



**Greenhouse Gas Analysis for the  
9244 Balboa Avenue Project  
San Diego, California**

*Prepared for*  
Focused Health, LLC

*Prepared by*  
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RECON Number 9033  
July 12, 2018

A handwritten signature in black ink, reading "William A. Maddux".

William A. Maddux, Senior Air Quality Specialist



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# Acronyms

2017 Scoping Plan	2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target
AB	Assembly Bill
BAU	business as usual
BTU	British Thermal Units
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CH <sub>4</sub>	methane
City	City of San Diego
CO <sub>2</sub>	carbon dioxide
EO	Executive Order
GHG	greenhouse gas
GWP	global warming potential
HVAC	heating, ventilation, and air conditioning
IPCC	Intergovernmental Panel on Climate Change
kW-h	kilowatt-hour
k-BTU	kilo-British Thermal Units
LED	light-emitting diode
MAUCRSA	Medicinal and Adult-Use Cannabis Regulation and Safety Act
MMT CO <sub>2</sub> E	million metric tons carbon dioxide equivalent
MPF	Marijuana Production Facility
mpg	miles per gallon
MPO	Metropolitan Planning Organizations
MT CO <sub>2</sub> E	metric tons of carbon dioxide equivalent
MWh	megawatt-hour
N <sub>2</sub> O	Nitrous oxide
RPS	Renewables Portfolio Standard
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas & Electric
TPA	Transit Priority Area
U.S. EPA	U.S. Environmental Protection Agency

## Executive Summary

The proposed 9244 Balboa Avenue Marijuana Production Facility Project (project) is located at 9244 Balboa Avenue in the city of San Diego, California. The project site is zoned Light Industrial (IL-2-1), designated Industrial Employment in the City of San Diego's (City) General Plan, and designated Industrial and Business Parks in the Kearny Mesa Community Plan. The project site is currently developed with an existing 45,600-square-foot industrial-use building and surrounded by other industrial uses. The project includes implementation of tenant improvements to the existing building for the operation of a 45,600-square-foot indoor cannabis cultivation facility. The project is designed to be compliant with the City's Marijuana Production Facility Ordinance as well as the State of California's Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA).

Although marijuana production facilities (MPFs) are now allowed in certain industrial zones within the City, this type of use was not envisioned in these zones when the Climate Action Plan (CAP) was developed. Therefore, greenhouse gas (GHG) emissions associated with these facilities were not accounted for in the CAP projections. Therefore, detailed GHG analyses are required to determine if MPFs would impede GHG emission reduction goals established by the CAP. The basis of this analysis is Step 1(C) of the CAP Consistency Checklist, which indicates that projects that are not consistent with the existing zoning and General Plan land use designation, but would result in an equivalent or less GHG-intensive project when compared to the existing designations, would be consistent with the growth projections used in development with the CAP. If the project is consistent with the growth projections used in development with the CAP and incorporates any applicable GHG emission reduction measures outlined in CAP Consistency Checklist Step 2, then project GHG emissions would be accounted for in the CAP projections.

GHG emissions were calculated for operation of the project as well as operation of the most GHG-intensive use that is currently permitted under the existing zoning and General Plan land use designation. As discussed in this analysis, the most GHG-intensive use that could reasonably be located on the project site includes 63,757 square feet of medical office(s). These land uses would result in substantial GHG emissions associated with sizeable vehicle trip generation. As calculated, the project would result in 1,573 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>E) annually, and the most GHG-intensive use would result in 2,638 MT CO<sub>2</sub>E annually. Therefore, GHG emissions associated with the project would not exceed the assumptions used to develop the CAP's GHG emissions estimates. Additionally, the project would implement other GHG reduction measures outlined in Step 2 of the CAP Consistency Checklist. Therefore, GHG emission impacts would be less than significant.

# 1.0 Introduction

This report evaluates whether the greenhouse gas (GHG) emissions associated with the proposed 9244 Balboa Avenue Marijuana Production Facility Project (project) would be consistent GHG emission reduction goals established by the City of San Diego's (City's) Climate Action Plan (CAP). The basis of this analysis is Step 1(C) of the CAP Consistency Checklist, which indicates that projects that are not consistent with the existing zoning and General Plan land use designation but would result in an equivalent or less GHG-intensive project when compared to the existing designations, would be consistent with the growth projections used in development with the CAP.

If the project is consistent with the growth projections used in development with the CAP and incorporates any applicable GHG emission reduction measures outlined in CAP Consistency Checklist Step 2, then project GHG emissions would not exceed the assumptions used to develop the CAP's GHG emissions estimates and impacts related to CAP consistency would be less than significant.

## 1.1 Understanding Global Climate Change

To evaluate the incremental effect of the project on statewide GHG emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem. Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering the earth's surface; subtle changes in the earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the earth's atmosphere. Recently observed increased concentrations of GHGs in the atmosphere appear to be related to increases in human activity. Therefore, the current cycle of "global warming" is believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. Because it is believed that the increased GHG concentrations around the world are related to human activity and the collective of human actions taking place throughout the world, it is quintessentially a global or cumulative issue.

## 1.2 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential (GWP). The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors including chemical reactivity of the gas also influence GWP. GWP is reported as a unitless factor representing the potential for the gas to affect global climate relative to the potential of carbon dioxide (CO<sub>2</sub>). Because CO<sub>2</sub> is the reference gas for establishing GWP, by definition its GWP is 1. Although methane (CH<sub>4</sub>) has a shorter atmospheric lifetime than CO<sub>2</sub>, it has a 100-year GWP of 25; this means that CH<sub>4</sub> has 25 times more effect on global warming than CO<sub>2</sub> on a molecule-by-molecule basis.

The GWP is officially defined as (U.S. Environmental Protection Agency [U.S. EPA] 2010):

The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

GHG emissions estimates are typically represented in terms of equivalent metric tons of CO<sub>2</sub> (MT CO<sub>2</sub>E). CO<sub>2</sub>E emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of MT CO<sub>2</sub>E and can be summed to represent the total potential of these gases to warm the global climate. Table 1 summarizes some of the most common GHGs.

It should be noted that the U.S. EPA and other organizations update the GWP values they use occasionally. This change can be due to updated scientific estimates of the energy absorption or lifetime of the gases or to changing atmospheric concentrations of GHGs that result in a change in the energy absorption of one additional ton of a gas relative to another. The GWPs shown in Table 1 are the most current. However, it should be noted that in the California Emissions Estimator Model (CalEEMod) CH<sub>4</sub> has a GWP of 21 and nitrous oxide (N<sub>2</sub>O) has a GWP of 310, and these values were used for this analysis.

All of the gases in Table 1 are produced by both biogenic (natural) and anthropogenic (human) sources. These are the GHGs of primary concern in this analysis. CO<sub>2</sub> would be emitted by the project due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of CH<sub>4</sub> and N<sub>2</sub>O would be emitted from the same project operations.



<b>Table 1</b> <b>Global Warming Potentials and Atmospheric Lifetimes</b> <b>(years)</b>			
Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP
Carbon dioxide (CO <sub>2</sub> )	50–200	1	1
Methane (CH <sub>4</sub> )*	12.4	28	84
Nitrous oxide (N <sub>2</sub> O)	121	265	264
HFC-23	222	12,400	10,800
HFC-32	5.2	677	2,430
HFC-125	28.2	3,170	6,090
HFC-134a	13.4	1,300	3,710
HFC-143a	47.1	4,800	6,940
HFC-152a	1.5	138	506
HFC-227ea	38.9	3,350	5,360
HFC-236fa	242	8,060	6,940
HFC-43-10mee	16.1	1,650	4,310
CF <sub>4</sub>	50,000	6,630	4,880
C <sub>2</sub> F <sub>6</sub>	10,000	11,100	8,210
C <sub>3</sub> F <sub>8</sub>	2,600	8,900	6,640
C <sub>4</sub> F <sub>10</sub>	2,600	9,200	6,870
c-C <sub>4</sub> F <sub>8</sub>	3,200	9,540	7,110
C <sub>5</sub> F <sub>12</sub>	4,100	8,550	6,350
C <sub>6</sub> F <sub>14</sub>	3,100	7,910	5,890
SF <sub>6</sub>	3,200	23,500	17,500
SOURCE: Intergovernmental Panel on Climate Change (IPCC) 2014. GWP = growth warming potential			

## 1.3 Purpose and Need

In November 2016, California voters approved Proposition 64 (Adult Use of Marijuana Act), legalizing the cultivation and sale of recreational marijuana for adults in California. As a result, the Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA) was developed and became effective January 1, 2018. MAUCRSA, which consists of two separate bills, Senate Bill (SB) 94 and Assembly Bill (AB) 133, creates one regulatory system for both medicinal and adult-use cannabis. Under MAUCRSA, there are 20 types of licenses related to cultivation, manufacturing, testing laboratories, retailers, distributors, and microbusinesses. All licenses other than testing laboratory licenses are designated as either “M” (Medicinal) or “A” (Adult-Use).

As mandated by the passage of Proposition 64, the City was required to adopt Municipal Code regulations to outline the City’s definition and requirements for marijuana businesses in the City. In 2017, the City introduced Ordinances No. O-20793, O-20858, and O-20859 which amended the Land Development Code and the Local Coastal Program to establish two new use categories, Marijuana Outlets and Marijuana Production Facilities (MPFs). A Marijuana Outlet is defined as a retail establishment (recreational, medicinal or combination) where marijuana, marijuana products and marijuana accessories are sold to the public. An MPF is defined as a facility engaged in the agricultural raising, harvesting,

processing, wholesale distribution, or storage of marijuana (retail sales prohibited). The new regulations limit the total number of MPFs to 40 citywide and only permit MPFs in Light Industrial (IL-1-1, IL-2-1, IL-3-1) or Heavy Industrial (IH-1-1) zoning districts, or in the Barrio Logan Planned District Ordinance (Subdistrict D).

Although MPFs are now allowed in certain industrial zones within the City, this type of use was not envisioned in these zones when the CAP was developed. Therefore, GHG emissions associated with these facilities were not accounted for in the CAP projections. Therefore, detailed GHG analyses are required to determine if individual MPFs would impede GHG emission reduction goals established by the CAP.

## **2.0 Project Description**

The project site is located at 9244 Balboa Avenue in the city of San Diego, California. Figure 1 shows the regional location. The 2.9-acre project site is zoned Light Industrial (IL-2-1), designated Industrial Employment in the City's General Plan, and designated Industrial and Business Parks in the Kearny Mesa Community Plan. The project site is currently developed with an existing 45,600-square-foot industrial-use building, and is surrounded by other industrial uses. Figure 2 shows an aerial photograph of the project site and vicinity. The project includes implementation of tenant improvements to the existing building for the operation of a 45,600-square-foot indoor cannabis cultivation facility.

The project includes implementation of tenant improvements to the existing building for the operation of a MPF with indoor cannabis cultivation. The project floor plan is shown on Figure 3. The project is designed to be compliant with the City's MPF Ordinance as well as the MAUCRSA. The MPF operation would require state license "Type 3A—Cultivation; Indoor; Medium" which is defined as a facility using exclusively artificial lighting between 10,001 and 22,000 square feet of total canopy size and would also require state license "Type 6—Manufacturer 1," which is defined as a facility using non-volatile solvents for extraction and/or infusion processes.

### **2.1 Project Timeline**

Once the State licenses and City permits are secured, the project would go out to bid. The bid and contract process would take approximately one month. Tenant and public improvements would take approximately four to six months.

### **2.2 General Operational Characteristics**

All MPF operations would be conducted indoors within the secured structure. The MPF would operate seven days a week from 6:00 a.m. to 5:00 p.m.



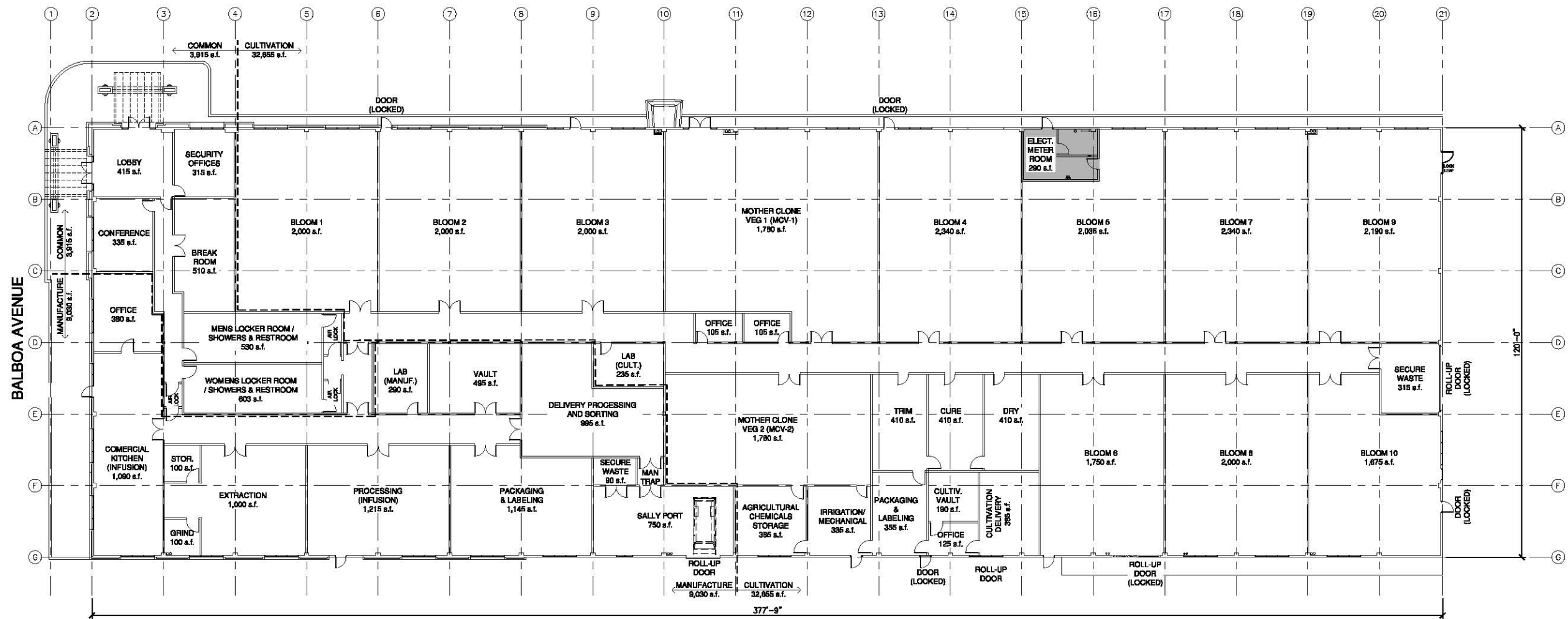
 Project Location

FIGURE 1  
Regional Location





 Project Boundary



PROPOSED FLOOR PLAN

SCALE: 1/16" = 1'-0"



TO CONTROL ODORS AT THIS FACILITY, A COMBINATION OF CARBON FILTERS, SPACE PRESSURIZATION CONTROL AND AIR SANITATION UNITS WILL BE UTILIZED. MORE SPECIFICALLY:

1. CARBON CANISTERS SHALL BE INSTALLED ON ANY EXHAUST AIRSTREAM LEAVING ALL GROW AND PROCESSING AREAS.
2. CARBON CANISTERS IN SMALLER ROOMS WITH CONCENTRATED ODORS SHALL RECIRCULATE THE ROOM AIR THROUGH CARBON MEDIA TO REMOVE ODOR FROM THE ROOM.
3. CARBON FILTERS SHALL BE INSTALLED ON THE RETURN AIR CIRCULATING BACK TO THE AIR HANDLERS THAT SERVE GROW ROOMS (BLOOM AND MCV ROOMS) TO FILTER ODOR OUT OF THE RECIRCULATED AIR.
4. SANITIZATION UNITS CONTROLLING AIRBORNE CONTAMINANTS AND VOC'S SHALL BE INSTALLED GROW ROOMS (BLOOM AND MCV ROOMS)
5. PRESSURIZATION CONTROL SHALL BE UTILIZED TO KEEP THE CORRIDORS AROUND GROW AREAS NEGATIVE TO CONTAIN THE ODORS WITHIN THE GROW/PROCESS AREAS. OFFICE AND BUILDING ENTRANCES SHALL BE POSITIVE TO HELP CONTAIN ODORS TO THE GROW AREAS.

PLUMBING NOTES:

PLUMBING FIXTURES AND FITTINGS PROVIDED AS PART OF THE PROJECT SHALL BE LOW-FLOW FIXTURES/APPLIANCES BE CONSISTENT WITH EACH OF THE FOLLOWING:

1. PLUMBING FIXTURES AND FITTINGS THAT DO NOT EXCEED THE MAXIMUM FLOW RATE SPECIFIED IN TABLE A5.303.2.3.1 (VOLUNTARY MEASURES) OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE; AND
2. APPLIANCES AND FIXTURES FOR COMMERCIAL APPLICATIONS THAT MEET THE PROVISIONS OF SECTION A5.303.3 (VOLUNTARY MEASURES) OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE

FLOOR PLAN LEGEND

SOLID HATCH INDICATES EXISTING AREAS TO REMAIN

FIGURE 3  
Proposed Site Plan



### ***Employees***

At full operational capacity, the facility would employ 40 personnel, which includes two security personnel and the remaining employees split evenly between Cultivation and Manufacturing operations.

### ***Security***

The project would implement an enhanced Security Plan to protect company assets and employees. A State-licensed security guard would be on-site during all operational hours. The project would install exterior and interior high-tech analytic “smart cameras” with professional security monitoring 24 hours a day, 7 days a week. The project would also install an integrated alarm system, exterior and interior security lighting, “mantrap” entries and exits, and facility access controls. The security system would have the ability to provide real-time streaming video upon request to the San Diego Police Department in support of Operation Secure San Diego.

### ***Receiving and Shipping Activity***

It is anticipated that the project would include six secure deliveries and seven standard deliveries per day, as follows:

- Secure deliveries (specialized commercial vans)
  - Cultivation—receiving one shipment and sending one shipment per day
  - Manufacturing—receiving two shipments and sending two shipments per day
- Standard deliveries (standard carriers such as U.S. Postal Service)
  - Cultivation—receiving one shipment and sending one shipment per day
  - Manufacturing—receiving two shipments and sending one shipment per day

## **2.3 Environmental Features**

### ***Climate Control***

The air environment throughout the building, and within each room containing live or processed cannabis plants, would be regulated and monitored in micro-climate controlled rooms using a proprietary climate control system to maximize the quality, consistency, and output of the harvested material. The system can control temperature, humidity, light, and supplemental CO<sub>2</sub> to enhance the growing environment and customize each room to the needs of the plants given their stage in the plant lifecycle. The heating, ventilation, and air conditioning (HVAC) system would have high-efficiency particulate air-filtration systems to ensure that the air quality in each room is appropriately maintained in accordance with its specific purpose.

### ***Odor Control***

Multiple methods would be employed to control odor, including carbon filters, pressurization control, and air sanitization units. Beyond reducing odors, these methods enhance circulation and remove any remaining airborne impurities.

### ***Energy Conservation and Efficiency***

The existing building has circuitry with a 2,000 Ampere capacity at 277/480 Volts, which is expandable to 3,000 Amperes. The projected annual electricity demand of the proposed MPF at full operational capacity is 6,615,213 kilowatt-hours (kW-h). Implemented technologies and design efficiencies are proposed to reduce energy consumption, such as:

1. Utilization of state-of-the-art commercial agriculture light-emitting diode (LED) fixtures for growing cannabis plants. LED fixtures minimize power consumption and maximize lighting levels with minimum heat output, which also reduces the load on the HVAC system.
2. Rooms would be insulated to reduce heat loss/gain.
3. In the mother, clone, and vegetative and bloom rooms, the floor plan utilization strategy optimizes the benefits of rolling beds and container transportation systems to increase canopy area. This increases the amount of yield per square foot and increases the plant canopy's optimization of photons provided by the LED lighting. The 'blanket of photons' delivered by each array completely envelops the full canopy area in uniform high photosynthetic photon flux density, which is the number of photosynthetically active photons that fall on a given surface each second. This environmental consistency allows for more control over factors such as morphology, nutrient uptake, and flower development. This in turn means higher quality and better yields with less energy usage and photon waste.
4. High-efficiency HVAC designs, infrastructure, and technologies to realize a more cost and energy efficient operating infrastructure.

### ***Water Quality and Conservation***

The project's water would be sourced from the City's public water supply. Accounting for project water conservation measures, the facility would only require 1,552 gallons per day. Water use would be less than SB 610 defines as a project<sup>1</sup>. Water quality would be carefully

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<sup>1</sup> SB 610 defines a project to include shopping centers or businesses employing more than 1,000 people or having more than 500,000 square feet of floor space; office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor spaces; hotels or motels with more than 500 rooms; industrial, manufacturing, processing plant, or industrial park employing more than 1,000 people, occupying more than 40 acres, or having more than 650,000 square feet of floor area; any project that needs more water than 500 dwelling units; or any mixed-use project that includes any of these projects.

maintained and controlled, and reverse osmosis filtration would be used to remove 95 to 99 percent of the total dissolved solids.

### ***Water Capture and Reuse***

1. Water drawn from the HVAC units and dehumidifiers would be stored in separate holding tanks before being filtered for use in the system. Once filtered, it would then be mixed in holding tanks containing the water from the local utility that has already undergone the MPF water filtration process. To the extent that any unused water is returned to the local environment, the objective of the project is to ensure that it is at least as pure as when it first entered.
2. Drainage water from irrigating plants would be filtered using sand filters and ultraviolet light to remove any pathogens and then recirculated back into the irrigation system. The goal is to have no wastewater (i.e., a closed system). Any water returned to the public system would be at least as clean as when it entered the MPF, though none is expected given the closed system.

### ***Irrigation Efficiencies***

1. The pH and electrical conductivity of the soil in the root zone would be analyzed at the time of each watering to ensure they are in the appropriate ranges for optimal plant nutrient uptake and growth.
2. The project would use automatic drip irrigation, which reduces water loss by preventing overwatering, evaporation, and imprecise watering.
3. The minimal heat output of the LED fixtures reduces evaporation in the soil and transpiration by the plants.

## **2.4 General Administrative Areas**

### ***Offices***

Two offices with a total of 280 square feet would be located in the interior of the facility.

### ***Break Room***

The break room would be designed for staff use during designated rest or lunch breaks. No food or beverages would be permitted outside of this area.

### ***Locker Rooms, Showers, and Restrooms***

Employees would be required to change into work attire suitable for their operational responsibilities. The project would provide locker rooms, showers and restrooms. Shower facilities and lockers would exceed the voluntary measures under California Green Building Standards Code (CALGreen).



### ***Conference Room***

Staff and/or management meetings would be conducted in the conference room. This area would contain a large table with office chairs and standard audiovisual equipment.

## **2.5 Security**

### ***Lobby (Controlled-access Entryway)***

For security-control purposes, employees and visitors would only be permitted to enter the facility from a single point of ingress through a secure lobby. From there, they would need proper authorization to access other areas of the facility, including sensitive, limited or restricted areas.

### ***Air Lock/ Man Trap (Controlled-access Entryway)***

Employees and visitors would be permitted to enter the cultivation facility from a single point of ingress through a secure vestibule.

### ***Security Room and Security Equipment Room***

The security room would be a secured, dedicated area used to monitor the facility's security system, including live and recorded feeds from the video surveillance system. Only the minimum number of security personnel would be authorized to access the security room and only for the minimum time necessary to complete the tasks. Otherwise, this room would remain locked and secured at all times. The surveillance recording equipment would be stored in a secured room inside the security room and access would be limited.

### ***Vault***

The vault room would be used to store harvested cannabis at all stages in the production and testing processes. The vault itself is constructed of 16 gauge carbon steel barrier mesh panels secured onto the stud framing and concealed with gypsum sheathing.

## **2.6 Cultivation**

### ***Mother, Clone, and Vegetative Rooms***

Plants would be started in the mother, clone, and vegetative rooms. Seeds would be germinated for approximately two to four weeks. Vegetative cuttings would be propagated for approximately two to three weeks. Following propagation, the seedlings or clones would be transplanted to larger pots. Once transplanted, vegetative plants would be arranged in single rows on grow trays and tightly packed for maximum efficiency. Irrigation water would be supplied via automated drip lines running parallel to the rows with a trough system underneath the pots to allow drainage water to flow to a reservoir for treatment and recycling. Drainage water would be filtered and then recirculated back into the irrigation system as described in Section 2.2. After approximately eight weeks, plants would be

transplanted into larger containers before being transferred to a bloom room for reproductive growth.

### ***Bloom Rooms***

Following the completion of the vegetative stage, plants would be moved to one of the bloom rooms where they would remain for eight to twelve weeks until they are ready for harvest. Plants in the bloom rooms would be irrigated using automatic drip irrigation with a trough-style drainage system. As is the case during the vegetative stage, runoff water would be filtered using sand filters and treated with ultraviolet light to remove any pathogens then recirculated back into the irrigation system.

The light system would consist of full-spectrum dimmable LED lighting units mounted on adjustable height beams to accommodate the different phases of plant growth. As a batch nears the end of the bloom stage, flowers would be inspected regularly to determine the optimal date of harvest to ensure a clean, efficacious, pharmaceutical-grade final product.

### ***Drying Room***

During the drying phase, usable plant matter is securely stored in the dry room, a large, dark room with ample air movement to effectuate the even and timely drying of the material. One employee is required to manage the drying room at full operational capacity.

### ***Trimming Room***

Usable material would be transferred to the trimming room for proper manicuring.

### ***Curing Room***

Flowers would be placed into curing containers and then transferred to the curing room. The curing process typically requires three to four weeks.

### ***Irrigation/Mechanical Room***

The irrigation/mechanical room would be the hub for the water filtration, recycling, and irrigation systems as well as for the cultivation automation controls.

### ***Agricultural Chemicals Storage Room***

This agricultural chemical storage room would store any chemicals that are used during the cultivation process.

### ***Laboratory***

The laboratory would be used to conduct internal testing of cannabis flower during the cultivation process.

## 2.7 Packaging/Shipping

### ***Extraction Room***

The climate-controlled extraction room would be maintained to clean room standards and be of sufficient size to house our extraction and infusion equipment and a walk-in freezer. The applicant would use nonvolatile methods to extract cannabinoids and terpenes from the leaves and flowers of female cannabis plants.

### ***Processing Room***

The processing room would be where extracted material is combined with other ingredients/mediums to create finished products for sale (e.g., tinctures, oils, capsules, ointments, edibles, etc.). Like the extraction room, the processing room would also be climate controlled, maintained to Clean Room standards.

### ***Commercial Kitchen***

This area would be used for the manufacture of edible products that are precisely infused with cannabis extract.

### ***Packaging and Labeling***

Once approved for sale, bulk-packaged product would be transferred from the vault room to the packaging and labeling room where it would be manually packaged, labeled, and readied for transport.

### ***Cultivation Delivery Room***

The cultivation delivery room would be where products approved for sale would be staged for transport. This room would have restricted access and would be under continuous video surveillance.

### ***Sally Port***

This area can be locked and secured from the interior of the facility during times when source cannabis material and other items are delivered or during the product shipment staging process prior to transportation of finished products. This area would have restricted access and would be under continuous video surveillance.

### ***Secure Waste Storage Room***

This room would be used to store unusable cannabis prior to destruction and disposal. Cannabis waste would be rendered unrecognizable and unusable prior to secure disposal and removal from the facility. The entryways and interiors of these areas would be under continuous video surveillance.

## 3.0 Existing Conditions

### 3.1 Environmental Setting

#### 3.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO<sub>2</sub> equivalent (MMT CO<sub>2</sub>E). Table 2 shows the estimated statewide GHG emissions for the years 1990, 2010, and 2015. Although annual GHG inventory data is available for years 2000 through 2015, the years 2010 and 2015 are highlighted in Table 2 because 1990 is the baseline year for established reduction targets, 2010 corresponds to the same years for which inventory data for the City is available, and 2015 is the most recent data available.

Table 2 California GHG Emissions By Sector in 1990, 2010, and 2015 <sup>1</sup>			
Sector	1990 Emissions in MMT CO <sub>2</sub> E (% total) <sup>2</sup>	2010 Emissions in MMT CO <sub>2</sub> E (% total) <sup>2</sup>	2015 Emissions in MMT CO <sub>2</sub> E (% total) <sup>2</sup>
Electricity Generation	110.6 (25.9%)	90.6 (20.3%)	84.1 (19.1%)
Transportation	150.7 (35.3%)	168.1 (37.7%)	169.4 (38.5%)
Industrial	103.0 (24.2%)	101.1 (22.7%)	103.0 (23.4%)
Commercial	14.4 (3.4%)	20.1 (4.5%)	22.2 (5.0%)
Residential	29.7 (7.0%)	31.3 (7.0%)	26.9 (6.1%)
Agriculture & Forestry	16.9 (4.0%)	34.6 (7.8%)	34.7 (7.9%)
Not Specified	1.3 (0.3%)	0.3 (0.1%)	0.2 (0.0%)
<b>TOTAL<sup>4</sup></b>	<b>426.6</b>	<b>446.1</b>	<b>440.4</b>
SOURCE: CARB 2007 and 2017a. <sup>1</sup> 1990 data was obtained from the CARB 2007 source and are based on IPCC second assessment report GWPs. The revised calculation, which uses the scientifically updated IPCC fifth assessment report GWPs, is 431 MMT CO <sub>2</sub> E. <sup>2</sup> Percentages may not total 100 due to rounding. <sup>3</sup> 2010 and 2015 data was retrieved from the CARB 2017a source. <sup>4</sup> Totals may vary due to independent rounding.			

As shown in Table 2, statewide GHG source emissions totaled approximately 427 MMT CO<sub>2</sub>E in 1990, 446 MMT CO<sub>2</sub>E in 2010, and 440 MMT CO<sub>2</sub>E in 2015. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. As shown, transportation-related emissions consistently contribute to the most GHG emissions.

A San Diego emissions inventory was prepared for baseline year 2010 as a part of the City's CAP. The total community-wide GHG emissions in 2010 were 12,984,993 MT CO<sub>2</sub>E. Table 3 summarizes the sources and quantities of community emissions. The largest source of

emissions is transportation, followed by electricity, natural gas, solid waste and wastewater, and water.

<b>Table 3</b>	
<b>City of San Diego GHG Emissions in 2010</b>	
<b>Sector</b>	<b>2010 GHG Emissions (MT CO<sub>2</sub>E)</b>
Transportation	7,141,746 (55%)
Electricity	3,116,398 (24%)
Natural Gas	2,077,599 (16%)
Solid Waste and Wastewater	389,550 (3%)
Water	259,700 (2%)
<b>TOTAL</b>	<b>12,984,993</b>
SOURCE: City of San Diego 2015.	

## 3.2 Regulatory Background

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions. The following is a discussion of the federal, state, and local plans and regulations most applicable to the project.

### 3.2.1 Federal

The federal government, U.S. EPA, and other federal agencies have many federal level programs and projects to reduce GHG emissions. In June 2012, the Council on Environmental Quality (CEQ) revised the Federal Greenhouse Gas Accounting and Reporting Guidance originally issued in October 2010. The CEQ guidance identifies ways in which Federal agencies can improve consideration of GHG emissions and climate change for Federal actions. The guidance states that National Environmental Policy Act documents should provide decision makers with relevant and timely information and should consider (1) GHG emissions of a Proposed Action and alternative actions, and (2) the relationship of climate change effects to a Proposed Action or alternatives. Specifically, if a Proposed Action would be reasonably anticipated to cause direct emissions of 25,000 MT CO<sub>2</sub>E GHG emissions on an annual basis, agencies should consider this as an indicator that a quantitative assessment may be meaningful to decision makers and the public (CEQ 2012).

#### 3.2.1.1 Environmental Protection Agency

The U.S. EPA has many federal level programs and projects to reduce GHG emissions. The U.S. EPA provides technical expertise and encourages voluntary reductions from the private sector. One of the voluntary programs applicable to the proposed project is the Energy Star program.

Energy Star is a joint program of U.S. EPA and the U.S. Department of Energy, which promotes energy efficient products and practices. Tools and initiatives include the Energy

Star Portfolio Manager, which helps track and assess energy and water consumption across an entire portfolio of buildings, and the Energy Star Most Efficient 2013, which provides information on exceptional products which represent the leading edge in energy efficient products in the year 2013 (U.S. EPA 2013).

The U.S. EPA also collaborates with the public sector, including states, tribes, localities and resource managers, to encourage smart growth, sustainability preparation, and renewable energy and climate change preparation. These initiatives include the Clean Energy – Environment State Partnership Program, the Climate Ready Water Utilities Initiative, the Climate Ready Estuaries Program, and the Sustainable Communities Partnership (U.S. EPA 2014).

### **3.2.1.2 Corporate Average Fuel Economy Standards**

The project would generate vehicle trips. These vehicles would consume fuel and would result in GHG emissions. The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. While the standards had not changed since 1990, as part of the Energy and Security Act of 2007, the CAFE standards were increased in 2007 for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, plans were announced to further increase CAFE standards to require light-duty vehicles to meet an average fuel economy of 35.5 mpg by 2016. In August 2012, fuel economy standards were further increased to 54.5 mpg for cars and light-duty trucks by Model Year 2025; this will nearly double the fuel efficiency of those vehicles compared to new vehicles currently on our roads. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

## **3.2.2 State**

The State of California has adopted a number of plans and regulations aimed at identifying statewide and regional GHG emissions caps, GHG emissions reduction targets, and actions and timelines to achieve the target GHG reductions.

### **3.2.2.1 Executive Orders and Statewide GHG Emission Targets**

#### **S-3-05**

This Executive Order (EO) established the following GHG emission reduction targets for the State of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels;
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the secretary of the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the

progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006, and has been updated every two years.

## **B-30-15**

This EO, issued on April 29, 2015, establishes an interim GHG emission reduction goal for the state of California by 2030 of 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed CARB to update its Climate Change Scoping Plan to address the 2030 goal.

### **3.2.2.2 California Global Warming Solutions Act**

In response to EO S-3-05, the California Legislature passed AB 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009 indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

Approved in September 2016, SB 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40 percent below 1990 levels by 2030. In implementing the 40 percent reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where “social costs” is defined as “an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year.”

### **3.2.2.3 Climate Change Scoping Plan**

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change (Scoping Plan)*, which identifies the main strategies California will implement to achieve the GHG reductions necessary to reduce forecasted business as usual (BAU) emissions in 2020 to the state’s historic 1990 emissions level (CARB 2008). In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California’s 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017b). The 2017 Scoping Plan identifies state strategies for achieving the state’s 2030 interim GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program,

Renewables Portfolio Standard (RPS), Sustainable Communities Strategy, Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. Additionally the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands.

### **3.2.2.4 Regional Emissions Targets – Senate Bill 375**

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan. San Diego Association of Governments (SANDAG) is the San Diego region's MPO. In 2010, CARB set targets for the SANDAG region of a 7 percent reduction in GHG emissions per capita from automobiles and light-duty trucks compared to 2005 levels by 2020 and a 13 percent reduction by 2035. These targets are periodically reviewed and updated. CARB's currently proposed targets for the SANDAG region are a reduction of 15 percent by 2020 and 21 percent by 2035.

### **3.2.2.5 Renewables Portfolio Standard**

The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. In September 2015, the California Legislature passed SB 350, which increases California's renewable energy mix goal to 50 percent by year 2030. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.

### **3.2.2.6 Assembly Bill 341 – Solid Waste Diversion**

The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of the following in order to reuse, recycle, compost, or otherwise divert solid waste from disposal. Additionally, AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020.

### **3.2.2.7 California Code of Regulations, Title 24 – California Building Code**

The California Code of Regulations, Title 24, is referred to as the California Building Code, or CBC. It consists of a compilation of several distinct standards and codes related to



building construction, including plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility, and so on. Of particular relevance to GHG reductions are the CBC's energy efficiency and green building standards as outlined below.

## **Title 24, Part 6 – Energy Efficiency Standards**

The California Code of Regulations, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). This code, originally enacted in 1978, establishes energy efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficient technologies and methodologies as they become available, and incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum standards.

The current version of the Energy Code, known as 2016 Title 24, or the 2016 Energy Code, became effective January 1, 2017. The 2016 Energy Code provides mandatory energy-efficiency measures as well as voluntary tiers for increased energy efficiency. The California Energy Commission (CEC), in conjunction with the California Public Utilities Commission, has adopted a goal that all new residential and commercial construction achieve zero net energy by 2020 and 2030, respectively. It is expected that achievement of the zero net energy goal will occur via revisions to the Title 24 standards.

New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC approved energy performance software that shows iterative increases in energy efficiency given the selection of various heating, ventilation, and air conditioning; sealing; glazing; insulation; and other components related to the building envelope.

## **Title 24, Part 11 – California Green Building Standards**

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2016 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in Model Water Efficient Landscape Ordinance emergency standards
- 20 percent mandatory reduction in indoor water use relative to specified baseline levels;

- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

Similar to the reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

### **3.2.3 Local**

#### **3.2.3.1 General Plan**

The City General Plan includes several climate change-related policies to ensure that GHG emissions reductions are imposed on future development and City operations. For example, Conservation Element policy CE-A.2 aims to “reduce the City’s carbon footprint” and to “develop and adopt new or amended regulations, programs, and incentives as appropriate to implement the goals and policies set forth” related to climate change. The Land Use and Community Planning, Mobility, Urban Design, and Public Facilities and Safety Element also contain policy language related to sustainable land use patterns, alternative modes of transportation, energy efficiency, water conservation, waste reduction, and greater landfill efficiency.

#### **3.2.3.2 Climate Action Plan**

In December 2015, the City adopted its CAP (City of San Diego 2015). The CAP identifies measures to meet GHG emissions reduction targets for 2020 and 2035. The CAP consists of a 2010 inventory of GHG emissions, a BAU projection for emissions in 2020 and 2035, state targets, and emission reductions with implementation of the CAP. The City identifies GHG reduction strategies focusing on energy- and water-efficient buildings; clean and renewable energy; bicycling, walking, transit, and land use; zero waste; and climate resiliency. Accounting for future population and economic growth, the City projects GHG emissions to be approximately 15.9 MMT CO<sub>2</sub>E in 2020 and 16.7 MMT CO<sub>2</sub>E in 2035. To achieve its proportional share of the state reduction targets for 2020 (AB 32) and 2050 (EO S-3-05), the City would need to reduce emissions below the 2010 baseline by 15 percent in 2020 and 50 percent by 2035. To meet these goals, the City must implement strategies that reduce emissions to approximately 11.0 MMT CO<sub>2</sub>E in 2020 and 6.5 MMT CO<sub>2</sub>E in 2035. Through implementation of the CAP, the City is projected to reduce emissions even further below targets by 1.2 MMT CO<sub>2</sub>E by 2020 and 205,462 MT CO<sub>2</sub>E by 2035.

As a means to implement the CAP, the City created a CAP Consistency Checklist utilized by projects to assure compliance with the measures identified in the CAP. The Consistency Checklist includes three steps in evaluating if a project is consistent with the CAP. Step 1 of the CAP Consistency Checklist evaluates a project's consistency with the growth projections used in the development of the CAP. Projects that are consistent with the adopted General Plan and Community Plan land use and zoning designations, or projects that are not consistent with these designations but would result in an equivalent or less GHG-intensive project when compared to the existing designations, would be consistent with the growth projections used in development with the CAP. With implementation of the applicable project-specific measures identified in Step 2 of the checklist, these projects would be consistent with the CAP. A project that is not consistent with the existing land use and zoning designations and would result in a more GHG-intensive project may still be consistent with the CAP if it is located within a Transit Priority Area (TPA) and implements CAP Strategy 3 actions, as determined in Step 3.

Step 2 of the CAP Consistency Checklist is to review and evaluate a project's consistency with specific applicable strategies and actions of the CAP. Step 2 includes measures associated with cool/green roofs, plumbing fixtures and fittings, energy performance standards/renewable energy, electric vehicle charging, bicycle parking spaces, shower facilities, designated parking spaces, and a transportation demand management program.

Step 3 of the CAP Consistency Checklist is to determine whether a project that is located in a TPA but includes a land use plan and/or zoning designation amendment that would result in an increase in GHG emissions when compared to the existing designations is nevertheless consistent with the assumptions in the CAP, because it would implement CAP Strategy 3 actions.

### **3.2.3.3 Regional Transportation Plan/Sustainable Communities Strategy**

San Diego Forward is the 2050 RTP prepared by SANDAG and adopted in October 2015. The RTP establishes an implementation plan for how the region will grow over the next 35 years. Developed in accordance with SB 375, the RTP includes an SCS. An SCS demonstrates how the region will meet its GHG reduction targets through integrated land use, housing, and transportation planning. While the purpose of an SCS is to reduce GHG emissions due to mobile sources, it also results in a decrease in mobile sources of criteria pollutants. Enhanced public transit service combined with incentives for land use development that provides a better market for public transit will play an important role in the SCS.

The SCS develops strategies related to (1) a land use pattern that accommodates future employment and housing needs, (2) a transportation network of public transit, managed lanes and highways, local streets, bikeways, and walkways, (3) transportation demand management to reduce traffic congestion during peak periods, (4) transportation system management to maximize efficiency of the transportation network, and (5) innovative

pricing policies and other measures designed to reduce vehicle miles traveled and congestion.

The RTP includes a Smart Growth Concept Map that identifies the location of existing, planned, and potential smart growth areas. The seven smart growth place types include the Metropolitan Center, Urban Centers, Town Centers, Community Centers, Rural Villages, Mixed-Use Transit Corridors, and Special-Use Centers, reflecting the notion that smart growth is not a “one-size-fits-all” endeavor.

## **4.0 Significance Criteria and Analysis Methodologies**

### **4.1 Determining Significance**

Based on the City’s 2016 Significance Determination Thresholds and applicable criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G, impacts related to GHG emissions would be significant if the project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with the City’s CAP or an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

Pursuant to CEQA Guidelines Sections 15183.5(b), 15064(h)(3), and 15130(d), the City may determine that a project’s incremental contribution to a cumulative GHG effect is not cumulatively considerable if the project complies with the requirements of a previously adopted GHG emission reduction plan.

Consistent with CEQA Guidelines Section 15183.5(b)(1)(A-F), the City’s CAP is a qualified GHG reduction plan. Consistency with the City’s CAP is determined for individual development projects through completion of the CAP Consistency Checklist and application of binding and enforceable project requirements that implement the CAP.

Step 1 of the CAP Consistency Checklist evaluates a project’s land use consistency as follows:

- A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations; or
- B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a TPA and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department; or

- C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?

As discussed, MPFs were not a permitted use in the City when the CAP was developed. Even though MPFs are now allowed in certain industrial zones within the City, this type of use was not envisioned in these zones when the CAP was developed. To determine whether the project would impede GHG emission reduction goals established by the CAP, an analysis based on Step 1(C) of the CAP Consistency Checklist has been completed.

If the GHG emissions associated with the project are equivalent or less than the GHG emissions associated with the most GHG-intensive development that is permitted under the existing zoning and General Plan land use designation, it can be concluded that the GHG emissions associated with the project would not exceed the assumptions used to develop the CAP's GHG emissions estimates. Additionally, if the MPF implements any applicable measures outlined in Step 2 of the CAP Consistency Checklist, the project would not conflict with implementation of the CAP and GHG impacts would be less than significant.

If the GHG emissions associated with the project would be greater than the GHG emissions associated with the buildout that is permitted under the existing zoning and General Plan designation, in accordance with the City's Significance Determination Thresholds, the project's GHG impacts would be significant. In addition, the project must incorporate each applicable and feasible measure identified in Step 2 of the CAP Consistency Checklist to mitigate cumulative GHG emissions impacts to the extent feasible.

The project site is zoned Light Industrial (IL-2-1), designated Industrial Employment in the City's General Plan, and designated Industrial and Business Parks in the Kearny Mesa Community Plan. As the General Plan land use designations and zoning are consistent and zoning regulations are most specific, the most GHG-intensive, "CAP Buildout Scenario" was based on permitted uses in the zoning code.

## 4.2 Calculation Methodology

The project's GHG emissions were calculated using the CalEEMod Version 2016.3.2 (California Air Pollution Control Officers Association [CAPCOA] 2017). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. CalEEMod can be used to calculate emissions from mobile (on-road vehicles), area (fireplaces, landscape maintenance equipment, etc.), water and wastewater, and solid waste sources. GHG emissions are estimated in terms of total MT CO<sub>2</sub>E.

To determine whether the project would be less GHG-intensive when compared to the existing zoning and General Plan land use designations, this analysis also includes

estimates of the GHG emissions associated with buildout of the existing Light Industrial (IL-2-1) zoning.

The project was modeled with an operational year of 2020 to parallel the forecast year of the City CAP Target Emission Levels. The analysis methodology and input data are described in the following sections.

### ***CAP Buildout Scenario***

As outlined in Municipal Code Section 131.0631, the maximum allowable floor area ratio in Light Industrial (IL-2-1) zones within the Kearny Mesa Community Plan Area is 0.5. As CAP forecasts account for maximum buildout under the existing zoning and General Plan land use designations, the CAP buildout scenario involves development of the 2.9-acre (127,515-square-foot) project site with approximately 63,757 square feet of building area.

As established in Municipal Code Section 131.0622, Light Industrial (IL-2-1) zones accommodate a large variety of permitted land uses such as retail sales (building supplies, consumer goods, agriculture supplies, etc.), commercial services (restaurants, financial institutions, studios, visitor accommodations, etc.), offices (business, government, medical, etc.), and industrial (manufacturing, warehousing, research and development, etc.). Among the allowable land uses, fast-food restaurants, financial institutions (i.e., bank or credit union), retail stores, and medical offices generally result in the greatest GHG emissions, which would primarily be attributable to the trip generation rates, which range from 30 to 700 weekday trips per 1,000 square feet of building space for these uses.

- Based on a review of the permitted land uses and with consideration of typical sizes of establishments in each land use type, and with input from City staff, the CAP buildout scenario includes 63,757 square feet of medical office(s).

This use would result in substantial GHG emissions associated with sizeable vehicle trip generation.

## **4.2.1 Mobile Emissions**

GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. Mobile emissions are estimated in CalEEMod by first calculating trip rate, trip length, trip purpose (e.g., home to work, home to shop, home to other), and trip type percentages for each land use type and quantity. An average regional trip length of 5.8 miles for urban areas was modeled based on SANDAG regional data (SANDAG 2014). The vehicle emission factors and fleet mix used in CalEEMod are derived from CARB's Emission Factors 2014 (EMFAC2014) model and account for the effects of applicable regulations such as the Advanced Clean Cars Program (CARB 2014).

### ***Marijuana Production Facility***

As discussed in Section 2.2, the project would require 40 full-time employees and would thereby result in a total of 160 employee trips per day. The project would also require 6

secure deliveries per day (12 vehicle trips accounting for the trip to and returning from the site) and 7 standard deliveries (7 vehicle trips accounting for the trip to the site). Accounting for deliveries and shipments, the project would result in approximately a maximum of 179 trips per day.

### ***CAP Buildout Scenario***

Vehicle trips associated with the CAP buildout scenario were estimated using trip generation rates from the City Land Development Code Trip Generation Manual (City of San Diego 2003). Based on the City's Trip Generation Manual medical offices generate 50 trips per 1,000 square feet. Therefore, the CAP buildout scenario would involve approximately 3,188 average daily trips.

## **4.2.2 Energy Use Emissions**

Energy use emissions include direct emissions associated with the combustion of on-site fuel sources, such as natural gas, and indirect GHG emissions associated with the generation of electricity from fossil fuels off-site in power plants.

The project site is within the service territory of San Diego Gas & Electric (SDG&E). Therefore, SDG&E's specific energy-intensity factors (i.e., the amount of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O per kilowatt-hour [kW-h]) are used in the estimation of GHG emissions from project electricity demand. As discussed, the state mandate for renewable energy is 33 percent by 2020. However, the energy-intensity factors included in CalEEMod by default only represent a 10.2 percent procurement of renewable energy (SDG&E 2011). The California Public Utilities Commission (CPUC) has indicated that SDG&E has met and exceeded 2020 Renewable Portfolio Standard targets by achieving 43.2 percent in 2015 (CPUC 2017). Therefore, project emission estimates were modeled accounting for reductions achieved by 43.2 percent renewable energy procurement. SDG&E energy intensity factors used in modeling are shown in Table 4.

<b>Table 4</b>		
<b>San Diego Gas &amp; Electric Energy Intensity Factors</b>		
<b>Gas</b>	<b>2009 Factors (lbs/MWh)</b>	<b>2020 Factors (lbs/MWh)</b>
Carbon Dioxide (CO <sub>2</sub> )	720.49	457.25
Methane (CH <sub>4</sub> )	0.029	0.018
Nitrous Oxide (N <sub>2</sub> O)	0.006	0.004
SOURCE: SDG&E 2011; CPUC 2017. lbs = pounds; MWh = megawatt hour		

Emissions resulting from natural gas consumption were calculated in CalEEMod by multiplying natural gas consumption by standard emission factors published by the U.S. EPA's AP-42: Compilation of Air Emissions Factors.

### ***Marijuana Production Facility***

Specific tenant improvements associated with indoor cannabis cultivation are anticipated to include installation of lighting and HVAC units that result in substantial electrical demand. Additional energy use would be associated with miscellaneous equipment throughout the building.

The annual energy use associated with the project was estimated by the project architect, Bergmann PC, to require approximately 4,955,776 kW-h for lighting and miscellaneous equipment and 1,659,437 kW-h and 245 therms for HVAC components (fans, cooling, heating, pumps, and heater rejection fans). The complete energy use estimate is included in Attachment 1.

### ***CAP Buildout Scenario***

Energy use associated with the CAP buildout scenario was estimated using data compiled from South Coast Air Quality Management District surveys and incorporated into CalEEMod. These surveys include the CEC-sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies, which identify energy use by building type and climate zone. CalEEMod Version 2016.3.2 accounts for building code amendments through adoption of the 2016 Title 24 Energy Code.

Accounting for newer 2016 Title 24 requirements, the CEC estimates of energy use have declined to 13,440 kW-h and 20,000 kilo-British Thermal Units (k-BTU) per 1,000 square feet for medical offices. Therefore, the CAP buildout scenario would involve an annual energy use of 856,934 kW-h of electricity and 1,287,310 k-BTU of natural gas.

## **4.2.3 Area Source Emissions**

Area sources can include GHG emissions occurring from fireplace fuel use and landscaping equipment exhaust, as well as miscellaneous emissions.

### ***Marijuana Production Facility***

The project would not include any woodstoves or fireplaces. The project would implement tenant improvements described in Section 2.0. The existing ornamental landscaping along the frontage of Balboa Avenue and in parking lot planters would remain.

Application of nitrogen-based fertilizers results in the release of N<sub>2</sub>O the fertilizer volatilizes over time. Efficient application of fertilizers has implications on GHG emissions, crop yield, and production costs (due to the cost of the fertilizer). Published data regarding the nitrogen-based fertilizer application rate for marijuana production is limited. The United States Department of Agriculture has studied ideal “benchmark” application rates by region for maximization of a crop yield for crops including corn, cotton, and wheat (United States Department of Agriculture 2015). Benchmark application rates for these crops range from 85 to 174 pounds per acre. In the absence of fertilizer application rates for marijuana, this analysis assumes a fertilizer application equivalent to 174 pounds per acre.



The project would include twelve cultivation rooms (ten bloom rooms and two clone rooms), with a total of 23,890 square-feet of cultivation area. Therefore, the project would involve the use of approximately 43.3 kilograms of nitrogen-based fertilizer per year; an emissions rate of 43.3 kilograms of N<sub>2</sub>O was modeled.

### ***CAP Buildout Scenario***

Woodstoves and fireplaces are not typical in fast-food restaurants, 24-hour convenience stores, financial institutions, or medical offices.

Maximum buildout of the project site would likely result in a similar amount of ornamental landscaping as is currently present. Thus, the CAP buildout scenario was assumed to result in similar landscaping equipment emissions to the existing use.

## **4.2.4 Water and Wastewater Emissions**

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both CH<sub>4</sub> and N<sub>2</sub>O.

### ***Marijuana Production Facility***

Specific tenant improvements associated with indoor cannabis cultivation are anticipated to include an irrigation system. Additionally, the project would include locker rooms, a break room, and a commercial kitchen.

The water use associated with the project was estimated by the project architect, Bergmann PC, to include approximately 1,552 gallons per day, the equivalent of approximately 566,480 gallons per year. Irrigation would account for approximately 48 percent of the overall water use and domestic use would account for the remainder. The complete water use estimate is included in Attachment 2.

### ***CAP Buildout Scenario***

The CalEEMod model includes indoor and outdoor water use consumption rates for various land uses based on the *Pacific Institute's Waste Not, Want Not: The Potential for Urban Water Conservation in California 2003* (as cited in CAPCOA 2017). Water use and wastewater generation associated with the CAP buildout scenario was estimated using standard water use consumption rates. Medical offices typically use 149,382 gallons per year per 1,000 square feet. Therefore, the CAP buildout scenario would involve approximately 9,524,570 gallons per year.

## **4.2.5 Solid Waste Emissions**

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. The methods for quantifying GHG

emissions from solid waste are based on the Intergovernmental Panel on Climate Change method, using the degradable organic content of waste. GHG emissions associated with waste disposal were calculated using these parameters.

### ***Marijuana Production Facility***

Solid waste generated by the project would include materials such as materials packaging, and household trash from workers. The amount of solid waste generated by the project would be similar to that associated with manufacturing land uses. To calculate the GHG emissions generated by disposing of non-biogenic solid waste from the project, the total volume of solid waste was calculated using waste disposal rates identified by the California Department of Resources Recycling and Recovery, which indicates that the statewide average waste generation rate for manufacturing facilities is 1.24 tons of waste per 1,000 square feet of building space. The estimated solid waste generation associated with the project is estimated to be 56.5 tons per year.

### ***CAP Buildout Scenario***

Solid waste generation associated with the CAP buildout scenario was estimated using solid waste disposal rates identified by the California Department of Resources Recycling and Recovery. The identified statewide average solid waste generation rates indicate that medical offices typically generate 10.80 tons of waste per 1,000 square feet of building space. Therefore, CAP buildout scenario involves 689 tons of waste generation per year.

## **5.0 GHG Impact Analysis**

As discussed in Section 4.0, Significance Criteria, if the GHG emissions associated with the project are equivalent or less than the GHG emissions associated with the maximum development that is permitted under the existing zoning and General Plan land use designation (Step 1C), and if the project would incorporate the applicable GHG emission reduction measures (Step 2), the GHG emissions associated with the project would not exceed the assumptions used to develop the CAP's GHG emissions estimates.

### **5.1 GHG Emissions**

Based on the methodology summarized in Section 4.2, the primary sources of direct and indirect GHG emissions have been calculated. Table 5 summarizes the project emissions. The complete model outputs for the project are included in Attachment 3, and the model outputs for the most GHG-intensive use are included in Attachment 4.

<b>Table 5</b> <b>Annual GHG Emissions Estimates</b> <b>(MT CO<sub>2</sub>E)</b>		
Emission Source	Project	Climate Action Plan Buildout Scenario
Vehicles	151	2,008
Energy use	1,378	247
Area sources	13	<1
Water use	2	36
Solid waste disposal	28	346
<b>TOTAL</b>	<b>1,573</b>	<b>2,638</b>
NOTE: Totals may vary due to rounding.		

The project would generate approximately 1,573 MT CO<sub>2</sub>E annually. The CAP buildout scenario for the project site would result in 2,638 MT CO<sub>2</sub>E annually. Therefore, GHG emissions associated with the project would not exceed the assumptions used to develop the CAP's GHG emissions estimates. GHG emissions would be less than significant.

## 5.2 CAP Step 2 Strategies

CAP Consistency Checklist Footnote 5 states, "Actions that are not subject to Step 2 would include... use permits or other permits that do not result in the expansion or enlargement of a building. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable." As the project involves interior tenant improvements to an existing building, incorporation of Step 2 CAP Strategies is not required.

Project-level GHG reduction strategies are discussed below. As shown, the project would voluntarily incorporate select GHG reduction strategies from those recommended outlined in the CAP Consistency Checklist.

### *Plumbing Fixtures and Fittings*

The project would incorporate low-flow plumbing fixtures/appliances with maximum flow rates that do not exceed the maximum flow rate specified in CALGreen Table A5.303.2.3.1 and would only include appliances and fixtures that meet the provisions of CALGreen Section A5.303.3.

### *Bicycle Parking Spaces*

The project would include six short-term bicycle parking spaces and eight long-term bicycle parking space. The project would thereby provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code.

### *Shower Facilities*

The facility would require 40 full-time employees. The project would provide showers in each the men's and women's locker rooms.

### ***Designated Parking Spaces***

The facility would require 114 vehicle parking spaces. The project would provide eleven designated parking spaces for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles.

## **6.0 Conclusions**

The project site is zoned Light Industrial (IL-2-1), designated Industrial Employment in the City's General Plan, and designated Industrial and Business Parks in the Kearny Mesa Community Plan. The project would implement tenant improvements to the existing building for the operation of a 45,600-square-foot indoor cannabis cultivation facility. The project is designed to be compliant with the City's Marijuana Production Facility Ordinance as well as the State of California's MAUCRSA.

This detailed GHG analyses demonstrates that the project would not impede GHG emission reduction goals established by the City's CAP. The basis of this analysis is Step 1(C) of the CAP Consistency Checklist, which indicates that projects that are not consistent with the existing zoning and General Plan designation, but would result in an equivalent or less GHG-intensive project when compared to the existing designations, would be consistent with the growth projections used in development with the CAP. If the project is consistent with the growth projections used in development with the CAP and incorporates any applicable GHG emission reduction measures outlined in CAP Consistency Checklist Step 2, project GHG emissions would not exceed the assumptions used to develop the CAP's GHG emissions estimates.

GHG emissions were calculated for operation of the project as well as operation of the most GHG-intensive use that is currently permitted under the existing zoning and General Plan land use designation. As discussed in this analysis, the most GHG-intensive use that could reasonably be located on the project site includes 63,757 square feet of medical office(s). These land uses would result in substantial GHG emissions associated with sizeable vehicle trip generation. As shown in Table 5, the project would result in 1,573 MT CO<sub>2</sub>E annually, and the most GHG-intensive use based on existing zoning would result in 2,638 MT CO<sub>2</sub>E annually. Therefore, GHG emissions associated with the project would not exceed the assumptions used to develop the CAP's GHG emissions estimates. Additionally, the project would voluntarily implement select GHG reduction measures from those recommended outlined in Step 2 of the CAP Consistency Checklist. Therefore, the project would be consistent with the City's CAP GHG emission impacts would be less than significant.

## 7.0 References Cited

### California Air Pollution Control Officers Association (CAPCOA)

- 2017 California Emissions Estimator model (CalEEMod). User's Guide Version 2016.3.2. November.

### California Air Resources Board (CARB)

- 2007 California Greenhouse Gas Inventory – Summary by Economic Sector. Last updated November, 19 2007. Accessed April 2014.
- 2008 Climate Change Scoping Plan: A Framework for Change. Available at [http://www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf). December.
- 2014 2014 Emission FACTors (EMFAC) model, version 1.07, update March 15, 2015.
- 2017a Greenhouse Gas Inventory Data—2000 to 2015. Available at <http://www.arb.ca.gov/cc/inventory/data/data.htm> (last updated June 26, 2017).
- 2017b The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 20, 2017.

### California Public Utilities Commission (CPUC)

- 2017 Renewables Portfolio Standard Annual Report. November.

### Council on Environmental Quality (CEQ)

- 2012 Federal Greenhouse Gas Accounting and Reporting Guidance, June 4. Available at [https://www.whitehouse.gov/sites/default/files/microsites/ceq/ghg\\_guidance\\_document\\_0.pdf](https://www.whitehouse.gov/sites/default/files/microsites/ceq/ghg_guidance_document_0.pdf). Accessed June 24, 2016.

### Intergovernmental Panel on Climate Change (IPCC)

- 2014 Fifth Assessment Report (AR5), Climate Change 2014: Synthesis Report.

### San Diego Association of Governments (SANDAG)

- 2014 Correspondence between RECON and SANDAG, dated March 20, 2014 confirming the urban regional trip length of 5.8 miles derived from Series 12 base year (2008) model.

### San Diego, City of

- 2003 Municipal Code, Land Development Code, Trip Generation Manual. May.
- 2015 Climate Action Plan. Adopted December.

## San Diego Gas and Electric (SDG&amp;E)

2011 March 2011 Semi-Annual Compliance Report Pursuant to the California Renewables Portfolio Standard. Filed March.

## U.S. Environmental Protection Agency (U.S. EPA)

2010 Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008. U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs. 430-R-10-006. April 15.

2013 Energy Star. Available at <http://www.energystar.gov>. Accessed July 2.

2014 U.S. EPA State and Local Climate and Energy Program. Available at <http://www.epa.gov/statelocalclimate/index.html>. Accessed January 23.

## **ATTACHMENTS**

## **ATTACHMENTS**



# **ATTACHMENT 1**

## **Annual Energy and Emissions Estimates**

## Annual Cost Summary

Columbia Care - San Diego  
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**Table 1. Annual Costs**

Component	Sample Building (\$)
Air System Fans	36,979
Cooling	167,035
Heating	231
Pumps	0
Heat Rejection Fans	0
<b>HVAC Sub-Total</b>	<b>204,245</b>
Lights	592,435
Electric Equipment	17,259
Misc. Electric	0
Misc. Fuel Use	0
<b>Non-HVAC Sub-Total</b>	<b>609,693</b>
<b>Grand Total</b>	<b>813,938</b>

**Table 2. Annual Cost per Unit Floor Area**

Component	Sample Building (\$/ft²)
Air System Fans	0.850
Cooling	3.839
Heating	0.005
Pumps	0.000
Heat Rejection Fans	0.000
<b>HVAC Sub-Total</b>	<b>4.695</b>
Lights	13.617
Electric Equipment	0.397
Misc. Electric	0.000
Misc. Fuel Use	0.000
<b>Non-HVAC Sub-Total</b>	<b>14.014</b>
<b>Grand Total</b>	<b>18.709</b>
Gross Floor Area (ft²)	43506.1
Conditioned Floor Area (ft²)	43506.1

Note: Values in this table are calculated using the Gross Floor Area.

**Table 3. Component Cost as a Percentage of Total Cost**

Component	Sample Building (%)
Air System Fans	4.5
Cooling	20.5
Heating	0.0
Pumps	0.0
Heat Rejection Fans	0.0
<b>HVAC Sub-Total</b>	<b>25.1</b>
Lights	72.8
Electric Equipment	2.1
Misc. Electric	0.0
Misc. Fuel Use	0.0
<b>Non-HVAC Sub-Total</b>	<b>74.9</b>
<b>Grand Total</b>	<b>100.0</b>

## Annual Energy and Emissions Summary

Columbia Care - San Diego  
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**Table 1. Annual Costs**

Component	Sample Building (\$)
<b>HVAC Components</b>	
Electric	204,155
Natural Gas	89
Fuel Oil	0
Propane	0
Remote HW	0
Remote Steam	0
Remote CW	0
<b>HVAC Sub-Total</b>	<b>204,244</b>
<b>Non-HVAC Components</b>	
Electric	609,693
Natural Gas	0
Fuel Oil	0
Propane	0
Remote HW	0
Remote Steam	0
<b>Non-HVAC Sub-Total</b>	<b>609,693</b>
<b>Grand Total</b>	<b>813,937</b>

**Table 2. Annual Energy Consumption**

Component	Sample Building
<b>HVAC Components</b>	
Electric (kWh)	1,659,437
Natural Gas (Therm)	245
Fuel Oil (na)	0
Propane (na)	0
Remote HW (na)	0
Remote Steam (na)	0
Remote CW (na)	0
<b>Non-HVAC Components</b>	
Electric (kWh)	4,955,776
Natural Gas (Therm)	0
Fuel Oil (na)	0
Propane (na)	0
Remote HW (na)	0
Remote Steam (na)	0
<b>Totals</b>	
Electric (kWh)	6,615,213
Natural Gas (Therm)	245
Fuel Oil (na)	0
Propane (na)	0
Remote HW (na)	0
Remote Steam (na)	0
Remote CW (na)	0

## Annual Energy and Emissions Summary

Columbia Care - San Diego  
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**Table 3. Annual Emissions**

Component	Sample Building
CO2 Equivalent (lb)	9,093,014

**Table 4. Annual Cost per Unit Floor Area**

Component	Sample Building (\$/ft²)
<b>HVAC Components</b>	
Electric	4.693
Natural Gas	0.002
Fuel Oil	0.000
Propane	0.000
Remote HW	0.000
Remote Steam	0.000
Remote CW	0.000
<b>HVAC Sub-Total</b>	<b>4.695</b>
<b>Non-HVAC Components</b>	
Electric	14.014
Natural Gas	0.000
Fuel Oil	0.000
Propane	0.000
Remote HW	0.000
Remote Steam	0.000
<b>Non-HVAC Sub-Total</b>	<b>14.014</b>
<b>Grand Total</b>	<b>18.709</b>
Gross Floor Area (ft²)	43506.1
Conditioned Floor Area (ft²)	43506.1

Note: Values in this table are calculated using the Gross Floor Area.

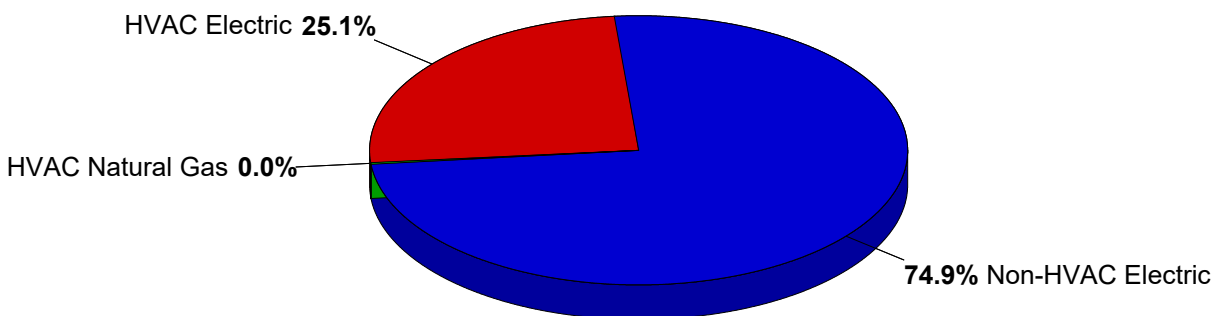
**Table 5. Component Cost as a Percentage of Total Cost**

Component	Sample Building (%)
<b>HVAC Components</b>	
Electric	25.1
Natural Gas	0.0
Fuel Oil	0.0
Propane	0.0
Remote HW	0.0
Remote Steam	0.0
Remote CW	0.0
<b>HVAC Sub-Total</b>	<b>25.1</b>
<b>Non-HVAC Components</b>	
Electric	74.9
Natural Gas	0.0
Fuel Oil	0.0
Propane	0.0
Remote HW	0.0
Remote Steam	0.0
<b>Non-HVAC Sub-Total</b>	<b>74.9</b>
<b>Grand Total</b>	<b>100.0</b>

## Annual Energy Costs - Sample Building

Columbia Care - San Diego  
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### 1. Annual Costs

Component	Annual Cost (\$/yr)	(\$/ft²)	Percent of Total (%)
<b>HVAC Components</b>			
Electric	204,155	4.693	25.1
Natural Gas	89	0.002	0.0
Fuel Oil	0	0.000	0.0
Propane	0	0.000	0.0
Remote Hot Water	0	0.000	0.0
Remote Steam	0	0.000	0.0
Remote Chilled Water	0	0.000	0.0
<b>HVAC Sub-Total</b>	<b>204,244</b>	<b>4.695</b>	<b>25.1</b>
<b>Non-HVAC Components</b>			
Electric	609,693	14.014	74.9
Natural Gas	0	0.000	0.0
Fuel Oil	0	0.000	0.0
Propane	0	0.000	0.0
Remote Hot Water	0	0.000	0.0
Remote Steam	0	0.000	0.0
<b>Non-HVAC Sub-Total</b>	<b>609,693</b>	<b>14.014</b>	<b>74.9</b>
<b>Grand Total</b>	<b>813,937</b>	<b>18.709</b>	<b>100.0</b>

Note: Cost per unit floor area is based on the gross building floor area.

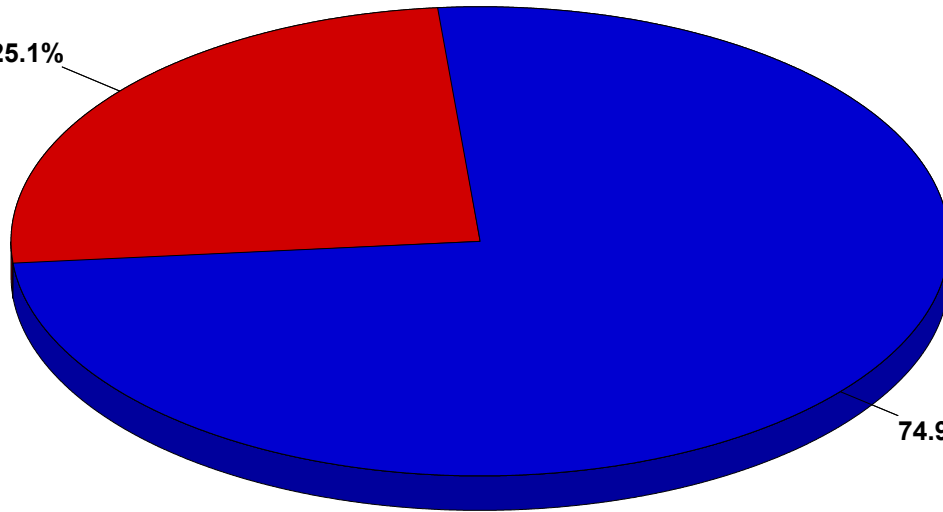
Gross Floor Area ..... **43506.1** ft²  
 Conditioned Floor Area ..... **43506.1** ft²

## Annual HVAC & Non-HVAC Cost Totals - Sample Building

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HVAC 25.1%



74.9% Non-HVAC

### 1. Annual Costs

Component	Annual Cost (\$/yr)	(\$/ft <sup>2</sup> )	Percent of Total (%)
HVAC	204,245	4.695	25.1
Non-HVAC	609,693	14.014	74.9
<b>Grand Total</b>	<b>813,938</b>	<b>18.709</b>	<b>100.0</b>

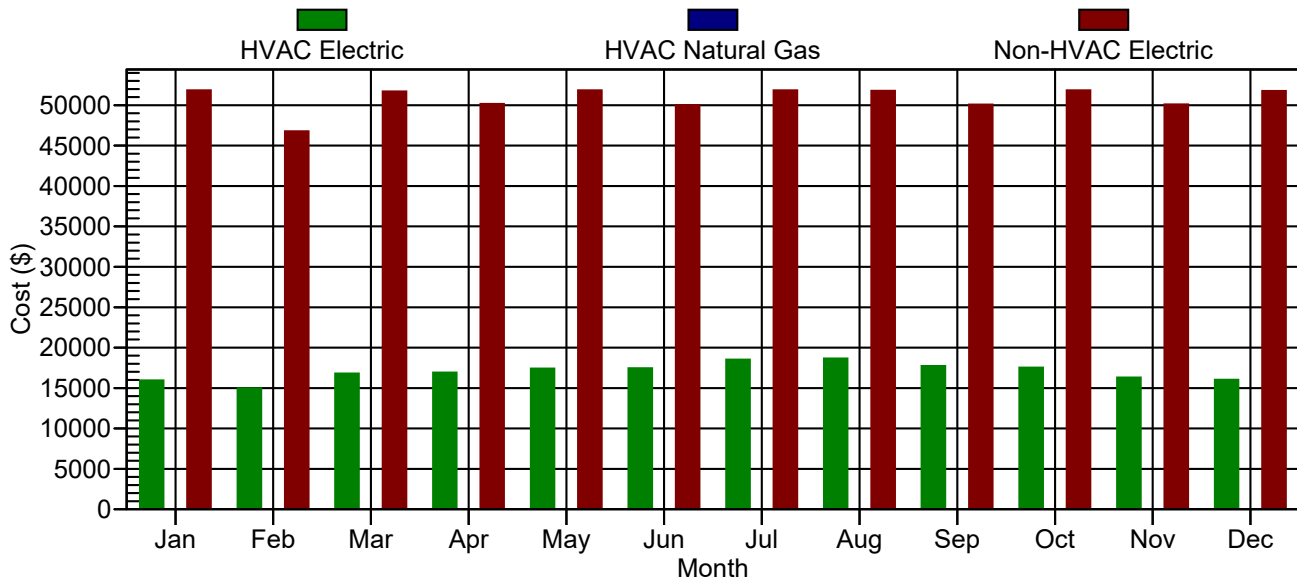
Note: Cost per unit floor area is based on the gross building floor area.

Gross Floor Area ..... **43506.1** ft<sup>2</sup>  
 Conditioned Floor Area ..... **43506.1** ft<sup>2</sup>

## Monthly Energy Costs - Sample Building

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### 1. HVAC Costs

Month	Electric (\$)	Natural Gas (\$)	Fuel Oil (\$)	Propane (\$)	Remote Hot Water (\$)	Remote Steam (\$)	Remote Chilled Water (\$)
January	15,931	24	0	0	0	0	0
February	14,946	11	0	0	0	0	0
March	16,790	12	0	0	0	0	0
April	16,917	5	0	0	0	0	0
May	17,407	6	0	0	0	0	0
June	17,436	1	0	0	0	0	0
July	18,506	0	0	0	0	0	0
August	18,656	0	0	0	0	0	0
September	17,732	0	0	0	0	0	0
October	17,531	2	0	0	0	0	0
November	16,286	7	0	0	0	0	0
December	16,016	21	0	0	0	0	0
<b>Total</b>	<b>204,155</b>	<b>89</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

### 2. Non-HVAC Costs

Month	Electric (\$)	Natural Gas (\$)	Fuel Oil (\$)	Propane (\$)	Remote Hot Water (\$)	Remote Steam (\$)
January	51,838	0	0	0	0	0
February	46,773	0	0	0	0	0
March	51,703	0	0	0	0	0
April	50,149	0	0	0	0	0
May	51,838	0	0	0	0	0
June	50,014	0	0	0	0	0
July	51,837	0	0	0	0	0
August	51,776	0	0	0	0	0
September	50,075	0	0	0	0	0
October	51,838	0	0	0	0	0
November	50,088	0	0	0	0	0
December	51,764	0	0	0	0	0
<b>Total</b>	<b>609,693</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Monthly Energy Use by Component - Sample Building

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### 1. Monthly Energy Use by System Component

Component	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Air System Fans (kWh)	30224	27191	29778	27546	30087	22470	18640	18300	17973	21684	27610	29071
<i>Cooling</i>												
Electric (kWh)	98928	94174	106591	109929	111372	119245	131793	133353	126148	120791	104668	100724
Natural Gas (Therm)	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Oil (na)	0	0	0	0	0	0	0	0	0	0	0	0
Propane (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote HW (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote Steam (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote CW (na)	0	0	0	0	0	0	0	0	0	0	0	0
<i>Heating</i>												
Electric (kWh)	340	110	105	32	35	14	2	0	9	28	96	389
Natural Gas (Therm)	71	32	34	12	15	0	0	0	0	1	18	62
Fuel Oil (na)	0	0	0	0	0	0	0	0	0	0	0	0
Propane (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote HW (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote Steam (na)	0	0	0	0	0	0	0	0	0	0	0	0
Pumps (kWh)	0	0	0	0	0	0	0	0	0	0	0	0
Heat Rej. Fans (kWh)	0	0	0	0	0	0	0	0	0	0	0	0
Lighting (kWh)	409109	369404	408816	395874	409109	395581	409109	408977	395714	409109	395742	408949
Electric Eqpt. (kWh)	12250	10753	11444	11751	12250	10945	12250	11886	11310	12250	11386	11809
Misc. Electric (kWh)	0	0	0	0	0	0	0	0	0	0	0	0
<i>Misc. Fuel</i>												
Natural Gas (Therm)	0	0	0	0	0	0	0	0	0	0	0	0
Propane (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote HW (na)	0	0	0	0	0	0	0	0	0	0	0	0
Remote Steam (na)	0	0	0	0	0	0	0	0	0	0	0	0



## Monthly Energy Use by Energy Type - Sample Building

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### 1. HVAC Energy Use

Month	Electric (kWh)	Natural Gas (Therm)	Fuel Oil (na)	Propane (na)	Remote HW (na)	Remote Steam (na)	Remote CW (na)
Jan	129,491	71	0	0	0	0	0
Feb	121,475	32	0	0	0	0	0
Mar	136,474	34	0	0	0	0	0
Apr	137,507	12	0	0	0	0	0
May	141,494	15	0	0	0	0	0
Jun	141,728	0	0	0	0	0	0
Jul	150,430	0	0	0	0	0	0
Aug	151,649	0	0	0	0	0	0
Sep	144,129	0	0	0	0	0	0
Oct	142,502	1	0	0	0	0	0
Nov	132,374	18	0	0	0	0	0
Dec	130,183	62	0	0	0	0	0
<b>Totals</b>	1,659,437	245	0	0	0	0	0

### 2. Non-HVAC Energy Use

Month	Electric (kWh)	Natural Gas (Therm)	Fuel Oil (na)	Propane (na)	Remote HW (na)	Remote Steam (na)
Jan	421,359	0	0	0	0	0
Feb	380,157	0	0	0	0	0
Mar	420,260	0	0	0	0	0
Apr	407,625	0	0	0	0	0
May	421,359	0	0	0	0	0
Jun	406,526	0	0	0	0	0
Jul	421,359	0	0	0	0	0
Aug	420,862	0	0	0	0	0
Sep	407,023	0	0	0	0	0
Oct	421,359	0	0	0	0	0
Nov	407,128	0	0	0	0	0
Dec	420,757	0	0	0	0	0
<b>Totals</b>	4,955,776	0	0	0	0	0

## Billing Details - Electric - Sample Building

Columbia Care - San Diego  
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### 1. Component Charges

Billing Period	Energy Charges (\$)	Demand Charges (\$)	Customer Charges (\$)	Taxes (\$)	Total Charge (\$)
Jan	67,672	0	50	47	67,769
Feb	61,625	0	50	43	61,719
Mar	68,395	0	50	48	68,493
Apr	66,969	0	50	47	67,066
May	69,146	0	50	48	69,245
Jun	67,353	0	50	47	67,450
Jul	70,245	0	50	49	70,344
Aug	70,333	0	50	49	70,433
Sep	67,709	0	50	47	67,806
Oct	69,270	0	50	49	69,369
Nov	66,278	0	50	46	66,374
Dec	67,683	0	50	47	67,780
<b>Totals</b>	<b>812,679</b>	<b>0</b>	<b>600</b>	<b>569</b>	<b>813,848</b>

### 2. Totals

Billing Period	Total Charges (\$)	Total Consumption (kWh)	Avg Price (\$/kWh)
Jan	67,769	550,850	0.1230
Feb	61,719	501,632	0.1230
Mar	68,493	556,733	0.1230
Apr	67,066	545,131	0.1230
May	69,245	562,853	0.1230
Jun	67,450	548,254	0.1230
Jul	70,344	571,792	0.1230
Aug	70,433	572,514	0.1230
Sep	67,806	551,152	0.1230
Oct	69,369	563,860	0.1230
Nov	66,374	539,502	0.1230
Dec	67,780	550,940	0.1230
<b>Totals</b>	<b>813,848</b>	<b>6,615,213</b>	<b>0.1230</b>

### 3. Consumption Totals

Billing Period	Peak (kWh)	Mid-Peak (kWh)	Normal Peak (kWh)	Off-Peak (kWh)	Overall (kWh)
Jan	0	0	0	0	550,850
Feb	0	0	0	0	501,632
Mar	0	0	0	0	556,733
Apr	0	0	0	0	545,131
May	0	0	0	0	562,853
Jun	0	0	0	0	548,254
Jul	0	0	0	0	571,792
Aug	0	0	0	0	572,514
Sep	0	0	0	0	551,152
Oct	0	0	0	0	563,860
Nov	0	0	0	0	539,502
Dec	0	0	0	0	550,940
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,615,213</b>

## Billing Details - Electric - Sample Building

Columbia Care - San Diego  
BERGMANN ASSOCIATES, INC.

02/16/2018  
01:02PM

### 4. Billing Demands

Billing Period	Peak (kW)	Mid-Peak (kW)	Normal Peak (kW)	Off-Peak (kW)	Overall (kW)
Jan	0.0	0.0	0.0	0.0	1389.3
Feb	0.0	0.0	0.0	0.0	1402.7
Mar	0.0	0.0	0.0	0.0	1405.9
Apr	0.0	0.0	0.0	0.0	1478.5
May	0.0	0.0	0.0	0.0	1407.2
Jun	0.0	0.0	0.0	0.0	1503.1
Jul	0.0	0.0	0.0	0.0	1467.9
Aug	0.0	0.0	0.0	0.0	1525.7
Sep	0.0	0.0	0.0	0.0	1486.5
Oct	0.0	0.0	0.0	0.0	1475.8
Nov	0.0	0.0	0.0	0.0	1416.5
Dec	0.0	0.0	0.0	0.0	1408.8

### 5. Maximum Demands

Billing Period	Peak (kW)	Mid-Peak (kW)	Normal Peak (kW)	Off-Peak (kW)	Overall (kW)
Jan	0.0	0.0	0.0	0.0	1389.3
Feb	0.0	0.0	0.0	0.0	1402.7
Mar	0.0	0.0	0.0	0.0	1405.9
Apr	0.0	0.0	0.0	0.0	1478.5
May	0.0	0.0	0.0	0.0	1407.2
Jun	0.0	0.0	0.0	0.0	1503.1
Jul	0.0	0.0	0.0	0.0	1467.9
Aug	0.0	0.0	0.0	0.0	1525.7
Sep	0.0	0.0	0.0	0.0	1486.5
Oct	0.0	0.0	0.0	0.0	1475.8
Nov	0.0	0.0	0.0	0.0	1416.5
Dec	0.0	0.0	0.0	0.0	1408.8

### 6. Time Of Maximum Demands (Date/Hour)

Billing Period	Peak	Mid-Peak	Normal Peak	Off-Peak	Overall
Jan	n/a	n/a	n/a	n/a	1/24 13:00
Feb	n/a	n/a	n/a	n/a	2/25 13:00
Mar	n/a	n/a	n/a	n/a	3/14 13:00
Apr	n/a	n/a	n/a	n/a	4/9 15:00
May	n/a	n/a	n/a	n/a	5/3 15:00
Jun	n/a	n/a	n/a	n/a	6/20 16:00
Jul	n/a	n/a	n/a	n/a	7/19 15:00
Aug	n/a	n/a	n/a	n/a	8/5 13:00
Sep	n/a	n/a	n/a	n/a	9/9 10:00
Oct	n/a	n/a	n/a	n/a	10/18 14:00
Nov	n/a	n/a	n/a	n/a	11/8 13:00
Dec	n/a	n/a	n/a	n/a	12/20 13:00

## **ATTACHMENT 2**

### **Irrigation Flow Rate Calculations**

Irrigation Calc

From: Isaac Van Geest [mailto:isaac@zwartsystems.ca]

Sent: Monday, May 01, 2017 3:36 PM

To: Dempsey, Stephanie <sdempsey@BERGMANNPC.com>

Subject: RE: Delaware & Aurora Phasing Plans

The best way I can answer that question is this, you will need 5 liters of water per square meter of floor space in the grow rooms. So total are of grow rooms will give you how many liters in a day you will need divide that by 12 hours than by 60 minutes will give you the flow rate per minute you will be surprised how low that will be.

5 liters  
1.3208605 gallons  
1 gallon

1 s.m.  
10.76391 s.f  
8.149164882 s.f.

IRRIGATION RATE					
San Diego	3,560 s.f.	436.8545798 gallons	36.40454832 gal/hr	<b>0.61 gpm</b>	(MCV Rooms)
	18,440 s.f.	2262.808554 gallons	188.5673795 gal/hr	<b>3.14 gpm</b>	(Bloom Rooms)
	22,000			<b>3.75 gpm</b>	

	Proposed Facility	Notes
Gallons Per Day Supply Water		
Irrigation Supply Rate (GPD)	747.72	MCV - Plants are watered 20 hours a day, 15 minutes per hour Bloom - Plants are watered 12 hours a day, 15 minutes per hour
Domestic Usage Supply Rate (GPD)	804.00	40 Occupants per day, based on recommendations/assumptions from IAPMO with commercial dishwasher
<b>Total GPD</b>	<b>1551.72</b>	
Gallons Per Day Waste Water		
Grow bench run-off AC & DHU Condensate Rate (GPD)	74.77 598.18	10% of irrigation supply rate 80% of irrigation supply rate, 10% retained by plants
<b>Total Waste Water GPD</b>	<b>672.95</b>	GPD totals do not include domestic usage, there is no direction conversion from drainage fixture units to gallons per minute
Drainage Fixture Units		
Building drainage Irrigation Related (DFU)	66.00 128.00	
<b>Total DFU</b>	<b>194.00</b>	

Carbon Output		
<a href="http://www.energy.ca.gov/2006publications/CEC-500-2006-118/CEC-500-2006-118.PDF">http://www.energy.ca.gov/2006publications/CEC-500-2006-118/CEC-500-2006-118.PDF</a>		
Location	San Diego	Southern California
Energy Per Mgal	12700	kWh/MG
CO2 Emission Rate	1.37	lb/kWh
Facility Water Usage	0.566379581	MGPY
Equivalent Energy Use	7193.020681	KWh/y
CO2 Emission - Water Usage	9854.438333	lb/year
CO2 Emission - HVAC Usage	9736453	lb/year
<b>Total</b>	<b>9746307.438</b>	<b>lb/year</b>

# **ATTACHMENT 3**

## **CalEEMod Output–Project Emissions**

## Summary Book

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<i>GHG Emissions Estimate (MTCO2e)</i>		
Category	Project	Maximum
Mobile	151	2,008
Energy	1,378	247
Area	13	0
Water	2	36
Waste	28	346
<b>Total</b>	<b>1,573</b>	<b>2,638</b>

### Additional Fertilizer GHG Emissions

23,890 square feet

174 pounds per acre

43.3 kg of N2O

298 GWP of N2O

12.9 MTCO2E

9244 Balboa Avenue MPF - San Diego County, Annual

**9244 Balboa Avenue MPF**  
**San Diego County, Annual**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	45.60	1000sqft	2.92	45,600.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	457.25	<b>CH4 Intensity (lb/MW hr)</b>	0.018	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics - Energy intensity factors updated based on SDG&amp;E renewable procurement

Land Use - Project site acreage

Vehicle Trips - Project would generate 160 employee trips and 19 delivery trips. County average trip length (5.8 miles) assumed.

Energy Use - Annual energy use would be 6,615,213 KWh and 245 therms

Water And Wastewater - Project water use would be 1,552 gallons per day

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	145.07
tblEnergyUse	NT24NG	7.25	0.54



tblEnergyUse	T24E	1.21	0.00
tblEnergyUse	T24NG	4.31	0.00
tblLandUse	LotAcreage	1.05	2.92
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	457.25
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	ST_TR	1.49	3.93
tblVehicleTrips	SU_TR	0.62	3.93
tblVehicleTrips	WD_TR	3.82	3.93
tblWater	IndoorWaterUseRate	10,545,000.00	566,480.00

2.0 Emissions Summary

2.2 Overall Operational  
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2310	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004
Energy	1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1,373.3387	1,373.3387	0.0540	0.0120	1,378.2735
Mobile	0.0512	0.2138	0.5421	1.6400e-003	0.1330	1.6700e-003	0.1347	0.0356	1.5700e-003	0.0372	0.0000	150.8783	150.8783	8.7200e-003	0.0000	151.0963
Waste						0.0000	0.0000		0.0000	0.0000	11.4771	0.0000	11.4771	0.6783	0.0000	28.4341
Water						0.0000	0.0000		0.0000	0.0000	0.1797	1.5299	1.7096	0.0185	4.5000e-004	2.3064

Total	0.2823	0.2151	0.5435	1.6500e-003	0.1330	1.7600e-003	0.1348	0.0356	1.6600e-003	0.0373	11.6568	1,525.7476	1,537.4044	0.7596	0.0125	1,560.1111
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Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2310	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004
Energy	1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1,373.3387	1,373.3387	0.0540	0.0120	1,378.2735
Mobile	0.0512	0.2138	0.5421	1.6400e-003	0.1330	1.6700e-003	0.1347	0.0356	1.5700e-003	0.0372	0.0000	150.8783	150.8783	8.7200e-003	0.0000	151.0963
Waste						0.0000	0.0000		0.0000	0.0000	11.4771	0.0000	11.4771	0.6783	0.0000	28.4341
Water						0.0000	0.0000		0.0000	0.0000	0.1797	1.5299	1.7096	0.0185	4.5000e-004	2.3064
Total	0.2823	0.2151	0.5435	1.6500e-003	0.1330	1.7600e-003	0.1348	0.0356	1.6600e-003	0.0373	11.6568	1,525.7476	1,537.4044	0.7596	0.0125	1,560.1111

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0512	0.2138	0.5421	1.6400e-003	0.1330	1.6700e-003	0.1347	0.0356	1.5700e-003	0.0372	0.0000	150.8783	150.8783	8.7200e-003	0.0000	151.0963
Unmitigated	0.0512	0.2138	0.5421	1.6400e-003	0.1330	1.6700e-003	0.1347	0.0356	1.5700e-003	0.0372	0.0000	150.8783	150.8783	8.7200e-003	0.0000	151.0963

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	179.21	179.21	179.21	353,001	353,001
Total	179.21	179.21	179.21	353,001	353,001

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	5.80	5.80	5.80	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,372.0246	1,372.0246	0.0540	0.0120	1,376.9516
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,372.0246	1,372.0246	0.0540	0.0120	1,376.9516

NaturalGas Mitigated	1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3140	1.3140	3.0000e-005	2.0000e-005	1.3218
NaturalGas Unmitigated	1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3140	1.3140	3.0000e-005	2.0000e-005	1.3218

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	24624	1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3140	1.3140	3.0000e-005	2.0000e-005	1.3218
Total		1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3140	1.3140	3.0000e-005	2.0000e-005	1.3218

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	24624	1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3140	1.3140	3.0000e-005	2.0000e-005	1.3218
Total		1.3000e-004	1.2100e-003	1.0100e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3140	1.3140	3.0000e-005	2.0000e-005	1.3218

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	6.61519e+006	1,372.0246	0.0540	0.0120	1,376.9516
<b>Total</b>		<b>1,372.0246</b>	<b>0.0540</b>	<b>0.0120</b>	<b>1,376.9516</b>

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	6.61519e+006	1,372.0246	0.0540	0.0120	1,376.9516
<b>Total</b>		<b>1,372.0246</b>	<b>0.0540</b>	<b>0.0120</b>	<b>1,376.9516</b>

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2310	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004
Unmitigated	0.2310	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0528					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1781					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004
Total	0.2310	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004

**Mitigated**

[illegible]

Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.1000e-004	8.1000e-004	0.0000	0.0000	8.7000e-004
<b>Total</b>	<b>0.2310</b>	<b>0.0000</b>	<b>4.2000e-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>8.1000e-004</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.7000e-004</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7096	0.0185	4.5000e-004	2.3064
Unmitigated	1.7096	0.0185	4.5000e-004	2.3064

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0.56648 / 0	1.7096	0.0185	4.5000e-004	2.3064
<b>Total</b>		<b>1.7096</b>	<b>0.0185</b>	<b>4.5000e-004</b>	<b>2.3064</b>

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0.56648 / 0	1.7096	0.0185	4.5000e-004	2.3064
Total		1.7096	0.0185	4.5000e-004	2.3064

8.0 Waste Detail

---

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.4771	0.6783	0.0000	28.4341
Unmitigated	11.4771	0.6783	0.0000	28.4341

8.2 Waste by Land Use

Unmitigated



	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	56.54	11.4771	0.6783	0.0000	28.4341
<b>Total</b>		<b>11.4771</b>	<b>0.6783</b>	<b>0.0000</b>	<b>28.4341</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	56.54	11.4771	0.6783	0.0000	28.4341
<b>Total</b>		<b>11.4771</b>	<b>0.6783</b>	<b>0.0000</b>	<b>28.4341</b>

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

**Boilers**

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

**User Defined Equipment**

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

**11.0 Vegetation**

---

**ATTACHMENT 4**

**CalEEMod Output–CAP Buildout Scenario**

Designation - CAP Buildout Scenario - San Diego County, Annual

## Designation - CAP Buildout Scenario

### San Diego County, Annual

## 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	63.76	1000sqft	2.90	63,760.00	0

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	457.25	<b>CH4 Intensity (lb/MW hr)</b>	0.018	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics - Energy intensity factors updated based on SDG&E renewable procurement

Land Use - Project site acreage

Vehicle Trips - City trip generation rates. County average trip length (5.8 miles) assumed.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.46	2.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	457.25
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	CC_TL	7.30	5.80

tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	ST_TR	8.96	50.00
tblVehicleTrips	SU_TR	1.55	50.00
tblVehicleTrips	WD_TR	36.13	50.00

2.0 Emissions Summary

2.2 Overall Operational  
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3230	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003
Energy	6.9400e-003	0.0631	0.0530	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	246.4286	246.4286	8.3100e-003	2.8100e-003	247.4750
Mobile	0.8254	3.2453	7.8016	0.0218	1.7166	0.0226	1.7392	0.4597	0.0212	0.4809	0.0000	2,004.9124	2,004.9124	0.1238	0.0000	2,008.0069
Waste						0.0000	0.0000		0.0000	0.0000	139.7816	0.0000	139.7816	8.2609	0.0000	346.3030
Water						0.0000	0.0000		0.0000	0.0000	2.5382	25.1183	27.6565	0.2617	6.3800e-003	36.0986
Total	1.1553	3.3084	7.8552	0.0221	1.7166	0.0274	1.7440	0.4597	0.0260	0.4857	142.3198	2,276.4604	2,418.7802	8.6546	9.1900e-003	2,637.8848

Mitigated Operational

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

Area	0.3230	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003
Energy	6.9400e-003	0.0631	0.0530	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	246.4286	246.4286	8.3100e-003	2.8100e-003	247.4750
Mobile	0.8254	3.2453	7.8016	0.0218	1.7166	0.0226	1.7392	0.4597	0.0212	0.4809	0.0000	2,004.9124	2,004.9124	0.1238	0.0000	2,008.0069
Waste						0.0000	0.0000		0.0000	0.0000	139.7816	0.0000	139.7816	8.2609	0.0000	346.3030
Water						0.0000	0.0000		0.0000	0.0000	2.5382	25.1183	27.6565	0.2617	6.3800e-003	36.0986
Total	1.1553	3.3084	7.8552	0.0221	1.7166	0.0274	1.7440	0.4597	0.0260	0.4857	142.3198	2,276.4604	2,418.7802	8.6546	9.1900e-003	2,637.8848

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8254	3.2453	7.8016	0.0218	1.7166	0.0226	1.7392	0.4597	0.0212	0.4809	0.0000	2,004.9124	2,004.9124	0.1238	0.0000	2,008.0069
Unmitigated	0.8254	3.2453	7.8016	0.0218	1.7166	0.0226	1.7392	0.4597	0.0212	0.4809	0.0000	2,004.9124	2,004.9124	0.1238	0.0000	2,008.0069

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	3,188.00	3,188.00	3188.00	4,554,696	4,554,696
Total	3,188.00	3,188.00	3,188.00	4,554,696	4,554,696

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	5.80	5.80	5.80	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	177.7326	177.7326	7.0000e-003	1.5500e-003	178.3708
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	177.7326	177.7326	7.0000e-003	1.5500e-003	178.3708
NaturalGas Mitigated	6.9400e-003	0.0631	0.0530	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	68.6960	68.6960	1.3200e-003	1.2600e-003	69.1042
NaturalGas Unmitigated	6.9400e-003	0.0631	0.0530	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	68.6960	68.6960	1.3200e-003	1.2600e-003	69.1042

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
--	----------------	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Land Use	kBTU/yr	tons/yr										MT/yr					
Medical Office Building	1.28731e+006	6.9400e-003	0.0631	0.0530	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	68.6960	68.6960	1.3200e-003	1.2600e-003	69.1042
<b>Total</b>		<b>6.9400e-003</b>	<b>0.0631</b>	<b>0.0530</b>	<b>3.8000e-004</b>		<b>4.8000e-003</b>	<b>4.8000e-003</b>		<b>4.8000e-003</b>	<b>4.8000e-003</b>	<b>0.0000</b>	<b>68.6960</b>	<b>68.6960</b>	<b>1.3200e-003</b>	<b>1.2600e-003</b>	<b>69.1042</b>

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Medical Office Building	1.29E+06	6.9400e-003	0.0631	0.0530	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	68.6960	68.6960	1.3200e-003	1.2600e-003	69.1042
<b>Total</b>		<b>6.9400e-003</b>	<b>0.0631</b>	<b>0.0530</b>	<b>3.8000e-004</b>		<b>4.8000e-003</b>	<b>4.8000e-003</b>		<b>4.8000e-003</b>	<b>4.8000e-003</b>	<b>0.0000</b>	<b>68.6960</b>	<b>68.6960</b>	<b>1.3200e-003</b>	<b>1.2600e-003</b>	<b>69.1042</b>

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	856934	177.7326	7.0000e-003	1.5500e-003	178.3708
<b>Total</b>		<b>177.7326</b>	<b>7.0000e-003</b>	<b>1.5500e-003</b>	<b>178.3708</b>



Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	856934	177.7326	7.0000e-003	1.5500e-003	178.3708
Total		177.7326	7.0000e-003	1.5500e-003	178.3708

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3230	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003
Unmitigated	0.3230	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					

Architectural Coating	0.0739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003
Total	0.3230	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2490					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003
Total	0.3230	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2200e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	27.6565	0.2617	6.3800e-003	36.0986
Unmitigated	27.6565	0.2617	6.3800e-003	36.0986

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	8.00064 / 1.52393	27.6565	0.2617	6.3800e-003	36.0986
Total		27.6565	0.2617	6.3800e-003	36.0986

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	8.00064 / 1.52393	27.6565	0.2617	6.3800e-003	36.0986
Total		27.6565	0.2617	6.3800e-003	36.0986

8.0 Waste Detail

---

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	139.7816	8.2609	0.0000	346.3030
Unmitigated	139.7816	8.2609	0.0000	346.3030

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	688.61	139.7816	8.2609	0.0000	346.3030
Total		139.7816	8.2609	0.0000	346.3030

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	688.61	139.7816	8.2609	0.0000	346.3030

Total		139.7816	8.2609	0.0000	346.3030
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## 9.0 Operational Offroad

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

## 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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**Waste Management Plan for the  
Marijuana Production Facility at  
9244 Balboa Avenue  
San Diego, California**

*Prepared for*

Focused Health, LLC

*Prepared by*

RECON Environmental, Inc.

1927 Fifth Avenue

San Diego, CA 92101

P 619.308.9333

RECON Number 9033

May 22, 2018

A handwritten signature in black ink, appearing to read "Andrew Capobianco".

Andrew Capobianco, Assistant Environmental Analyst

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**ATTACHMENTS**

1:	City of San Diego Environmental Services Department Construction & Demolition Debris Conversion Rate Table
2:	City of San Diego 2016 Construction & Demolition Recycling Facility Directory
3:	City of San Diego Waste Generation Factors – Occupancy Phase



## Acronyms

AB	Assembly Bill
C&D	Construction and Demolition
City	City of San Diego
ESD	Environmental Services Department
MPF	marijuana production facility
project	Marijuana Production Facility at 9244 Balboa Avenue
SWMC	Solid Waste Management Coordinator
U.S. EPA	U.S. Environmental Protection Agency
WMP	Waste Management Plan

## 1.0 Introduction

The purpose of this Waste Management Plan (WMP) for the Marijuana Production Facility (MPF) at 9244 Balboa Avenue project (project) is to identify the extent of solid waste impacts generated by construction and operation of the project as well as measures to reduce those impacts.

The WMP addresses all four phases of site development, including the Demolition Phase, Grading Phase, Construction Phase, and the Occupancy (post-construction) Phase. The WMP addresses the amount of waste that would be generated by project activities during each phase; waste reduction goals, and the recommended techniques to achieve the waste reduction goals. More specifically, for each phase, the WMP includes the following:

- Tons of waste anticipated to be generated;
- Material/type and amount of waste anticipated to be diverted;
- Project features that would reduce the amount of waste generated;
- Project features that would divert or limit the generation of waste;
- Source separation techniques for waste generated;
- How materials shall be reused on-site; and
- Name and location of recycling, reuse, or landfill facilities where waste shall be taken.

## 2.0 Existing Conditions

The project is located on a 2.93-acre site at 9244 Balboa Avenue within the Kearny Mesa Community Plan area in the City of San Diego (City). The project site is surrounded by Balboa Avenue to the south and existing industrial/commercial development to the north, east, and west. The project site is currently configured with an existing 45,600-square-foot industrial building. Figures 1 and 2 depict the regional location and the project location on an aerial photograph, respectively. Figure 3 depicts the project location on a City 800' map.



 Project Location

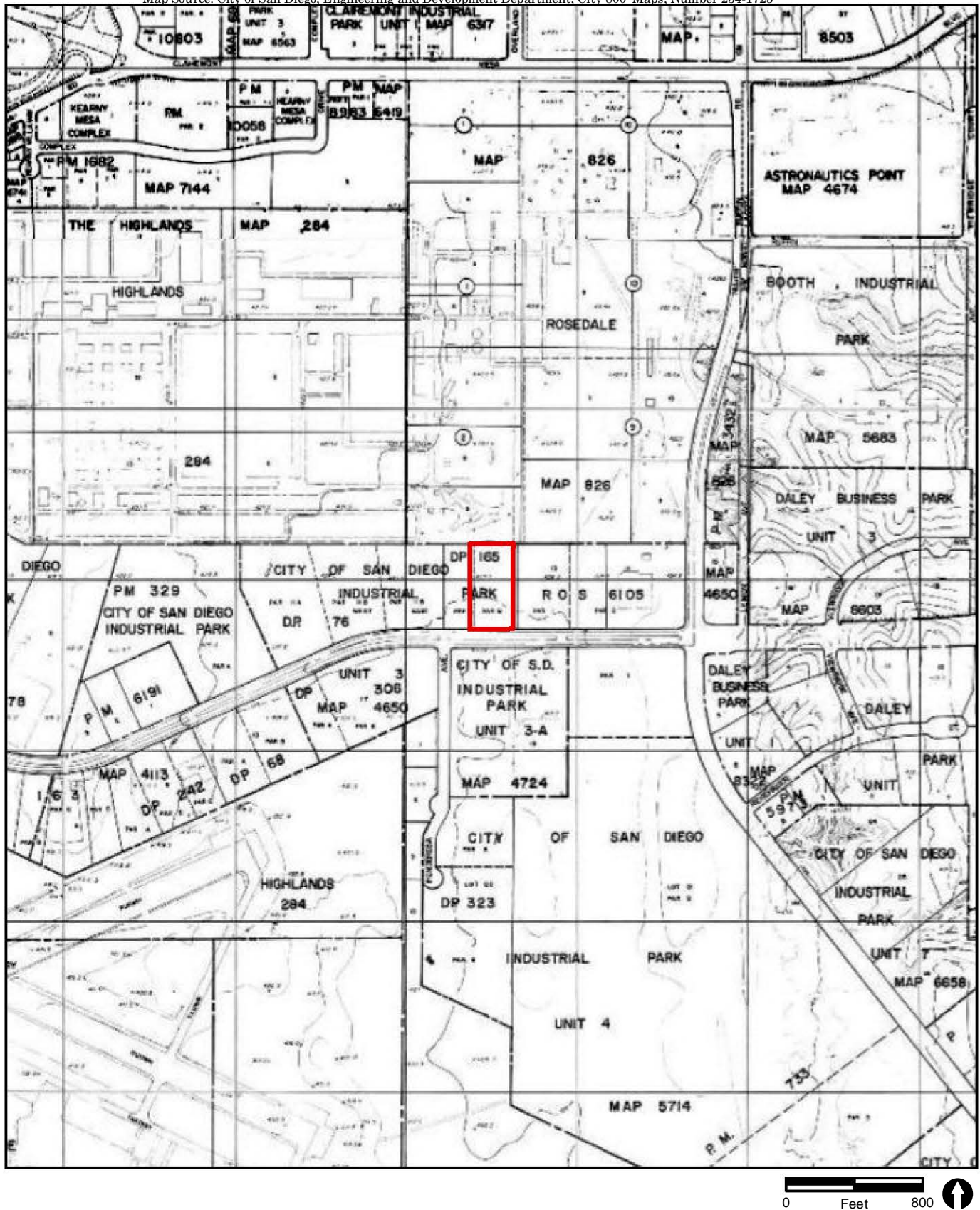
**FIGURE 1**  
Regional Location





 Project Boundary





## 3.0 Proposed Conditions

The project would involve the renovation of a 45,600-square-foot building. No exterior modifications to the building are proposed; demolition and construction work would occur within 41,275 interior square feet of the existing building and include demolition of all internal structures. The remaining 4,325 square feet of the existing structure would remain unchanged. The project proposes using 20,330 square feet of the building for state license “Type 3A – Cultivation; Indoor; Medium,” which is defined as a facility using exclusively artificial lighting between 10,001 and 22,000 square feet, inclusive, of total canopy size on premises. An additional 12,335 square feet would be used in support of this cultivation area, which includes common space areas, office space, security/storage rooms, and other supporting facilities. The project also proposes using 9,030 square feet of the facility for state license “Type 6—Manufacturer 1,” which is defined as a facility using nonvolatile solvents for extraction and/or infusion processes. The remaining 3,905 square feet would be utilized as common use space.

The project would include the construction of three primary areas within the structure: cultivation operation facility, internal manufacturing operations, and common space areas. Details of each area are provided:

The cultivation operation facilities would be comprised of a controlled-access entryway, two offices (210 square feet), laboratory (235 square feet), secure waste quarantine room (315 square feet), two seed germination rooms (3,650 square feet), six bloom rooms (20,330 square feet), post-harvesting production and drying room (410 square feet), trimming room (410 square feet), curing room (410 square feet), packaging and labeling room (355 square feet), vault (190 square feet), cultivation delivery and office space (410 square feet), irrigation and mechanical room (335 square feet), and agricultural chemicals storage room (385 square feet).

The internal manufacturing operations would include an office (380 square feet), extraction room (1,200 square feet), processing room (1,215 square feet), commercial kitchen (1,090 square feet), laboratory (290 square feet), vault (495 square feet), secure waste quarantine room (90 square feet), packaging and labeling room (1,145 square feet), delivery and processing area (995 square feet), and sally port (750 square feet).

The internal common space areas would include a lobby (415 square feet), security room and security equipment room (315 square feet), break room (510 square feet), locker rooms, showers and restrooms (1,133 square feet), and conference room (335 square feet).

The project would also include the following improvements, constructed to City standards:

1. Introduction of a new sidewalk along the project frontage (Balboa Avenue) that would provide access to the MTS bus stop on the adjacent site to the west;
2. Introduction of a new site curb and ramp entry point curb ramp;
3. Reconstruction of the two existing driveways;
4. Restriping of the existing parking lot to for parking spaces and drive aisles;

5. Introduction of City-approved street trees to be planted along the project frontage; and
6. Resurfacing of approximately 4,808 square feet of existing surface parking.

Grading would consist of a net export of approximately 1.48 cubic yards of soil. The proposed site plan is shown on Figure 4. The project would be consistent with the existing Kearny Mesa Community Plan zoning designation of IL-2-1 (Prime Industrial).

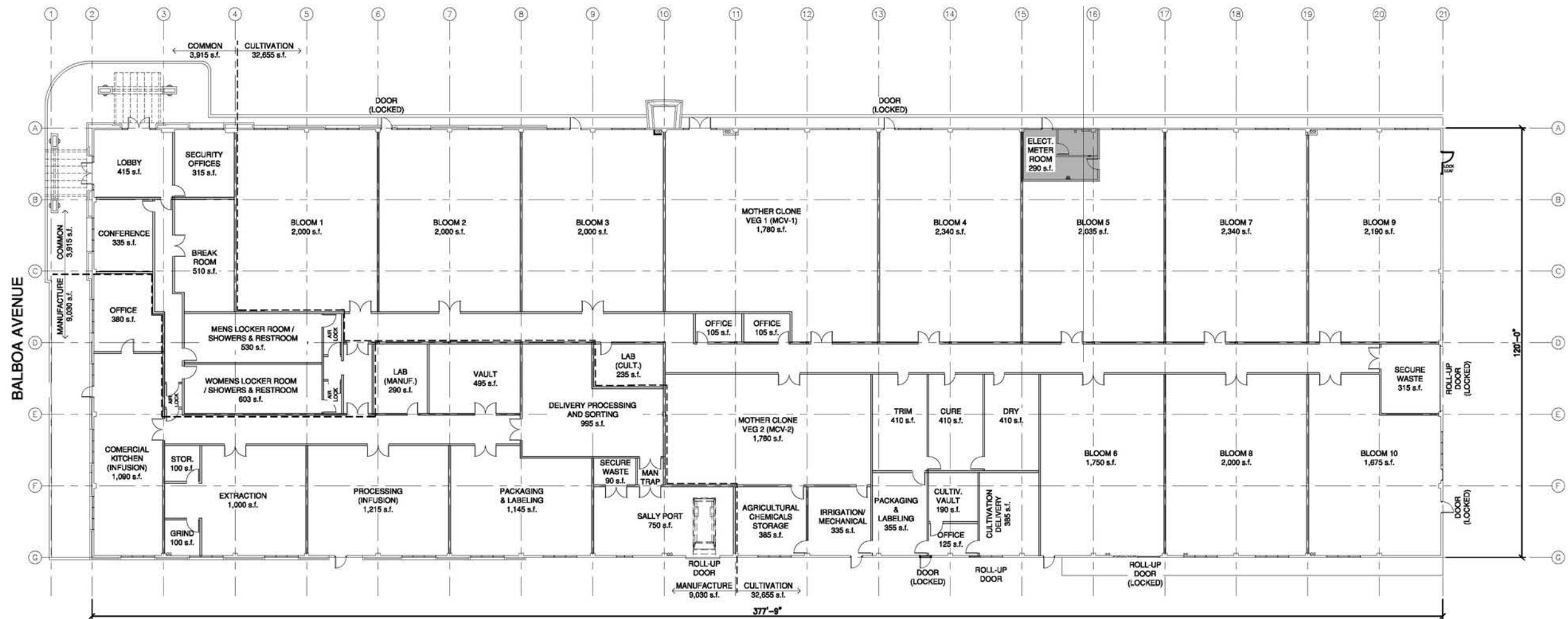
## **4.0 Regulatory Framework**

### **4.1 State Regulations**

The California State Legislature has enacted several bills intended to promote waste diversion. In 1989, Assembly Bill (AB) 939, the Integrated Waste Management Act—as modified in 2010 by Senate Bill 1016—mandated that all local governments reduce disposal waste in landfills from generators within their borders by 50 percent by the year 2000 (State of California 1989, 2010).

AB 341, approved October 2011, sets a statewide policy goal of 75 percent waste diversion by the year 2020 (State of California 2011). This bill also created a mandatory commercial recycling requirement that would hold local jurisdictions responsible for implementing and to be in compliance with the 75 percent diversion rate through outreach and monitoring programs.

AB 1826, approved September 2014, requires businesses in California to arrange for recycling services for organic waste including food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. The law is effective on and after January 1, 2016 for businesses that generate greater than 8 cubic yards of organic waste per week; effective January 1, 2017 for businesses that generate greater than 4 cubic yards of organic waste per week; effective January 1, 2019 for businesses that generate greater than 4 cubic yards of commercial solid waste per week; and, if a 50 percent statewide reduction in organic waste from 2014 has not yet been achieved, the law will be effective January 1, 2020 for businesses that generate greater than 2 cubic yards of commercial solid waste per week (State of California 2014). Strategies for compliance are discussed in Section 6.2, Waste Reduction Measures.



PROPOSED FLOOR PLAN

SCALE: 1/16" = 1'-0"



TO CONTROL ODORS AT THIS FACILITY, A COMBINATION OF CARBON FILTERS, SPACE PRESSURIZATION CONTROL AND AIR SANITATION UNITS WILL BE UTILIZED. MORE SPECIFICALLY:

1. CARBON CANISTERS SHALL BE INSTALLED ON ANY EXHAUST AIRSTREAM LEAVING ALL GROW AND PROCESSING AREAS.
2. CARBON CANISTERS IN SMALLER ROOMS WITH CONCENTRATED ODORS SHALL REDIRCULATE THE ROOM AIR THROUGH CARBON MEDIA TO REMOVE ODOR FROM THE ROOM.
3. CARBON FILTERS SHALL BE INSTALLED ON THE RETURN AIR CIRCULATING BACK TO THE AIR HANDLERS THAT SERVE GROW ROOMS (BLOOM AND MCV ROOMS) TO FILTER ODOR OUT OF THE REDIRCULATED AIR.
4. SANITIZATION UNITS CONTROLLING AIRBORNE CONTAMINANTS AND VOC'S SHALL BE INSTALLED GROW ROOMS (BLOOM AND MCV ROOMS)
5. PRESSURIZATION CONTROL SHALL BE UTILIZED TO KEEP THE CORRIDORS AROUND GROW AREAS NEGATIVE TO CONTAIN THE ODORS WITHIN THE GROW/PROCESS AREAS. OFFICE AND BUILDING ENTRANCES SHALL BE POSITIVE TO HELP CONTAIN ODORS TO THE GROW AREAS.

PLUMBING NOTES:

PLUMBING FIXTURES AND FITTINGS PROVIDED AS PART OF THE PROJECT SHALL BE LOW-FLOW FIXTURES/APPLIANCES BE CONSISTENT WITH EACH OF THE FOLLOWING:

1. PLUMBING FIXTURES AND FITTINGS THAT DO NOT EXCEED THE MAXIMUM FLOW RATE SPECIFIED IN TABLE A5.303.2.3.1 (VOLUNTARY MEASURES) OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE; AND
2. APPLIANCES AND FIXTURES FOR COMMERCIAL APPLICATIONS THAT MEET THE PROVISIONS OF SECTION A5.303.3 (VOLUNTARY MEASURES) OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE

FLOOR PLAN LEGEND

SOLID HATCH INDICATES EXISTING AREAS TO REMAIN

FIGURE 4  
Proposed Site Plan



## 4.2 City of San Diego Requirements

All landfills within the San Diego region are approaching capacity and are due to close within the next 3 to 20 years. In compliance with the state policies, the City City Environmental Services Department (ESD) developed the Source Reduction and Recycling Element, which describes local waste management policies and programs. The City's Recycling Ordinance, adopted November 2007, requires on-site recyclable collection for residential and commercial uses (City of San Diego 2007a). The ordinance requires recycling of plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard. The focus of the ordinance is on education, with responsibility shared between the ESD, haulers, and building owners and managers. On-site technical assistance, educational materials, templates, and service provider lists are provided by the ESD. Property owners and managers provide on-site recycling services and educational materials annually and to new tenants. Strategies for compliance are discussed in Section 6.2, Waste Reduction Measures.

The City's Refuse and Recyclable Materials Storage Regulations, adopted December 2007, indicate the minimum exterior refuse and recyclable material storage areas required at residential and commercial properties (City of San Diego 2007b). These are intended to provide permanent, adequate, and convenient space for the storage and collection of refuse and recyclable materials; encourage recycling of solid waste to reduce the amount of waste material entering landfills; and meet the recycling goals established by the City Council and mandated by the State of California. These regulations are discussed further in Section 6.3, Exterior Storage.

In July 2008, the Construction and Demolition (C&D) Debris Deposit Ordinance was adopted by the City (City of San Diego 2008). The ordinance, which was updated in July 2016, requires that the majority of construction, demolition, and remodeling projects requiring building, combination, or demolition permits pay a refundable C&D Debris Recycling Deposit and divert at least 65 percent of their waste by recycling, reusing, or donating reusable materials. The ordinance is designed to keep C&D materials out of local landfills. Requirements are discussed further in Section 5.4.2, Contractor Education and Responsibilities.

In December 2013, City Council adopted the Zero Waste Objective, implementing the 75 percent diversion of waste target goal from landfills by the year 2020 and zero waste by 2040. An additional City target of 90 percent diversion by 2035 is proposed in the City's Climate Action Plan.

## 5.0 Demolition, Grading, and Construction Waste Generation and Diversion

According to the Waste Composition Study prepared by the City's ESD (City of San Diego 2000), Construction and Demolition (C&D) waste constituted the largest component of disposed waste in the City. Of the 1,680,211 tons of waste disposed in 1999, C&D waste comprised 35 percent (586,157 tons).

### 5.1 Demolition

The project involves demolition of the interior structures within the existing building and the resurfacing the existing Americans with Disabilities Act parking spaces in the existing parking lot. Anticipated material waste that would be generated through demolition activities would include brick/masonry/tile, curb/gutter, drywall, landscape debris, glass, treated wood, and trash. Other anticipated types of waste would include asphalt and concrete from surface parking lot. Prior to demolition, salvageable items intended for reuse would be made available. Examples of salvageable items would be light fixtures, seats, window frames, doors, air conditioning units, equipment, signage, and architectural materials. Approximately 4,808 square feet of existing surface parking and approximately 41,275 square feet of the existing building would be demolished as part of the project.

#### Existing Asphalt

The amount of asphalt (black, tar-like material mixed with aggregate) resulting from the resurfacing of the existing parking lot would total approximately 62 tons as shown in the following calculation. Note that asphalt depth varies by project and soil type but is typically 0.5 foot thick. The conversion factor is based on the ESD C&D Debris Conversion Rate Table (Attachment 1).

$$4,808 \text{ square feet} \times 0.5 \text{ foot} = 2,404 \text{ cubic feet}$$

$$\frac{2,404 \text{ cubic feet}}{27 \text{ cubic feet}} = 89 \text{ cubic yards} \times 0.70 \frac{\text{tons}}{\text{unit}} = 62 \text{ tons}$$

#### Existing Building

Estimated demolition waste from the existing building is based on a 2009 study by the U.S. Environmental Protection Agency (U.S. EPA) whose sample of nonresidential demolition projects generated an average of 158 pounds of waste per square foot (U.S. EPA 2009). Based on this generation rate, the existing building demolition would produce 3,261 tons as shown in the calculation below.

$$41,275 \text{ square feet} \times \frac{158 \text{ pounds}}{\text{square foot}} \times \frac{1 \text{ ton}}{2,000 \text{ pounds}} = 3,261 \text{ tons}$$

Estimates of building material type and amounts are based on the specific characteristics of the industrial building to be renovated. The nearest handling facilities are based on the ESD 2018 Certified C&D Recycling Facilities Directory (Attachment 2). Estimates have a degree of uncertainty and would be revised as the project progresses and demolition debris is more specifically identified and weighed.

Estimates of material type and amounts are included in Table 1.

<b>Table 1</b>					
<b>Projected Materials Generated by Demolition Activities</b>					
<b>Material</b>	<b>Tons Generated<sup>1</sup></b>	<b>Percent Diverted</b>	<b>Nearest Handling Facility<sup>2</sup></b>	<b>Tons Diverted</b>	<b>Tons Disposed</b>
<b>Paved Areas</b>					
Asphalt	62	100	Hansen Aggregates West – Miramar	62	0
<i>Subtotal</i>	<i>62</i>			<i>62</i>	<i>0</i>
<b>Existing Building</b>					
Building materials (doors, windows, cabinets, etc.)	163	100	Habitat for Humanity Restore	163	0
Carpet, padding/foam	261	100	DFS Flooring	261	0
Clean wood	815	100	Miramar Greenery	815	0
Concrete (broken)	391	100	Hansen Aggregates West – Miramar	391	0
Drywall (used)	913	100	EDCO Station Transfer Station & Buy Back Center	913	0
Roofing materials (mixed C&D debris)	163	70	Otay C&D/Inert Debris Processing Facility	114	49
Scrap metal	326	100	Allan Company Miramar Recycling	326	0
Treated wood/trash/garbage	228	0	Miramar Landfill	0	228
<i>Subtotal</i>	<i>3,261</i>			<i>2,984</i>	<i>277</i>
<b>Total</b>	<b>3,323</b>			<b>3,046</b> <b>(92%)</b>	<b>277</b> <b>(8%)</b>
NOTE: Totals may vary due to independent rounding. Portions of material types are based on specific characteristics of buildings to be demolished.					
SOURCES:					
<sup>1</sup> ESD C&D Debris Conversion Rate Table (see Attachment 1).					
<sup>2</sup> City of San Diego ESD 2018 Certified C&D Recycling Facility Directory (see Attachment 2).					

## 5.2 Grading

The project would require an area of approximately 80 square feet to be cut to a depth of six inches, requiring an export of soil from the site. This process would require an export of approximately 1.84 cubic yards of soil. Based on the ESD C&D Debris Conversion Rate Table (see Attachment 1), graded soil weighs approximately 1.3 tons per cubic yard (see

Attachment 1). As such, the estimated soil to be exported from the project site totals 2.4 tons, as shown in the following calculation and in Table 2 below:

$$1.84 \text{ cubic yards} \times 1.3 \frac{\text{tons}}{\text{unit}} = 2.4 \text{ tons}$$

All exported soil would be recycled using the City of San Diego Clean Fill Dirt Program or an approved Clean Fill Dirt handler listed on the City's Certified C&D Recycling Facilities Directory (see Attachment 2).

Table 2 Grading Soil Waste Generation, Diversion, and Disposal					
Net Export (cubic yards)	Generation Rate <sup>1</sup> (tons per cubic yard)	Tons Exported	Percent Diverted	Tons Diverted	Tons Disposed
1.84	1.3	2.4	100%	2.4	0
SOURCE: <sup>1</sup> City of San Diego C&D Debris Conversion Rate Table (see Attachment 1).					

## 5.3 Construction

The proposed construction would total approximately 41,275 square feet of renovated building space. Construction of sidewalks and any new surface parking areas are not anticipated to generate waste during the construction phase. According to a 1998 study by the U.S. EPA, a sample of non-residential construction projects generated an average of 3.9 pounds of construction waste per square foot (U.S. EPA 1998). Based on this generation rate, the total proposed building construction area is estimated to generate approximately 80 tons of waste during construction (see calculation below).

$$41,275 \text{ square feet} \times \frac{3.9 \text{ pounds}}{\text{square foot}} \times \frac{1 \text{ ton}}{2,000 \text{ pounds}} = 80 \text{ tons}$$

Estimates of material types and portions are based on similar non-residential developments. The types of construction waste and materials anticipated to be generated are listed in Table 3.

**Table 3**  
**Construction Waste Diversion and Disposal by Material Type**

Material Type	Estimated Waste (tons)	Percent Diverted <sup>1</sup>	Nearest Handling Facility <sup>1</sup>	Estimated Diversion (tons)	Estimated Disposal (tons)
Asphalt and Concrete	11	100	Hansen Aggregates West - Miramar	11	0
Metals	18	100	SA Recycling	18	0
Brick/Masonry/Tile	5	100	Vulcan Carol Canyon Landfill and Recycle Site	5	0
Clean Wood/Wood Pallets	3	100	Miramar Greenery	3	0
Carpet, Padding/Foam	6	100	DFS Flooring	6	0
Drywall	18	100	EDCO Station Transfer Station & Buy Back Center	18	0
Corrugated Cardboard	5	100	Allan Company Miramar Recycling	5	0
Trash/Garbage	13	0	Miramar Landfill	0	13
<b>Total</b>	<b>80</b>			<b>67 (83%)</b>	<b>13 (17%)</b>

NOTE: Totals may vary due to independent rounding.

SOURCE: <sup>1</sup>City of San Diego ESD 2018 Certified C&D Recycling Facility Directory (see Attachment 2).

## 5.4 Waste Diversion

Waste diversion could be conducted two ways: source separation or mixed debris diversion. With mixed debris diversion, all material waste is disposed of in a single container for transport to a mixed C&D recycling facility (EDCO Station Transfer Station & Buy Back Center) where 77 percent is diverted for recycling. With source-separated diversion, materials are separated on-site before transport to appropriate facilities that accept specific material types, and a greater diversion rate is achieved.

The project's waste diversion would be conducted through source separation. Recyclable waste materials would be separated on-site into material-specific containers and diverted to an approved recycler selected from ESD's directory of facilities that recycle specific waste materials from construction and demolition (see Attachment 2). These facilities achieve a 100 percent diversion rate for most materials with the exception of a 77 diversion rate for roof material (mixed C&D debris).

With implementation of the diversion-estimated calculations outlined in Tables 1 and 3, it is estimated that 92 percent and 83 percent of the waste generated during the demolition and construction phases, respectively, would be diverted to appropriate facilities for reuse. Only 277 tons of waste generated during demolition (roofing materials, treated wood/trash/garbage) and 13 tons of waste generated during construction (trash/garbage), equivalent to 8 and 17 percent of the total C&D waste, respectively, would be disposed of in the landfill.

### 5.4.1 Total Diversion

Table 4 summarizes the amount of waste estimated to be generated and diverted by each phase of the project. Of the 3,405.4 tons estimated to be generated, 3,115.4 tons would be diverted during the demolition and construction phases, primarily through source separation. This would result in 91.5 percent of waste material diverted from the landfill for reuse.

Table 4 Total Waste Generated, Diverted, and Disposed of by Phase			
Phase	Tons Generated	Tons Diverted	Tons Disposed
Demolition	3,323	3,046 (92%)	277 (8%)
Grading	2.4	2.4 (100%)	0 (0%)
Construction	80	67 (83%)	13 (17%)
<b>Total</b>	<b>3,405.4</b>	<b>3,115.4 (91.5%)</b>	<b>290 (8.5%)</b>
NOTE: Totals may vary due to independent rounding.			

### 5.4.2 Contractor Education and Responsibilities

A Solid Waste Management Coordinator (SWMC) for the project would be designated to ensure that all contractors and subcontractors are educated and that procedures for waste reduction and recycling efforts are implemented. Specific responsibilities of the SWMC would include the following:

- Review of the WMP at the preconstruction meeting, including the SWMC responsibilities.
- Distribute the WMP to all contractors when they first begin work on-site and when training workers, subcontractors, and suppliers on proper waste management procedures applicable to the project.
- Work with the contractors to estimate the quantities of each type of material that would be salvaged, recycled, or disposed of as waste, then assist in documentation.
- Use detailed material estimates to reduce risk of unplanned and potentially wasteful material cuts.
- Review and enforce procedures for source-separated receptacles. Containers of various sizes shall:
  - Be placed in readily accessible areas that will minimize misuse or contamination.
  - Be clearly labeled with a list of acceptable and unacceptable materials, the same as the materials recycled at the receiving material recovery facility or recycling processor.
  - Contain no more than 10 percent non-recyclable materials, by volume.
  - Be inspected daily to remove contaminants and evaluate discarded material for reuse on-site.

- Review and enforce procedures for transportation of materials to appropriate recipients selected from ESD's directory of facilities that recycle C&D materials (see Tables 1 and 4; Attachment 2).
- Ensure removal of C&D waste materials from the project site at least once every week to ensure no over-topping of containers. The accumulation and burning of on-site construction, demolition, and land-clearing waste materials will be prohibited.
- Document the return or reuse of excess materials and packaging to enhance the diversion rate.
- Coordinate implementation of a "buy recycled" program for green construction products, including incorporating mulch and compost into the landscaping.
- Coordinate implementation of solid waste mitigation with other requirements such as storm water requirements, which may include specifications such as the placement of bins to minimize the possibility of runoff contamination.

The SWMC would ensure that the project meets the following state law and City Municipal Code requirements. Adjustments would be made as needed to maintain conformance:

- The City's C&D Debris Diversion Deposit Program, which requires a refundable deposit based on the tonnage of the expected recyclable waste materials as part of the building permit requirements (City of San Diego 2008).
- The City's Recycling Ordinance, which requires that collection of recyclable materials is provided (City of San Diego 2007a).
- The City's Storage Ordinance, which requires that areas for recyclable material collection must be provided (City of San Diego 2007b).
- The name and contact information of the waste contractor provided to ESD at least 10 days prior to the start of any work and updated within 5 days of any changes.

## **6.0 Occupancy – Operational Waste**

### **6.1 Waste Generation**

The estimated annual waste to be generated during occupancy of the project was calculated using the City ESD Waste Generation Factors for manufacturing facilities (Attachment 3). The estimated solid waste generation rate for manufacturing facilities is 0.0059 tons/year. The estimated annual operational amount in tons is based on 45,600 square feet of manufacturing space, and is calculated below.

## Manufacturing

$$45,600 \text{ square feet} \times \frac{0.0059 \text{ tons}}{\text{square foot/year}} = 269 \text{ tons/year}$$

Table 5 shows the amount of waste that would be generated during the occupancy phase. The total generation of waste for the total proposed building space of 45,600 square feet equates to approximately 269 tons per year. As discussed in Section 6.2 below, the applicant (or applicant's successor in interest) would implement a long-term waste management plan to manage waste disposal in order to meet state and City waste reduction goals.

Table 5 Occupancy Phase Annual Waste Generation			
Land Use	Amount (square feet)	Annual Generation Rate <sup>1</sup> (tons/square feet/year)	Waste Generated <sup>2</sup> (tons/year)
Manufacturing	45,600	0.0059	269
<b>Total</b>			<b>269</b>
SOURCES: <sup>1</sup> City of San Diego Environmental Services Department, Waste Generation Factors – Occupancy Phase (see Attachment 3) <sup>2</sup> Totals may vary due to independent rounding.			

## 6.2 Waste Reduction Measures

According to the City Waste Management Guidelines (City of San Diego 2013), compliance with the City's Recycling Ordinances is expected to provide a minimum recycling service volume of 40 percent for large complexes. Therefore, waste anticipated to be diverted during the occupancy phase would be approximately 107 tons per year. The remaining 162 tons per year would exceed the 60 ton-per-year threshold of significance for a cumulative impact on solid waste services in the City (City of San Diego 2016).

The applicant (or applicant's successor in interest) shall be responsible for implementing a long-term WMP, as outlined below, which would ensure that the development meets or exceeds the requirements set forth in AB 939 and AB 341. This program shall include providing sufficient interior and exterior storage space for refuse and recyclable materials and a means of handling landscaping and green waste materials. Specific waste reduction program measures are summarized below and are listed in Section 7.2.

- The applicant (or applicant's successor in interest) shall provide recycling services, which include all of the following provisions:
  1. Collection of recyclable materials required by and in accordance with applicable City Ordinances;
  2. Provide dedicated recycling collection and storage areas required by and in accordance with applicable City Ordinances; and
  3. Provide signage required by and in accordance with applicable City Ordinances.



## 6.3 Exterior Storage

This WMP follows the City's Municipal Code on-site refuse and recyclable material storage space requirements (City of San Diego 2007b). Table 6 shows the exterior storage area requirements for non-residential developments. The project would include a total of 45,600 square feet of non-residential uses, which would require a minimum of 96 square feet of refuse storage area and a minimum of 96 square feet of recyclable material storage area. The total exterior refuse and recyclable material storage requirement for the project would be 192 square feet. Site plans would be modified to show the location and required square footage of refuse and recyclable storage areas to comply with this requirement.

<b>Table 6</b> <b>Minimum Exterior Refuse and Recyclable Material Storage Areas</b> <b>for Non-Residential Development</b>			
Gross Floor Area per Development (square feet)	Minimum Refuse Storage Area per Development (square feet)	Minimum Recyclable Material Storage Area per Development (square feet)	Total Minimum Storage Area per Development (square feet)
0–5,000	12	12	24
5,001–10,000	24	24	48
10,001–25,000	48	48	96
<b>25,001–50,000</b>	<b>96</b>	<b>96</b>	<b>192</b>
50,001–75,000	144	144	288
75,001–100,000	192	192	384
100,000+	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	384 plus 96 square feet for every 25,000 square feet of building area above 100,001
<b>Project Total</b>	<b>96</b>	<b>96</b>	<b>192</b>
SOURCE: City of San Diego Municipal Code, Article 2, Division 8: Refuse and Recyclable Material Storage Regulations, Section 142.0830, Table 142-08C; effective, January 2000.			

## 7.0 Conclusion

### 7.1 Demolition, Grading, and Construction Waste

A total of approximately 3,405.4 tons of material would be generated and 3,115.4 tons of material would be diverted through recycling at source-separated facilities that achieve a 100 percent diversion rate. When necessary, mixed debris and trash would be recycled at a lower diversion rate, leaving 290 tons to be disposed of. This amounts to an approximate 91.5 percent reduction in solid waste that would be diverted from the landfill.

## 7.2 Occupancy–Operational Waste

The project would include 45,600 square feet of non-residential uses, generating approximately 269 tons of waste per year, and would be required to provide a minimum of 96 square feet of exterior refuse area and 96 square feet of recyclable material storage area (total of 192 square feet; see Table 6).

The applicant (or applicant's successor in interest) would implement ongoing Waste Reduction Measures as prescribed in this WMP to ensure that the waste is minimized and the operation of the project complies with City ordinances. According to the City of San Diego Waste Management Guidelines (City of San Diego 2013), compliance with existing ordinances is expected to achieve a 40 percent diversion rate. Therefore, approximately 107 tons of non-recyclable waste per year would be generated from the project, exceeding the 60 ton-per-year threshold of significance for having a cumulative impact on solid waste. However, preparation of this WMP and implementation of the Waste Reduction Measures, outlined in Section 6.2 above, would ensure the cumulative solid waste impact is reduced to below a level of significance. In addition, the applicant (or applicant's successor) would implement the following additional WMP measures to further reduce operational waste:

- Collection of recyclable materials required by and in accordance with applicable City Ordinances.
- Provide dedicated recycling collection and storage areas required by and in accordance with applicable City Ordinances.
- Provide signage required by and in accordance with applicable City Ordinances.
- Ensure that a representative of ESD inspects and approves a storage area that has been provided consistent with the City's Storage Ordinance.
- Ensure that a hauler has been retained to provide recyclable materials collection as well as yard waste and/or food waste.
- Ensure the use of drought-tolerant plants, as indicated in the project's landscape plans, which would result in a reduction in the amount of yard waste once the project is constructed and occupied.
- Provide litter bins with recycling as an integral feature in all common areas to increase the opportunity to separate out recyclables from trash.

## 7.3 Overall Compliance

With implementation of the strategies outlined in this WMP and compliance with all applicable City ordinances, solid waste impacts would be reduced to below a level of significance regarding collection, diversion, and disposal of waste generated from C&D, grading, and occupancy. During occupancy, the applicant or applicant's successor in

interest would be required to implement the ongoing WMP measures detailed herein to ensure maximum diversion from landfills. Implementation of the WMP would include provisions to provide adequate exterior storage space for refuse, recyclable, and landscape/green waste materials.

This WMP outlines strategies to achieve 91.5 percent of waste being diverted from disposal during C&D of the project. This would reduce the anticipated impact of waste disposal to below the direct impact threshold of significance. Without implementation of WMP measures, the occupancy phase would only achieve 40 percent diversion. However, with implementation of ongoing WMP measures detailed in Section 7.2, and achievement of a 91.5 percent diversion rate during the C&D phase, the project would achieve overall compliance.

## 8.0 References Cited

### California, State of

- 1989 Assembly Bill 939. Integrated Waste Management Act.
- 2010 Senate Bill 1016. Solid Waste Per Capita Disposal Measurement Act.
- 2011 Assembly Bill 341. Jobs and Recycling.
- 2014 Assembly Bill 1826. Solid Waste: Organic Waste.

### San Diego, City of

- 2000 Waste Composition Study 1999-2000. Final Report. San Diego Environmental Services Department. November 2000.
- 2007a Recycling Ordinance. San Diego Municipal Code Chapter 6, Article 6, Division 7. November 20, 2007.
- 2007b Refuse and Recyclable Materials Storage Regulations. Municipal Code Chapter 14, Article 2, Division 8. December 9, 2007.
- 2008 Construction and Demolition Debris Diversion Deposit Program. San Diego Municipal Code Chapter 6, Article 6, Division 6.
- 2013 California Environmental Quality Act – Guidelines for a Waste Management Plan. June 2013.  
<https://www.sandiego.gov/sites/default/files/legacy/environmental-services/pdf/recycling/wmpguidelines.pdf> Accessed on December 22, 2016.
- 2016 Significance Determination Thresholds. California Environmental Quality Act. July.

## United States Environmental Protection Agency (U.S. EPA)

1998 Characterization of Building-Related Construction and Demolition Debris in the United States. Municipal and Industrial Solid Waste Division. Office of Solid Waste. Report No. EPA530-R-98-010. June.

2009 Estimating 2003 Building-Related Construction and Demolition Materials Amounts. March.

## **ATTACHMENTS**

## **ATTACHMENT 1**

### **City of San Diego Environmental Services Department Construction & Demolition Debris Conversion Rate Table**



# CITY OF SAN DIEGO

## CONSTRUCTION & DEMOLITION (C&D) DEBRIS

### CONVERSION RATE TABLE



This worksheet lists materials typically generated from a construction or demolition project and provides formulas for converting common units (i.e., cubic yards, square feet, and board feet) to tons. It should be used for preparing your Waste Management Form, which requires that quantities be provided in tons.

#### Step 1

Enter the estimated quantity for each applicable material in Column I, based on units of cubic yards (cy), square feet (sq ft), or board feet (bd ft).

#### Step 2

Multiply by Tons/Unit figure listed in Column II. Enter the result for each material in Column III. If using Excel version, column III will automatically calculate tons.

#### Step 3

Enter quantities for each separated material from Column III on this worksheet into the corresponding section of your Waste Management Form.

For your final calculations, use the actual quantities, based on weight tags, gate receipts, or other documents.

		Column I		Column II		Column III
Category	Material	Volume	Unit	Tons/Unit		Tons
Asphalt/Concrete	Asphalt (broken)		cy	x	0.70 =	
	Concrete (broken)		cy	x	1.20 =	
	Concrete (solid slab)		cy	x	1.30 =	
Brick/Masonry/Tile	Brick (broken)		cy	x	0.70 =	
	Brick (whole, palletized)		cy	x	1.51 =	
	Masonry Brick (broken)		cy	x	0.60 =	
	Tile		sq ft	x	0.00175 =	
Building Materials (doors, windows, cabinets, etc.)			cy	x	0.15 =	
Cardboard (flat)			cy	x	0.05 =	
Carpet	By square foot		sq ft	x	0.0005 =	
	By cubic yard		cy	x	0.30 =	
Carpet Padding/Foam			sq ft	x	0.000125 =	
Ceiling Tiles	Whole (palletized)		sq ft	x	0.0003 =	
	Loose		cy	x	0.09 =	
Drywall (new or used)	1/2" (by square foot)		sq ft	x	0.0008 =	
	5/8" (by square foot)		sq ft	x	0.00105 =	
	Demo/used (by cubic yd)		cy	x	0.25 =	
Earth	Loose/Dry		cy	x	1.20 =	
	Excavated/Wet		cy	x	1.30 =	
	Sand (loose)		cy	x	1.20 =	
Landscape Debris (brush, trees, etc)			cy	x	0.15 =	
Mixed Debris	Construction		cy	x	0.18 =	
	Demolition		cy	x	1.19 =	
Scrap metal			cy	x	0.51 =	
Shingles, asphalt			cy	x	0.22 =	
Stone (crushed)			cy	x	2.35 =	
Unpainted Wood & Pallets	By board foot		bd ft	x	0.001375 =	
	By cubic yard		cy	x	0.15 =	
Garbage/Trash			cy	x	0.18 =	
Other (estimated weight)			cy	x	estimate =	
			cy	x	estimate =	
			cy	x	estimate =	
			cy	x	estimate =	





## **ATTACHMENT 2**

### **City of San Diego 2018 Construction & Demolition Recycling Facility Directory**



## 2018 Certified Construction & Demolition (C&D) Recycling Facility Directory

These facilities are certified by the City of San Diego to accept materials listed in each category. Hazardous materials are not accepted. The diversion rate for these materials shall be considered 100 percent, except mixed C&D debris, which update quarterly. The City is not responsible for changes in facility information. Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost. For more information visit: [www.recyclingworks.com](http://www.recyclingworks.com).

<p><b><i>*Transfer Stations offer both recycling and trash disposal services. In order to receive recycling credit, you must:</i></b></p> <p><i>-Notify the weighmaster your load is subject to the City of San Diego C&amp;D Ordinance.</i></p> <p><i>-If your load is mixed Construction and Demolition (C&amp;D) debris, ensure it is coded correctly on the receipt. Tickets coded as "MSW, trash or refuse" will receive 0% credit.</i></p> <p><i>-Ensure the project address and Permit number are added to the receipt.</i></p> <p><b><u>Please note: Miramar Landfill and other landfills DO NOT recycle mixed C&amp;D debris.</u></b></p>	Mixed C&D Debris	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash
<p><b>*EDCO Recovery &amp; Transfer*</b></p> <p>3660 Dalbergia St, San Diego, CA 92113</p> <p>619-234-7774   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	70%											•						•
<p><b>*EDCO Station Transfer Station &amp; Buy Back Center*</b></p> <p>8184 Commercial St, La Mesa, CA 91942</p> <p>619-466-3355   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	70%				•							•			•			•
<p><b>*EDCO CDI Recycling &amp; Buy Back Center*</b></p> <p>224 S. Las Posas Rd, San Marcos, CA 92078</p> <p>760-744-2700   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	77%				•										•			•
<p><b>Escondido Resource Recovery</b></p> <p>1044 W. Washington Ave, Escondido</p> <p>760-745-3203   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	70%																	
<p><b>*Fallbrook Transfer Station &amp; Buy Back Center*</b></p> <p>550 W. Aviation Rd, Fallbrook, CA 92028</p> <p>760-728-6114   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	70%				•										•			•
<p><b>Otay C&amp;D/Inert Debris Processing Facility</b></p> <p>1700 Maxwell Rd, Chula Vista, CA 91913</p> <p>619-421-3773   <a href="http://www.sd.disposal.com">www.sd.disposal.com</a></p>	70%																	
<p><b>*Ramona Transfer Station &amp; Buy Back Center*</b></p> <p>324 Maple St, Ramona, CA 92065</p> <p>760-789-0516   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	70%				•										•			•
<p><b>SANCO Resource Recovery &amp; Buy Back Center</b></p> <p>6750 Federal Blvd, Lemon Grove, CA 91945</p> <p>619-287-5696   <a href="http://www.edcodisposal.com/public-disposal">www.edcodisposal.com/public-disposal</a></p>	70%				•										•			
<p><b>All American Recycling</b></p> <p>10805 Kenney St, Santee, CA 92071</p> <p>619-508-1155 (Must call for appointment)</p>						•												
<p><b>Allan Company</b></p> <p>6733 Consolidated Wy, San Diego, CA 92121</p> <p>858-578-9300   <a href="http://www.allancompany.com/facilities">www.allancompany.com/facilities</a></p>					•										•			
<p><b>Allan Company Miramar Recycling</b></p> <p>5165 Convoy St, San Diego, CA 92111</p> <p>858-268-8971   <a href="http://www.allancompany.com/facilities">www.allancompany.com/facilities</a></p>					•										•			
<p><b>AMS</b></p> <p>8515 Miramar Pl., San Diego, CA 92121</p> <p>858-541-1977   <a href="http://www.a-m-s.com">www.a-m-s.com</a></p>								•										

<p><b><i>*Transfer Stations offer both recycling and trash disposal services. In order to receive recycling credit, you must:</i></b></p> <p>-Notify the weighmaster your load is subject to the City of San Diego C&amp;D Ordinance.</p> <p>-If your load is mixed Construction and Demolition (C&amp;D) debris, ensure it is coded correctly on the receipt. Tickets coded as <b><i>"MSW, trash or refuse"</i></b> will receive 0% credit.</p> <p>-Ensure the project address and Permit number are added to the receipt.</p> <p><b><i>Please note: Miramar Landfill and other landfills DO NOT recycle mixed C&amp;D debris.</i></b></p>	Mixed C&D Debris	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash
<p><b>Armstrong World Industries, Inc.</b> 300 S. Myrida St, Pensacola, FL 32505 877-276-7876 (Press 1, Then 8) <a href="http://www.armstrong.com/commceilingsna">www.armstrong.com/commceilingsna</a></p>								•										
<p><b>Cactus Recycling</b> 2225 Avenida Costa Este Suite 1600, San Diego, CA 92154 619-446-7093   <a href="http://www.cactusrecycling.com">www.cactusrecycling.com</a></p>					•								•		•		•	
<p><b>DFS Flooring</b> 10178 Willow Creek Road, San Diego, CA 92131 858-630-5200   <a href="http://www.dfsflooring.com">www.dfsflooring.com</a></p>						•	•											
<p><b>Duco Metals</b> 220 Bingham Drive Suite 100, San Marcos, CA 92069 760-747-6330   <a href="http://www.ducometals.com">www.ducometals.com</a></p>															•			
<p><b>Enniss Incorporated</b> 12421 Vigilante Rd, Lakeside, CA 92040 619-443-9024   <a href="http://www.ennissinc.com">www.ennissinc.com</a></p>		•	•						•	•								
<p><b>Escondido Sand and Gravel</b> 500 N. Tulip St, Escondido, CA 92025 760-432-4690   <a href="http://www.weirasphalt.com">www.weirasphalt.com</a></p>		•																
<p><b>Habitat for Humanity ReStore</b> 10222 San Diego Mission Rd, San Diego, CA 92108 619-516-5267   <a href="http://www.sandiegohabitat.org">www.sandiegohabitat.org</a></p>				•														
<p><b>Hanson Aggregates West – Lakeside Plant</b> 12560 Highway 67, Lakeside, CA 92040 858-547-2141</p>		•																
<p><b>Hanson Aggregates West – Miramar</b> 9229 Harris Plant Rd, San Diego, CA 92126 858-974-3849</p>		•								•								
<p><b>HVAC Exchange</b> 2675 Faivre St, Chula Vista, CA 91911 619-423-1855   <a href="http://www.hvacx.com">www.hvacx.com</a></p>															•			
<p><b>IMS Recycling Services</b> 2740 Boston Ave, San Diego, CA 92113 619-423-1564   <a href="http://www.imsrecyclingservices.com">www.imsrecyclingservices.com</a></p>					•								•					
<p><b>IMS Recycling Services</b> 2697 Main St, San Diego, CA 92113 619-231-2521   <a href="http://www.imsrecyclingservices.com">www.imsrecyclingservices.com</a></p>													•		•			
<p><b>Inland Pacific Resource Recovery</b> 12650 Slaughterhouse Canyon Rd, Lakeside, CA 92040 619-390-1418</p>											•							
<p><b>Lamp Disposal Solutions</b> 1405 30<sup>th</sup> Street, San Diego, CA 92154 858-569-1807   <a href="http://www.lampdisposalsolutions.com">www.lampdisposalsolutions.com</a></p>														•				
<p><b>Los Angeles Fiber Company</b> 4920 S. Boyle Ave, Vernon, CA 90058 323-589-5637   <a href="http://www.lafiber.com">www.lafiber.com</a></p>						•	•											

<p><b><i>*Transfer Stations offer both recycling and trash disposal services. In order to receive recycling credit, you must:</i></b></p> <p>-Notify the weighmaster your load is subject to the City of San Diego C&amp;D Ordinance.</p> <p>-If your load is mixed Construction and Demolition (C&amp;D) debris, ensure it is coded correctly on the receipt. Tickets coded as <b><i>"MSW, trash or refuse"</i></b> will receive 0% credit.</p> <p>-Ensure the project address and Permit number are added to the receipt.</p> <p><b><i>Please note: Miramar Landfill and other landfills DO NOT recycle mixed C&amp;D debris.</i></b></p>	Mixed C&D Debris	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash
<b>Miramar Greenery, City of San Diego</b> 5180 Convoys St, San Diego, CA 92111 858-694-7000   <a href="http://www.miramargreenery.com">www.miramargreenery.com</a>											•							
<b>Moody's</b> 3210 Oceanside Blvd., Oceanside, CA 92056 760-433-3316   <a href="http://www.moodyselectcorazonrecycling.com">http://www.moodyselectcorazonrecycling.com</a>		•								•						•		
<b>Otay Valley Rock, LLC</b> 2041 Heritage Rd, Chula Vista, CA 91913 619-591-4717   <a href="http://www.otayrock.com">www.otayrock.com</a>		•																
<b>Reclaimed Aggregates Chula Vista</b> 855 Energy Way, Chula Vista, CA 91913 619-656-1836		•														•		
<b>Robertson's Ready Mix</b> 2094 Willow Glen Dr, El Cajon, CA 92019 619-593-1856		•								•						•		
<b>RAMCO</b> 8354 Nelson Way, Escondido, CA 92026 760-205-1797   <a href="http://www.ramco.us.com">www.ramco.us.com</a>		•																
<b>SA Recycling</b> 3055 Commercial St., San Diego, CA 92113 619-238-6740   <a href="http://www.sarecycling.com">www.sarecycling.com</a>															•			
<b>SA Recycling</b> 1211 S. 32 <sup>nd</sup> St., San Diego, CA 92113 619-234-6691   <a href="http://www.sarecycling.com">www.sarecycling.com</a>															•			
<b>Universal Waste Disposal</b> 8051 Wing Avenue, El Cajon, CA 92020 619-438-1093   <a href="http://www.universalwastedisposal.com">www.universalwastedisposal.com</a>														•				
<b>Vulcan Carol Canyon Landfill and Recycle Site</b> 10051 Black Mountain Rd, San Diego, CA 92126 858-530-9465   <a href="http://www.vulcanmaterials.com">www.vulcanmaterials.com</a>		•	•							•						•		
<b>Vulcan Otay Asphalt Recycle Center</b> 7522 Paseo de la Fuente, San Diego, CA 92154 619-571-1945   <a href="http://www.vulcanmaterials.com">www.vulcanmaterials.com</a>		•																

## **ATTACHMENT 3**

### **City of San Diego Waste Generation Factors – Occupancy Phase**

## Waste Generation Factors – Occupancy Phase

The following factors are used by the City of San Diego Environmental Services Department to estimate the expected waste generation in a new residential or commercial development.

### **Residential Uses**

Residential Unit = 1.6 tons/year/unit  
Multi-family Unit = 1.2 tons/year/unit

**Example:** To calculate the amount of waste that will be generated from a project with 100 new homes, multiply the number of homes by the generation factor.

100 single family homes x 1.6 = 160 tons/year  
100 multi-family units x 1.2 = 120 tons/year

### **Commercial/Industrial Uses**

General Retail	0.0028
Restaurants & Bars	0.0122
Hotels/Motels	0.0045
Food Stores	0.0073
Auto/Service/Repair	0.0051
Medical Offices	0.0033
Hospitals	0.0055
Office	0.0017
Transp/Utilities	0.0085
Manufacturing	0.0059
Education	0.0013
Unclassified Services	0.0042

**Example:** To calculate the amount of waste that could be generated from a new building with 10,000 square feet for offices and 10,000 square feet for manufacturing, multiply the square footage for each use by the generation factor.

10,000 square feet x 0.0017 = 17 tons/year

10,000 square feet x 0.0059 = 59 tons per year

Total estimated waste generation for building = 76 tons/year



# CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- ❖ The Checklist is required only for projects subject to CEQA review.<sup>2</sup>
- ❖ If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in [Chapter 11: Land Development Procedures](#) of the City's Municipal Code.
- ❖ The requirements in the Checklist will be included in the project's conditions of approval.
- ❖ The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

## Application Information

### Contact Information

Project No./Name:	MPF 9244 Balboa Avenue		
Property Address:	9244 Balboa Avenue		
Applicant Name/Co.:	Focused Health LLC		
Contact Phone:	858-603-9478	Contact Email:	permitsolutions@hotmail.com
Was a consultant retained to complete this checklist?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, complete the following	
Consultant Name:	John Muller	Contact Phone:	(619) 704-2661
Company Name:	AVRP Skyport	Contact Email:	jmuller@avrpstudios.com

### Project Information

1. What is the size of the project (acres)?	2.93 AC
2. Identify all applicable proposed land uses:	
<input type="checkbox"/> Residential (indicate # of single-family units):	
<input type="checkbox"/> Residential (indicate # of multi-family units):	
<input type="checkbox"/> Commercial (total square footage):	
<input checked="" type="checkbox"/> Industrial (total square footage):	45,600 SF
<input type="checkbox"/> Other (describe):	
3. Is the project or a portion of the project located in a Transit Priority Area?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4. Provide a brief description of the project proposed:	

Cannabis cultivation and manufacturing facility that shall be licensed by the State of California and compliant the Medicinal and Adult-Use Cannabis Regulation and Safety Act, as well as compliant with the City of San Diego's Municipal Code and permitted by the City of San Diego.

<sup>2</sup> Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.



# CAP CONSISTENCY CHECKLIST QUESTIONS

## Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations? <sup>3</sup> <u>OR</u>		
B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA) <sup>4</sup> and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department? <u>OR</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?		

If **"Yes,"** proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If **"No,"** in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

Yes,  
Per the Planning review comments from the City Building Department:  
Marijuana Production Facilities may be permitted with a Conditional Use Permit.  
General Plan - The project site is designated Industrial Employment by the Land Use and Community Planning Element of the General Plan. The General Plan identifies a citywide shortage of land suitable for manufacturing activities and a need to protect a reserve of manufacturing land from non-manufacturing uses. The Industrial and Business Park designation would permit light manufacturing uses, thereby providing additional land suitable for manufacturing activities. The proposed project will promote the policies of the General Plan because Marijuana Production Facilities (MPFs) are industrial/manufacturing uses.  
Kearny Mesa Community Plan - The project site is within the Industrial and Business Parks Land Use Area of the Kearny Mesa Community Plan. The Industrial and Business Parks designation is intended to accommodate manufacturing, storage, warehousing, distribution, and similar uses. Therefore, the proposed project conforms to the land use policies outlined in the Kearny Mesa Community Plan.

<sup>3</sup> This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

<sup>4</sup> This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.



## Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.<sup>5</sup> All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the [Greenbook](#) (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
<b>Strategy 1: Energy &amp; Water Efficient Buildings</b>			
<p>1. <i>Cool/Green Roofs.</i></p> <ul style="list-style-type: none"> <li>• Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under <a href="#">California Green Building Standards Code</a> (Attachment A)?; <u>OR</u></li> <li>• Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under <a href="#">California Green Building Standards Code</a>?; <u>OR</u></li> <li>• Would the project include a combination of the above two options?</li> </ul> <p>Check "N/A" only if the project does not include a roof component.</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>The building has an existing white roof, the project does not include the replacement of the existing roofing.</p> </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<sup>5</sup> Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings*

With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:

Residential buildings:

- Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;
- Standard dishwashers: 4.25 gallons per cycle;
- Compact dishwashers: 3.5 gallons per cycle; and
- Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?

Nonresidential buildings:

- Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in [Table A5.303.2.3.1 \(voluntary measures\) of the California Green Building Standards Code](#) (See Attachment A); and
- Appliances and fixtures for commercial applications that meet the provisions of [Section A5.303.3 \(voluntary measures\) of the California Green Building Standards Code](#) (See Attachment A)?

Check "N/A" only if the project does not include any plumbing fixtures or fittings.

All new appliances and plumbing fixtures will meet or exceed the current Code requirements.



### Strategy 3: Bicycling, Walking, Transit & Land Use

#### 3. Electric Vehicle Charging

- Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents?
- Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?
- Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?

Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces.

Not required since this project is existing, not a NEW non-residential construction.



### Strategy 3: Bicycling, Walking, Transit & Land Use

(Complete this section if project includes non-residential or mixed uses)

#### 4. Bicycle Parking Spaces

Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code ([Chapter 14, Article 2, Division 5](#))?<sup>6</sup>

Check "N/A" only if the project is a residential project.

The project provides 2 more long-term bicycle parking spaces and 6 more short-term bicycle parking spaces than required in the City's Municipal Code.



<sup>6</sup> Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the [California Green Building Standards Code](#) as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

The project will provide shower facilities and lockers meeting or exceeding the voluntary measures under California Green Building Standards Code.



6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

This project provides designated spaces for these vehicles. For the 114 proposed parking spaces, the project provides 11 designated parking spaces for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles.



7. *Transportation Demand Management Program*

If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:

At least one of the following components:

- Parking cash out program
- Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools
- Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development

And at least three of the following components:

- Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees
- On-site carsharing vehicle(s) or bikesharing
- Flexible or alternative work hours
- Telework program
- Transit, carpool, and vanpool subsidies
- Pre-tax deduction for transit or vanpool fares and bicycle commute costs
- Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use?

Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees).

Although the Project does not anticipate more than 40 employees working at the facility, the project proposes to implement a parking cash out program, committing to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees, flexible or alternative work hours, and transit, carpool, and vanpool subsidies.



## Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3. The following questions must each be answered in the affirmative and fully explained.

**1. Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**

Considerations for this question:

- Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
- Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
- Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

**2. Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**

Considerations for this question:

- Does the proposed project support/incorporate identified transit routes and stops/stations?
- Does the project include transit priority measures?

**3. Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**

Considerations for this question:

- Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
- Does the proposed project urban design include features for walkability to promote a transit supportive environment?

**4. Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**

Considerations for this question:

- Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
- Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

**5. Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**

Considerations for this question:

- Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
- Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
- Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

**6. Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**

Considerations for this question:

- Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
- Does the proposed project include policies or strategies for preserving existing trees?
- Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?



# CLIMATE ACTION PLAN CONSISTENCY CHECKLIST ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Plan (CAP) Consistency Checklist measures.

<b>Table 1      Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy &amp; Water Efficient Buildings of the Climate Action Plan</b>				
Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
<p>Source: Adapted from the <a href="#">California Green Building Standards Code</a> (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.</p> <p>CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.</p> <p>Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.</p>				



**Table 2      Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**

Fixture Type	Maximum Flow Rate
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the [California Green Building Standards Code](#) (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the [California Plumbing Code](#) for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

**Acronyms:**

gpm = gallons per minute

psi = pounds per square inch (unit of pressure)

in. = inch

**Table 3 Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**

Appliance/Fixture Type	Standard	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the <i>California Code of Regulations</i> .	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and <ul style="list-style-type: none"> <li>• Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate.</li> <li>• Be equipped with an integral automatic shutoff.</li> <li>• Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.</li> </ul>	

Source: Adapted from the [California Green Building Standards Code](#) (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the [California Plumbing Code](#) for definitions of each appliance/fixture type.

Acronyms:

L = liter

L/h = liters per hour

L/s = liters per second

psi = pounds per square inch (unit of pressure)

kPa = kilopascal (unit of pressure)



City of San Diego  
Development Services  
1222 First Ave., MS-302  
San Diego, CA 92101  
(619) 446-5000

# Storm Water Requirements Applicability Checklist

FORM  
**DS-560**  
OCTOBER 2016

Project Address: 9244 Balboa Ave Project Number (for City Use Only): 585542

## SECTION 1. Construction Storm Water BMP Requirements:

All construction sites are required to implement construction BMPs in accordance with the performance standards in the Storm Water Standards Manual. Some sites are additionally required to obtain coverage under the State Construction General Permit (CGP), which is administered by the State Water Resources Control Board.

**For all projects complete PART A: If project is required to submit a SWPPP or WPCP, continue to PART B.**

### PART A: Determine Construction Phase Storm Water Requirements.

1. Is the project subject to California's statewide General NPDES permit for Storm Water Discharges Associated with Construction Activities, also known as the State Construction General Permit (CGP)? (Typically projects with land disturbance greater than or equal to 1 acre.)  
☐ Yes; SWPPP required, skip questions 2-4 ☒ No; next question
2. Does the project propose construction or demolition activity, including but not limited to, clearing, grading, grubbing, excavation, or any other activity resulting in ground disturbance and contact with storm water runoff?  
☐ Yes; WPCP required, skip 3-4 ☒ No; next question
3. Does the project propose routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility? (Projects such as pipeline/utility replacement)  
☐ Yes; WPCP required, skip 4 ☒ No; next question
4. Does the project only include the following Permit types listed below?
  - Electrical Permit, Fire Alarm Permit, Fire Sprinkler Permit, Plumbing Permit, Sign Permit, Mechanical Permit, Spa Permit.
  - Individual Right of Way Permits that exclusively include only ONE of the following activities: water service, sewer lateral, or utility service.
  - Right of Way Permits with a project footprint less than 150 linear feet that exclusively include only ONE of the following activities: curb ramp, sidewalk and driveway apron replacement, pot holing, curb and gutter replacement, and retaining wall encroachments.☐ Yes; no document required

Check one of the boxes below, and continue to PART B:

- ☐ If you checked "Yes" for question 1,  
**a SWPPP is REQUIRED. Continue to PART B**
- ☐ If you checked "No" for question 1, and checked "Yes" for question 2 or 3,  
**a WPCP is REQUIRED.** If the project proposes less than 5,000 square feet of ground disturbance AND has less than a 5-foot elevation change over the entire project area, a Minor WPCP may be required instead. **Continue to PART B.**
- ☐ If you checked "No" for all questions 1-3, and checked "Yes" for question 4  
**PART B does not apply and no document is required. Continue to Section 2.**

1. More information on the City's construction BMP requirements as well as CGP requirements can be found at:  
[www.sandiego.gov/stormwater/regulations/index.shtml](http://www.sandiego.gov/stormwater/regulations/index.shtml)

Printed on recycled paper. Visit our web site at [www.sandiego.gov/development-services](http://www.sandiego.gov/development-services)

Upon request, this information is available in alternative formats for persons with disabilities.

**PART B: Determine Construction Site Priority**

This prioritization must be completed within this form, noted on the plans, and included in the SWPPP or WPCP. The city reserves the right to adjust the priority of projects both before and after construction. Construction projects are assigned an inspection frequency based on if the project has a "high threat to water quality." The City has aligned the local definition of "high threat to water quality" to the risk determination approach of the State Construction General Permit (CGP). The CGP determines risk level based on project specific sediment risk and receiving water risk. Additional inspection is required for projects within the Areas of Special Biological Significance (ASBS) watershed. **NOTE:** The construction priority does **NOT** change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by city staff.

**Complete PART B and continued to Section 2**

1. ☐ **ASBS**  
a. Projects located in the ASBS watershed.
2. ☐ **High Priority**  
a. Projects 1 acre or more determined to be Risk Level 2 or Risk Level 3 per the Construction General Permit and not located in the ASBS watershed.  
b. Projects 1 acre or more determined to be LUP Type 2 or LUP Type 3 per the Construction General Permit and not located in the ASBS watershed.
3. ☐ **Medium Priority**  
a. Projects 1 acre or more but not subject to an ASBS or high priority designation.  
b. Projects determined to be Risk Level 1 or LUP Type 1 per the Construction General Permit and not located in the ASBS watershed.
4. ☒ **Low Priority**  
a. Projects requiring a Water Pollution Control Plan but not subject to ASBS, high, or medium priority designation.

**SECTION 2. Permanent Storm Water BMP Requirements.**

Additional information for determining the requirements is found in the Storm Water Standards Manual.

**PART C: Determine if Not Subject to Permanent Storm Water Requirements.**

Projects that are considered maintenance, or otherwise not categorized as "new development projects" or "redevelopment projects" according to the Storm Water Standards Manual are not subject to Permanent Storm Water BMPs.

**If "yes" is checked for any number in Part C, proceed to Part F and check "Not Subject to Permanent Storm Water BMP Requirements".**

**If "no" is checked for all of the numbers in Part C continue to Part D.**

1. Does the project only include interior remodels and/or is the project entirely within an existing enclosed structure and does not have the potential to contact storm water? ☒ Yes ☐ No
2. Does the project only include the construction of overhead or underground utilities without creating new impervious surfaces? ☐ Yes ☒ No
3. Does the project fall under routine maintenance? Examples include, but are not limited to: roof or exterior structure surface replacement, resurfacing or reconfiguring surface parking lots or existing roadways without expanding the impervious footprint, and routine replacement of damaged pavement (grinding, overlay, and pothole repair). ☐ Yes ☒ No



**PART D: PDP Exempt Requirements.**

PDP Exempt projects are required to implement site design and source control BMPs.

If "yes" was checked for any questions in Part D, continue to Part F and check the box labeled "PDP Exempt."

If "no" was checked for all questions in Part D, continue to Part E.

**1. Does the project ONLY include new or retrofit sidewalks, bicycle lanes, or trails that:**

- Are designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas? Or;
- Are designed and constructed to be hydraulically disconnected from paved streets and roads? Or;
- Are designed and constructed with permeable pavements or surfaces in accordance with the Green Streets guidance in the City's Storm Water Standards manual?

☐ Yes; PDP exempt requirements apply

☐ No; next question

**2. Does the project ONLY include retrofitting or redeveloping existing paved alleys, streets or roads designed and constructed in accordance with the Green Streets guidance in the City's Storm Water Standards Manual?**

☐ Yes; PDP exempt requirements apply

☐ No; project not exempt.

**PART E: Determine if Project is a Priority Development Project (PDP).**

Projects that match one of the definitions below are subject to additional requirements including preparation of a Storm Water Quality Management Plan (SWQMP).

If "yes" is checked for any number in PART E, continue to PART F and check the box labeled "Priority Development Project".

If "no" is checked for every number in PART E, continue to PART F and check the box labeled "Standard Development Project".

**1. New Development that creates 10,000 square feet or more of impervious surfaces collectively over the project site.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.

☐ Yes ☒ No

**2. Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surfaces on an existing site of 10,000 square feet or more of impervious surfaces.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.

☐ Yes ☒ No

**3. New development or redevelopment of a restaurant.** Facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC 5812), and where the land development creates and/or replace 5,000 square feet or more of impervious surface.

☐ Yes ☒ No

**4. New development or redevelopment on a hillside.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site) and where the development will grade on any natural slope that is twenty-five percent or greater.

☐ Yes ☒ No

**5. New development or redevelopment of a parking lot that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).**

☐ Yes ☒ No

**6. New development or redevelopment of streets, roads, highways, freeways, and driveways.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).

☐ Yes ☒ No

7. **New development or redevelopment discharging directly to an Environmentally Sensitive Area.** The project creates and/or replaces 2,500 square feet of impervious surface (collectively over project site), and discharges directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). ☐ Yes ☒ No
8. **New development or redevelopment projects of a retail gasoline outlet (RGO) that create and/or replaces 5,000 square feet of impervious surface.** The development project meets the following criteria: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. ☐ Yes ☒ No
9. **New development or redevelopment projects of an automotive repair shops that creates and/or replaces 5,000 square feet or more of impervious surfaces.** Development projects categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539. ☐ Yes ☒ No
10. **Other Pollutant Generating Project.** The project is not covered in the categories above, results in the disturbance of one or more acres of land and is expected to generate pollutants post construction, such as fertilizers and pesticides. This does not include projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces or if they sheet flow to surrounding pervious surfaces. ☐ Yes ☒ No

**PART F: Select the appropriate category based on the outcomes of PART C through PARTE.**

1. The project is **NOT SUBJECT TO PERMANENT STORM WATER REQUIREMENTS.** ☐
2. The project is a **STANDARD DEVELOPMENT PROJECT.** Site design and source control BMP requirements apply. See the Storm Water Standards Manual for guidance. ☒
3. The project is **PDP EXEMPT.** Site design and source control BMP requirements apply. See the Storm Water Standards Manual for guidance. ☐
4. The project is a **PRIORITY DEVELOPMENT PROJECT.** Site design, source control, and structural pollutant control BMP requirements apply. See the Storm Water Standards Manual for guidance on determining if project requires a hydromodification plan management ☐

Brian Longmore

Name of Owner or Agent (Please Print)

Agent

Title



Signature

3/2/18

Date





City of San Diego  
Development Services  
1222 First Ave., MS-401  
San Diego, CA 92101

# Hazardous Materials Reporting Form

FORM  
DS-165

July 2017

All non-residential projects (except retaining walls, fences and similar projects) must have a completed Hazardous Materials Reporting Form at the time of project submittal. This information is used to determine the occupancy classification of the proposed structure(s) along with the fire and life safety protection systems and procedures required. For information regarding the completion of this form, see Information Bulletin 116.

## SECTION I: GENERAL INFORMATION

Project Name:	<b>MPF 9244 Balboa Ave</b>	Project Number: <i>For City Use Only</i>
Tenant Name:	<b>Focused Health LLC</b>	Permit Number: <i>For City Use Only</i>
Job Address:	<b>9244 Balboa Avenue</b>	Building/Unit/Suite Number:
Project Contact Name:	<b>Brian Longmore</b>	Contact Phone Number: <b>858-603-9478</b>

## SECTION II: HAZARDOUS MATERIALS SUMMARY

Will this project include the use, storage, or dispensing of any hazardous materials listed below? ☐ NO or ☒ YES

If the answer above is **YES**, check the box for the applicable hazardous materials classifications below and complete the Chemical Classifications Form and Summary Sheets contained in Section IV below.

- |   |  |  |   |
|---|--|--|---|
| <input checked="" type="checkbox"/> Combustible/Flammable Liquids | <input type="checkbox"/> Cryogenics (Inert or Oxidizing) | <input checked="" type="checkbox"/> Flammable Solids | <input type="checkbox"/> Pyrophorics          |
| <input type="checkbox"/> Combustible Fibers                       | <input type="checkbox"/> Explosives or Blasting Agents   | <input type="checkbox"/> Organic Peroxides           | <input type="checkbox"/> Toxics/Highly Toxics |
| <input checked="" type="checkbox"/> Compressed Gases              | <input type="checkbox"/> Fireworks                       | <input checked="" type="checkbox"/> Oxidizers        | <input type="checkbox"/> Unstable Reactives   |
| <input type="checkbox"/> Corrosives                               | <input type="checkbox"/> Flammable Gases                 | <input type="checkbox"/> Oxidizing Gases             | <input type="checkbox"/> Water Reactives      |

## SECTION III: HAZARDOUS PROCESS SUMMARY

Will this business perform any of the hazardous processes listed below? ☐ NO or ☒ YES

If the answer above is **YES**, check the box of the applicable hazardous materials processes below and complete the Chemical Classification Form and Summary Sheet (as necessary) contained in Section IV below. A Technical Report may be required for complex projects at the direction of the hazardous materials plan reviewer.

- |   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> Brewery/Distillery | <input checked="" type="checkbox"/> Dust-Producing Operations | <input checked="" type="checkbox"/> Plant Processing/Extraction | <input type="checkbox"/> Semiconductor Fabrication |
| <input type="checkbox"/> Dipping Operations | <input type="checkbox"/> Metal Plating                        | <input type="checkbox"/> Powder Coatings                        | <input type="checkbox"/> Spray Finishing           |
| <input type="checkbox"/> Dry Cleaning       | <input type="checkbox"/> Organic Coatings                     | <input type="checkbox"/> Refrigeration Systems                  | <input type="checkbox"/> Welding/Cutting           |

## SECTION IV: HAZARDOUS MATERIALS CLASSIFICATION

The classification of all chemicals stored and in use for this project is required in order to determine the requirements in the California Fire Code. Attached is a sample Chemical Classification Form. The hazardous materials submittal must include an inventory of all chemicals along with a summary sheet detailing the total amounts for each hazardous classification. Each building or control area must have a separate summary sheet.

## SECTION V: DECLARATION

I declare under penalty of perjury that, to the best of my knowledge, the responses made herein are true and correct.

**Eric Culberson M.**

Name of Owner/Occupant/Authorized Agent (circle one)

Signature

**2-10-18**

Date

For City Use Only: Staff Name: \_\_\_\_\_ Group H - \_\_\_\_\_ Occupancy \_\_\_\_\_ Control Area(s): \_\_\_\_\_

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DS-165 (07-17)

Clear Page 1

Project Address/Location:  
9244 Balboa Avenue

Project Number: (For City use only)

## CHEMICAL CLASSIFICATION SUMMARY TABLE

COMMON NAME	CHEMICAL NAME	% CONCENTRATION	CAS #	MATERIAL STATE (LIQUID/ SOLID/ GAS)	QUANTITY STORED	QUANTITY IN USE (OPEN/ CLOSED)	LOCATION (STORAGE & USE)	HAZARDOUS CLASSIFICATIONS
Hydrogen peroxide	H2O2	29%	7722-84-1	Liquid	5 gallons	5 gallon	cabinet (own)	COR, OXY-1
Alcohol EToh	ethyl alcohol	95% +	64-17-5	Liquid	20 gallon	5 gallons	cabinet	FL -IB
pH down	Phosphoric acid	30%	7664-38-2	Liquid	3 gallon	1 gallon	cabinet	COR
pH up	potassium hydroxide	30%	1310-58-3	liquid	3 gallon	1 gallon	cabinet	COR