.60  | 1000sqft | 0.17        | 7,600.00           | 0          |
| General Light Industry | 5.76  | 1000sqft | 0.13        | 5,757.00           | 0          |
| Parking Lot            | 11.00 | Space    | 0.10        | 4,400.00           | 0          |

**1.2 Other Project Characteristics**

|                          |                            |                          |       |                           |       |
|--------------------------|----------------------------|--------------------------|-------|---------------------------|-------|
| Urbanization             | Urban                      | Wind Speed (m/s)         | 2.2   | Precipitation Freq (Days) | 31    |
| Climate Zone             | 8                          |                          |       | Operational Year          | 2021  |
| Utility Company          | Southern California Edison |                          |       |                           |       |
| CO2 Intensity (lb/MW/hr) | 702.44                     | 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 -

Vehicle Trips - Weekday Trip Rate applied to weekends to be conservative

Operational Off-Road Equipment - 2 forklifts would be used during Project Operations

| Table Name                     | Column Name                | Default Value | New Value |
|--------------------------------|----------------------------|---------------|-----------|
| tblOperationalOffRoadEquipment | OperFuelType               | Diesel        | CNG       |
| tblOperationalOffRoadEquipment | OperLoadFactor             | 0.20          | 0.20      |
| tblOperationalOffRoadEquipment | OperOffRoadEquipmentNumber | 0.00          | 2.00      |
| tblVehicleTrips                | ST_TR                      | 1.32          | 6.97      |
| tblVehicleTrips                | SU_TR                      | 0.68          | 6.97      |





#### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

| Category    | lb/day |        |        |        |               |              |            |                |               |             |            | lb/day     |           |     |     |            |
|-------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|------------|------------|-----------|-----|-----|------------|
|             | ROG    | NOx    | CO     | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2   | NBio- CO2  | Total CO2 | CH4 | N2O | CO2e       |
| Mitigated   | 0.1959 | 1.0279 | 2.9336 | 0.0108 | 0.8766        | 8.3800e-003  | 0.8850     | 0.2346         | 7.8200e-003   | 0.2424      | 1,101.6807 | 1,101.6807 | 0.0509    |     |     | 1,102.9535 |
| Unmitigated | 0.1959 | 1.0279 | 2.9336 | 0.0108 | 0.8766        | 8.3800e-003  | 0.8850     | 0.2346         | 7.8200e-003   | 0.2424      | 1,101.6807 | 1,101.6807 | 0.0509    |     |     | 1,102.9535 |

#### 4.2 Trip Summary Information

| Land Use               | Average Daily Trip Rate |          |        | Unmitigated |            | Mitigated  |            |
|------------------------|-------------------------|----------|--------|-------------|------------|------------|------------|
|                        | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT | Annual VMT | Annual VMT |
| General Light Industry | 52.97                   | 52.97    | 52.97  | 234,575     | 234,575    | 234,575    | 234,575    |
| General Light Industry | 40.13                   | 40.13    | 40.13  | 177,690     | 177,690    | 177,690    | 177,690    |
| Parking Lot            | 0.00                    | 0.00     | 0.00   |             |            |            |            |
| Total                  | 93.10                   | 93.10    | 93.10  | 412,265     | 412,265    | 412,265    | 412,265    |

#### 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- | H-S or C-C | H-O or C-NW | H-W or C- | Primary | Diverted       | Pass-by | Primary | Diverted | Pass-by |
| General Light Industry | 16.60      | 8.40       | 6.90        | 59.00     | 28.00      | 13.00       | 13.00     | 92      | 5              | 3       | 92      | 5        | 3       |
| General Light Industry | 16.60      | 8.40       | 6.90        | 59.00     | 28.00      | 13.00       | 13.00     | 92      | 5              | 3       | 92      | 5        | 3       |
| Parking Lot            | 16.60      | 8.40       | 6.90        | 0.00      | 0.00       | 0.00        | 0.00      | 0       | 0              | 0       | 0       | 0        | 0       |

#### 4.4 Fleet Mix

| Land Use               | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Light Industry | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |
| Parking Lot            | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| Category                | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O         | CO2e    |
|-------------------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|---------|
| lb/day                  |             |        |        |             |               |              |             |                |               |             |          |           |           |             |             |         |
| Natural Gas Mitigated   | 8.2500e-003 | 0.0750 | 0.0630 | 4.5000e-004 | 5.7000e-003   | 5.7000e-003  | 5.7000e-003 | 5.7000e-003    | 5.7000e-003   | 5.7000e-003 | 89.9795  | 89.9795   | 89.9795   | 1.7200e-003 | 1.6500e-003 | 90.5142 |
| Natural Gas Unmitigated | 8.2500e-003 | 0.0750 | 0.0630 | 4.5000e-004 | 5.7000e-003   | 5.7000e-003  | 5.7000e-003 | 5.7000e-003    | 5.7000e-003   | 5.7000e-003 | 89.9795  | 89.9795   | 89.9795   | 1.7200e-003 | 1.6500e-003 | 90.5142 |

### 5.2 Energy by Land Use - Natural Gas

#### Unmitigated

| Land Use               | Natural Gas 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           |
|------------------------|-----------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|----------------|----------------|--------------------|--------------------|----------------|
| lb/day                 |                 |                    |               |               |                    |                    |                    |                    |                    |                    |                    |                |                |                |                    |                    |                |
| General Light Industry | 435.178         | 4.6900e-003        | 0.0427        | 0.0358        | 2.6000e-004        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 51.1974        | 51.1974        | 51.1974        | 9.8000e-004        | 9.4000e-004        | 51.5017        |
| General Light Industry | 329.647         | 3.5600e-003        | 0.0323        | 0.0272        | 1.9000e-004        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 38.7821        | 38.7821        | 38.7821        | 7.4000e-004        | 7.1000e-004        | 39.0125        |
| Parking Lot            | 0               | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000         | 0.0000         | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>           |                 | <b>8.2500e-003</b> | <b>0.0750</b> | <b>0.0630</b> | <b>4.5000e-004</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>89.9795</b> | <b>89.9795</b> | <b>89.9795</b> | <b>1.7200e-003</b> | <b>1.6500e-003</b> | <b>90.5142</b> |

#### Mitigated

| Land Use               | Natural Gas 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           |
|------------------------|-----------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|----------------|----------------|--------------------|--------------------|----------------|
| lb/day                 |                 |                    |               |               |                    |                    |                    |                    |                    |                    |                    |                |                |                |                    |                    |                |
| General Light Industry | 0.329647        | 3.5600e-003        | 0.0323        | 0.0272        | 1.9000e-004        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 38.7821        | 38.7821        | 38.7821        | 7.4000e-004        | 7.1000e-004        | 39.0125        |
| General Light Industry | 0.435178        | 4.6900e-003        | 0.0427        | 0.0358        | 2.6000e-004        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 51.1974        | 51.1974        | 51.1974        | 9.8000e-004        | 9.4000e-004        | 51.5017        |
| Parking Lot            | 0               | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000         | 0.0000         | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>           |                 | <b>8.2500e-003</b> | <b>0.0750</b> | <b>0.0630</b> | <b>4.5000e-004</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>89.9795</b> | <b>89.9795</b> | <b>89.9795</b> | <b>1.7200e-003</b> | <b>1.6500e-003</b> | <b>90.5142</b> |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| Category    | ROG    | NOx         | CO          | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2   | Total CO2   | CH4         | N2O | CO2e        |
|-------------|--------|-------------|-------------|--------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-----|-------------|
| Mitigated   | 0.3005 | 2.0000e-005 | 2.5000e-003 | 0.0000 | 1.0000e-005   | 1.0000e-005  | 1.0000e-005 | 1.0000e-005    | 1.0000e-005   | 1.0000e-005 | 5.3300e-003 | 5.3300e-003 | 5.3300e-003 | 1.0000e-005 |     | 5.6800e-003 |
| Unmitigated | 0.3005 | 2.0000e-005 | 2.5000e-003 | 0.0000 | 1.0000e-005   | 1.0000e-005  | 1.0000e-005 | 1.0000e-005    | 1.0000e-005   | 1.0000e-005 | 5.3300e-003 | 5.3300e-003 | 5.3300e-003 | 1.0000e-005 |     | 5.6800e-003 |
| lb/day      |        |             |             |        |               |              |             |                |               |             |             |             |             |             |     |             |

### 6.2 Area by SubCategory

#### Unmitigated

| SubCategory           | ROG           | NOx                | CO                 | SO2           | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2           | NBio- CO2          | Total CO2          | CH4                | N2O | CO2e               |
|-----------------------|---------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----|--------------------|
| Architectural Coating | 0.0343        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |     | 0.0000             |
| Consumer Products     | 0.2660        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |     | 0.0000             |
| Landscaping           | 2.3000e-004   | 2.0000e-005        | 2.5000e-003        | 0.0000        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 5.3300e-003        | 5.3300e-003        | 5.3300e-003        | 1.0000e-005        |     | 5.6800e-003        |
| <b>Total</b>          | <b>0.3005</b> | <b>2.0000e-005</b> | <b>2.5000e-003</b> | <b>0.0000</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>1.0000e-005</b> |     | <b>5.6800e-003</b> |
| lb/day                |               |                    |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |     |                    |

#### Mitigated

| SubCategory           | ROG           | NOx                | CO                 | SO2           | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2           | NBio- CO2          | Total CO2          | CH4                | N2O | CO2e               |
|-----------------------|---------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----|--------------------|
| Architectural Coating | 0.0343        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |     | 0.0000             |
| Consumer Products     | 0.2660        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |     | 0.0000             |
| Landscaping           | 2.3000e-004   | 2.0000e-005        | 2.5000e-003        | 0.0000        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 5.3300e-003        | 5.3300e-003        | 5.3300e-003        | 1.0000e-005        |     | 5.6800e-003        |
| <b>Total</b>          | <b>0.3005</b> | <b>2.0000e-005</b> | <b>2.5000e-003</b> | <b>0.0000</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>1.0000e-005</b> |     | <b>5.6800e-003</b> |
| lb/day                |               |                    |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |     |                    |

## 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 |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
| Forklifts      | 2      | 8.00      | 260       | 89          | 0.20        | CNG       |

## UnMitigated/Mitigated

| Equipment Type | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2        | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|-----------------|-----------------|-----------------|---------------|-----|-----------------|
|                | lb/day        |               |               |                    |               |               |               |                |               |               |                 |                 |                 |               |     |                 |
| Forklifts      | 0.2600        | 2.3700        | 2.3474        | 3.0700e-003        | 0.1682        | 0.1682        | 0.1682        | 0.1548         | 0.1548        | 0.1548        | 297.5420        | 297.5420        | 297.5420        | 0.0962        |     | 299.9478        |
| <b>Total</b>   | <b>0.2600</b> | <b>2.3700</b> | <b>2.3474</b> | <b>3.0700e-003</b> | <b>0.1682</b> | <b>0.1682</b> | <b>0.1682</b> | <b>0.1548</b>  | <b>0.1548</b> | <b>0.1548</b> | <b>297.5420</b> | <b>297.5420</b> | <b>297.5420</b> | <b>0.0962</b> |     | <b>299.9478</b> |

## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

### Boilers

|                |        |                |                 |               |           |
|----------------|--------|----------------|-----------------|---------------|-----------|
| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|

### User Defined Equipment

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

## 11.0 Vegetation

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Focal Strategies Cannabis-Operations - South Coast AQMD Air District, Winter

**Focal Strategies Cannabis-Operations  
South Coast AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses              | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Light Industry | 7.60  | 1000sqft | 0.17        | 7,600.00           | 0          |
| General Light Industry | 5.76  | 1000sqft | 0.13        | 5,757.00           | 0          |
| Parking Lot            | 11.00 | Space    | 0.10        | 4,400.00           | 0          |

**1.2 Other Project Characteristics**

|                          |                            |                          |       |                           |       |
|--------------------------|----------------------------|--------------------------|-------|---------------------------|-------|
| Urbanization             | Urban                      | Wind Speed (m/s)         | 2.2   | Precipitation Freq (Days) | 31    |
| Climate Zone             | 8                          |                          |       | Operational Year          | 2021  |
| Utility Company          | Southern California Edison |                          |       |                           |       |
| CO2 Intensity (lb/MW/hr) | 702.44                     | 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 -

Vehicle Trips - Weekday Trip Rate applied to weekends to be conservative

Operational Off-Road Equipment - 2 forklifts would be used during Project Operations

| Table Name                     | Column Name                | Default Value | New Value |
|--------------------------------|----------------------------|---------------|-----------|
| tblOperationalOffRoadEquipment | OperFuelType               | Diesel        | CNG       |
| tblOperationalOffRoadEquipment | OperLoadFactor             | 0.20          | 0.20      |
| tblOperationalOffRoadEquipment | OperOffRoadEquipmentNumber | 0.00          | 2.00      |
| tblVehicleTrips                | ST_TR                      | 1.32          | 6.97      |
| tblVehicleTrips                | SU_TR                      | 0.68          | 6.97      |





#### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

| Category    | lb/day |        |        |        |               |              |            |                |               |             |           | lb/day     |           |     |     |            |
|-------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|-----------|------------|-----------|-----|-----|------------|
|             | ROG    | NOx    | CO     | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2  | NBio- CO2  | Total CO2 | CH4 | N2O | CO2e       |
| Mitigated   | 0.1868 | 1.0562 | 2.7158 | 0.0103 | 0.8766        | 8.4100e-003  | 0.8850     | 0.2346         | 7.8600e-003   | 0.2424      | 1,043.879 | 1,043.8799 | 0.0505    |     |     | 1,045.1426 |
| Unmitigated | 0.1868 | 1.0562 | 2.7158 | 0.0103 | 0.8766        | 8.4100e-003  | 0.8850     | 0.2346         | 7.8600e-003   | 0.2424      | 1,043.879 | 1,043.8799 | 0.0505    |     |     | 1,045.1426 |

#### 4.2 Trip Summary Information

| Land Use               | Average Daily Trip Rate |          |        | Unmitigated |            | Mitigated  |            |
|------------------------|-------------------------|----------|--------|-------------|------------|------------|------------|
|                        | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT | Annual VMT | Annual VMT |
| General Light Industry | 52.97                   | 52.97    | 52.97  | 234,575     | 234,575    | 234,575    | 234,575    |
| General Light Industry | 40.13                   | 40.13    | 40.13  | 177,690     | 177,690    | 177,690    | 177,690    |
| Parking Lot            | 0.00                    | 0.00     | 0.00   |             |            |            |            |
| Total                  | 93.10                   | 93.10    | 93.10  | 412,265     | 412,265    | 412,265    | 412,265    |

#### 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-C | H-W or C-NW | H-O or C-C | H-S or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-C | H-O or C-NW | Primary | Diverted | Pass-by | Primary        | Diverted | Pass-by |
| General Light Industry | 16.60      | 8.40       | 8.40       | 6.90        | 59.00      | 28.00      | 13.00       | 59.00     | 28.00      | 13.00      | 92          | 5       | 3        | 92      | 5              | 3        | 3       |
| General Light Industry | 16.60      | 8.40       | 8.40       | 6.90        | 59.00      | 28.00      | 13.00       | 59.00     | 28.00      | 13.00      | 92          | 5       | 3        | 92      | 5              | 3        | 3       |
| Parking Lot            | 16.60      | 8.40       | 8.40       | 6.90        | 0.00       | 0.00       | 0.00        | 0.00      | 0.00       | 0.00       | 0           | 0       | 0        | 0       | 0              | 0        | 0       |

#### 4.4 Fleet Mix

| Land Use               | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Light Industry | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |
| Parking Lot            | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| Category                | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O         | CO2e    |
|-------------------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|---------|
|                         | lb/day      |        |        |             |               |              |             |                |               |             |          |           |           |             |             |         |
| Natural Gas Mitigated   | 8.2500e-003 | 0.0750 | 0.0630 | 4.5000e-004 | 5.7000e-003   | 5.7000e-003  | 5.7000e-003 | 5.7000e-003    | 5.7000e-003   | 5.7000e-003 | 89.9795  | 89.9795   | 89.9795   | 1.7200e-003 | 1.6500e-003 | 90.5142 |
| Natural Gas Unmitigated | 8.2500e-003 | 0.0750 | 0.0630 | 4.5000e-004 | 5.7000e-003   | 5.7000e-003  | 5.7000e-003 | 5.7000e-003    | 5.7000e-003   | 5.7000e-003 | 89.9795  | 89.9795   | 89.9795   | 1.7200e-003 | 1.6500e-003 | 90.5142 |

### 5.2 Energy by Land Use - Natural Gas

#### Unmitigated

| Land Use               | Natural Gas 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           |
|------------------------|-----------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|----------------|----------------|--------------------|--------------------|----------------|
|                        | lb/day          |                    |               |               |                    |                    |                    |                    |                    |                    |                    |                |                |                |                    |                    |                |
| General Light Industry | 435.178         | 4.6900e-003        | 0.0427        | 0.0358        | 2.6000e-004        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 51.1974        | 51.1974        | 51.1974        | 9.8000e-004        | 9.4000e-004        | 51.5017        |
| General Light Industry | 329.647         | 3.5600e-003        | 0.0323        | 0.0272        | 1.9000e-004        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 38.7821        | 38.7821        | 38.7821        | 7.4000e-004        | 7.1000e-004        | 39.0125        |
| Parking Lot            | 0               | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000         | 0.0000         | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>           |                 | <b>8.2500e-003</b> | <b>0.0750</b> | <b>0.0630</b> | <b>4.5000e-004</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>89.9795</b> | <b>89.9795</b> | <b>89.9795</b> | <b>1.7200e-003</b> | <b>1.6500e-003</b> | <b>90.5142</b> |

#### Mitigated

| Land Use               | Natural Gas 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           |
|------------------------|-----------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|----------------|----------------|--------------------|--------------------|----------------|
|                        | lb/day          |                    |               |               |                    |                    |                    |                    |                    |                    |                    |                |                |                |                    |                    |                |
| General Light Industry | 0.329647        | 3.5600e-003        | 0.0323        | 0.0272        | 1.9000e-004        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 2.4600e-003        | 38.7821        | 38.7821        | 38.7821        | 7.4000e-004        | 7.1000e-004        | 39.0125        |
| General Light Industry | 0.435178        | 4.6900e-003        | 0.0427        | 0.0358        | 2.6000e-004        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 3.2400e-003        | 51.1974        | 51.1974        | 51.1974        | 9.8000e-004        | 9.4000e-004        | 51.5017        |
| Parking Lot            | 0               | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000         | 0.0000         | 0.0000         | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>           |                 | <b>8.2500e-003</b> | <b>0.0750</b> | <b>0.0630</b> | <b>4.5000e-004</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>5.7000e-003</b> | <b>89.9795</b> | <b>89.9795</b> | <b>89.9795</b> | <b>1.7200e-003</b> | <b>1.6500e-003</b> | <b>90.5142</b> |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| Category    | ROG    | NOx         | CO          | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2   | Total CO2   | CH4         | N2O         | CO2e        |
|-------------|--------|-------------|-------------|--------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mitigated   | 0.3005 | 2.0000e-005 | 2.5000e-003 | 0.0000 | 1.0000e-005   | 1.0000e-005  | 1.0000e-005 | 1.0000e-005    | 1.0000e-005   | 1.0000e-005 | 5.3300e-003 | 5.3300e-003 | 5.3300e-003 | 1.0000e-005 | 1.0000e-005 | 5.6800e-003 |
| Unmitigated | 0.3005 | 2.0000e-005 | 2.5000e-003 | 0.0000 | 1.0000e-005   | 1.0000e-005  | 1.0000e-005 | 1.0000e-005    | 1.0000e-005   | 1.0000e-005 | 5.3300e-003 | 5.3300e-003 | 5.3300e-003 | 1.0000e-005 | 1.0000e-005 | 5.6800e-003 |

### 6.2 Area by SubCategory

#### Unmitigated

| SubCategory           | ROG           | NOx                | CO                 | SO2           | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2           | NBio- CO2          | Total CO2          | CH4                | N2O                | CO2e               |
|-----------------------|---------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Architectural Coating | 0.0343        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |                    | 0.0000             |
| Consumer Products     | 0.2660        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |                    | 0.0000             |
| Landscaping           | 2.3000e-004   | 2.0000e-005        | 2.5000e-003        | 0.0000        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 5.3300e-003        | 5.3300e-003        | 5.3300e-003        | 1.0000e-005        | 1.0000e-005        | 5.6800e-003        |
| <b>Total</b>          | <b>0.3005</b> | <b>2.0000e-005</b> | <b>2.5000e-003</b> | <b>0.0000</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>5.6800e-003</b> |

#### Mitigated

| SubCategory           | ROG           | NOx                | CO                 | SO2           | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2           | NBio- CO2          | Total CO2          | CH4                | N2O                | CO2e               |
|-----------------------|---------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Architectural Coating | 0.0343        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |                    | 0.0000             |
| Consumer Products     | 0.2660        |                    |                    |               | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             |                    |                    | 0.0000             |                    |                    | 0.0000             |
| Landscaping           | 2.3000e-004   | 2.0000e-005        | 2.5000e-003        | 0.0000        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 1.0000e-005        | 5.3300e-003        | 5.3300e-003        | 5.3300e-003        | 1.0000e-005        | 1.0000e-005        | 5.6800e-003        |
| <b>Total</b>          | <b>0.3005</b> | <b>2.0000e-005</b> | <b>2.5000e-003</b> | <b>0.0000</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>5.3300e-003</b> | <b>1.0000e-005</b> | <b>1.0000e-005</b> | <b>5.6800e-003</b> |

## 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 |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
| Forklifts      | 2      | 8.00      | 260       | 89          | 0.20        | CNG       |

### UnMitigated/Mitigated

| Equipment Type | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2        | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|-----------------|-----------------|-----------------|---------------|-----|-----------------|
|                | lb/day        |               |               |                    |               |               |               |                |               |               |                 |                 |                 |               |     |                 |
| Forklifts      | 0.2600        | 2.3700        | 2.3474        | 3.0700e-003        | 0.1682        | 0.1682        | 0.1682        | 0.1548         | 0.1548        | 0.1548        | 297.5420        | 297.5420        | 297.5420        | 0.0962        |     | 299.9478        |
| <b>Total</b>   | <b>0.2600</b> | <b>2.3700</b> | <b>2.3474</b> | <b>3.0700e-003</b> | <b>0.1682</b> | <b>0.1682</b> | <b>0.1682</b> | <b>0.1548</b>  | <b>0.1548</b> | <b>0.1548</b> | <b>297.5420</b> | <b>297.5420</b> | <b>297.5420</b> | <b>0.0962</b> |     | <b>299.9478</b> |

## 10.0 Stationary Equipment

---

### Fire Pumps and Emergency Generators

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

### Boilers

|                |        |                |                 |               |           |
|----------------|--------|----------------|-----------------|---------------|-----------|
| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|

### User Defined Equipment

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

## 11.0 Vegetation

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**Focal Strategies Cannabis  
Air Quality Assessment  
Emergency Generator Emissions**

**Conversion Factors**

|                            |   |
|----------------------------|---|
| HP/kw                      | 1.3410  |
| PM10 Fraction of Total PM  | 0.960 Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION   |
| PM2.5 Fraction of Total PM | 0.937 Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION   |
| CO2 g/gal                  | 10.21 Climate Registry, Table 13.1: <a href="https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf">https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf</a> |
| CH4 g/gal                  | 0.58 Climate Registry, Table 13.7: <a href="https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf">https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf</a>  |
| N2O g/gal                  | 0.26 Climate Registry, Table 13.7: <a href="https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf">https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climat-Registry-Default-Emission-Factors.pdf</a>  |
| GWP CH4                    | 25 IPCCAR4  |
| GWP N2O                    | 298 IPCCAR4   |
| CO2e g/gal                 | 10,302  |
| CO2 g/gal                  | 10,210  |
| CO2/CO2e                   | 0.9911  |

**Emergency Generator**

Ratings: 500 kW

671 HP *(based on conservative engineering assumptions)*

- kW *(based on conservative engineering assumptions; conversion from kW to hp)*

- HP *(based on conservative engineering assumptions)*

0.74 *(conversion from kW to hp)*

**Load Factor:** *(based on CalEEMod Generator Set Load Factor)*

**Engine Emissions Tier:** *(compliance with CARB and AQMD diesel regulations)*

**Operating Hours per Unit:** *(testing/maintenance)*

2 hours/day *(testing/maintenance, Regulatory Limit per SCAQMD Rule 1470)*

50 hours/year

**Emergency Generator Emissions**

| Units                 | Criteria Pollutants <sup>1, 2, 3</sup> |                 |             |                 |             | Greenhouse Gases <sup>4</sup> |                 |                   |
|-----------------------|--|-----------------|-------------|-----------------|-------------|-------------------------------|-----------------|-------------------|
|                       | VOC                                    | NO <sub>x</sub> | CO          | SO <sub>x</sub> | PM10        | PM2.5                         | CO <sub>2</sub> | CO <sub>2</sub> e |
| g/kw-hr               | —                                      | —               | 3.50        | —               | —           | —                             | —               | —                 |
| g/HP-hr               | 0.24                                   | 4.56            | 2.61        | 5.50E-05        | 0.0192      | 0.0187                        | 526.17          | 530.91            |
| lbs/hr                | 0.26                                   | 4.99            | 2.86        | 0.00            | 0.02        | 0.02                          | 575.99          | 581.18            |
| <b>lbs/day</b>        | <b>0.53</b>                            | <b>9.98</b>     | <b>5.71</b> | <b>0.00012</b>  | <b>0.04</b> | <b>0.04</b>                   | <b>1,151.97</b> | <b>1,162.35</b>   |
| lbs/yr                | 13.14                                  | 249.59          | 142.85      | 0.00            | 1.05        | 1.03                          | 28,799.32       | 29,058.77         |
| tons/yr               | 0.01                                   | 0.12            | 0.07        | 0.00            | 0.00        | 0.00                          | 14.40           | 14.53             |
| <b>metric tons/yr</b> | —                                      | —               | —           | —               | —           | —                             | <b>13.06</b>    | <b>13.18</b>      |

**Notes:**

- Emission factors for VOC and NO<sub>x</sub>: Regulatory Limit per SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines).
- Emission factors for CO, PM10, and PM2.5: Regulatory Limit per SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines).
- Emission factor for SO<sub>2</sub>: U.S. Environmental Protection Agency, AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Section 3.4, Table 3.4-1.
- Emission factor for SO<sub>2</sub> is based on 15 ppm (0.0015%) S1 from the EPA Nonroad Diesel Fuel Program, and assumes complete conversion to SO<sub>2</sub>.
- Emission factor for CO<sub>2</sub>: U.S. Environmental Protection Agency, AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Section 3.4, Table 3.4-1.

Emissions of GHGs assume 99.11% of the CO<sub>2</sub>e emissions occur as CO<sub>2</sub>, based on Climate Registry emission factors as referenced above.

Source: ESA 2018.

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# Construction GHG Emissions

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Focal Strategies Cannabis-Construction - South Coast AQMD Air District, Annual

**Focal Strategies Cannabis-Construction  
South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses     | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|---------------|-------|----------|-------------|--------------------|------------|
| Manufacturing | 7.60  | 1000sqft | 0.17        | 7,600.00           | 0          |
| Manufacturing | 5.76  | 1000sqft | 0.13        | 5,757.00           | 0          |
| Parking Lot   | 11.00 | Space    | 0.11        | 4,400.00           | 0          |

**1.2 Other Project Characteristics**

|                          |                            |                          |       |                           |       |
|--------------------------|----------------------------|--------------------------|-------|---------------------------|-------|
| Urbanization             | Urban                      | Wind Speed (m/s)         | 2.2   | Precipitation Freq (Days) | 31    |
| Climate Zone             | 8                          |                          |       | Operational Year          | 2021  |
| Utility Company          | Southern California Edison |                          |       |                           |       |
| CO2 Intensity (lb/MW/hr) | 702.44                     | 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 - Project Schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Construction Off-road Equipment Mitigation -

| Table Name           | Column Name  | Default Value | New Value |
|----------------------|--------------|---------------|-----------|
| tblAreaCoating       | Area_Parking | 264           | 840       |
| tblConstructionPhase | NumDays      | 5.00          | 10.00     |
| tblConstructionPhase | NumDays      | 100.00        | 2.00      |
| tblConstructionPhase | NumDays      | 100.00        | 180.00    |
| tblConstructionPhase | NumDays      | 2.00          | 15.00     |
| tblConstructionPhase | NumDays      | 1.00          | 10.00     |
| tblConstructionPhase | NumDays      | 1.00          | 20.00     |
| tblIFleetMix         | HHD          | 0.03          | 0.00      |
| tblIFleetMix         | HHD          | 0.03          | 0.03      |
| tblIFleetMix         | LDA          | 0.55          | 0.00      |
| tblIFleetMix         | LDA          | 0.55          | 0.55      |
| tblIFleetMix         | LDT1         | 0.04          | 0.00      |
| tblIFleetMix         | LDT1         | 0.04          | 0.04      |
| tblIFleetMix         | LDT2         | 0.20          | 0.00      |
| tblIFleetMix         | LDT2         | 0.20          | 0.20      |

|                     |                   |             |             |             |
|---------------------|-------------------|-------------|-------------|-------------|
| tbIFleetMix         | LHD1              | 0.02        | 0.00        | 0.00        |
| tbIFleetMix         | LHD1              | 0.02        | 0.02        | 0.02        |
| tbIFleetMix         | LHD2              | 5.8510e-003 | 0.00        | 0.00        |
| tbIFleetMix         | LHD2              | 5.8510e-003 | 5.8620e-003 | 5.8620e-003 |
| tbIFleetMix         | MCY               | 4.8170e-003 | 0.00        | 0.00        |
| tbIFleetMix         | MCY               | 4.8170e-003 | 4.7770e-003 | 4.7770e-003 |
| tbIFleetMix         | MDV               | 0.12        | 0.00        | 0.00        |
| tbIFleetMix         | MDV               | 0.12        | 0.12        | 0.12        |
| tbIFleetMix         | MH                | 9.2500e-004 | 0.00        | 0.00        |
| tbIFleetMix         | MH                | 9.2500e-004 | 9.5600e-004 | 9.5600e-004 |
| tbIFleetMix         | MHD               | 0.02        | 0.00        | 0.00        |
| tbIFleetMix         | MHD               | 0.02        | 0.02        | 0.02        |
| tbIFleetMix         | OBUS              | 2.0700e-003 | 0.00        | 0.00        |
| tbIFleetMix         | OBUS              | 2.0700e-003 | 2.0370e-003 | 2.0370e-003 |
| tbIFleetMix         | SBUS              | 7.0700e-004 | 0.00        | 0.00        |
| tbIFleetMix         | SBUS              | 7.0700e-004 | 7.0500e-004 | 7.0500e-004 |
| tbIFleetMix         | UBUS              | 1.8770e-003 | 0.00        | 0.00        |
| tbIFleetMix         | UBUS              | 1.8770e-003 | 1.9440e-003 | 1.9440e-003 |
| tbIGrading          | AcresOfGrading    | 0.00        | 5.00        | 5.00        |
| tbIGrading          | MaterialExported  | 0.00        | 1,000.00    | 1,000.00    |
| tbILandUse          | LandUseSquareFeet | 5,760.00    | 5,757.00    | 5,757.00    |
| tbILandUse          | LotAcreage        | 0.10        | 0.11        | 0.11        |
| tbIOffRoadEquipment | UsageHours        | 6.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 6.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 4.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 4.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 6.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 6.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 7.00        | 8.00        | 8.00        |
| tbIOffRoadEquipment | UsageHours        | 7.00        | 8.00        | 8.00        |

|                     |                   |        |        |
|---------------------|-------------------|--------|--------|
| tblOffRoadEquipment | UsageHours        | 1.00   | 8.00   |
| tblOffRoadEquipment | UsageHours        | 6.00   | 8.00   |
| tblOffRoadEquipment | UsageHours        | 7.00   | 8.00   |
| tblTripsAndVMT      | HaulingTripNumber | 125.00 | 144.00 |
| tblTripsAndVMT      | HaulingTripNumber | 0.00   | 112.00 |
| tblTripsAndVMT      | VendorTripNumber  | 0.00   | 6.00   |
| tblTripsAndVMT      | VendorTripNumber  | 0.00   | 6.00   |
| tblTripsAndVMT      | VendorTripNumber  | 3.00   | 4.00   |
| tblTripsAndVMT      | VendorTripNumber  | 3.00   | 0.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 5.00   | 6.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 10.00  | 16.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 5.00   | 6.00   |
| tblTripsAndVMT      | WorkerTripNumber  | 7.00   | 12.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 7.00   | 12.00  |
| tblTripsAndVMT      | WorkerTripNumber  | 1.00   | 2.00   |

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

| Year           | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
|                | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
| 2020           | 0.1051        | 1.1022        | 0.7835        | 1.5000e-003        | 0.0693        | 0.0569        | 0.1262        | 0.0296         | 0.0525        | 0.0821        | 0.0000        | 133.1324        | 133.1324        | 0.0362        | 0.0000        | 134.0371        |
| 2021           | 0.0956        | 0.3225        | 0.2801        | 4.9000e-004        | 4.0900e-003   | 0.0173        | 0.0214        | 1.0900e-003    | 0.0160        | 0.0170        | 0.0000        | 43.0331         | 43.0331         | 0.0123        | 0.0000        | 43.3412         |
| <b>Maximum</b> | <b>0.1051</b> | <b>1.1022</b> | <b>0.7835</b> | <b>1.5000e-003</b> | <b>0.0693</b> | <b>0.0569</b> | <b>0.1262</b> | <b>0.0296</b>  | <b>0.0525</b> | <b>0.0821</b> | <b>0.0000</b> | <b>133.1324</b> | <b>133.1324</b> | <b>0.0362</b> | <b>0.0000</b> | <b>134.0371</b> |

#### Mitigated Construction

| Year           | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
|                | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
| 2020           | 0.1051        | 1.1022        | 0.7835        | 1.5000e-003        | 0.0353        | 0.0569        | 0.0922        | 0.0138         | 0.0525        | 0.0662        | 0.0000        | 133.1323        | 133.1323        | 0.0362        | 0.0000        | 134.0369        |
| 2021           | 0.0956        | 0.3225        | 0.2801        | 4.9000e-004        | 4.0900e-003   | 0.0173        | 0.0214        | 1.0900e-003    | 0.0160        | 0.0170        | 0.0000        | 43.0330         | 43.0330         | 0.0123        | 0.0000        | 43.3412         |
| <b>Maximum</b> | <b>0.1051</b> | <b>1.1022</b> | <b>0.7835</b> | <b>1.5000e-003</b> | <b>0.0353</b> | <b>0.0569</b> | <b>0.0922</b> | <b>0.0138</b>  | <b>0.0525</b> | <b>0.0662</b> | <b>0.0000</b> | <b>133.1323</b> | <b>133.1323</b> | <b>0.0362</b> | <b>0.0000</b> | <b>134.0369</b> |

| Percent Reduction | tons/yr |      |      |      |               |              |            |                |               |             | MT/yr    |           |           |      |      |
|-------------------|---------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------|------|
|                   | ROG     | NOx  | CO   | SO2  | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4  | N2O  |
| 0.00              | 0.00    | 0.00 | 0.00 | 0.00 | 46.38         | 0.00         | 23.07      | 51.65          | 0.00          | 16.00       | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 |

| Quarter | Start Date | End Date  | Maximum Unmitigated ROG + NOx (tons/quarter) | Maximum Mitigated ROG + NOx (tons/quarter) |
|---------|------------|-----------|--|--|
| 1       | 5-4-2020   | 8-3-2020  | 0.4769                                       | 0.4769                                     |
| 2       | 8-4-2020   | 11-3-2020 | 0.4420                                       | 0.4420                                     |
| 3       | 11-4-2020  | 2-3-2021  | 0.4261                                       | 0.4261                                     |
| 4       | 2-4-2021   | 5-3-2021  | 0.2743                                       | 0.2743                                     |
|         |            | Highest   | 0.4769                                       | 0.4769                                     |

### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name               | Phase Type            | Start Date | End Date  | Num Days Week | Num Days | Phase Description |
|--------------|--------------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1            | Site Preparation         | Site Preparation      | 5/4/2020   | 5/17/2020 | 5             | 10       | 1                 |
| 2            | Grading/Excavation       | Grading               | 5/18/2020  | 6/5/2020  | 5             | 15       | 2                 |
| 3            | Drainage/Utils/Sub-Grade | Site Preparation      | 6/6/2020   | 7/3/2020  | 5             | 20       | 3                 |
| 4            | Foundation/Concrete Pour | Building Construction | 7/4/2020   | 7/7/2020  | 5             | 2        | 4                 |
| 5            | Building Construction    | Building Construction | 7/8/2020   | 3/16/2021 | 5             | 180      | 5                 |
| 6            | Architectural Coating    | Architectural Coating | 3/17/2021  | 3/30/2021 | 5             | 10       | 6                 |
| 7            | Paving                   | Paving                | 3/31/2021  | 4/6/2021  | 5             | 5        | 7                 |

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.11

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 20,036; Non-Residential Outdoor: 6,679; Striped Parking Area:

#### OffRoad Equipment

| Phase Name               | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|--------------------------|---------------------------|--------|-------------|-------------|-------------|
| Site Preparation         | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Site Preparation         | Tractors/Loaders/Backhoes | 1      | 8.00        | 97          | 0.37        |
| Grading/Excavation       | Concrete/Industrial Saws  | 1      | 8.00        | 81          | 0.73        |
| Grading/Excavation       | Rubber Tired Dozers       | 1      | 8.00        | 247         | 0.40        |
| Grading/Excavation       | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Drainage/Utils/Sub-Grade | Graders                   | 1      | 8.00        | 187         | 0.41        |
| Drainage/Utils/Sub-Grade | Tractors/Loaders/Backhoes | 1      | 8.00        | 97          | 0.37        |
| Foundation/Concrete Pour | Cranes                    | 1      | 8.00        | 231         | 0.29        |
| Foundation/Concrete Pour | Forklifts                 | 2      | 8.00        | 89          | 0.20        |
| Foundation/Concrete Pour | Tractors/Loaders/Backhoes | 2      | 8.00        | 97          | 0.37        |
| Building Construction    | Cranes                    | 1      | 8.00        | 231         | 0.29        |



|                       |                           |   |      |     |      |
|-----------------------|---------------------------|---|------|-----|------|
| Building Construction | Forklifts                 | 2 | 8.00 | 89  | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97  | 0.37 |
| Architectural Coating | Air Compressors           | 1 | 8.00 | 78  | 0.48 |
| Paving                | Cement and Mortar Mixers  | 4 | 8.00 | 9   | 0.56 |
| Paving                | Pavers                    | 1 | 8.00 | 130 | 0.42 |
| Paving                | Rollers                   | 1 | 8.00 | 80  | 0.38 |
| Paving                | 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 |
|--------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Site Preparation         | 2                       | 6.00               | 6.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Grading/Excavation       | 4                       | 16.00              | 6.00               | 144.00              | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Drainage/Utils/Sub-Grade | 2                       | 6.00               | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Foundation/Concrete      | 5                       | 12.00              | 4.00               | 112.00              | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Building Construction    | 5                       | 12.00              | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Architectural Coating    | 1                       | 2.00               | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |
| Paving                   | 7                       | 18.00              | 0.00               | 0.00                | 14.70              | 6.90               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Water Exposed Area

**3.2 Site Preparation - 2020**  
**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            |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr        |                    |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Fugitive Dust |                    |               |               |                    | 2.6500e-003        | 0.0000             | 2.6500e-003        | 2.9000e-004        | 0.0000             | 2.9000e-004        | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road      | 3.4300e-003        | 0.0422        | 0.0205        | 5.0000e-005        | 1.6800e-003        | 1.6800e-003        | 1.6800e-003        | 1.5400e-003        | 1.5400e-003        | 1.5400e-003        | 0.0000        | 4.2796        | 4.2796        | 1.3800e-003        | 0.0000        | 4.3142        |
| <b>Total</b>  | <b>3.4300e-003</b> | <b>0.0422</b> | <b>0.0205</b> | <b>5.0000e-005</b> | <b>2.6500e-003</b> | <b>1.6800e-003</b> | <b>4.3300e-003</b> | <b>2.9000e-004</b> | <b>1.5400e-003</b> | <b>1.6300e-003</b> | <b>0.0000</b> | <b>4.2796</b> | <b>4.2796</b> | <b>1.3800e-003</b> | <b>0.0000</b> | <b>4.3142</b> |

**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            |                    |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/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       | 1.0000e-004        | 3.2000e-003        | 7.9000e-004        | 1.0000e-005        | 1.9000e-004        | 2.0000e-005        | 2.0000e-004        | 5.0000e-005        | 2.0000e-005        | 7.0000e-005        | 0.0000        | 0.7379        | 0.7379        | 5.0000e-005        | 0.0000        | 0.7391        |
| Worker       | 1.3000e-004        | 1.0000e-004        | 1.1400e-003        | 0.0000             | 3.3000e-004        | 0.0000             | 3.3000e-004        | 9.0000e-005        | 0.0000             | 9.0000e-005        | 0.0000        | 0.2963        | 0.2963        | 1.0000e-005        | 0.0000        | 0.2965        |
| <b>Total</b> | <b>2.3000e-004</b> | <b>3.3000e-003</b> | <b>1.9300e-003</b> | <b>1.0000e-005</b> | <b>5.2000e-004</b> | <b>2.0000e-005</b> | <b>5.3000e-004</b> | <b>1.4000e-004</b> | <b>2.0000e-005</b> | <b>1.6000e-004</b> | <b>0.0000</b> | <b>1.0342</b> | <b>1.0342</b> | <b>6.0000e-005</b> | <b>0.0000</b> | <b>1.0356</b> |

**Mitigated Construction On-Site**

| Category      | ROG                | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| tons/yr       |                    |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr        |                    |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Fugitive Dust |                    |               |               |                    | 1.0300e-003        | 0.0000             | 1.0300e-003        | 1.1000e-004        | 0.0000             | 1.1000e-004        | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road      | 3.4300e-003        | 0.0422        | 0.0205        | 5.0000e-005        | 1.6800e-003        | 1.6800e-003        | 1.6800e-003        | 1.5400e-003        | 1.5400e-003        | 1.5400e-003        | 0.0000        | 4.2796        | 4.2796        | 1.3800e-003        | 0.0000        | 4.3142        |
| <b>Total</b>  | <b>3.4300e-003</b> | <b>0.0422</b> | <b>0.0205</b> | <b>5.0000e-005</b> | <b>1.0300e-003</b> | <b>1.6800e-003</b> | <b>2.7100e-003</b> | <b>1.1000e-004</b> | <b>1.5400e-003</b> | <b>1.6500e-003</b> | <b>0.0000</b> | <b>4.2796</b> | <b>4.2796</b> | <b>1.3800e-003</b> | <b>0.0000</b> | <b>4.3142</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO                 | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| tons/yr      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/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       | 1.0000e-004        | 3.2000e-003        | 7.9000e-004        | 1.0000e-005        | 1.9000e-004        | 2.0000e-005        | 2.0000e-004        | 5.0000e-005        | 2.0000e-005        | 7.0000e-005        | 0.0000        | 0.7379        | 0.7379        | 5.0000e-005        | 0.0000        | 0.7391        |
| Worker       | 1.3000e-004        | 1.0000e-004        | 1.1400e-003        | 0.0000             | 3.3000e-004        | 0.0000             | 3.3000e-004        | 9.0000e-005        | 0.0000             | 9.0000e-005        | 0.0000        | 0.2963        | 0.2963        | 1.0000e-005        | 0.0000        | 0.2965        |
| <b>Total</b> | <b>2.3000e-004</b> | <b>3.3000e-003</b> | <b>1.9300e-003</b> | <b>1.0000e-005</b> | <b>5.2000e-004</b> | <b>2.0000e-005</b> | <b>5.3000e-004</b> | <b>1.4000e-004</b> | <b>2.0000e-005</b> | <b>1.6000e-004</b> | <b>0.0000</b> | <b>1.0342</b> | <b>1.0342</b> | <b>6.0000e-005</b> | <b>0.0000</b> | <b>1.0356</b> |

**3.3 Grading/Excavation - 2020**  
**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       |               |               |                    |               |                    |               |                |                    |               |               |                |                |                    |               |                |
| MIT/yr        |               |               |               |                    |               |                    |               |                |                    |               |               |                |                |                    |               |                |
| Fugitive Dust |               |               |               |                    | 0.0479        | 0.0000             | 0.0479        | 0.0251         | 0.0000             | 0.0251        | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0144        | 0.1413        | 0.0928        | 1.6000e-004        | 7.6500e-003   | 7.6500e-003        | 7.6500e-003   | 7.1500e-003    | 7.1500e-003        | 7.1500e-003   | 0.0000        | 13.7544        | 13.7544        | 3.4000e-003        | 0.0000        | 13.8394        |
| <b>Total</b>  | <b>0.0144</b> | <b>0.1413</b> | <b>0.0928</b> | <b>1.6000e-004</b> | <b>0.0479</b> | <b>7.6500e-003</b> | <b>0.0555</b> | <b>0.0251</b>  | <b>7.1500e-003</b> | <b>0.0323</b> | <b>0.0000</b> | <b>13.7544</b> | <b>13.7544</b> | <b>3.4000e-003</b> | <b>0.0000</b> | <b>13.8394</b> |

**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            |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 5.5000e-004        | 0.0202        | 4.0300e-003        | 6.0000e-005        | 1.2400e-003        | 6.0000e-005        | 1.3000e-003        | 3.4000e-004        | 6.0000e-005        | 4.0000e-004        | 0.0000        | 5.4334        | 5.4334        | 3.7000e-004        | 0.0000        | 5.4428        |
| Vendor       | 1.5000e-004        | 4.8000e-003   | 1.1900e-003        | 1.0000e-005        | 2.8000e-004        | 2.0000e-005        | 3.1000e-004        | 8.0000e-005        | 2.0000e-005        | 1.0000e-004        | 0.0000        | 1.1068        | 1.1068        | 7.0000e-005        | 0.0000        | 1.1086        |
| Worker       | 3.4000e-004        | 4.1000e-004   | 4.5400e-003        | 1.0000e-005        | 1.3200e-003        | 1.0000e-005        | 1.3300e-003        | 3.5000e-004        | 1.0000e-005        | 3.6000e-004        | 0.0000        | 1.1852        | 1.1852        | 3.0000e-005        | 0.0000        | 1.1861        |
| <b>Total</b> | <b>1.2400e-003</b> | <b>0.0254</b> | <b>9.7600e-003</b> | <b>8.0000e-005</b> | <b>2.8400e-003</b> | <b>9.0000e-005</b> | <b>2.9400e-003</b> | <b>7.7000e-004</b> | <b>9.0000e-005</b> | <b>8.6000e-004</b> | <b>0.0000</b> | <b>7.7254</b> | <b>7.7254</b> | <b>4.7000e-004</b> | <b>0.0000</b> | <b>7.7374</b> |

**Mitigated Construction On-Site**

| Category      | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| tons/yr       |               |               |               |                    |               |                    |               |                    |                    |               |               |                |                |                    |               |                |
| MIT/yr        |               |               |               |                    |               |                    |               |                    |                    |               |               |                |                |                    |               |                |
| Fugitive Dust |               |               |               |                    | 0.0187        | 0.0000             | 0.0187        | 9.8000e-003        | 0.0000             | 9.8000e-003   | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0144        | 0.1413        | 0.0928        | 1.6000e-004        |               | 7.6500e-003        | 7.6500e-003   | 7.1500e-003        | 7.1500e-003        | 7.1500e-003   | 0.0000        | 13.7543        | 13.7543        | 3.4000e-003        | 0.0000        | 13.8393        |
| <b>Total</b>  | <b>0.0144</b> | <b>0.1413</b> | <b>0.0928</b> | <b>1.6000e-004</b> | <b>0.0187</b> | <b>7.6500e-003</b> | <b>0.0263</b> | <b>9.8000e-003</b> | <b>7.1500e-003</b> | <b>0.0170</b> | <b>0.0000</b> | <b>13.7543</b> | <b>13.7543</b> | <b>3.4000e-003</b> | <b>0.0000</b> | <b>13.8393</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx           | CO                 | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| tons/yr      |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 5.5000e-004        | 0.0202        | 4.0300e-003        | 6.0000e-005        | 1.2400e-003        | 6.0000e-005        | 1.3000e-003        | 3.4000e-004        | 6.0000e-005        | 4.0000e-004        | 0.0000        | 5.4334        | 5.4334        | 3.7000e-004        | 0.0000        | 5.4428        |
| Vendor       | 1.5000e-004        | 4.8000e-003   | 1.1900e-003        | 1.0000e-005        | 2.8000e-004        | 2.0000e-005        | 3.1000e-004        | 8.0000e-005        | 2.0000e-005        | 1.0000e-004        | 0.0000        | 1.1068        | 1.1068        | 7.0000e-005        | 0.0000        | 1.1086        |
| Worker       | 5.4000e-004        | 4.1000e-004   | 4.5400e-003        | 1.0000e-005        | 1.3200e-003        | 1.0000e-005        | 1.3300e-003        | 3.5000e-004        | 1.0000e-005        | 3.6000e-004        | 0.0000        | 1.1852        | 1.1852        | 3.0000e-005        | 0.0000        | 1.1861        |
| <b>Total</b> | <b>1.2400e-003</b> | <b>0.0254</b> | <b>9.7600e-003</b> | <b>8.0000e-005</b> | <b>2.8400e-003</b> | <b>9.0000e-005</b> | <b>2.9400e-003</b> | <b>7.7000e-004</b> | <b>9.0000e-005</b> | <b>8.6000e-004</b> | <b>0.0000</b> | <b>7.7254</b> | <b>7.7254</b> | <b>4.7000e-004</b> | <b>0.0000</b> | <b>7.7374</b> |

### 3.4 Drainage/Utils/Sub-Grade - 2020

#### 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            |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr        |                    |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Fugitive Dust |                    |               |               |                    | 5.3000e-003        | 0.0000             | 5.3000e-003        | 5.7000e-004        | 0.0000             | 5.7000e-004        | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road      | 6.8500e-003        | 0.0843        | 0.0409        | 1.0000e-004        | 3.3500e-003        | 3.3500e-003        | 3.3500e-003        | 3.0900e-003        | 3.0900e-003        | 3.0900e-003        | 0.0000        | 8.5592        | 8.5592        | 2.7700e-003        | 0.0000        | 8.6284        |
| <b>Total</b>  | <b>6.8500e-003</b> | <b>0.0843</b> | <b>0.0409</b> | <b>1.0000e-004</b> | <b>5.3000e-003</b> | <b>3.3500e-003</b> | <b>8.6500e-003</b> | <b>5.7000e-004</b> | <b>3.0900e-003</b> | <b>3.6600e-003</b> | <b>0.0000</b> | <b>8.5592</b> | <b>8.5592</b> | <b>2.7700e-003</b> | <b>0.0000</b> | <b>8.6284</b> |

#### 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            |                    |                    |                    |                    |                    |                    |                    |               |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |                    |                    |                    |                    |                    |                    |                    |               |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 2.7000e-004        | 2.1000e-004        | 2.2700e-003        | 1.0000e-005        | 6.6000e-004        | 1.0000e-005        | 6.6000e-004        | 1.7000e-004        | 0.0000        | 1.8000e-004        | 0.0000        | 0.5926        | 0.5926        | 2.0000e-005        | 0.0000        | 0.5930        |
| <b>Total</b> | <b>2.7000e-004</b> | <b>2.1000e-004</b> | <b>2.2700e-003</b> | <b>1.0000e-005</b> | <b>6.6000e-004</b> | <b>1.0000e-005</b> | <b>6.6000e-004</b> | <b>1.7000e-004</b> | <b>0.0000</b> | <b>1.8000e-004</b> | <b>0.0000</b> | <b>0.5926</b> | <b>0.5926</b> | <b>2.0000e-005</b> | <b>0.0000</b> | <b>0.5930</b> |

**Mitigated Construction On-Site**

| Category      | ROG                | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|               | tons/yr            |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|               | MIT/yr             |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Fugitive Dust |                    |               |               |                    | 2.0700e-003        | 0.0000             | 2.0700e-003        | 2.2000e-004        | 0.0000             | 2.2000e-004        | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road      | 6.8500e-003        | 0.0843        | 0.0409        | 1.0000e-004        | 3.3500e-003        | 3.3500e-003        | 3.3500e-003        | 3.0900e-003        | 3.0900e-003        | 3.0900e-003        | 0.0000        | 8.5592        | 8.5592        | 2.7700e-003        | 0.0000        | 8.6284        |
| <b>Total</b>  | <b>6.8500e-003</b> | <b>0.0843</b> | <b>0.0409</b> | <b>1.0000e-004</b> | <b>2.0700e-003</b> | <b>3.3500e-003</b> | <b>5.4200e-003</b> | <b>2.2000e-004</b> | <b>3.0900e-003</b> | <b>3.3100e-003</b> | <b>0.0000</b> | <b>8.5592</b> | <b>8.5592</b> | <b>2.7700e-003</b> | <b>0.0000</b> | <b>8.6284</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO                 | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |                    |                    |                    |                    |                    |                    |                    |               |                    |               |               |               |                    |               |               |
|              | MIT/yr             |                    |                    |                    |                    |                    |                    |                    |               |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 2.7000e-004        | 2.1000e-004        | 2.2700e-003        | 1.0000e-005        | 6.6000e-004        | 1.0000e-005        | 6.6000e-004        | 1.7000e-004        | 0.0000        | 1.8000e-004        | 0.0000        | 0.5926        | 0.5926        | 2.0000e-005        | 0.0000        | 0.5930        |
| <b>Total</b> | <b>2.7000e-004</b> | <b>2.1000e-004</b> | <b>2.2700e-003</b> | <b>1.0000e-005</b> | <b>6.6000e-004</b> | <b>1.0000e-005</b> | <b>6.6000e-004</b> | <b>1.7000e-004</b> | <b>0.0000</b> | <b>1.8000e-004</b> | <b>0.0000</b> | <b>0.5926</b> | <b>0.5926</b> | <b>2.0000e-005</b> | <b>0.0000</b> | <b>0.5930</b> |

**3.5 Foundation/Concrete Pour - 2020**  
**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            |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Off-Road     | 1.1600e-003        | 0.0122        | 9.0400e-003        | 2.0000e-005        | 6.8000e-004        | 6.8000e-004        | 6.8000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 0.0000        | 1.3212        | 1.3212        | 4.3000e-004        | 0.0000        | 1.3319        |
| <b>Total</b> | <b>1.1600e-003</b> | <b>0.0122</b> | <b>9.0400e-003</b> | <b>2.0000e-005</b> | <b>6.8000e-004</b> | <b>6.8000e-004</b> | <b>6.8000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>0.0000</b> | <b>1.3212</b> | <b>1.3212</b> | <b>4.3000e-004</b> | <b>0.0000</b> | <b>1.3319</b> |

**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            |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 4.3000e-004        | 0.0157        | 3.1300e-003        | 4.0000e-005        | 9.6000e-004        | 5.0000e-005        | 1.0100e-003        | 2.6000e-004        | 5.0000e-005        | 3.1000e-004        | 0.0000        | 4.2260        | 4.2260        | 2.9000e-004        | 0.0000        | 4.2333        |
| Vendor       | 1.0000e-005        | 4.3000e-004   | 1.1000e-004        | 0.0000             | 3.0000e-005        | 0.0000             | 3.0000e-005        | 1.0000e-005        | 0.0000             | 1.0000e-005        | 0.0000        | 0.0984        | 0.0984        | 1.0000e-005        | 0.0000        | 0.0985        |
| Worker       | 5.0000e-005        | 4.0000e-005   | 4.5000e-004        | 0.0000             | 1.3000e-004        | 0.0000             | 1.3000e-004        | 3.0000e-005        | 0.0000             | 4.0000e-005        | 0.0000        | 0.1185        | 0.1185        | 0.0000             | 0.0000        | 0.1186        |
| <b>Total</b> | <b>4.9000e-004</b> | <b>0.0162</b> | <b>3.6500e-003</b> | <b>4.0000e-005</b> | <b>1.1200e-003</b> | <b>5.0000e-005</b> | <b>1.1700e-003</b> | <b>3.0000e-004</b> | <b>5.0000e-005</b> | <b>3.6000e-004</b> | <b>0.0000</b> | <b>4.4429</b> | <b>4.4429</b> | <b>3.0000e-004</b> | <b>0.0000</b> | <b>4.4504</b> |



**Mitigated Construction On-Site**

| Category     | ROG                | NOx           | CO                 | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|              | MIT/yr             |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Off-Road     | 1.1600e-003        | 0.0122        | 9.0400e-003        | 2.0000e-005        | 6.8000e-004        | 6.8000e-004        | 6.8000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 0.0000        | 1.3212        | 1.3212        | 4.3000e-004        | 0.0000        | 1.3319        |
| <b>Total</b> | <b>1.1600e-003</b> | <b>0.0122</b> | <b>9.0400e-003</b> | <b>2.0000e-005</b> | <b>6.8000e-004</b> | <b>6.8000e-004</b> | <b>6.8000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>0.0000</b> | <b>1.3212</b> | <b>1.3212</b> | <b>4.3000e-004</b> | <b>0.0000</b> | <b>1.3319</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx           | CO                 | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|              | MIT/yr             |               |                    |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 4.3000e-004        | 0.0157        | 3.1300e-003        | 4.0000e-005        | 9.6000e-004        | 5.0000e-005        | 1.0100e-003        | 2.6000e-004        | 5.0000e-005        | 3.1000e-004        | 0.0000        | 4.2260        | 4.2260        | 2.9000e-004        | 0.0000        | 4.2333        |
| Vendor       | 1.0000e-005        | 4.3000e-004   | 1.1000e-004        | 0.0000             | 3.0000e-005        | 0.0000             | 3.0000e-005        | 1.0000e-005        | 0.0000             | 1.0000e-005        | 0.0000        | 0.0984        | 0.0984        | 1.0000e-005        | 0.0000        | 0.0985        |
| Worker       | 5.0000e-005        | 4.0000e-005   | 4.5000e-004        | 0.0000             | 1.3000e-004        | 0.0000             | 1.3000e-004        | 3.0000e-005        | 0.0000             | 4.0000e-005        | 0.0000        | 0.1185        | 0.1185        | 0.0000             | 0.0000        | 0.1186        |
| <b>Total</b> | <b>4.9000e-004</b> | <b>0.0162</b> | <b>3.6900e-003</b> | <b>4.0000e-005</b> | <b>1.1200e-003</b> | <b>5.0000e-005</b> | <b>1.1700e-003</b> | <b>3.0000e-004</b> | <b>5.0000e-005</b> | <b>3.6000e-004</b> | <b>0.0000</b> | <b>4.4429</b> | <b>4.4429</b> | <b>3.0000e-004</b> | <b>0.0000</b> | <b>4.4504</b> |

**3.6 Building Construction - 2020**  
**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       |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
| MIT/yr       |               |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
| Off-Road     | 0.0737        | 0.7745        | 0.5737        | 9.5000e-004        | 0.0433        | 0.0433        | 0.0433        | 0.0398         | 0.0398        | 0.0398        | 0.0000        | 83.8970        | 83.8970        | 0.0271        | 0.0000        | 84.5754        |
| <b>Total</b> | <b>0.0737</b> | <b>0.7745</b> | <b>0.5737</b> | <b>9.5000e-004</b> | <b>0.0433</b> | <b>0.0433</b> | <b>0.0433</b> | <b>0.0398</b>  | <b>0.0398</b> | <b>0.0398</b> | <b>0.0000</b> | <b>83.8970</b> | <b>83.8970</b> | <b>0.0271</b> | <b>0.0000</b> | <b>84.5754</b> |

**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            |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 3.4000e-003        | 2.6100e-003        | 0.0289        | 8.0000e-005        | 8.3600e-003        | 6.0000e-005        | 8.4200e-003        | 2.2200e-003        | 6.0000e-005        | 2.2800e-003        | 0.0000        | 7.5260        | 7.5260        | 2.2000e-004        | 0.0000        | 7.5314        |
| <b>Total</b> | <b>3.4000e-003</b> | <b>2.6100e-003</b> | <b>0.0289</b> | <b>8.0000e-005</b> | <b>8.3600e-003</b> | <b>6.0000e-005</b> | <b>8.4200e-003</b> | <b>2.2200e-003</b> | <b>6.0000e-005</b> | <b>2.2800e-003</b> | <b>0.0000</b> | <b>7.5260</b> | <b>7.5260</b> | <b>2.2000e-004</b> | <b>0.0000</b> | <b>7.5314</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4           | N2O           | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
|              | tons/yr       |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
|              | MIT/yr        |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
| Off-Road     | 0.0737        | 0.7745        | 0.5737        | 9.5000e-004        | 0.0433        | 0.0433        | 0.0433        | 0.0398         | 0.0398        | 0.0398        | 0.0000        | 83.8969        | 83.8969        | 0.0271        | 0.0000        | 84.5753        |
| <b>Total</b> | <b>0.0737</b> | <b>0.7745</b> | <b>0.5737</b> | <b>9.5000e-004</b> | <b>0.0433</b> | <b>0.0433</b> | <b>0.0433</b> | <b>0.0398</b>  | <b>0.0398</b> | <b>0.0398</b> | <b>0.0000</b> | <b>83.8969</b> | <b>83.8969</b> | <b>0.0271</b> | <b>0.0000</b> | <b>84.5753</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|              | MIT/yr             |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 3.4000e-003        | 2.6100e-003        | 0.0289        | 8.0000e-005        | 8.3600e-003        | 6.0000e-005        | 8.4200e-003        | 2.2200e-003        | 6.0000e-005        | 2.2800e-003        | 0.0000        | 7.5260        | 7.5260        | 2.2000e-004        | 0.0000        | 7.5314        |
| <b>Total</b> | <b>3.4000e-003</b> | <b>2.6100e-003</b> | <b>0.0289</b> | <b>8.0000e-005</b> | <b>8.3600e-003</b> | <b>6.0000e-005</b> | <b>8.4200e-003</b> | <b>2.2200e-003</b> | <b>6.0000e-005</b> | <b>2.2800e-003</b> | <b>0.0000</b> | <b>7.5260</b> | <b>7.5260</b> | <b>2.2000e-004</b> | <b>0.0000</b> | <b>7.5314</b> |

**3.6 Building Construction - 2021**  
**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       |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
| MIT/yr       |               |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
| Off-Road     | 0.0277        | 0.2915        | 0.2342        | 4.0000e-004        |               | 0.0156        | 0.0156        |                | 0.0143        | 0.0143        | 0.0000        | 35.0173        | 35.0173        | 0.0113        | 0.0000        | 35.3004        |
| <b>Total</b> | <b>0.0277</b> | <b>0.2915</b> | <b>0.2342</b> | <b>4.0000e-004</b> |               | <b>0.0156</b> | <b>0.0156</b> |                | <b>0.0143</b> | <b>0.0143</b> | <b>0.0000</b> | <b>35.0173</b> | <b>35.0173</b> | <b>0.0113</b> | <b>0.0000</b> | <b>35.3004</b> |

**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            |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 1.3300e-003        | 9.8000e-004        | 0.0111        | 3.0000e-005        | 3.4900e-003        | 3.0000e-005        | 3.5200e-003        | 9.3000e-004        | 2.0000e-005        | 9.5000e-004        | 0.0000        | 3.0390        | 3.0390        | 8.0000e-005        | 0.0000        | 3.0410        |
| <b>Total</b> | <b>1.3300e-003</b> | <b>9.8000e-004</b> | <b>0.0111</b> | <b>3.0000e-005</b> | <b>3.4900e-003</b> | <b>3.0000e-005</b> | <b>3.5200e-003</b> | <b>9.3000e-004</b> | <b>2.0000e-005</b> | <b>9.5000e-004</b> | <b>0.0000</b> | <b>3.0390</b> | <b>3.0390</b> | <b>8.0000e-005</b> | <b>0.0000</b> | <b>3.0410</b> |

**Mitigated Construction On-Site**

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4           | N2O           | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
|              | tons/yr       |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
|              | MIT/yr        |               |               |                    |               |               |               |                |               |               |               |                |                |               |               |                |
| Off-Road     | 0.0277        | 0.2915        | 0.2342        | 4.0000e-004        |               | 0.0156        | 0.0156        |                | 0.0143        | 0.0143        | 0.0000        | 35.0172        | 35.0172        | 0.0113        | 0.0000        | 35.3003        |
| <b>Total</b> | <b>0.0277</b> | <b>0.2915</b> | <b>0.2342</b> | <b>4.0000e-004</b> |               | <b>0.0156</b> | <b>0.0156</b> |                | <b>0.0143</b> | <b>0.0143</b> | <b>0.0000</b> | <b>35.0172</b> | <b>35.0172</b> | <b>0.0113</b> | <b>0.0000</b> | <b>35.3003</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|              | MIT/yr             |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 1.3300e-003        | 9.8000e-004        | 0.0111        | 3.0000e-005        | 3.4900e-003        | 3.0000e-005        | 3.5200e-003        | 9.3000e-004        | 2.0000e-005        | 9.5000e-004        | 0.0000        | 3.0390        | 3.0390        | 8.0000e-005        | 0.0000        | 3.0410        |
| <b>Total</b> | <b>1.3300e-003</b> | <b>9.8000e-004</b> | <b>0.0111</b> | <b>3.0000e-005</b> | <b>3.4900e-003</b> | <b>3.0000e-005</b> | <b>3.5200e-003</b> | <b>9.3000e-004</b> | <b>2.0000e-005</b> | <b>9.5000e-004</b> | <b>0.0000</b> | <b>3.0390</b> | <b>3.0390</b> | <b>8.0000e-005</b> | <b>0.0000</b> | <b>3.0410</b> |

**3.7 Architectural Coating - 2021**  
**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       |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr          |               |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Archit. Coating | 0.0625        |               |               |                    |                    | 0.0000             | 0.0000             |                    | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Off-Road        | 1.4600e-003   | 0.0102        | 0.0121        | 2.0000e-005        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 0.0000        | 1.7022        | 1.7022        | 1.2000e-004        | 0.0000        | 1.7051        |
| <b>Total</b>    | <b>0.0640</b> | <b>0.0102</b> | <b>0.0121</b> | <b>2.0000e-005</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>0.0000</b> | <b>1.7022</b> | <b>1.7022</b> | <b>1.2000e-004</b> | <b>0.0000</b> | <b>1.7051</b> |

**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            |                    |                    |               |                    |               |                    |                    |               |                    |               |               |               |               |               |               |
| MIT/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       | 4.0000e-005        | 3.0000e-005        | 3.5000e-004        | 0.0000        | 1.1000e-004        | 0.0000        | 1.1000e-004        | 3.0000e-005        | 0.0000        | 3.0000e-005        | 0.0000        | 0.0956        | 0.0956        | 0.0000        | 0.0000        | 0.0956        |
| <b>Total</b> | <b>4.0000e-005</b> | <b>3.0000e-005</b> | <b>3.5000e-004</b> | <b>0.0000</b> | <b>1.1000e-004</b> | <b>0.0000</b> | <b>1.1000e-004</b> | <b>3.0000e-005</b> | <b>0.0000</b> | <b>3.0000e-005</b> | <b>0.0000</b> | <b>0.0956</b> | <b>0.0956</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0956</b> |

**Mitigated Construction On-Site**

| Category        | ROG           | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|-----------------|---------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| MIT/yr          |               |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| tons/yr         |               |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Archit. Coating | 0.0625        |               |               |                    | 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        | 1.4600e-003   | 0.0102        | 0.0121        | 2.0000e-005        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 6.3000e-004        | 0.0000        | 1.7022        | 1.7022        | 1.2000e-004        | 0.0000        | 1.7051        |
| <b>Total</b>    | <b>0.0640</b> | <b>0.0102</b> | <b>0.0121</b> | <b>2.0000e-005</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>6.3000e-004</b> | <b>0.0000</b> | <b>1.7022</b> | <b>1.7022</b> | <b>1.2000e-004</b> | <b>0.0000</b> | <b>1.7051</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO                 | SO2           | Fugitive PM10      | Exhaust PM10  | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4           | N2O           | CO2e          |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| MIT/yr       |                    |                    |                    |               |                    |               |                    |                    |               |                    |               |               |               |               |               |               |
| tons/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       | 4.0000e-005        | 3.0000e-005        | 3.5000e-004        | 0.0000        | 1.1000e-004        | 0.0000        | 1.1000e-004        | 3.0000e-005        | 0.0000        | 3.0000e-005        | 0.0000        | 0.0956        | 0.0956        | 0.0000        | 0.0000        | 0.0956        |
| <b>Total</b> | <b>4.0000e-005</b> | <b>3.0000e-005</b> | <b>3.5000e-004</b> | <b>0.0000</b> | <b>1.1000e-004</b> | <b>0.0000</b> | <b>1.1000e-004</b> | <b>3.0000e-005</b> | <b>0.0000</b> | <b>3.0000e-005</b> | <b>0.0000</b> | <b>0.0956</b> | <b>0.0956</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0956</b> |

### 3.8 Paving - 2021

#### 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            |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Off-Road     | 2.1500e-003        | 0.0197        | 0.0207        | 3.0000e-005        | 1.0300e-003        | 1.0300e-003        | 1.0300e-003        | 9.6000e-004        | 9.6000e-004        | 9.6000e-004        | 0.0000        | 2.7490        | 2.7490        | 7.9000e-004        | 0.0000        | 2.7687        |
| Paving       | 1.4000e-004        |               |               |                    | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| <b>Total</b> | <b>2.2900e-003</b> | <b>0.0197</b> | <b>0.0207</b> | <b>3.0000e-005</b> | <b>1.0300e-003</b> | <b>1.0300e-003</b> | <b>1.0300e-003</b> | <b>9.6000e-004</b> | <b>9.6000e-004</b> | <b>9.6000e-004</b> | <b>0.0000</b> | <b>2.7490</b> | <b>2.7490</b> | <b>7.9000e-004</b> | <b>0.0000</b> | <b>2.7687</b> |

#### 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            |                    |                    |               |                    |               |                    |                    |               |                    |               |               |               |                    |               |               |
| MIT/yr       |                    |                    |                    |               |                    |               |                    |                    |               |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 1.9000e-004        | 1.4000e-004        | 1.5700e-003        | 0.0000        | 4.9000e-004        | 0.0000        | 5.0000e-004        | 1.3000e-004        | 0.0000        | 1.3000e-004        | 0.0000        | 0.4301        | 0.4301        | 1.0000e-005        | 0.0000        | 0.4303        |
| <b>Total</b> | <b>1.9000e-004</b> | <b>1.4000e-004</b> | <b>1.5700e-003</b> | <b>0.0000</b> | <b>4.9000e-004</b> | <b>0.0000</b> | <b>5.0000e-004</b> | <b>1.3000e-004</b> | <b>0.0000</b> | <b>1.3000e-004</b> | <b>0.0000</b> | <b>0.4301</b> | <b>0.4301</b> | <b>1.0000e-005</b> | <b>0.0000</b> | <b>0.4303</b> |



**Mitigated Construction On-Site**

| Category     | ROG                | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|              | MIT/yr             |               |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
| Off-Road     | 2.1500e-003        | 0.0197        | 0.0207        | 3.0000e-005        | 1.0300e-003        | 1.0300e-003        | 1.0300e-003        | 9.6000e-004        | 9.6000e-004        | 9.6000e-004        | 0.0000        | 2.7490        | 2.7490        | 7.9000e-004        | 0.0000        | 2.7687        |
| Paving       | 1.4000e-004        |               |               |                    | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| <b>Total</b> | <b>2.2900e-003</b> | <b>0.0197</b> | <b>0.0207</b> | <b>3.0000e-005</b> | <b>1.0300e-003</b> | <b>1.0300e-003</b> | <b>1.0300e-003</b> | <b>9.6000e-004</b> | <b>9.6000e-004</b> | <b>9.6000e-004</b> | <b>0.0000</b> | <b>2.7490</b> | <b>2.7490</b> | <b>7.9000e-004</b> | <b>0.0000</b> | <b>2.7687</b> |

**Mitigated Construction Off-Site**

| Category     | ROG                | NOx                | CO                 | SO2           | Fugitive PM10      | Exhaust PM10  | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
|              | tons/yr            |                    |                    |               |                    |               |                    |                    |               |                    |               |               |               |                    |               |               |
|              | MIT/yr             |                    |                    |               |                    |               |                    |                    |               |                    |               |               |               |                    |               |               |
| Hauling      | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Vendor       | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 1.9000e-004        | 1.4000e-004        | 1.5700e-003        | 0.0000        | 4.9000e-004        | 0.0000        | 5.0000e-004        | 1.3000e-004        | 0.0000        | 1.3000e-004        | 0.0000        | 0.4301        | 0.4301        | 1.0000e-005        | 0.0000        | 0.4303        |
| <b>Total</b> | <b>1.9000e-004</b> | <b>1.4000e-004</b> | <b>1.5700e-003</b> | <b>0.0000</b> | <b>4.9000e-004</b> | <b>0.0000</b> | <b>5.0000e-004</b> | <b>1.3000e-004</b> | <b>0.0000</b> | <b>1.3000e-004</b> | <b>0.0000</b> | <b>0.4301</b> | <b>0.4301</b> | <b>1.0000e-005</b> | <b>0.0000</b> | <b>0.4303</b> |

# Operational GHG Emissions

**Focal Strategies Cannabis**

Project GHG Summary

| <b>Category</b>      | <b>MTCO<sub>2</sub>e/year</b> |
|----------------------|-------------------------------|
| Area                 | 0.001                         |
| Electricity          | 854.219                       |
| Natural Gas          | 14.986                        |
| Mobile               | 174.976                       |
| Waste                | 8.333                         |
| Water                | 17.069                        |
| Off-Road             | 35.374                        |
| Stationary           | 13.181                        |
| Construction         | 5.913                         |
| <b>Project Total</b> | <b>1124.05</b>                |

Table for Report

| <b>Category</b>      | <b>MTCO<sub>2</sub>e/year</b> |
|----------------------|-------------------------------|
| Area                 | <1                            |
| Electricity          | 854                           |
| Natural Gas          | 15                            |
| Mobile               | 175                           |
| Waste                | 8                             |
| Water                | 17                            |
| Off-Road             | 35                            |
| Stationary           | 13                            |
| Construction         | 6                             |
| <b>Project Total</b> | <b>1124</b>                   |

**Focal Strategies Cannabis**

**Electricity GHG Emissions**

Annual Project Consumption (kWh)<sup>3</sup>  
2,671,400

Annual Project Consumption (MWh)  
2671.4

**Southern California Edison<sup>1</sup>**

| CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub>  | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> e |
|-----------------|-----------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|------------------|-------------------|
| lb/MWh          |                 |                  | GWP <sup>2</sup> |                 |                  | MT/year         |                 |                  |                   |
| 702.44          | 0.029           | 0.006            | 1                | 25              | 298              | 851.2           | 0.9             | 2.2              | 854.2             |

1 Intensity Factors are based on CalEEMod Default values

2 Global Warming Potentials from CARB

3 Electricity consumption based on Oregon Department of Energy, Indoor Cannabis Cultivator Energy Use Estimator

Focal Strategies Cannabis-Operations - South Coast AQMD Air District, Annual

**Focal Strategies Cannabis-Operations  
South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

| Land Uses              | Size  | Metric   | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Light Industry | 7.60  | 1000sqft | 0.17        | 7,600.00           | 0          |
| General Light Industry | 5.76  | 1000sqft | 0.13        | 5,757.00           | 0          |
| Parking Lot            | 11.00 | Space    | 0.10        | 4,400.00           | 0          |

**1.2 Other Project Characteristics**

|                          |                            |                          |       |                           |       |
|--------------------------|----------------------------|--------------------------|-------|---------------------------|-------|
| Urbanization             | Urban                      | Wind Speed (m/s)         | 2.2   | Precipitation Freq (Days) | 31    |
| Climate Zone             | 8                          |                          |       | Operational Year          | 2021  |
| Utility Company          | Southern California Edison |                          |       |                           |       |
| CO2 Intensity (lb/MW/hr) | 702.44                     | CH4 Intensity (lb/MW/hr) | 0.029 | N2O Intensity (lb/MW/hr)  | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity consumption calculated outside of CalEEMod

Land Use -

Vehicle Trips - Weekday Trip Rate applied to weekends to be conservative

Operational Off-Road Equipment - 2 forklifts would be used during Project Operations

| Table Name                     | Column Name                | Default Value | New Value |
|--------------------------------|----------------------------|---------------|-----------|
| tblOperationalOffRoadEquipment | OperFuelType               | Diesel        | CNG       |
| tblOperationalOffRoadEquipment | OperLoadFactor             | 0.20          | 0.20      |
| tblOperationalOffRoadEquipment | OperOffRoadEquipmentNumber | 0.00          | 2.00      |
| tblVehicleTrips                | ST_TR                      | 1.32          | 6.97      |
| tblVehicleTrips                | SU_TR                      | 0.68          | 6.97      |

## 2.0 Emissions Summary

### 2.2 Overall Operational

#### Unmitigated Operational

| Category     | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O                | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
|              | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |                    |                 |
| Area         | 0.0548        | 0.0000        | 3.1000e-004   | 0.0000             |               | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 6.0000e-004     | 0.0000          | 0.0000        | 0.0000             | 6.4000e-004     |
| Energy       | 1.5100e-003   | 0.0137        | 0.0115        | 8.0000e-005        |               | 1.0400e-003   | 1.0400e-003   | 1.0400e-003    | 1.0400e-003   | 1.0400e-003   | 0.0000        | 51.3495         | 51.3495         | 1.7900e-003   | 5.8000e-004        | 51.5685         |
| Mobile       | 0.0334        | 0.1955        | 0.5037        | 1.8900e-003        | 0.1567        | 1.5300e-003   | 0.1582        | 0.0420         | 1.4200e-003   | 0.0434        | 0.0000        | 174.7684        | 174.7684        | 8.3100e-003   | 0.0000             | 174.9762        |
| Offroad      | 0.0338        | 0.3081        | 0.3052        | 4.0000e-004        |               | 0.0219        | 0.0219        | 0.0201         | 0.0201        | 0.0201        | 0.0000        | 35.0903         | 35.0903         | 0.0114        | 0.0000             | 35.3740         |
| Waste        |               |               |               |                    |               | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 3.3636        | 0.0000          | 3.3636          | 0.1988        | 0.0000             | 8.3331          |
| Water        |               |               |               |                    |               | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 0.9802        | 12.8176         | 13.7978         | 0.1012        | 2.4900e-003        | 17.0688         |
| <b>Total</b> | <b>0.1235</b> | <b>0.5173</b> | <b>0.8206</b> | <b>2.3700e-003</b> | <b>0.1567</b> | <b>0.0244</b> | <b>0.1811</b> | <b>0.0420</b>  | <b>0.0226</b> | <b>0.0646</b> | <b>4.3437</b> | <b>274.0265</b> | <b>278.3702</b> | <b>0.3214</b> | <b>3.0700e-003</b> | <b>287.3212</b> |





## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| Category    | tons/yr |        |        |             |               |              |            |                |               |             |          | MIT/yr    |           |             |        |          |
|-------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|----------|
|             | ROG     | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e     |
| Mitigated   | 0.0334  | 0.1955 | 0.5037 | 1.8900e-003 | 0.1567        | 1.5300e-003  | 0.1582     | 0.0420         | 1.4200e-003   | 0.0434      | 0.0000   | 174.7684  | 174.7684  | 8.3100e-003 | 0.0000 | 174.9762 |
| Unmitigated | 0.0334  | 0.1955 | 0.5037 | 1.8900e-003 | 0.1567        | 1.5300e-003  | 0.1582     | 0.0420         | 1.4200e-003   | 0.0434      | 0.0000   | 174.7684  | 174.7684  | 8.3100e-003 | 0.0000 | 174.9762 |

### 4.2 Trip Summary Information

| Land Use               | Average Daily Trip Rate |          |        | Unmitigated |            | Mitigated  |            |
|------------------------|-------------------------|----------|--------|-------------|------------|------------|------------|
|                        | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT | Annual VMT | Annual VMT |
| General Light Industry | 52.97                   | 52.97    | 52.97  | 234,575     | 234,575    | 234,575    | 234,575    |
| General Light Industry | 40.13                   | 40.13    | 40.13  | 177,690     | 177,690    | 177,690    | 177,690    |
| Parking Lot            | 0.00                    | 0.00     | 0.00   |             |            |            |            |
| Total                  | 93.10                   | 93.10    | 93.10  | 412,265     | 412,265    | 412,265    | 412,265    |

### 4.3 Trip Type Information

| Land Use               | Miles      |            |            |             |           |            |            |             |         |          | Trip Purpose % |         |          |         |
|------------------------|------------|------------|------------|-------------|-----------|------------|------------|-------------|---------|----------|----------------|---------|----------|---------|
|                        | H-W or C-W | H-S or C-C | H-O or C-C | H-O or C-NW | H-W or C- | H-S or C-C | H-O or C-C | H-O or C-NW | Primary | Diverted | Pass-by        | Primary | Diverted | Pass-by |
| General Light Industry | 16.60      | 8.40       | 6.90       | 6.90        | 59.00     | 28.00      | 13.00      | 13.00       | 92      | 5        | 3              | 92      | 5        | 3       |
| General Light Industry | 16.60      | 8.40       | 6.90       | 6.90        | 59.00     | 28.00      | 13.00      | 13.00       | 92      | 5        | 3              | 92      | 5        | 3       |
| Parking Lot            | 16.60      | 8.40       | 6.90       | 6.90        | 0.00      | 0.00       | 0.00       | 0.00        | 0       | 0        | 0              | 0       | 0        | 0       |

### 4.4 Fleet Mix

| Land Use               | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Light Industry | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |
| Parking Lot            | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| Category                | tons/yr     |        |        |             |               |              |             |                |               |             |          | MT/yr     |           |             |             |      |         |
|-------------------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|------|---------|
|                         | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O         | CO2e |         |
| Electricity Mitigated   |             |        |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 36.4524   | 36.4524   | 1.5000e-003 | 3.1000e-004 |      | 36.5828 |
| Electricity Unmitigated |             |        |        |             |               | 0.0000       | 0.0000      |                | 0.0000        | 0.0000      | 0.0000   | 36.4524   | 36.4524   | 1.5000e-003 | 3.1000e-004 |      | 36.5828 |
| NaturalGas Mitigated    | 1.5100e-003 | 0.0137 | 0.0115 | 8.0000e-005 |               | 1.0400e-003  | 1.0400e-003 |                | 1.0400e-003   | 1.0400e-003 | 0.0000   | 14.8971   | 14.8971   | 2.9000e-004 | 2.7000e-004 |      | 14.9856 |
| NaturalGas Unmitigated  | 1.5100e-003 | 0.0137 | 0.0115 | 8.0000e-005 |               | 1.0400e-003  | 1.0400e-003 |                | 1.0400e-003   | 1.0400e-003 | 0.0000   | 14.8971   | 14.8971   | 2.9000e-004 | 2.7000e-004 |      | 14.9856 |

## 5.2 Energy by Land Use - Natural Gas

### Unmitigated

| Land Use               | Natural Gas Use<br>kBTU/yr | tons/yr            |               |               |                    |                    |                    |                    |                    |                    |                    | MT/yr         |                |                |                    |                    |                    |                |
|------------------------|----------------------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|--------------------|----------------|
|                        |                            | ROG                | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O                | CO2e               |                |
| General Light Industry | 120321                     | 6.5000e-004        | 5.9000e-003   | 4.9500e-003   | 4.0000e-005        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 0.0000        | 6.4208         | 6.4208         | 1.2000e-004        | 1.2000e-004        | 1.2000e-004        | 6.4590         |
| General Light Industry | 158840                     | 8.6000e-004        | 7.7900e-003   | 6.5400e-003   | 5.0000e-005        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 0.0000        | 8.4763         | 8.4763         | 1.6000e-004        | 1.6000e-004        | 1.6000e-004        | 8.5267         |
| Parking Lot            | 0                          | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>           |                            | <b>1.5100e-003</b> | <b>0.0137</b> | <b>0.0115</b> | <b>9.0000e-005</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>0.0000</b> | <b>14.8971</b> | <b>14.8971</b> | <b>2.8000e-004</b> | <b>2.8000e-004</b> | <b>2.8000e-004</b> | <b>14.9856</b> |

### Mitigated

| Land Use               | Natural Gas Use<br>kBTU/yr | tons/yr            |               |               |                    |                    |                    |                    |                    |                    |                    | MT/yr         |                |                |                    |                    |                    |                |
|------------------------|----------------------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|--------------------|----------------|
|                        |                            | ROG                | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O                | CO2e               |                |
| General Light Industry | 120321                     | 6.5000e-004        | 5.9000e-003   | 4.9500e-003   | 4.0000e-005        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 4.5000e-004        | 0.0000        | 6.4208         | 6.4208         | 1.2000e-004        | 1.2000e-004        | 1.2000e-004        | 6.4590         |
| General Light Industry | 158840                     | 8.6000e-004        | 7.7900e-003   | 6.5400e-003   | 5.0000e-005        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 5.9000e-004        | 0.0000        | 8.4763         | 8.4763         | 1.6000e-004        | 1.6000e-004        | 1.6000e-004        | 8.5267         |
| Parking Lot            | 0                          | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000             | 0.0000             | 0.0000         |
| <b>Total</b>           |                            | <b>1.5100e-003</b> | <b>0.0137</b> | <b>0.0115</b> | <b>9.0000e-005</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>1.0400e-003</b> | <b>0.0000</b> | <b>14.8971</b> | <b>14.8971</b> | <b>2.8000e-004</b> | <b>2.8000e-004</b> | <b>2.8000e-004</b> | <b>14.9856</b> |

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

| Land Use               | Electricity Use | Total CO2      | CH4                | N2O                | CO2e           |
|------------------------|-----------------|----------------|--------------------|--------------------|----------------|
|                        | KWh/yr          | MT/yr          |                    |                    |                |
| General Light Industry | 48646.6         | 15.4999        | 6.4000e-004        | 1.3000e-004        | 15.5553        |
| General Light Industry | 64220           | 20.4619        | 8.4000e-004        | 1.7000e-004        | 20.5351        |
| Parking Lot            | 1540            | 0.4907         | 2.0000e-005        | 0.0000             | 0.4924         |
| <b>Total</b>           |                 | <b>36.4524</b> | <b>1.5000e-003</b> | <b>3.0000e-004</b> | <b>36.5828</b> |

#### Mitigated

| Land Use               | Electricity Use | Total CO2      | CH4                | N2O                | CO2e           |
|------------------------|-----------------|----------------|--------------------|--------------------|----------------|
|                        | KWh/yr          | MT/yr          |                    |                    |                |
| General Light Industry | 48646.6         | 15.4999        | 6.4000e-004        | 1.3000e-004        | 15.5553        |
| General Light Industry | 64220           | 20.4619        | 8.4000e-004        | 1.7000e-004        | 20.5351        |
| Parking Lot            | 1540            | 0.4907         | 2.0000e-005        | 0.0000             | 0.4924         |
| <b>Total</b>           |                 | <b>36.4524</b> | <b>1.5000e-003</b> | <b>3.0000e-004</b> | <b>36.5828</b> |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| Category    | tons/yr |        |             |        |               |              |            |                |               |             |          | MT/yr       |             |        |        |             |
|-------------|---------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
|             | ROG     | NOx    | CO          | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2   | Total CO2   | CH4    | N2O    | CO2e        |
| Mitigated   | 0.0548  | 0.0000 | 3.1000e-004 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 6.0000e-004 | 6.0000e-004 | 0.0000 | 0.0000 | 6.4000e-004 |
| Unmitigated | 0.0548  | 0.0000 | 3.1000e-004 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 6.0000e-004 | 6.0000e-004 | 0.0000 | 0.0000 | 6.4000e-004 |

## 6.2 Area by SubCategory

### Unmitigated

| SubCategory           | tons/yr       |               |                    |               |               |               |               |                |               |               |               | MT/yr              |               |               |               |                    |
|-----------------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|
|                       | ROG           | NOx           | CO                 | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2          | Total CO2     | CH4           | N2O           | CO2e               |
| Architectural Coating | 6.2500e-003   |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             |
| Consumer Products     | 0.0486        |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             |
| Landscaping           | 3.0000e-005   | 0.0000        | 3.1000e-004        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 6.0000e-004        | 0.0000        | 0.0000        | 0.0000        | 6.4000e-004        |
| <b>Total</b>          | <b>0.0548</b> | <b>0.0000</b> | <b>3.1000e-004</b> | <b>0.0000</b> |               | <b>0.0000</b> | <b>0.0000</b> |                | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>6.0000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>6.4000e-004</b> |

### Mitigated

| SubCategory           | tons/yr       |               |                    |               |               |               |               |                |               |               |               | MT/yr              |               |               |               |                    |
|-----------------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|
|                       | ROG           | NOx           | CO                 | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2          | Total CO2     | CH4           | N2O           | CO2e               |
| Architectural Coating | 6.2500e-003   |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             |
| Consumer Products     | 0.0486        |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             |
| Landscaping           | 3.0000e-005   | 0.0000        | 3.1000e-004        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 6.0000e-004        | 0.0000        | 0.0000        | 0.0000        | 6.4000e-004        |
| <b>Total</b>          | <b>0.0548</b> | <b>0.0000</b> | <b>3.1000e-004</b> | <b>0.0000</b> |               | <b>0.0000</b> | <b>0.0000</b> |                | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>6.0000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>6.4000e-004</b> |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

| Category    | MT/yr     |        |             |         |
|-------------|-----------|--------|-------------|---------|
|             | Total CO2 | CH4    | N2O         | CO2e    |
| Mitigated   | 13.7978   | 0.1012 | 2.4900e-003 | 17.0688 |
| Unmitigated | 13.7978   | 0.1012 | 2.4900e-003 | 17.0688 |

### 7.2 Water by Land Use

#### Unmitigated

| Land Use               | Indoor/Outdoor Use | MT/yr          |               |                    | CO2e           |
|------------------------|--------------------|----------------|---------------|--------------------|----------------|
|                        |                    | Total CO2      | CH4           | N2O                |                |
| General Light Industry | 3.0895 / 0         | 13.7978        | 0.1012        | 2.4900e-003        | 17.0688        |
| Parking Lot            | 0 / 0              | 0.0000         | 0.0000        | 0.0000             | 0.0000         |
| <b>Total</b>           |                    | <b>13.7978</b> | <b>0.1012</b> | <b>2.4900e-003</b> | <b>17.0688</b> |

#### Mitigated

| Land Use               | Indoor/Outdoor Use | MT/yr          |               |                    | CO2e           |
|------------------------|--------------------|----------------|---------------|--------------------|----------------|
|                        |                    | Total CO2      | CH4           | N2O                |                |
| General Light Industry | 3.0895 / 0         | 13.7978        | 0.1012        | 2.4900e-003        | 17.0688        |
| Parking Lot            | 0 / 0              | 0.0000         | 0.0000        | 0.0000             | 0.0000         |
| <b>Total</b>           |                    | <b>13.7978</b> | <b>0.1012</b> | <b>2.4900e-003</b> | <b>17.0688</b> |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
|             | MT/yr     |        |        |        |
| Mitigated   | 3.3636    | 0.1988 | 0.0000 | 8.3331 |
| Unmitigated | 3.3636    | 0.1988 | 0.0000 | 8.3331 |

### 8.2 Waste by Land Use

#### Unmitigated

| Land Use               | Waste Disposed<br>tons | Total CO2     | CH4           | N2O           | CO2e          |
|------------------------|------------------------|---------------|---------------|---------------|---------------|
|                        |                        | MT/yr         |               |               |               |
| General Light Industry | 16.57                  | 3.3636        | 0.1988        | 0.0000        | 8.3331        |
| Parking Lot            | 0                      | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>           |                        | <b>3.3636</b> | <b>0.1988</b> | <b>0.0000</b> | <b>8.3331</b> |

#### Mitigated

| Land Use               | Waste Disposed<br>tons | Total CO2     | CH4           | N2O           | CO2e          |
|------------------------|------------------------|---------------|---------------|---------------|---------------|
|                        |                        | MT/yr         |               |               |               |
| General Light Industry | 16.57                  | 3.3636        | 0.1988        | 0.0000        | 8.3331        |
| Parking Lot            | 0                      | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>           |                        | <b>3.3636</b> | <b>0.1988</b> | <b>0.0000</b> | <b>8.3331</b> |



## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
| Forklifts      | 2      | 8.00      | 260       | 89          | 0.20        | CNG       |

## UnMitigated/Mitigated

| Equipment Type | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                |                |               |               |                |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
|                | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4           | N2O           | CO2e           |
| Forklifts      | 0.0338        | 0.3081        | 0.3052        | 4.0000e-004        | 0.0219        | 0.0219        | 0.0219        | 0.0201         | 0.0201        | 0.0201        | 0.0000        | 35.0903        | 35.0903        | 0.0114        | 0.0000        | 35.3740        |
| <b>Total</b>   | <b>0.0338</b> | <b>0.3081</b> | <b>0.3052</b> | <b>4.0000e-004</b> | <b>0.0219</b> | <b>0.0219</b> | <b>0.0219</b> | <b>0.0201</b>  | <b>0.0201</b> | <b>0.0201</b> | <b>0.0000</b> | <b>35.0903</b> | <b>35.0903</b> | <b>0.0114</b> | <b>0.0000</b> | <b>35.3740</b> |

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

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

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

### User Defined Equipment

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

## 11.0 Vegetation

**Focal Strategies Cannabis**  
**Air Quality Assessment**  
**Emergency Generator Emissions**

**Conversion Factors**

|                            |        |   |
|----------------------------|--------|---|
| HP/kW                      | 1.3410 |   |
| PM10 Fraction of Total PM  | 0.960  | Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION   |
| PM2.5 Fraction of Total PM | 0.937  | Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION   |
| CO2 g/gal                  | 10.21  | Climate Registry, Table 13.1: <a href="https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf">https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf</a> |
| CH4 g/gal                  | 0.58   | Climate Registry, Table 13.7: <a href="https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf">https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf</a> |
| N2O g/gal                  | 0.26   | Climate Registry, Table 13.7: <a href="https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf">https://www.theclimateregistry.org/wp-content/uploads/2014/11/2016-Climate-Registry-Default-Emission-Factors.pdf</a> |
| GWP CH4                    | 25     | IPCC AR4  |
| GWP N2O                    | 298    | IPCC AR4  |
| CO2e g/gal                 | 10,302 |   |
| CO2 g/gal                  | 10,210 |   |
| CO2/CO2e                   | 0.9911 |   |

**Emergency Generator**

|                           |                     |  |
|---------------------------|---------------------|--|
| Ratings:                  | <b>500</b> kW       | <i>(based on conservative engineering assumptions)</i>                           |
|                           | 671 HP              | <i>(based on conservative engineering assumptions; conversion from kW to hp)</i> |
|                           | - kW                | <i>(based on conservative engineering assumptions)</i>                           |
|                           | - HP                | <i>(conversion from kW to hp)</i>  |
| Load Factor:              | 0.74                | <i>(based on CalEEMod Generator Set Load Factor)</i>                             |
| Engine Emissions Tier:    | Rule 1470 Compliant | <i>(compliance with CARB and AQMD diesel regulations)</i>                        |
| Operating Hours per Unit: | 2 hours/day         | <i>(testing/maintenance)</i>   |
|                           | 50 hours/year       | <i>(testing/maintenance, Regulatory Limit per SCAQMD Rule 1470)</i>              |

**Emergency Generator Emissions**

| Units                 | Criteria Pollutants <sup>1,2,3</sup> |                 |             |                 |             | Greenhouse Gases <sup>4</sup> |                 |                   |
|-----------------------|--------------------------------------|-----------------|-------------|-----------------|-------------|-------------------------------|-----------------|-------------------|
|                       | VOC                                  | NO <sub>x</sub> | CO          | SO <sub>x</sub> | PM10        | PM2.5                         | CO <sub>2</sub> | CO <sub>2</sub> e |
| g/kW-hr               | —                                    | —               | 3.50        | —               | —           | —                             | —               | —                 |
| g/HP-hr               | 0.24                                 | 4.56            | 2.61        | 5.50E-05        | 0.0192      | 0.0187                        | 526.17          | 530.91            |
| lbs/hr                | 0.26                                 | 4.99            | 2.86        | 0.00            | 0.02        | 0.02                          | 575.99          | 581.18            |
| <b>lbs/day</b>        | <b>0.53</b>                          | <b>9.98</b>     | <b>5.71</b> | <b>0.00012</b>  | <b>0.04</b> | <b>0.04</b>                   | 1,151.97        | 1,162.35          |
| lbs/yr                | 13.14                                | 249.59          | 142.85      | 0.00            | 1.05        | 1.03                          | 28,799.32       | 29,058.77         |
| tons/yr               | 0.01                                 | 0.12            | 0.07        | 0.00            | 0.00        | 0.00                          | 14.40           | 14.53             |
| <b>metric tons/yr</b> | —                                    | —               | —           | —               | —           | —                             | <b>13.06</b>    | <b>13.18</b>      |

**Notes:**

1. Emission factors for VOC and NO<sub>x</sub>: Regulatory Limit per SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines).
2. Emission factors for CO, PM10, and PM2.5: Regulatory Limit per SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines).
3. Emission factor for SO<sub>2</sub>: U.S. Environmental Protection Agency, AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Section 3.4, Table 3.4-1. Emission Factor for SO<sub>2</sub> is based on 15 ppm (0.0015%) S1 from the EPA Nonroad Diesel Fuel Program, and assumes complete conversion to SO<sub>2</sub>.
4. Emission factor for CO<sub>2</sub>: U.S. Environmental Protection Agency, AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Section 3.4, Table 3.4-1. Emissions of GHGs assume 99.11% of the CO<sub>2</sub>e emissions occur as CO<sub>2</sub>, based on Climate Registry emission factors as referenced above.

Source: ESA 2018.

# Appendix B

## **Noise**

# Noise Calculations

**Project: Focal Cannabis Facility**

Construction Noise Impact on Sensitive Receptors

**Parameters**

|                            |  |
|----------------------------|--|
| <b>Construction Hours:</b> | 8 Daytime hours (7 am to 7 pm)<br>0 Evening hours (7 pm to 10 pm)<br>0 Nighttime hours (10 pm to 7 am) |
| <b>Leq to L10 factor</b>   | 3  |

| Construction Phase<br>Equipment Type | No. of<br>Equip. | Reference<br>Noise Level at<br>50ft, Lmax | Acoustical<br>Usage Factor | R1 - Hotel    |      |     |     |                                      |
|--------------------------------------|------------------|---|----------------------------|---------------|------|-----|-----|--------------------------------------|
|                                      |                  |   |                            | Distance (ft) | Lmax | Leq | L10 | Estimated<br>Noise<br>Shielding, dBA |
| <b>Site Preparation</b>              |                  |   |                            |               |      |     |     |                                      |
| Graders                              | 1                | 85  | 40%                        | 20            | 93   | 89  | 92  | 0                                    |
| Tractor/Loader/Backhoe               | 1                | 80  | 25%                        | 120           | 72   | 66  | 69  | 0                                    |
| <b>Grading/Excavation</b>            |                  |   |                            |               |      |     |     |                                      |
| Concrete Saw                         | 1                | 90  | 20%                        | 20            | 98   | 91  | 94  | 0                                    |
| Dozer                                | 1                | 82  | 40%                        | 120           | 74   | 70  | 73  | 0                                    |
| Tractor/Loader/Backhoe               | 2                | 80  | 25%                        | 220           | 70   | 64  | 67  | 0                                    |
| <b>Drainage/Utils/Sub-Grade</b>      |                  |   |                            |               |      |     |     |                                      |
| Graders                              | 1                | 85  | 40%                        | 20            | 93   | 89  | 92  | 0                                    |
| Tractor/Loader/Backhoe               | 1                | 80  | 25%                        | 120           | 72   | 66  | 69  | 0                                    |
| <b>Foundation/Concrete Pour</b>      |                  |   |                            |               |      |     |     |                                      |
| Cranes                               | 1                | 81  | 16%                        | 20            | 89   | 81  | 84  | 0                                    |
| Forklift                             | 2                | 75  | 10%                        | 120           | 70   | 60  | 63  | 0                                    |
| Tractor/Loader/Backhoe               | 2                | 80  | 25%                        | 220           | 70   | 64  | 67  | 0                                    |
| <b>Building Construction</b>         |                  |   |                            |               |      |     |     |                                      |
| Cranes                               | 1                | 81  | 16%                        | 20            | 89   | 81  | 84  | 0                                    |
| Forklift                             | 2                | 75  | 10%                        | 120           | 70   | 60  | 63  | 0                                    |
| Tractor/Loader/Backhoe               | 2                | 80  | 25%                        | 190           | 71   | 65  | 68  | 0                                    |
| <b>Architectural Coating</b>         |                  |   |                            |               |      |     |     |                                      |
| Air Compressor                       | 1                | 78  | 20%                        | 20            | 86   | 79  | 82  | 0                                    |
| <b>Paving</b>                        |                  |   |                            |               |      |     |     |                                      |
| Cement and Mortar Mixers             | 4                | 79  | 40%                        | 80            | 81   | 77  | 80  | 0                                    |
| Paver                                | 1                | 77  | 50%                        | 180           | 66   | 63  | 66  | 0                                    |
| Roller                               | 1                | 80  | 20%                        | 280           | 65   | 58  | 61  | 0                                    |
| Tractor/Loader/Backhoe               | 1                | 80  | 25%                        | 280           | 65   | 59  | 62  | 0                                    |

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNIM, 2005

**Project: Focal Cannabis Facility**

Construction Noise Impact on Sensitive Receptors

**Parameters**

|                            |  |
|----------------------------|--|
| <b>Construction Hours:</b> | 8 Daytime hours (7 am to 7 pm)<br>0 Evening hours (7 pm to 10 pm)<br>0 Nighttime hours (10 pm to 7 am) |
| <b>Leq to L10 factor</b>   | 3  |

|  |                      |  |                                |                      | <b>R1 - Hotel</b> |            |            |                                       |  |
|--|----------------------|--|--------------------------------|----------------------|-------------------|------------|------------|---------------------------------------|--|
| <b>Construction Phase Equipment Type</b> | <b>No. of Equip.</b> | <b>Reference Noise Level at 50ft, Lmax</b> | <b>Acoustical Usage Factor</b> | <b>Distance (ft)</b> | <b>Lmax</b>       | <b>Leq</b> | <b>L10</b> | <b>Estimated Noise Shielding, dBA</b> |  |
| <b>Site Preparation</b>                  |                      |  |                                |                      |                   |            |            |                                       |  |
| Graders                                  | 1                    | 85   | 40%                            | 50                   | 85                | 81         | 84         | 0                                     |  |
| Tractor/Loader/Backhoe                   | 1                    | 80   | 25%                            | 150                  | 70                | 64         | 67         | 0                                     |  |
| <b>Grading/Excavation</b>                |                      |  |                                |                      |                   |            |            |                                       |  |
| Concrete Saw                             | 1                    | 90   | 20%                            | 50                   | 90                | 83         | 86         | 0                                     |  |
| Dozer                                    | 1                    | 82   | 40%                            | 150                  | 72                | 68         | 71         | 0                                     |  |
| Tractor/Loader/Backhoe                   | 2                    | 80   | 25%                            | 250                  | 69                | 63         | 66         | 0                                     |  |
| <b>Drainage/Utils/Sub-Grade</b>          |                      |  |                                |                      |                   |            |            |                                       |  |
| Graders                                  | 1                    | 85   | 40%                            | 50                   | 85                | 81         | 84         | 0                                     |  |
| Tractor/Loader/Backhoe                   | 1                    | 80   | 25%                            | 150                  | 70                | 64         | 67         | 0                                     |  |
| <b>Foundation/Concrete Pour</b>          |                      |  |                                |                      |                   |            |            |                                       |  |
| Cranes                                   | 1                    | 81   | 16%                            | 50                   | 81                | 73         | 76         | 0                                     |  |
| Forklift                                 | 2                    | 75   | 10%                            | 150                  | 68                | 58         | 61         | 0                                     |  |
| Tractor/Loader/Backhoe                   | 2                    | 80   | 25%                            | 250                  | 69                | 63         | 66         | 0                                     |  |
| <b>Building Construction</b>             |                      |  |                                |                      |                   |            |            |                                       |  |
| Cranes                                   | 1                    | 81   | 16%                            | 50                   | 81                | 73         | 76         | 0                                     |  |
| Forklift                                 | 2                    | 75   | 10%                            | 150                  | 68                | 58         | 61         | 0                                     |  |
| Tractor/Loader/Backhoe                   | 2                    | 80   | 25%                            | 150                  | 73                | 67         | 70         | 0                                     |  |
| <b>Architectural Coating</b>             |                      |  |                                |                      |                   |            |            |                                       |  |
| Air Compressor                           | 1                    | 78   | 20%                            | 50                   | 78                | 71         | 74         | 0                                     |  |
| <b>Paving</b>                            |                      |  |                                |                      |                   |            |            |                                       |  |
| Cement and Mortar Mixers                 | 4                    | 79   | 40%                            | 50                   | 85                | 81         | 84         | 0                                     |  |
| Paver                                    | 1                    | 77   | 50%                            | 150                  | 67                | 64         | 67         | 0                                     |  |
| Roller                                   | 1                    | 80   | 20%                            | 250                  | 66                | 59         | 62         | 0                                     |  |
| Tractor/Loader/Backhoe                   | 1                    | 80   | 25%                            | 250                  | 66                | 60         | 63         | 0                                     |  |

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNIM, 2005

**Focal Cannabis Facility  
Vibration Source Levels  
Based on Federal Transit Administration, Office of Planning and Environment**

**Table III. Off-Site Structural Impact Analysis**

N = 1.5

| <b>Construction Equipment</b> | <b>Project Equipment</b> | <b>Equipment Peak Particle Velocity @ 25 Feet* (inches/second)</b> | <b>Distance to Receptor for &lt; 0.5 PPV (Feet)</b> | <b>Estimated Velocity Decibels @ Distance** (VdB)</b> | <b>Estimated Peak Particle Velocity @ Distance*** (inches/second)</b> |
|-------------------------------|--------------------------|--|---|---|---|
| <b>R1</b>                     |                          |  |   |   |   |
| Large Bulldozer               | Yes                      | 0.089  | 20  | 90  | 0.124   |
| Loaded Trucks                 | Yes                      | 0.076  | 20  | 88  | 0.106   |
| Small Bulldozer               | Yes                      | 0.003  | 20  | 60  | 0.004   |

Source:

U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment, *Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06)*, (2006).

Notes:

\* Values taken from Table 12-2.

\*\*\* Based on the formula  $PPV(D) = PPV(25 \text{ ft}) \times (25/D)^N$ , where D is equal to the distance.

N = soil type classification factor (typically ranges from 1 to 1.5)

Appendix C  
**Energy Calculation Worksheets**



# Construction Energy Consumption

**Focal Strategies Cannabis  
Construction Energy Analysis**

**Annual Fuel Summary**

|   |  |
|---|--|
| <b>Off-Road Heavy-Duty Construction Equipment</b> |  |
| 16,465  | Diesel Consumption (gal)                   |
| 16,465  | Annual Diesel Consumption (gal/year)       |
| <b>On-Road Construction Equipment</b>             |  |
| <b>Haul Trucks</b>                                |  |
| 860   | Diesel Consumption (gal)                   |
| 860   | Annual Diesel Consumption (gal/year)       |
| <b>Vendor Trucks</b>                              |  |
| 177   | Diesel Consumption (gal)                   |
| 177   | Annual Diesel Consumption (gal/year)       |
| <b>Workers</b>                                    |  |
| 1,629   | Gas Consumption (gal)                      |
| 1,629   | Annual Gas Consumption (gal/year)          |
| <b>Total On-Road</b>                              |  |
| 1,037   | Total Diesel Consumption (gal)             |
| 1,037   | Annual Diesel Consumption (gal/year)       |
| 1,629   | Project Gas Consumption (gal)              |
| 1,629   | Annual Gas Consumption (gal/year)          |
| <b>17,502</b>                                     | <b>Total Gallons Diesel</b>                |
| <b>1,629</b>                                      | <b>Total Gallons Gasoline</b>              |
| <b>19,131</b>                                     | <b>Total Gallons Fuel (Gas and Diesel)</b> |

1.0 Estimated Project Construction Duration (years)

17,502 Annual Average Gallons Diesel  
1,629 Annual Average Gallons Gasoline

| <b>Los Angeles County Fuel Consumption (2016)<sup>1</sup></b> |                  |                | <b>Percent of Annual Project Compared to County</b> |
|---|------------------|----------------|---|
| <b>Source</b>   | <b>Fuel Type</b> | <b>Gallons</b> |   |
| Off-Road/Vendor/Haul Trucks                                   | Diesel           | 580,769,231    | 0.003%  |
| Workers   | Gasoline         | 3,577,000,000  | 0.00005%  |

**Annual Electricity Summary**

|  |  |
|--|--|
| <b>Construction Water and Equipment</b>                                |  |
| 6,050  | kWh total  |
| 6,050  | kWh annual average                               |
| <b>Southern California Edison Electricity Sales (2017)<sup>2</sup></b> |  |
| 85,879,000,000   | kWh annual                                       |
| <b>0.000007%</b>   | <b>Percent of Annual Project Compared to SCE</b> |

**Notes:**

- California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016, [http://www.energy.ca.gov/almanac/transportation\\_data/gasoline/2016\\_A15\\_Results.xlsx](http://www.energy.ca.gov/almanac/transportation_data/gasoline/2016_A15_Results.xlsx). Accessed September 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.
- Southern California Edison, 2017 Financial and Statistical Report, p.3

Focal Strategies Cannabis

Construction Water Energy Estimates

| Source                             | CalEEMod Construction Water Use        | Total Water Use                       | Electricity Demand from water Demand       |   |
|------------------------------------|--|---------------------------------------|--|---|
|                                    | (Mgal/yr)                              | (Mgal/yr)                             | (kWh)                                      |   |
| Focal Strategies Cannabis          | 0.465                                  | 0.46464                               | 6050                                       |   |
| <b>Net Total</b>                   | <b>0.465</b>                           | <b>0.465</b>                          | <b>6050</b>                                |   |
| CalEEMod Water Electricity Factors | Electricity Intensity Factor To Supply | Electricity Intensity Factor To Treat | Electricity Intensity Factor To Distribute | Electricity Intensity Factor For Wastewater Treatment |
| Focal Strategies Cannabis          | 9727                                   | 111                                   | 1272                                       | 1911  |

Source: California Emissions Estimator Model (CalEEMod).

Electricity Intensity Factors - California Emissions Estimator Model (CalEEMod).

Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%. Factor is therefore  $(20.94 \text{ GAL/SF/year}) \times (43,560 \text{ SF/acre}) / (365 \text{ days/year}) / (0.85) = 2,940 \text{ gallons/acre/day}$ , rounded up to 3,000 gallons/acre/day. (U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. "Guidelines for Estimating Unmetered Landscaping Water Use." July 2010. Page 12, Table 4 - Annual Irrigation Factor – Landscaped Areas with High Water Requirements).

**Focal Strategies Cannabis  
Construction Energy Analysis**

**Off-Road Equipment**

**Equipment ≤ 50 hp**  
 pounds fuel/hp-hr (OFFROAD2011 model, ≤ 50 hp): 0.408 lb/hp-hr  
 diesel pounds/gallon (CARB density assumption): 7.07 lb/gal  
 diesel gallons/hp-hr: 0.0577 gal/hp-hr  
 Total <50: 806 hp-hr  
 Total diesel gallons: 47 gal

**Equipment > 50 hp**  
 pounds fuel/hp-hr (OFFROAD2011 model, > 50 hp): 0.367 lb/hp-hr  
 diesel pounds/gallon (CARB density assumption): 7.07 lb/gal  
 diesel gallons/hp-hr: 0.0519 gal/hp-hr  
 Total >50: 316,293 hp-hr  
 Total diesel gallons: 16,419 gal

**Total diesel gallons (off-road equipment): 16,465 gal**

| Construction Phase       | Equipment                 | Number | Hours/Day | HP  | Load | Days                | Total hp-hr |
|--------------------------|---------------------------|--------|-----------|-----|------|---------------------|-------------|
| Site Preparation         | Graders                   | 1      | 8         | 187 | 0.41 | 10                  | 6,134       |
| Site Preparation         | Tractors/Loaders/Backhoes | 1      | 8         | 97  | 0.37 | 10                  | 2,871       |
| Grading/Excavation       | Concrete/Industrial Saws  | 1      | 8         | 81  | 0.73 | 15                  | 7,096       |
| Grading/Excavation       | Rubber Tired Dozers       | 1      | 8         | 247 | 0.4  | 15                  | 11,856      |
| Grading/Excavation       | Tractors/Loaders/Backhoes | 2      | 8         | 97  | 0.37 | 15                  | 8,614       |
| Drainage/Utils/Sub-Grade | Graders                   | 1      | 8         | 187 | 0.41 | 20                  | 12,267      |
| Drainage/Utils/Sub-Grade | Tractors/Loaders/Backhoes | 1      | 8         | 97  | 0.37 | 20                  | 5,742       |
| Foundation/Concrete Pour | Cranes                    | 1      | 8         | 231 | 0.29 | 2                   | 1,072       |
| Foundation/Concrete Pour | Forklifts                 | 2      | 8         | 89  | 0.2  | 2                   | 570         |
| Foundation/Concrete Pour | Tractors/Loaders/Backhoes | 2      | 8         | 97  | 0.37 | 2                   | 1,148       |
| Building Construction    | Cranes                    | 1      | 8         | 231 | 0.29 | 180                 | 96,466      |
| Building Construction    | Forklifts                 | 2      | 8         | 89  | 0.2  | 180                 | 51,264      |
| Building Construction    | Tractors/Loaders/Backhoes | 2      | 8         | 97  | 0.37 | 180                 | 103,363     |
| Architectural Coating    | Air Compressors           | 1      | 8         | 78  | 0.48 | 10                  | 2,995       |
| Paving                   | Cement and Mortar Mixers  | 4      | 8         | 9   | 0.56 | 5                   | 806         |
| Paving                   | Pavers                    | 1      | 8         | 130 | 0.42 | 5                   | 2,184       |
| Paving                   | Rollers                   | 1      | 8         | 80  | 0.38 | 5                   | 1,216       |
| Paving                   | Tractors/Loaders/Backhoes | 1      | 8         | 97  | 0.37 | 5                   | 1,436       |
|                          |                           |        |           |     |      | <b>Total &gt;50</b> | 316,293     |
|                          |                           |        |           |     |      | <b>Total &lt;50</b> | 806         |

**Focal Strategies Cannabis  
Construction Energy Analysis**

**On-Road Haul Trucks**

|   |                     |              |
|---|---------------------|--------------|
| EMFAC2014 Diesel Fuel Consumption Factor: <sup>1</sup>    | 0.1645 gallons/mile | miles/gallon |
| Total Haul Truck VMT:                                     | 5,120 miles         | 6.08         |
| <b>Total VMT diesel gallons (on-road haul trucks):</b>    | <b>842</b>          |              |
| EMFAC2014 Diesel Fuel Consumption Factor: <sup>2</sup>    | 0.8225 gallons/hour |              |
| Total Haul Truck Idle-Hours per Year:                     | 21 hours            |              |
| <b>Total Idling diesel gallons (on-road haul trucks):</b> | <b>18</b>           |              |
| <b>Total diesel gallons (on-road haul trucks):</b>        | <b>860 gal</b>      |              |

1. California Air Resources Board, EMFAC2014 (South Coast Air Basin; T7 Single Construction; Annual; CY 2019; Aggregate MY; Aggregate Speed)
2. California Air Resources Board, EMFAC2014 (South Coast Air Basin; T7 Single Construction; Annual; CY 2019; Aggregate MY; 5 miles per hour converted to hourly rate)

| Phase                        | Total One- |            | VMT   | Idle Hours |
|------------------------------|------------|------------|-------|------------|
|                              | Way Trips  | Miles/Trip |       |            |
| Site Preparation             | 0          | 20         | -     | -          |
| Grading/Excavation           | 144        | 20         | 2,880 | 12         |
| Drainage/Utilities/Sub-Grade | 0          | 20         | -     | -          |
| Foundation/Concrete Pour     | 112        | 20         | 2,240 | 9          |
| Building Construction        | 0          | 20         | -     | -          |
| Architectural Coatings       | 0          | 20         | -     | -          |
| Paving                       | 0          | 20         | -     | -          |
| Total Haul Truck VMT:        |            |            | 5,120 |            |
| Total Idle-Hours:            |            |            |       | 21         |

**Focal Strategies Cannabis  
Construction Energy Analysis**

**On-Road Vendor Trucks**

|   |                     |              |
|---|---------------------|--------------|
| EMFAC2014 Diesel Fuel Consumption Factor: <sup>1</sup>    | 0.1521 gallons/mile | miles/gallon |
| Total Vendor Truck VMT:                                   | 1,090 miles         | 6.6          |
| <b>Total VMT diesel gallons (on-road vendor trucks):</b>  | <b>166</b>          |              |
| EMFAC2014 Diesel Fuel Consumption Factor: <sup>2</sup>    | 0.7645 gallons/hour |              |
| Total Haul Truck Idle-Hours per Year:                     | 15 hours            |              |
| <b>Total Idling diesel gallons (on-road haul trucks):</b> | <b>11</b>           |              |
| <b>Total diesel gallons (on-road haul trucks):</b>        | <b>177 gal</b>      |              |

1. California Air Resources Board, EMFAC2014 (South Coast Air Basin; HHDT and MHDT; Annual; CY 2019; Aggregate MY; Aggregate Speed)
2. California Air Resources Board, EMFAC2014 (South Coast Air Basin; HHDT and MHDT; Annual; CY 2019; Aggregate MY; 5 miles per hour converted to hourly rate)

| Phase                        | Days | Trips/Day | Miles/Trip | VMT   | Idle Hours |
|------------------------------|------|-----------|------------|-------|------------|
| Site Preparation             | 10   | 6         | 6.9        | 414   | 5          |
| Grading/Excavation           | 15   | 6         | 6.9        | 621   | 8          |
| Drainage/Utilities/Sub-Grade | 20   | 0         | 6.9        | -     | -          |
| Foundation/Concrete Pour     | 2    | 4         | 6.9        | 55    | 2          |
| Building Construction        | 180  | 0         | 6.9        | -     | -          |
| Architectural Coatings       | 10   | 0         | 6.9        | -     | -          |
| Paving                       | 5    | 0         | 6.9        | -     | -          |
| Total Vendor Truck VMT:      |      |           |            | 1,090 |            |
| Total Idle-Hours:            |      |           |            |       | 15         |

**Focal Strategies Cannabis  
Construction Energy Analysis**

**On-Road Workers (LDA, LDT1, LDT2)**

EMFAC2014 Gasoline Fuel Consumption Factor:<sup>1</sup> 0.0408 gallons/mile miles/gallon  
 Total Worker VMT: 39,896 miles 24.5  
**Total VMT gasoline gallons (workers): 1,629**

1. California Air Resources Board, EMFAC2014 (South Coast Air Basin; LDA, LDT1, LDT2; CY 2019; Aggregate MY; Aggregate Speed)

| Phase                        | Days | One-Way   |            | VMT           |
|------------------------------|------|-----------|------------|---------------|
|                              |      | Trips/Day | Miles/Trip |               |
| Site Preparation             | 10   | 6         | 14.7       | 882           |
| Grading/Excavation           | 15   | 16        | 14.7       | 3,528         |
| Drainage/Utilities/Sub-Grade | 20   | 6         | 14.7       | 1,764         |
| Foundation/Concrete Pour     | 2    | 12        | 14.7       | 353           |
| Building Construction        | 180  | 12        | 14.7       | 31,752        |
| Architectural Coatings       | 10   | 2         | 14.7       | 294           |
| Paving                       | 5    | 18        | 14.7       | 1,323         |
| <b>Total Worker VMT:</b>     |      |           |            | <b>39,896</b> |

# **Operational Energy Consumption**



**Focal Strategies Cannabis  
Operational Energy Analysis**

| Electricity                               | kWh/yr           | GWh/yr       |
|---|------------------|--------------|
| General Light Industrial                  | 2,671,400        | 2.671        |
| <b>Total</b>                              | <b>2,671,400</b> | <b>2.671</b> |
| <b>Total (including water, see below)</b> | <b>2,711,700</b> | <b>2.712</b> |

**Project Energy Consumption** 2,711,700 2.71

Source: Oregon Department of Energy, Indoor Cannabis Cultivator Energy Use Estimator, 2018

| Electricity                    | GWh/yr  |
|--------------------------------|---------|
| SCE 2017 Electricity Sales     | 85,879  |
| Project Annual Existing Annual | 2.712   |
| Net Project Annual             | -       |
| Percent Net Project of LADWP   | 2.712   |
|                                | 0.0032% |

Source: Southern California Edison  
2017 Financial and Statistical Report

| Water                    | Mgal/yr      |
|--------------------------|--------------|
| General Light Industrial | 3.095        |
| <b>Total</b>             | <b>3.095</b> |

| Electricity Intensity Factors             | kWh/Mgal |
|---|----------|
| Electricity Factor - Supply               | 9,727    |
| Electricity Factor - Treat                | 111      |
| Electricity Factor - Distribute           | 1,272    |
| Electricity Factor - Wastewater Treatment | 1,911    |

| Electricity from Water Demand | kWh/yr        | GWh/yr       |
|-------------------------------|---------------|--------------|
| <b>Total</b>                  | <b>40,300</b> | <b>0.040</b> |

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.  
Base water demand is based on rates provided in City of Los Angeles Department of Public Works, Sewage Facilities Charge, Sewage Generation Factor for Residential and Commercial Categories, 2012.

| Natural Gas              | kBtu/yr        | cubic foot (cf) | Per day Usage | million cubic foot (cf) |
|--------------------------|----------------|-----------------|---------------|-------------------------|
| General Light Industrial | 279,161        | 269,721         | 738.96        | 928,560                 |
| <b>Project Total</b>     | <b>279,161</b> | <b>269,721</b>  |               | <b>0.270</b>            |
| <b>Project Net Total</b> | <b>279,161</b> | <b>269,721</b>  | <b>739</b>    | <b>0.269721</b>         |
|                          |                |                 |               | <b>0.00003%</b>         |

Source: California Gas and Electric Utilities, 2018 California Gas Report, p. 102, 2018.

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.  
Conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, February 28, 2018, [https://www.eia.gov/dnav/ng/ng\\_cons\\_heat\\_a.epgo\\_vgth\\_btucf\\_a.htm](https://www.eia.gov/dnav/ng/ng_cons_heat_a.epgo_vgth_btucf_a.htm). Accessed September 2018.)

**Focal Strategies Cannabis  
Operational Energy Analysis**

**Fuel Usage from VMT**

Annual VMT (All): 412,265 miles/year (from CalEEMod)  
(With trip and VMT reductions from land use characteristics and proximity to public transit.)

| Fuel Type: <sup>1</sup>                                  | GAS           | DSL          | ELEC     |
|--|---------------|--------------|----------|
| Percent:   | 94.50%        | 3.88%        | 1.62%    |
| Miles per Gallon Fuel:                                   | 22.49         | 8.20         | -        |
| Annual VMT by Fuel Type (miles):                         | 389,600       | 15,992       | 6,673    |
| <b>Annual Fuel Usage (gallons):</b>                      | <b>17,323</b> | <b>1,951</b> | <b>-</b> |
| Annual Fuel Usage with Emer.Gen. (gallons):              |               | 3,238        |          |
| <b>Project Fuel Consumption</b>                          | <b>17,323</b> | <b>3,238</b> |          |
| Annual Fuel Savings from Electric Vehicles: <sup>2</sup> | -             | -            | 297      |

| Los Angeles County Fuel Consumption <sup>3</sup> |             |
|--|-------------|
|  | Diesel      |
| Los Angeles County:                              | 580,769,231 |
| Project Annual:                                  | 3,238       |
| Percent Net Project of Los Angeles County:       | 0.0005%     |

Notes:

1. California Air Resources Board, EMFAC2014 (Los Angeles County; Annual; 2021, Aggregate Fleet).
2. Assumes electric vehicles would replace traditional gasoline-fueled vehicles.
3. California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016, [http://www.energy.ca.gov/almanac/transportation\\_data/gasoline/2016\\_A15\\_Results.xlsx](http://www.energy.ca.gov/almanac/transportation_data/gasoline/2016_A15_Results.xlsx). Accessed March 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

**Focal Strategies Cannabis  
Operational Energy Analysis**

| <b>Fuel Consumption</b> | <b>Total CO<sub>2</sub><br/>(MT/yr)</b> | <b>Fuel Type</b> | <b>Fuel Factor<br/>(kgCO<sub>2</sub>/gal)</b> | <b>Gallons</b> |
|-------------------------|---|------------------|---|----------------|
| Emergency Generator     | 13.06                                   | Diesel           | 10.15   | 1,287          |

**Assumptions**

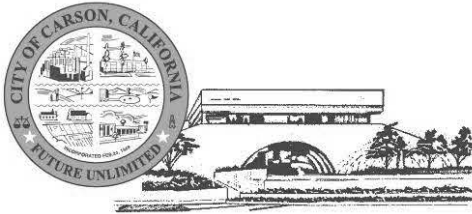
10.15 diesel      KgCO<sub>2</sub>/gallon<sup>1</sup>  
1 MT = 1,000 kilograms

Notes:

1. [California Climate Action Registry, General Reporting Protocol v2.2, Tables C.3, C.5, and C.6, March 2007. Accessed September 2018.](#)

Appendix D  
Tribal **Resources**  
**Documentation**

# **Native American Consultation Documentation**



# CITY OF CARSON

October 17, 2018

Charles Alvarez, Chairperson  
Gabieleno-Tongva Tribe  
23454 Vanowen Street  
West Hills, CA 91307

**SUBJECT: AB 52 Project Notification and Request to Consult Letter for the Proposed Focal Strategies Cannabis Project; City of Carson, California**

Dear Chairperson Alvarez:

This letter is to inform you that the City of Carson (City) is preparing environmental documentation for the **Focal Strategies Cannabis Project** (proposed project) through the preparation of a Mitigated Negative Declaration (MND). The project is being prepared in compliance with the California Environmental Quality Act (CEQA) and the City is the lead agency pursuant to CEQA. The project includes the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The two buildings would be utilized for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The project would not include on-site retail sales of cannabis or cannabis products; only distribution and sales of any materials that are developed on-site to licensed cannabis businesses. The project is located in a highly urbanized area of the City of Carson and is surrounded by a mixture of land uses including commercial, warehouse, light industrial, automotive, and manufacturing uses (**Figure 1**).

In accordance with Assembly Bill 52, you have the right to consult on the proposed project prior to the release of the MND. You have 30 calendar days from receipt of this letter to notify us in writing that you wish to consult on this project. Please provide your contact information and mail your request to:

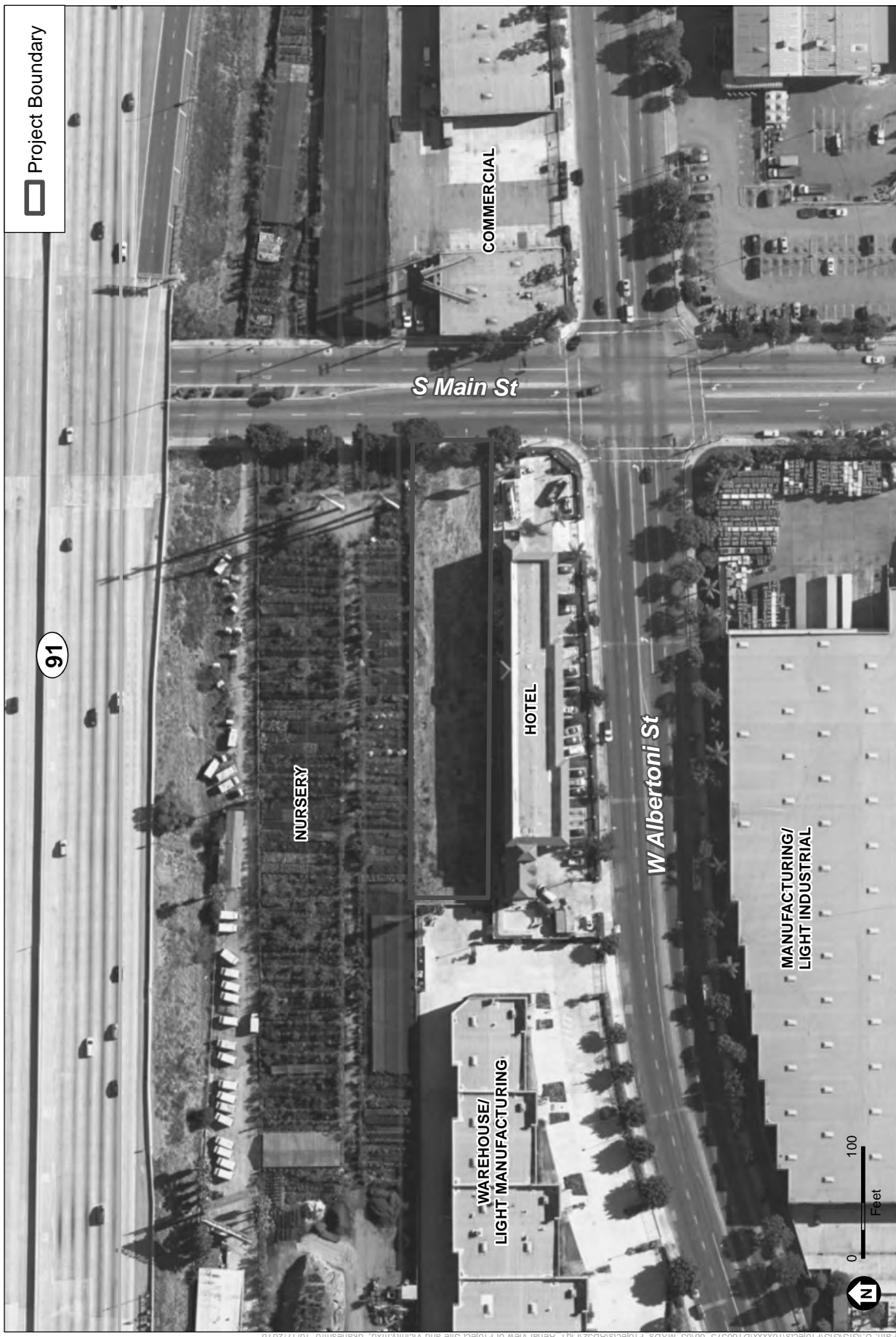
City of Carson  
Community Development Department – Planning Division  
ATTN: Ethan Edwards  
701 E. Carson Street  
Carson, CA 90745  
Email: eedwards@carson.ca.us  
Phone No: 310-952-1761

Thank you for your assistance with our efforts to address tribal cultural resources that may be affected by the proposed Project.

Sincerely,

A handwritten signature in black ink, appearing to read "Ethan Edwards". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Ethan Edwards, AICP  
Interim Planning Manager



Path: U:\GIS\GIS\Projects\16xxxx\160573\_08\03\_MXDS\Projects\1652\Fig1\_Aerial View of Project Site and Vicinity.mxd, dkanshro 10/17/2018

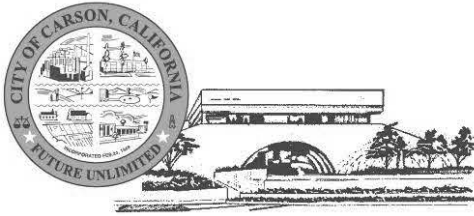
SOURCE: ESRI

Focal Cannabis Facility

**Figure 1**  
Aerial View of Project Site and Vicinity







# CITY OF CARSON

October 17, 2018

Robert Dorame, Chairperson  
Gabrieleno Tongva Indians of California Tribal Council  
P.O. Box 490  
Bellflower, CA 90707

**SUBJECT: AB 52 Project Notification and Request to Consult Letter for the Proposed Focal Strategies Cannabis Project; City of Carson, California**

Dear Chairperson Dorame:

This letter is to inform you that the City of Carson (City) is preparing environmental documentation for the **Focal Strategies Cannabis Project** (proposed project) through the preparation of a Mitigated Negative Declaration (MND). The project is being prepared in compliance with the California Environmental Quality Act (CEQA) and the City is the lead agency pursuant to CEQA. The project includes the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The two buildings would be utilized for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The project would not include on-site retail sales of cannabis or cannabis products; only distribution and sales of any materials that are developed on-site to licensed cannabis businesses. The project is located in a highly urbanized area of the City of Carson and is surrounded by a mixture of land uses including commercial, warehouse, light industrial, automotive, and manufacturing uses (**Figure 1**).

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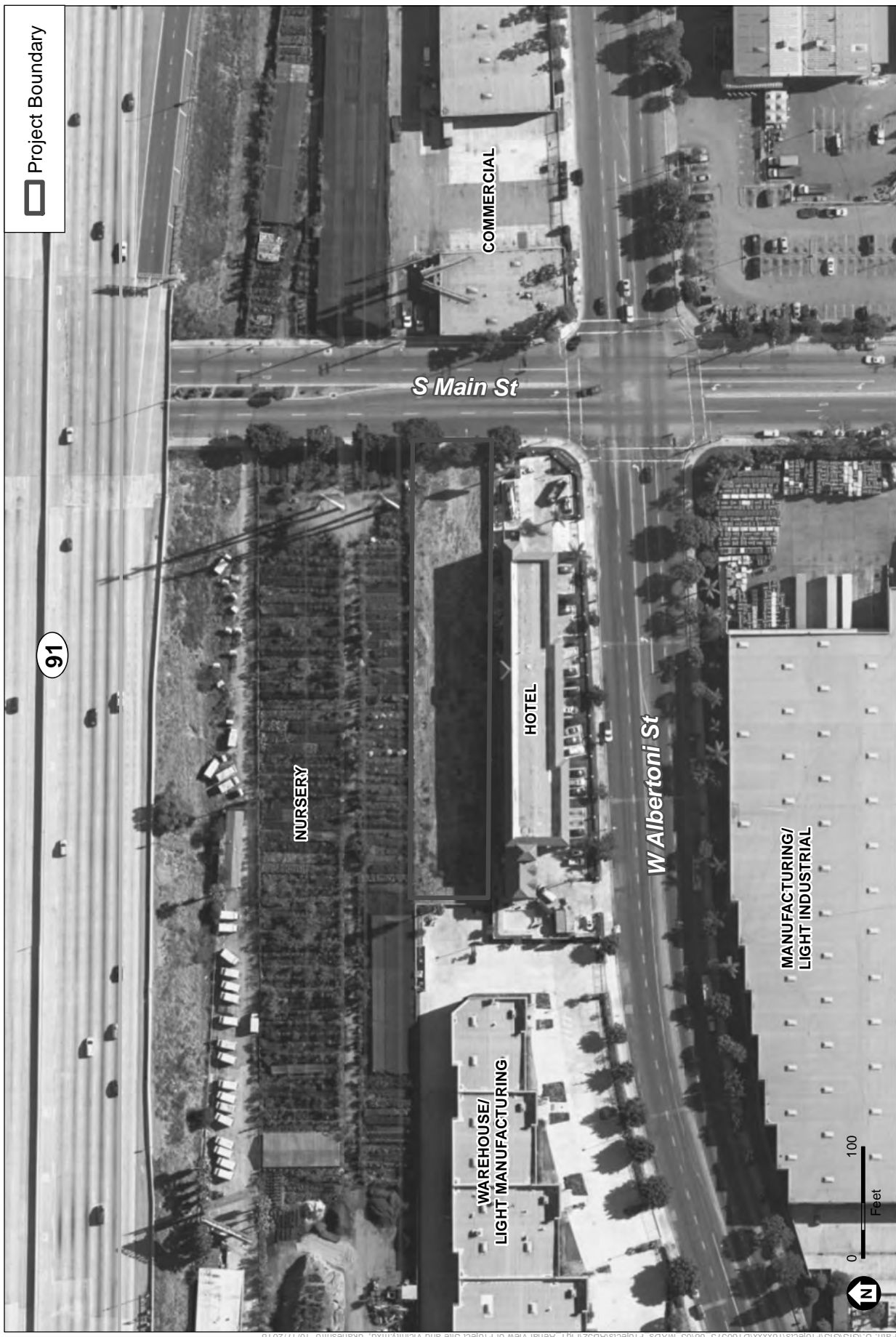
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Community Development Department – Planning Division  
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701 E. Carson Street  
Carson, CA 90745  
Email: [eedwards@carson.ca.us](mailto:eedwards@carson.ca.us)  
Phone No: 310-952-1761

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Ethan Edwards, AICP  
Interim Planning Manager



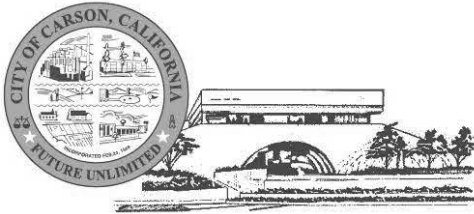
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SOURCE: ESRI



Focal Cannabis Facility

**Figure 1**  
Aerial View of Project Site and Vicinity



# CITY OF CARSON

October 17, 2018

Sandonne Goad, Chairperson  
Gabrieleno/Tongva Nation  
106 ½ Judge John Aiso Street #231  
Los Angeles, CA 90012

**SUBJECT: AB 52 Project Notification and Request to Consult Letter for the Proposed Focal Strategies Cannabis Project; City of Carson, California**

Dear Chairperson Goad:

This letter is to inform you that the City of Carson (City) is preparing environmental documentation for the **Focal Strategies Cannabis Project** (proposed project) through the preparation of a Mitigated Negative Declaration (MND). The project is being prepared in compliance with the California Environmental Quality Act (CEQA) and the City is the lead agency pursuant to CEQA. The project includes the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The two buildings would be utilized for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The project would not include on-site retail sales of cannabis or cannabis products; only distribution and sales of any materials that are developed on-site to licensed cannabis businesses. The project is located in a highly urbanized area of the City of Carson and is surrounded by a mixture of land uses including commercial, warehouse, light industrial, automotive, and manufacturing uses (**Figure 1**).

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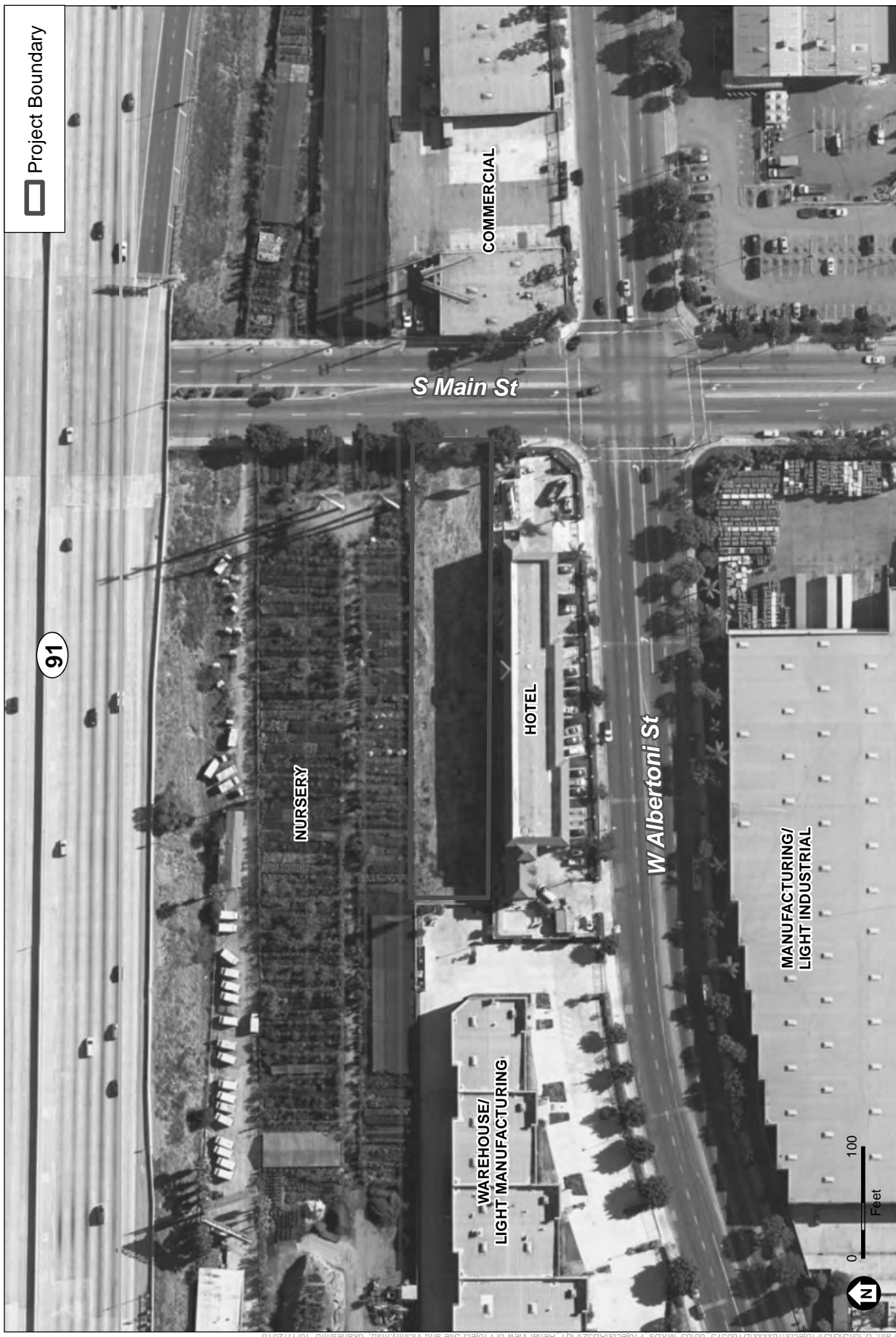
City of Carson  
Community Development Department – Planning Division  
ATTN: Ethan Edwards  
701 E. Carson Street  
Carson, CA 90745  
Email: eedwards@carson.ca.us  
Phone No: 310-952-1761

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Ethan Edwards, AICP  
Interim Planning Manager



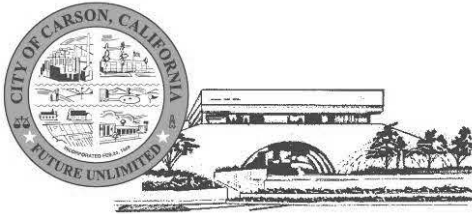
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SOURCE: ESRI

Focal Cannabis Facility

**Figure 1**  
Aerial View of Project Site and Vicinity





# CITY OF CARSON

October 17, 2018

Anthony Morales, Chairperson  
Gabrieleno/Tongva San Gabriel Band of Mission Indians  
P.O. Box 693  
San Gabriel, CA 91778

**SUBJECT: AB 52 Project Notification and Request to Consult Letter for the Proposed Focal Strategies Cannabis Project; City of Carson, California**

Dear Chairperson Morales:

This letter is to inform you that the City of Carson (City) is preparing environmental documentation for the **Focal Strategies Cannabis Project** (proposed project) through the preparation of a Mitigated Negative Declaration (MND). The project is being prepared in compliance with the California Environmental Quality Act (CEQA) and the City is the lead agency pursuant to CEQA. The project includes the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The two buildings would be utilized for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The project would not include on-site retail sales of cannabis or cannabis products; only distribution and sales of any materials that are developed on-site to licensed cannabis businesses. The project is located in a highly urbanized area of the City of Carson and is surrounded by a mixture of land uses including commercial, warehouse, light industrial, automotive, and manufacturing uses (**Figure 1**).

In accordance with Assembly Bill 52, you have the right to consult on the proposed project prior to the release of the MND. You have 30 calendar days from receipt of this letter to notify us in writing that you wish to consult on this project. Please provide your contact information and mail your request to:

City of Carson  
Community Development Department – Planning Division  
ATTN: Ethan Edwards  
701 E. Carson Street  
Carson, CA 90745  
Email: eedwards@carson.ca.us  
Phone No: 310-952-1761

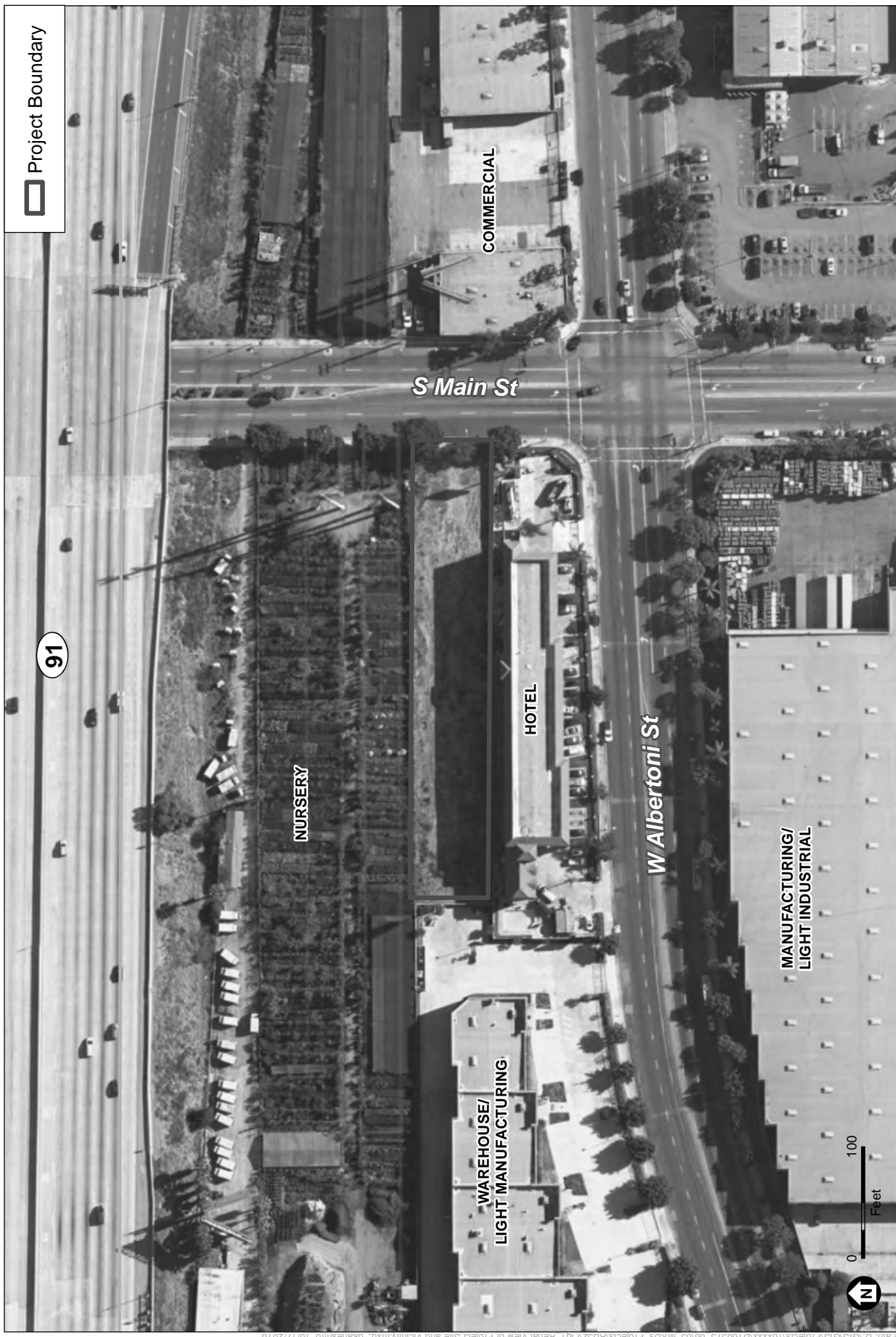
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Ethan Edwards, AICP  
Interim Planning Manager





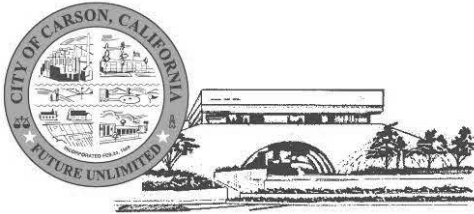
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SOURCE: ESRI

Focal Cannabis Facility

**Figure 1**  
Aerial View of Project Site and Vicinity





# CITY OF CARSON

October 17, 2018

Andrew Salas, Chairperson  
Gabrieleno Band of Mission Indians  
P.O. Box 393  
Covina, CA 91723

**SUBJECT: AB 52 Project Notification and Request to Consult Letter for the Proposed Focal Strategies Cannabis Project; City of Carson, California**

Dear Chairperson Salas:

This letter is to inform you that the City of Carson (City) is preparing environmental documentation for the **Focal Strategies Cannabis Project** (proposed project) through the preparation of a Mitigated Negative Declaration (MND). The project is being prepared in compliance with the California Environmental Quality Act (CEQA) and the City is the lead agency pursuant to CEQA. The project includes the construction of two one-story buildings totaling 13,557 square feet on a 0.66-acre vacant lot. The two buildings would be utilized for operations related to the cultivation of cannabis, manufacturing of cannabis products, and storage of residual materials from cannabis cultivation. The project would not include on-site retail sales of cannabis or cannabis products; only distribution and sales of any materials that are developed on-site to licensed cannabis businesses. The project is located in a highly urbanized area of the City of Carson and is surrounded by a mixture of land uses including commercial, warehouse, light industrial, automotive, and manufacturing uses (**Figure 1**).

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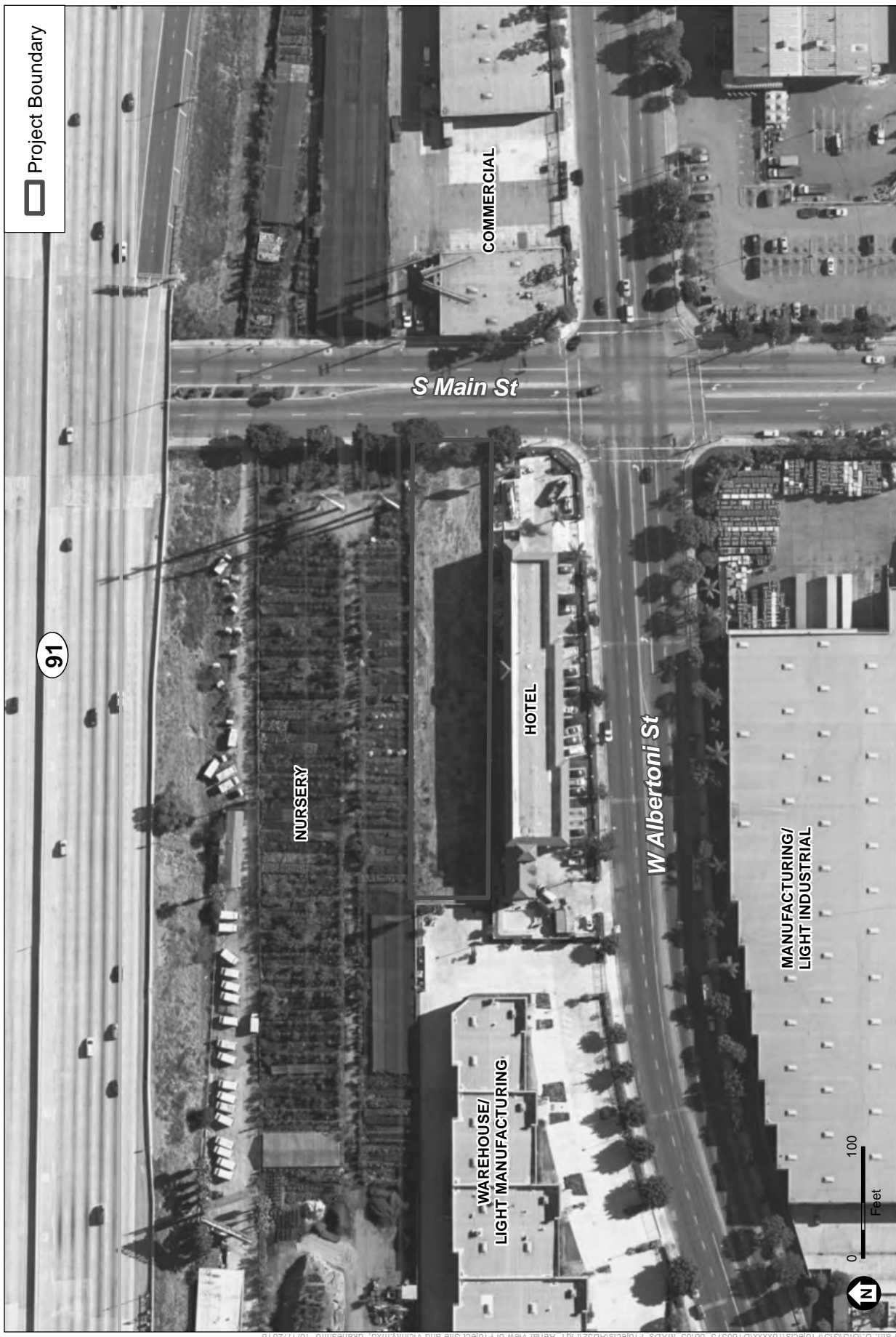
City of Carson  
Community Development Department – Planning Division  
ATTN: Ethan Edwards  
701 E. Carson Street  
Carson, CA 90745  
Email: eedwards@carson.ca.us  
Phone No: 310-952-1761

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Sincerely,

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Ethan Edwards, AICP  
Interim Planning Manager



Path: U:\GIS\Projects\16xxxx\160573\_08\03\_MXDS\_Projects\1652\Fig1\_Aerial View of Project Site and Vicinity.mxd, dkanshro 10/17/2018

SOURCE: ESRI

Focal Cannabis Facility

**Figure 1**  
Aerial View of Project Site and Vicinity

