

ATTACHMENT 7: Odor Abatement Plan dated January 14, 2022

Everbloom Odor Management Plan

Prepared for:

Everbloom
4701 Foothill Road
Carpinteria, CA 93101

P & D Development Review Division

PERMIT COMPLIANCE

REQUIRED PRIOR TO:

Grading/Construction
(Pre-construction Meeting)

Final Building Inspection

Please call (805) 884-8051

ZONING
APPROVED

February 03, 2022

PLANNER: gvonklan

PLANNING & DEVELOPMENT

Prepared by:

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January 14, 2022

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Attachments

- Attachment 1** Everbloom- Vicinity Map
- Attachment 2** Everbloom- Site Plan
- Attachment 3** Envinity Group Regenerative Carbon Scrubbers - Technical Specifications
- Attachment 4** Everbloom Odor Control Plan

COUNTY CODE: COMPLIANCE MATRIX

This Plan adheres to the regulatory requirements of Santa Barbara County Coastal Zoning Ordinance, Section 35-144U. The following matrix identifies the location within the Plan that addresses each requirement.

Section	Compliance Element	Document Location
35-144U.C.6.a	Floor Plan with odor-emitting activities noted	Attachment 2, Figure 2, Section 1.2
35-144U.C.6.b	Description of the specific odor emitting activities	Section 1.2, Section 1.3
35-144U.C.6.c	Phases of odor-emitting activities	Section 1.3, Figure 4
35-144U.C.6.d	A description of all equipment and methods to be used for reducing odors	Section 1.5
35-144U.C.6.e	Approved odor control system, BACT	Section 1.5, Section 1.6, Section 1.8
35-144U.C.6.f	Designation of an individual (local contact) who is responsible for responding to odor complaints	Section 1.9, Section 1.10,
35-144U.C.6.g	Department access	Section 1.11
35-144U.C.6.h	Department receives three verified complaints regarding odor events in any 365-day period, the Permittee shall implement corrective actions to comply with the odor abatement requirements	Section 1.9

MODEL ODOR ABATEMENT PLAN: CONFORMANCE MATRIX

This plan incorporates all of the required elements of the Model Odor Abatement Plan (MOAP). The following matrix identifies the location within the Plan that addresses each requirement.

Section	MOAP Element	Document Location
Exhibit A	Primary Odor Contact	Section 1.9, Section 1.10
Exhibit A.1	Weather Monitoring	Section 1.9.1
Exhibit A.2	Odor Technology	Section 1.9.2
Exhibit A.3	Initial Audit and Continued Monitoring	Section 1.9.3
Exhibit A.4	Community Participation & Outreach	Section 1.9.4, Section 1.10, Section 1.11
Exhibit A.5	Odor Response Protocol (Levels 1 – 4, All other Odor Episodes)	Section 1.9.5

1.0 ODOR MANAGEMENT PLAN

1.1 EXISTING SITE DESCRIPTION

This Odor Management Plan (Plan) is prepared in compliance with applicable local regulations to minimize nuisance odors generated by cultivation of cannabis at Coastal Blooms, LLC (Everbloom) in Carpinteria, California. The project is also referred to as Everbloom and Coastal Blooms. The project site (Site) is located at 4701 Foothill Road within APN 004-003-008. The Site is situated on an approximately 18.48 acre parcel and set back approximately 325 feet south of the nearest publicly accessible section of Foothill Road. The site contains a 21,000 square foot administrative and non-cannabis dry storage facility, as well as an 11.30 acre cultivation greenhouse. All processing (e.g., trimming, packaging) occurs off-site. Cannabis activities were occurring on the Project Site when SCS Engineers conducted its site visit on September 13, 2021.

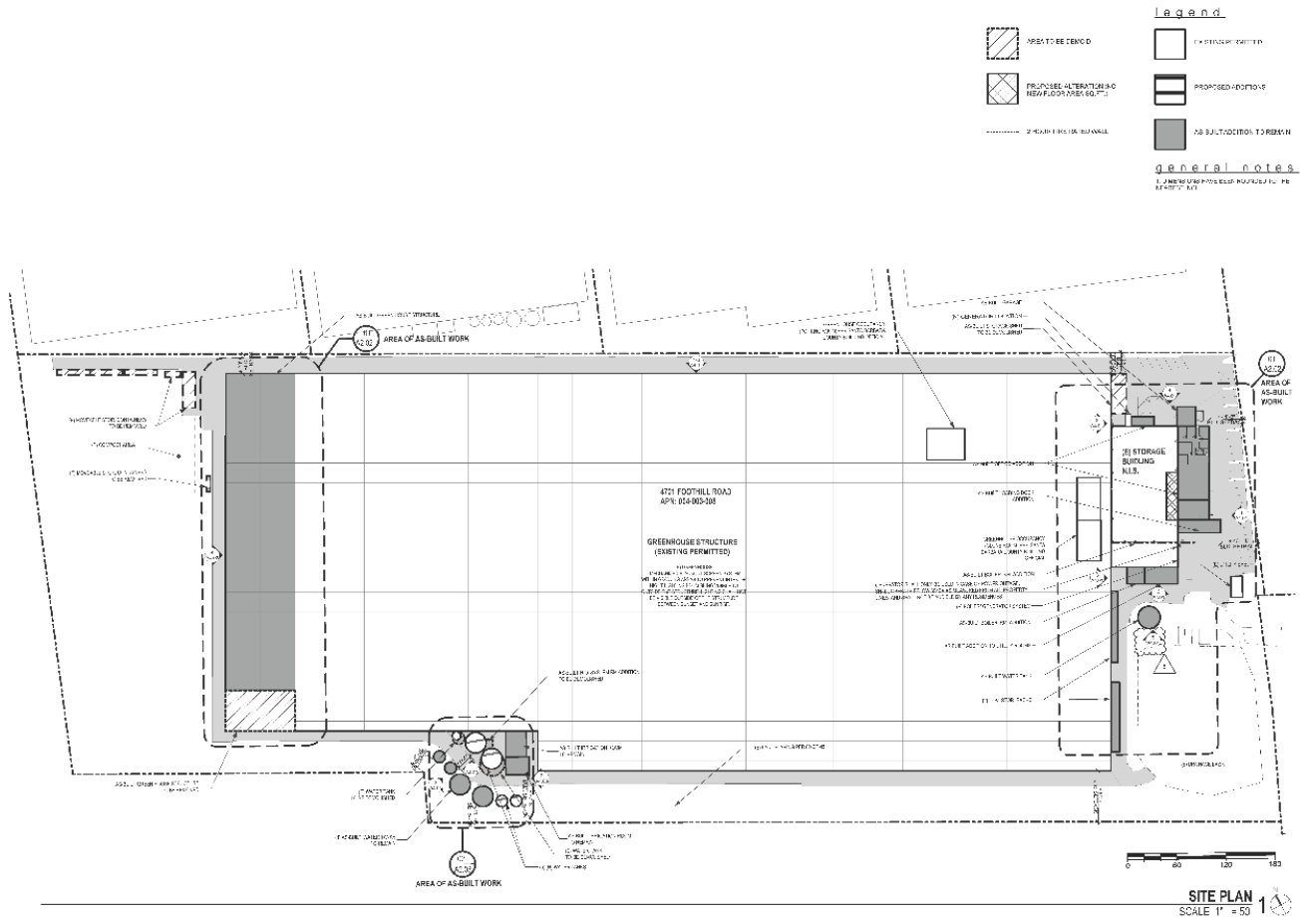
Everbloom is located on a relatively flat section of land which only varies from 57 feet above sea level (northwest corner) to 30 feet above sea level (southeast corner). The closest sensitive receptors are a residential neighborhood located approximately 75 feet to the south, and a public high school located 650 feet to the northeast. In addition, at least three (3) other cannabis facilities exist in the immediate vicinity (see Figure 1). Refer to Attachment 1 for a scaled Project Zoning and Vicinity Map for proximity of the Site to sensitive receptors.

The Project Site contains adult-flowering cultivation, administrative offices, and non-cannabis dry storage areas, see Attachment 2 for a facility layout. There are no cannabis processing activities located within the Project Site. Cannabis is harvested and immediately transported in sealed trucks to an off-site processing facility.

Figure 1: Site Vicinity Map



Figure 2: Site Plan



1.2 ODOR EMITTING ACTIVITIES

The existing greenhouse is utilized for growing 2.95 acres of nursery, with the remaining 7.75 acres for growing adult-flowering cannabis. Cannabis plants in adult-flowering stages release odorous compounds with a moderate odor generation potential.

The greenhouse is constructed of corrugated fiberglass panel walls with metal framed glass roof and gables (refer to Figure 3 for images of the existing greenhouse structure). The structures utilize natural convective ventilation to regulate interior temperatures and growing conditions. As a result, continuous venting of odorous air is expected during cannabis operations.

Additional secondary odor generation may occur from loading/transporting cut plants from the greenhouse to the offsite processing facility and temporary cannabis waste storage.

Figure 3- Existing Greenhouse Exterior & Roof Venting

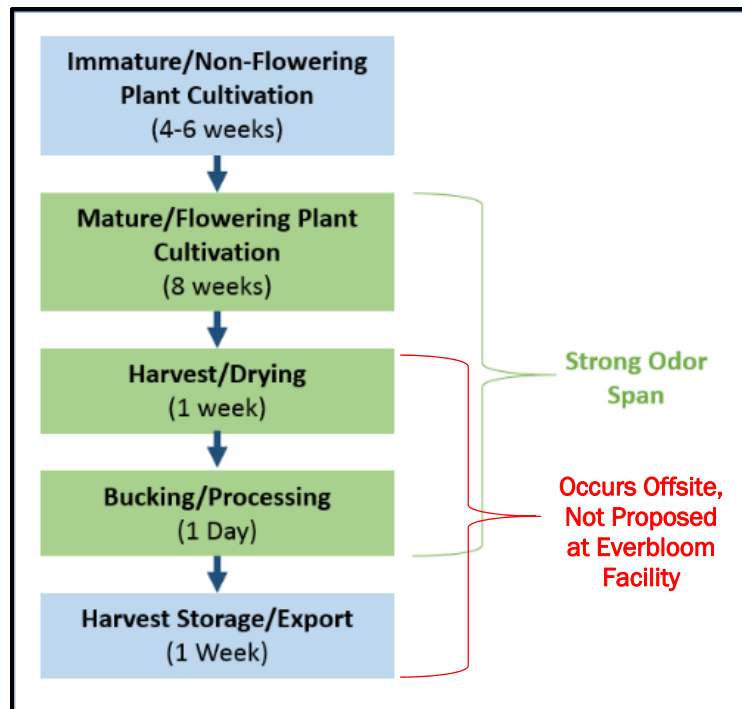


1.3 PHASES OF ODOR EMITTING ACTIVITIES

Growing and processing cannabis has two odor emitting stages. The odiferous phases are mature/flowering plant cultivation, grown on-site, and harvesting. Freshly cultivated cannabis is immediately contained and removed from the property, taken off-site for bucking, drying, curing, processing, storage and distribution. As noted earlier, all cannabis processing occurs off-site.

During the initial period of four (4) to six (6) weeks immature/non-flowering plants emit only nominal odor. As plants mature and begin to flower they emit gradually stronger odors. This phase spans approximately eight (8) weeks. The sequence of cannabis cultivation and processing is illustrated in Figure 4.

Figure 4- Phases of Odor Production



The ASTM recognized odor measurement technique consists of controlled addition of odorous air into a stream of odorless carbon-filtered air. Mixtures at known dilutions are presented to human subjects for nasal evaluation. Dilutions are measured with the dilution-to-threshold (D/T) ratio where subjects begin to detect that the mixture is 'not the same' as odorless air. High D/T indicates that little odorous air is required for detection by the subject. Low D/T ratios represent the need to add comparatively larger amounts of less odorous studied air for detection. Simply put the larger the D/T numbers reflect more intense odors.

SCS has recorded D/T in greenhouses containing adult-flowering plants (before atmospheric dispersion or application of odor controls) in the range of 120-250 for most undisturbed adult-flowering plants with elevated D/T concentrations occurring during the agitation of the plants during harvest operations. The observed odor within a greenhouse can vary significantly due to differences in cannabis strains and their variability of odor profile, various greenhouse structure types and operating practices, as well as, plant densities. Through the collection of dozens of odor samples to-date, SCS has recorded odors within greenhouses ranging from 149 to 13,923 with the industry wide average being 3,100 D/T.

1.4 REQUIRED SITE PREPARATION

The Site is presently in use for cannabis cultivation with an active vapor-phase odor neutralizer system (provided by Byers Scientific). Prior to commencing odor producing cannabis activities with the proposed odor control system detailed in Section 1.5, the following actions shall be completed to improve odor control:

1. Repair or replace broken and brittle polycarbonate paneling on the exterior of greenhouse walls.
2. Ensure that exterior greenhouse doors close easily and tightly.
3. Upgrade to the Regenerative Carbon Scrubber System as detailed in Section 1.5 below.

1.5 ACTIVE ODOR CONTROL SYSTEMS

1.5.1 Greenhouse Odor Control

The existing greenhouse proposed for cannabis cultivation is not air tight. Temperatures necessary for healthy plant cultivation are presently achieved by venting warm air through mechanical vents on the roof. As a consequence, traditional carbon filtration of odors from vented air via negative pressure is not feasible. A partial vacuum cannot be practically achieved within the existing greenhouse to capture air and avoid venting.

Accordingly, Everbloom proposes installing a recently developed odor control technology known as a Regenerative Carbon Scrubber System (RCSS) (developed by Envinity Group).

The system consists of a series of individual scrubber towers spread throughout the interior of the greenhouses. The RCSS towers consists of five (5) primary components.

1. An initial, cleanable, pre-filter to remove large particles from the influent stream of ambient air.
2. A high-flow ionization stage that applies a charge to the remaining particles after the pre-filter.
3. A second-stage, cleanable, filter to capture the remaining particles in the air stream.
4. A catalytic carbon filtration stage that utilizes the “traditional” carbon filter to retain odorous gasses long enough for Ultra-Violet (UV) light to oxidize and reduce the odor-causing gases to smaller, odorless gases.
5. A final stage with a specially-impregnated filter to capture remaining fugitive gases that remain after the catalytic carbon stage.

Refer to Figure 5 for a graphical representation of how the RCSS will be deployed on the Site and refer to Attachment 4 for a more detailed odor system site layout.

Figure 5- Regenerative Carbon Scrubber System



The RCSS is innovative technology intended to sustain a substantial reduction in detectable cannabis odors within greenhouses prior to fresh air exchange which occurs when greenhouses are deliberately roof-vented, or when air escapes during opening and closing of access doors, or through fugitive air losses which occur even when the greenhouse is predominantly sealed (roof vents closed and black-out curtains drawn). Traditional carbon scrubber systems have failed in this greenhouse function due to the significant volume of moisture laden air constantly needed for recirculation. The carbon pore space in traditional scrubbers becomes saturated in a matter of days or weeks, after which the efficacy of the odor reduction drops precipitously. In contrast, the RCSS does not utilize the carbon bed as the primary means for odor molecule elimination. Instead the combination of titanium oxide impregnated carbon and ultra-violet light utilizes both adsorption and chemisorption to actively treat the odiferous chemicals within the filters. The system's pre-filters also prevent ultra-fine and larger diameter particulate matter from reaching and compromising the scrubbing media's pore space. The ionization process is used to drive the chemisorption reaction which takes

place only inside the scrubber and no charged particles, radicals, or ozone are emitted by the system.

Carpinteria Case Study

Due to the fact that the RCSS is an emerging technology for the purposes of treating greenhouse odors, and per the request of CARP Growers, SCS recently completed a site specific analysis of a prototype systems efficacy at an active cannabis facility located at 3508 Via Real in Carpinteria (Project Site/Facility). SCS field staff confirmed that the Project Facility was similar to proposed cannabis greenhouses throughout the region with adult-flowering cannabis and operable roof vents. To conduct the case study, SCS completed two (2) rounds of odor and air quality testing at the Project Facility. The overall test conditions included an approximate 2.1-acre greenhouse with cannabis cultivation in various stages of adult-flower throughout the structure. A total of fourteen (14) scrubbers were deployed with each scrubber operating at an air circulation rate of approximately 2,950 cubic feet per minute (CFM). While subject to variation due to unique greenhouse heights and fresh air exchange rates, which changes the total volume of air to be treated, the scrubber manufacturer generally recommends 6-10 scrubbers per acre as a targeted range for achieving a substantial reduction in odor.

Odor Testing Event 1 focused on the overall odor reduction within the circulated greenhouse air while *Odor Testing Event 2* focused on the net odor reduction in the influent and effluent streams of an individual scrubber. It is important to note that after the conclusion of the first testing event, the scrubber manufacturer (Envinity) was provided valuable feedback which was subsequently used to adjust the function of the scrubbers and further improve their odor reduction efficacy prior to the second testing event. The primary cannabis odor samples for both testing events were taken within the greenhouse structure interior.

Odor Testing Event 1: Pre-scrubber Adjustment, Circulated Greenhouse Air

In February 2021, SCS collected a suite of twelve (12) total odor samples at strategically appropriate times to capture potential maximum odors in the greenhouse's circulated interior air mass to determine odor destruction efficacy of the RCSS. The testing event included the collection of six (6) odor samples prior to scrubber activation (i.e. unscrubbed air within the greenhouse) and six (6) odor samples after the scrubbers had operated for approximately forty-eight (48) hours. Each before and after sampling event included four (4) samples (two during AM hours and two during PM hours) taken inside various locations of the greenhouse intended to capture the average odor level in the continuously circulated greenhouse environment. The other two (2) samples were taken outside the greenhouse to establish an exterior baseline. SCS strategically sampled at times and locations within the greenhouse which represent worst-case odor saturation, thus odor levels were often at orders of magnitude higher than average greenhouse conditions observed during earlier sampling events in Carpinteria.

These samples were then shipped to an independent third-party laboratory (Odor Science and Engineering [OS&E], Incorporated in Bloomfield, Connecticut) for analysis.

The OS&E laboratory has an expert odor panel which conducts blind evaluations of the odor samples (the panel is not informed of the potential type or source of the samples). The odor panel provides both a character (i.e. sour, skunk, exhaust, garbage) and a concentration for each odor sample. Baseline odors present in most communities range from 8-12 D/T. Eight (8) D/T represents eight (8) parts of clean, purified air, for each unit of odor sample. The specially trained and qualified odor panelists can often detect a net increase of 3-5 D/T over this baseline condition. Members of the general public can typically detect a net increase of 5-10 D/T. Most municipal jurisdictions with an adopted odor nuisance ordinance/policy therefore adopt a threshold of 10 D/T or higher.

Odor levels prior to scrubbing ranged from 7,599 D/T to 8,989 D/T with an average D/T of 8,296. Odor levels after the scrubbers operated for forty-eight (48) hours ranged from 1,067 to 2,606 with an average D/T of 1,537. This equates to an overall average of an 81.0% reduction in odor intensity in the continuously circulated greenhouse interior air. All interior samples were identified as having a character commonly including odor descriptors such as: cannabis, pot, weed, marijuana, and skunk. It is important to note that the averaged 81.0% odor reduction efficiency is the result of a relatively small data set which is hampered by one sample which registered at 65.7% reduction in odor. The remaining three (3) samples all registered odor reduction rates of 84% or higher with two (2) of the samples indicating that an approximate 87% reduction of odor is feasible. It is likely that increasing the density of scrubbers per acre and improving their even distribution throughout the greenhouse structure could improve the overall consistent performance of the system to achieve an odor reduction rate approaching or exceeding 87%.

Table 1- Odor Sampling Results from Circulated Interior Greenhouse Air

Sample ID	Odor D/T Prior to Scrubbing	Odor D/T After Scrubbing	% Reduction in Odor Intensity
AM Sample Point #1	8,989	1,166	87.03%
AM Sample Point #2	8,282	1,310	84.18%
PM Sample Point #1	8,313	1,067	87.16%
PM Sample Point #2	7,599	2,606	65.71%
		Average Total	81.02%

Odor Testing Event 2: Post-scrubber Adjustment, Scrubber Influent and Effluent

SCS collected a suite of five (5) total odor samples at strategically appropriate times to capture potential maximum odors in the ambient greenhouse environment to determine odor destruction efficacy of the individual RCSS units. These five (5) sample collections included two (2) scrubber influent, two (2) scrubber effluent, and one (1) ambient location within a second, untreated, greenhouse. These samples were then shipped to OS&E Laboratory in Bloomfield, Connecticut for analysis.

The odor samples relative to the influent of the RCSS within the Project Site's greenhouse resulted in odor concentrations of 1,793 D/T (daytime) and 1,793 D/T (night-time) respectively with an character commonly including odor descriptors such as: cannabis, pot, weed, marijuana, and skunk. Samples taken of the effluent from Project Site's RCSS resulted in odor concentrations of 63 D/T (daytime) and 25 D/T (night-time). This data indicates an average of a 97.6% reduction of cannabis odor intensity from the influent of the scrubber compared to the effluent into the greenhouse. This 97.6% odor reduction limit should be considered the theoretical maximum odor reduction rate achievable in close proximity to each individual scrubber, however odor reduction for a greenhouse as an entire circulated air mass is unlikely to ever achieve this upper limit.

Estimating Odor Intensity Outside Everbloom Vented-Greenhouse

As described in the sampling descriptions above, the verification sampling of the RCSS resulted in a measured reduction in odor intensity of 81.0% in the circulated greenhouse air and 97.6% of the individual scrubber's direct exhaust/effluent stream. These estimated odor reduction levels were achieved inside the greenhouse. For the purposes of this pilot study, actual observed odor reductions outside the test greenhouse could not be measured accurately due to the fact that Envinty could only supply sufficient scrubbers to outfit half of the Project Facility. Therefore, remnant fugitive odors from the other unscrubbed portion of the Project Facility would convolute the data. Additionally, the test facility was in close proximity to at least three (3) other active cannabis facilities within a 300-foot radius. All such surrounding facilities could contribute fugitive cannabis odors and/or neutralizing vapor which would further degrade the quality of the data.

Therefore, SCS utilized sophisticated air dispersion modelling software, known as AERMOD Version 21112, to estimate the dispersion of remaining fugitive odors from the Everbloom facility after RCSS scrubbing has been achieved. AERMOD is a software modelling suite approved by the United States Environmental Protection Agency that estimates the worst-case ground or breathing level concentrations for air quality impacts including odor dispersion. AERMOD has the capability of utilizing site specific meteorological and topographical data, thus making the model more accurate and capable of producing site specific isopleth maps to illustrate the dispersion of odor in proximity to the project site.

AERMOD was utilized to estimate the interior greenhouse odor level that results in modeled odor levels below the nuisance threshold at sensitive receptors. Assuming Everbloom cannot exceed 10 D/T at surrounding sensitive receptors (residence and high school), and based on the dispersion modelling analysis, the maximum estimated odors which can be released from the greenhouse vents (after scrubbing) cannot exceed 313 D/T. Assuming this maximum post scrubbing odor is an 87% reduction of the pre-scrubbed cultivation odors, typical maximum odors originating from the cultivation areas should not exceed 2,407 D/T. Because this limit on interior greenhouse odor (pre-scrubbing) is below the 3,100 D/T industry average for greenhouse cultivation odor levels, site specific odor sampling will be needed to establish that the cultivation operation will sustain odor concentration levels below the 2,407 D/T limit through careful

strain selection, plant density, percent of crop within flowering stage, or comparable operational best practices. Through these controlled practices within the greenhouse, subsequent scrubbing and dispersion is expected to create a combined odor reduction which prevent nuisance odors from reaching sensitive receptors.

1.5.2 RCSS Findings and Recommendations

Due to the emerging nature of this RCSS technology, and limited efficacy testing conducted to-date, SCS has made a series of recommendations needed to further refine data pertaining to the performance and deployment of RCSS to CARP Growers and the manufacturer, Envinity.

However, the combination of air sampling and modelling conducted to-date indicate that the system is a potentially viable means of odor control for the Everbloom facility.

If the Everbloom facility is selected for early adoption of RCSS, or equivalent internal scrubber systems, to assist in the progression of cannabis odor control technology, SCS offers the following facility specific recommendations:

1. Deploy an initial set of RCSS, or equivalent, units to achieve an equivalent or greater air exchange rate as was achieved in Envinity's/RCSS' prior testing regime. This should result in an odor concentration reduction of 81% or better.
2. Upon initial RCSS installation and functionality testing, commence RCSS operation. Conduct initial operational testing and observations.
 - a. If the RCSS standalone system is sufficient to prevent offsite odor observations, continue to operate the system for a period of six (6) months to ensure the odor reduction efficacy can be maintained consistently without failure of the system filters, carbon saturation, etc.
 - b. If offsite odor observations occur, evaluate the need to install a vapor-phase neutralizer system temporarily while RCSS improvements are completed. Improvements can include but are not limited to: manufacturer recommendations to improve individual scrubber performance, adjustment of scrubber location within the greenhouse, or installation of additional scrubber units.
3. If needed, implement improvements to the RCSS and resume standalone testing with vapor-phase system deactivated.
 - a. If the RCSS standalone system is sufficient to prevent offsite odor observations, continue to operate the system for a period of six (6) months to ensure the odor reduction efficacy can be maintained consistently without failure of the system filters, carbon saturation, etc. Should the system continue to perform at expected levels, proceed to permanent decommissioning of the vapor-phase system.
 - b. If offsite odor observations occur and no further RCSS performance improvements are viable.

- i. Begin testing the use of RCSS and vapor-phase in combination with an emphasis on the RCSS as the primary odor mitigation system and minimization of vapor-phase neutralizer. Effort should be made to utilize the minimum daily-volume release of neutralizer needed to achieve effective odor control including limited vapor-phase system operation to certain times of the day or operational activities where supplement odor mitigation is warranted.
- ii. Or, conduct a new odor control Best Available Control Technology (BACT) analysis to examine alternative odor mitigation technologies.

1.6 ODOR CONTROL BEST MANAGEMENT PRACTICES

Once operational, the project staff will implement odor control Best Management Practices (BMPs) as outlined below:

Best Management Practice 1: Designate an onsite *Odor Management Specialist* at the facility. This employee will be given time, resources, training, and incentives to control odors as a first priority.

Best Management Practice 2: The onsite *Odor Management Specialist* should at a minimum walk the Site two (2) times per day to:

- A. Ensure that all means of active odor control are operational and in good working order.
- B. Observe onsite personnel to ensure that odor control BMPs are implemented. BMPs include keeping doors closed whenever feasible, placing waste in sealed containers, limiting processing-related activities to the odor controlled building(s). If BMPs are not consistently implemented, the *Odor Management Specialist* shall report inconsistencies to appropriate management for corrective action. Maintenance of a daily odor inspection log and check-list shall be made a part of these BMPs.
- C. *The Odor Management Specialist* shall be the point of contact to receive odor complaints from the regulatory agencies or the community. The specialist shall request as much detail as possible regarding the complaint, including:
 - i. Location (be exact, narrow it down within 100-feet or less if possible)
 - ii. Time (be exact, to the minute if possible)
 - iii. Weather conditions (approximate temperature, wind speed, etc.)
 - iv. Visual observations. Did the complainant see the cannabis facility/operations from which the odor may have come, or see any unusual activities in the observed area?

Best Management Practice 3: Build a company culture wherein all personnel understand the importance of odor control. Train each person in their individual odor control responsibilities at the facility. Training elements include:

- A. Ensure all employees are aware of the *Facility Odor Control Plan* for the entire Site and the odor control BMPs that apply to their tasks within the workforce.
- B. Incorporate the fundamentals of odor control in the training programs; provide this instruction in bi-lingual form as needed.
- C. Consider incentives with offsetting disciplinary measures based on odor control implementation and success.

Best Management Practice 4: Secondary miscellaneous odor management BMPs should be implemented consistently as follows:

- A. Facility doors should be kept closed whenever feasible. The opening of doors should occur only momentarily for entry and exit. The installation of self-closing doors, heavy-duty plastic curtains, or other safe means of limiting fugitive odors should be considered.
- B. Acquire specially designed cannabis dumpsters with sealed lids for handling of cannabis waste. Keep lids closed.
- C. Consider using plastic bags to line plastic totes to contain/seal cannabis between areas as well as during offsite transport. The build-up of cannabis particulate and oil on inside surfaces of totes is a source of fugitive odors.
- D. Consider providing employees with uniform garments and/or professional laundry services with encouragement or requirements to change clothes prior to leaving the facility.
- E. Provide properly sealed vehicles for transportation of cannabis outside of facilities, both smaller golf cart type vehicles inside the project perimeter and larger export trucks used to transport products offsite for sale.

Best Management Practice 5: For all active odor control systems, proper design, operation, and maintenance of these systems is critical to their effectiveness. Therefore, in relation to the proposed carbon filtration systems the following parameters should be addressed:

- A. The greenhouse regenerative carbon scrubbers should be installed such that they maximize interaction with cannabis odors prior to release from roof vents, active exhaust fans, and operable doors which are frequently opened. The filtration systems must be checked for pressure loss across the filter stages and inspected regularly to ensure they are operating per manufacturer design and recommendations.
- B. Be aware that periods of downtime in regenerative carbon scrubbers' operation may leave portions of the facility with little to no odor mitigation of cannabis odors. Develop a maintenance plan and checklist to schedule and document maintenance activities, record replaced parts, and determine frequency of failures of the greenhouse filtration systems with a goal of minimizing system downtime to the maximum extent feasible. If possible, plan maintenance

related outages to occur in the afternoon, during steady wind conditions, such that natural dispersion and dilution help mitigate the odors which are no longer being scrubbed prior to release from roof vents.

- C. Do not use carbon filtration systems unless they are designed by a qualified engineer/specialist and properly maintained. Using a poorly designed or maintained system is potentially worse than no system at all. Especially if the output of the system vents to atmosphere.
- D. Consider the use of structural upgrades such as mud-room style double-entry doors and the creation of substructures to contain other high-intensity odors in a smaller volume of air space which needs treatment.

1.7 ADAPTIVE MANAGEMENT STRATEGIES

Refer to Section 1.9 for complete Odor Complaint Response and Corrective Actions protocols regarding weather monitoring, odor technology, initial audit and continuing monitoring obligations, community participation and outreach, odor response protocol and tiered responses to odor complaints. These adaptive management strategies also include a discussion of the potential Best Available Control Technology (BACT) available and adapting the odor management strategy over time as technologies improve.

1.8 ODOR SYSTEM CERTIFICATION

Cultivation Greenhouse: SCS conducted independent research regarding the efficacy of the Envinity Group System:

1. Contacted Envinity Group to understand the research, development, and underlying technology employed by the regenerative carbon scrubbers.
2. Toured a similar facility equipped with operational regenerative carbon scrubbers to confirm the qualitative efficacy of the Envinity Group System in operation.
3. Completed odor sampling and reduction testing at an active cannabis site with the regenerative carbon scrubbers. The testing demonstrated an average of 97.6% odor destruction through the effluent stream of the regenerative carbon scrubber and at least an 81% overall odor reduction level in the interior air-space of the overall greenhouse structure.

Although additional pilot testing prior to wide-spread adoption and investment in RCSS is recommended; the combination of odor sampling and modeling conducted to-date indicate that these scrubber systems are a viable and likely effective form of odor management for the Everbloom facility. SCS' certification of system is conditioned upon the successful completion of the following actions:

- a. Conduct a full-scale greenhouse test where Envinity and/or comparable manufacturers provide sufficient scrubber units to outfit the entire cultivation area on the premises.
- b. Conduct odor sampling of both interior circulated greenhouse air and exterior treated air release points. To the maximum extent feasible this exterior air sampling shall be isolated from other competing sources of cannabis odors such as other cannabis facilities on adjacent parcels.
- c. Ensure that the site specific air sampling results indicate sufficient odor reduction efficacy to prevent nuisance level odors from reaching offsite, residentially zoned receptors. This can be achieved through a combination of onsite measurements which allow for more accurate air dispersion modelling.
- d. Conduct a series of tests to identify the approximate correlation between total odor reduction and the density of scrubbers depending upon variable greenhouse volume and baseline odor intensity.
- e. Conduct a series of tests to confirm that the RCSS's ability to sustain a high odor reduction efficiency rate can be maintained consistently throughout the operational lifetime of the cannabis facility (i.e. the intervals at which pre-filters, post-filters, and/or carbon need replacement).

Based on the presumption that: 1) the recommended odor best management practices are implemented, 2) operational measures are implemented to limit initial odor concentrations in the greenhouse to 2,407 D/T, 3) the active odor control systems are operated during all appropriate times that nuisance odors are present on the Project site, 4) the systems are kept in good working order, and 5) the systems are operated in compliance with manufacturer requirements and guidelines, Ms. Tia Jeter, a professional engineer licensed in the field of environmental engineering, with a MS in Environmental Engineering and a BS in Chemical Engineering, hereby certifies that the Odor Management Plan and its effective elements as currently proposed for deployment at the Everbloom Project Site in Carpinteria, California is consistent with equipment and methods to be used for reducing odors which are accepted and available as industry-specific best control technologies and methods designed to mitigate odor.

Tia Jeter

1/14/2022

Signature, Tia Jeter

Date

Seal:



1.9 ODOR MONITORING AND RESPONSE

In the event of an odor complaint at 4701 Foothill Rd., Carpinteria, CA 93101 (the "Property"), please contact Everbloom Facility ("Operator") Primary Odor Contact, as well as the Planning & Development Department ("Department") at (805) 568-2057 or online at https://www.surveymonkey.com/r/cannabis_complaints

Primary Odor Contact Phone Number: (805) 203-3072

1. Weather Monitoring

- A. Operator shall install and maintain continuous weather monitoring equipment in accordance with direction of a meteorological monitoring network plan provided by a qualified third-party professional so as to continuously record and transmit weather data, including wind speed, direction (including low speed wind direction capabilities), temperature and barometric pressure for as long as it engages in cannabis cultivation at this Property.
- B. This weather data will be maintained electronically and made available upon request (for at least one year) to the Department.
- C. Operator will use weather data to identify the variables and conditions that can cause, contribute to and affect Odor Episodes (defined below) and to better understand the transport and fate of odor emissions from cannabis operations in Carpinteria.
- D. In the event that a regional meteorological network is created by the Department or other entity, data from Operator's weather monitoring equipment shall be made available in real time to such network.

2. Odor Technology

The facility shall follow all methods for controlling and reducing odor as outlined in the Odor Abatement Plan and shall deploy, or re-deploy the best available control technologies (BACT) or methods as necessary to control odor at the facility, as determined by the Department. Any BACT to be employed by an Operator at a future date may require additional permits or changes to existing permits as determined by the Department.

3. Initial Audit and Continuing Monitoring Obligations

The Operator shall develop a testing program to deploy continuously over a 7-day period the best available proven odor monitoring device/method to measure cannabis odor causing emissions from the property during the first week of permitted operations, if other equivalent baseline odor testing has not already been conducted. The applicant shall maintain all odor monitoring data for 3 years and shall provide odor monitoring data to the Department upon request.

4. Community Participation and Outreach

Prior to the commencement of operations, the Operator shall provide to property owners and residents located within 1,000 feet of the Property the contact information for the Primary Odor Contact, who shall be available by telephone on a 24 hour/day basis to receive and respond to calls regarding any odor complaints (Santa Barbara County Article II Coastal Zoning Ordinance (CZO) §35-144U.C.6.f.1.). The Operator shall immediately notify the Department, property owners and residents located within 1,000 feet of any changes to the local contact (CZO §35-144U.C.6.f.2.).

5. Odor Response Protocol

The Operator will continuously monitor odor complaints and will immediately route complaints to the Primary Odor Contact for a timely response. The Operator may utilize analytical tools and measurement systems to evaluate odor inquiries and assess odor conditions, as well as for routine monitoring of horticultural conditions, for the long-term goal of eliminating fugitive cannabis odors.

The Operator shall notify the Department of any complaints the Operator receives within 24 hours of receiving the complaint (CZO §35-144U.C.6.f.3). The Operator shall respond to an initial complaint within one hour and if needed, take corrective action to address any violation of CZO §35-144U.C.6 within two hours (CZO §35-144U.C.6.f.4). The Operator shall implement a complaint tracking system for all complaints that the operator receives, which includes a method for recording the following information: contact information of the complainant (if the complainant is willing to provide), as well as a description of the location from which the complainant detected the odors; time that the operator received the complaint; description of the complaint; description of the activities occurring on site when the complainant detected the odors; and actions the operator implemented in order to address the odor complaint. The operator shall provide the complaint tracking system records to the Department as part of any Departmental inspections of the cannabis activity, and upon the Department's request. The operator shall maintain the complaint tracking records for a minimum of five years (CZO §35-144U.C.6.f.5).

If the Department receives three verified complaints regarding odor events in any 365-day period, the Operator shall implement corrective actions to comply with the odor abatement requirements of County Code Section §35-144U.C.

a. Level 1 Response - Initial Assessment and Corrective Actions

For any instance in the Odor Response Protocol below where the Operator can determine that an odor complaint is “resolved” or “unresolved”, the determination by the Operator does not preclude the Department from taking further actions, including enforcement actions pursuant to Section 35-185 (Enforcement and Penalties), of the Coastal Zoning Ordinance, which may include, but are not limited to, initiating proceedings to revoke the applicable cannabis land use entitlement(s) pursuant to Section 35-169.8 (Coastal Development Permits) of the Coastal Zoning Ordinance.

Once an odor complaint is received by the Operator, the Operator shall within one hour after the odor complaint is received, perform an onsite visual inspection to ensure the function and integrity of the following:

1. The odor abatement equipment is working as intended and that there are no visible breaks or blockages in any odor abatement equipment; and
2. If being used, all carbon scrubbers or other odor abatement equipment are working properly and filters are clear of any debris; and
3. All doors are closed, sealed and secured, including greenhouse entry and exit points, internal processing rooms and processing entry and exit points, pursuant to Operator's Standard Operating Procedures ("SOPs"); and
4. A walk of the perimeter of the cannabis facilities, inspecting the integrity of the walls and structure and examining if a physically apparent source of odor can be detected.

If a cause for the reported odor episode was discovered during the inspection, the Operator shall take corrective action to address any violation of CZO §35-144U.C.6 within two hours of the complaint.

After taking corrective action, the Operator shall complete a site inspection at the reported odor complaint location to determine whether the odor complaint has abated. If odor is no longer detectable at the reporting location identified in the complaint or at locations in the direction where the Operator would expect odor to migrate based on the meteorological conditions present at the time of the odor complaint, then the odor complaint may be deemed resolved.

If no cause for the reported odor complaint was ascertained during the inspection and if odor is not detectable at the reporting location identified in the complaint, the odor complaint shall be deemed resolved.

b. Level 2 Response -- Diagnostic Assessment and Corrective Actions

If, after the Level 1 Response is complete, the Operator continues to observe fugitive odors, receives further odor complaints indicating that the odor is persisting or recurring periodically during the following 8-24 hour period, the Operator shall:

1. Conduct a weather assessment (wind speed, direction and any shifts, anecdotal weather information collected from interested parties, time and duration of odor complaint) of the conditions that were occurring at and in the two hours before the time of the odor complaint;
2. Perform a comprehensive diagnostic review of the odor abatement system;
3. Interview staff members that were on site during and in the two hours before the time of the odor complaint and determine if they performed or observed any actions or circumstances that may have caused or contributed to the reported odor complaint and evaluate if the operation adhered to the Operator's SOPs for odor abatement;
4. Repair or correct any conditions discovered that may cause or contribute to the odor complaint.

If a cause for the reported odor complaint is identified, the Operator shall take corrective actions, revise its SOPs, and/or adjust the odor control systems as necessary to address the condition(s) that caused the odor complaint. The Operator shall obtain any applicable permits related to project changes resulting from corrective actions before implementing any new odor abatement equipment that is not identified in the OAP. The Operator shall report the conclusions of its investigations (excluding any bona-fide proprietary or trade secret information) to the Department. Once these steps are completed, the odor complaint shall be deemed resolved..

If no cause for the reported odor complaint was ascertained during diagnostic assessment, and if the known reporting location is confirmed to be odor-free, the Operator shall prepare a written report (excluding any bona-fide proprietary or trade secret information) summarizing the Level 2 Response and submit it to the Department.

c. Level 3 Response -- Analytical Assessment and Corrective Actions

If, after the Level 2 Response is complete, the Operator continues to observe fugitive odors and/or receives further odor complaints during the following 8-24 hour period, or the reporting party responds that odor is persisting or recurring periodically during the following 8-24 hour period, the Operator shall implement further corrective actions as follows:

1. Commission a Professional Engineer (PE) or a Certified Industrial Hygienist (CIH) to perform an on-site evaluation of odor levels to analyze whether the Operator is the source of the reported odor complaint. The Operator's PE or CIH will use the Operator's and any other available meteorological data and the Operator's knowledge of operational activities at the time specified in the odor complaint to investigate the odor complaint, as feasible.
2. If no further conclusions are found from the analysis, and the Operator is unable to identify the potential cause of the odor complaint, the odor complaint is unresolved.
3. In the event that an odor complaint is unresolved and is recurring or continuing, as evidenced by repeated odor complaints from the property, the Operator shall:
 - i. Commission a Professional Engineer or a Certified Industrial Hygienist to implement a testing protocol to measure odor or an odor-causing constituent using the best, currently available objective, odor measurement device, technology or methods.
 - ii. Undertake corrective actions identified by the PE or a CH including, but not limited to:
 1. Revise its SOPs.
 2. Adjust or improve the function of the existing odor control systems (e.g., adjust dispersal of neutralizers, replace spent carbon media, install self-closing doors).
 3. Install supplemental or replacement odor control technologies, such as but not limited to internal greenhouse scrubbing systems. Such

technology could potentially include installation of 5-15 Regenerative Carbon Scrubbing units per acre of adult-flowering cultivation (exact system design to be defined on a Project specific basis as determined by a qualified professional). Depending on the scope and nature of the supplemental or replacement odor control technologies, additional permitting may be required by the Department and, if required, must be obtained before installing the technology.

If a cause for the reported odor complaint is identified, the Operator shall take corrective actions as recommended by the PE or CIH as necessary to address the condition(s) that resulted in the odor complaint. The Operator shall obtain any applicable permits related to project changes resulting from corrective actions before implementing any new odor abatement equipment that is not identified above in the OAP. The Operator shall report the conclusions of its investigations (excluding any bona-fide proprietary or trade secret information) to the Department. Once these steps are completed, and the odor is not detectable at the reporting location, the odor complaint shall be deemed resolved.

If no cause for the reported odor complaint was ascertained during diagnostic assessment, and if the odor is not detectable at the reporting location, the Operator shall prepare a written report (excluding any bona-fide proprietary or trade secret information) summarizing the Level 3 Response and submit it to the Department.

If after the PE or CIH Analysis has been completed, the Operator believes it is not the sole or a contributing source of the reported odor complaint, the Operator shall notify the Department of its conclusion, within three (3) calendar days of reaching such conclusion. The Department will consider this information in determining whether corrective actions are necessary to comply with the odor abatement requirements of Section 35-144U.C, but the Department is not bound by the Operator's conclusion. If the Department verifies that the Operator is not a contributing source of the reported odor complaint, the complaint shall be deemed resolved.

d. Level 4 Response -- Comprehensive BACT Analysis and Corrective Actions

If, after the Level 3 Response is complete, the Operator continues to observe fugitive odors and/or receives further odor complaints, or the reporting party responds that odor is persisting or recurring periodically during the following 8-24 hour period, the Operator shall implement further corrective actions as follows:

- a. Commission a comprehensive Best Available Control Technology (BACT) analysis and submit to the Department a written report prepared by a Professional Engineer or a Certified Industrial Hygienist that includes:
 1. The likely or potential source of the odor complaint;
 2. Additional adaptive management techniques, including operational modifications and curtailment that are recommended to eliminate odor complaints;

3. Recommendations for new or revised odor abatement technologies; and
4. Installation of current best available analytical tools to monitor, identify and quantify the emissions causing or contributing to odor complaints.

If the BACT analysis concludes that a more effective odor control system is available that will resolve or materially reduce the severity of the odor causing the complaint the Operator shall take all necessary steps to install the more effective odor control system as expeditiously as practicable. The Operator shall obtain any applicable permits related to project changes resulting from corrective actions before implementing any new odor abatement equipment that is not identified in the OAP. The Operator shall report the conclusions of its investigations (excluding any bona-fide proprietary or trade secret information) to the Department. Once these steps are completed, and the odor is not detectable at the reporting location, the odor complaint shall be deemed resolved.

If no cause for the reported odor complaint was ascertained during diagnostic PE or CIH assessment, and if odor is not detectable at the reporting location, the Operator shall prepare a written report (excluding any bona-fide proprietary or trade secret information) summarizing the Level 4 Response and submit it to the Department. If after the BACT Analysis, the Operator believes it is not the sole or a contributing source of the reported odor complaint, the Operator shall notify the Department of its conclusion, within three (3) calendar days of reaching such conclusion. The Department will consider this information in determining whether corrective actions are necessary to comply with the odor abatement requirements of Section 35-144U.C., but the Department is not bound by the Operator's conclusion.

e. For all Odor Episodes – Reporting and Corrective Actions:

The Operator shall make available to the Department and any reporting party, upon request, a report detailing all efforts taken to resolve odor complaints.

1.10 COMPLAINT CONTACT SYSTEM

Odor Management Specialist Contact Number: (805) 203-3072

In accordance with applicable local regulations, Everbloom will have a local contact person which will be available on a 24-hour basis to respond to calls regarding nuisance odor complaints. The phone number and contact information for this contact person will be provided to the County and surrounding land owners, within 1,000 feet of the parcel on which the cannabis activity is conducted, as a component of the required noticing. Everbloom will notify the County and applicable land owners should this local contact number ever change. Everbloom will notify the County of any complaints the operator receives within twenty-four (24) hours of receiving the complaint. The local contact will respond to all calls received regarding odor complaints within a timely fashion. This timely fashion means that an initial complaint call will be responded to

within an hour and a corrective action shall commence within two hours of the initial call, if corrective action is required, to address any violation of the County ordinance. Everbloom has prepared a complaint tracking system for the local contact to use when receiving complaint phone calls. The system includes but is not limited to recording the following information:

1. Contact information of the complainant
2. Date and time that the operator received the complaint
3. Date and time that the nuisance odor observation occurred
4. Approximate location from which the complainant detected the odor
5. Description of the odor observation (i.e. pungent, short-term, long-term, etc.)
6. Description of any activities observed by the complainant at or near the Project Site during the odor observation (trucks entering or exiting the area, uncovered cannabis wastes near the property line, etc.)
7. Description of any specific weather patterns observed by the complainant at or near the Project Site during the odor observation (approximate temperature, calm or strong winds, heavy cloud layer, etc.)
8. Actions the operator implemented in orders to address the complaint.

Everbloom will provide the complaint tracking system records to the County as part of any Planning and Development Departmental (Department) inspections of the cannabis activity, and/or upon the Department's request. Everbloom shall maintain the complaint tracking records for a minimum of five (5) years.

In the event that the department receives three (3) or more verified complaints regarding odor events in a 365-day period, Everbloom shall implement corrective actions to comply with the odor abatement requirements of County Ordinance Section-144U.C.7. Upon the Department's request, Everbloom will submit a written statement that sets forth the corrective actions and timing of implementation of each corrective action, subject to the Department's review and approval. The Department may require the corrective actions to be re-certified by a Professional Engineer or Certified Industrial Hygienist.


1.11 DEPARTMENT ACCESS

Everbloom will allow the department access to the facility at all times, without notice, for the purpose of inspecting odor mitigation practices, odor source(s), and complaint tracking system records.

Attachment 1
Everbloom- Vicinity Map

LEGEND

 Everbloom Facility

 City of Carpinteria

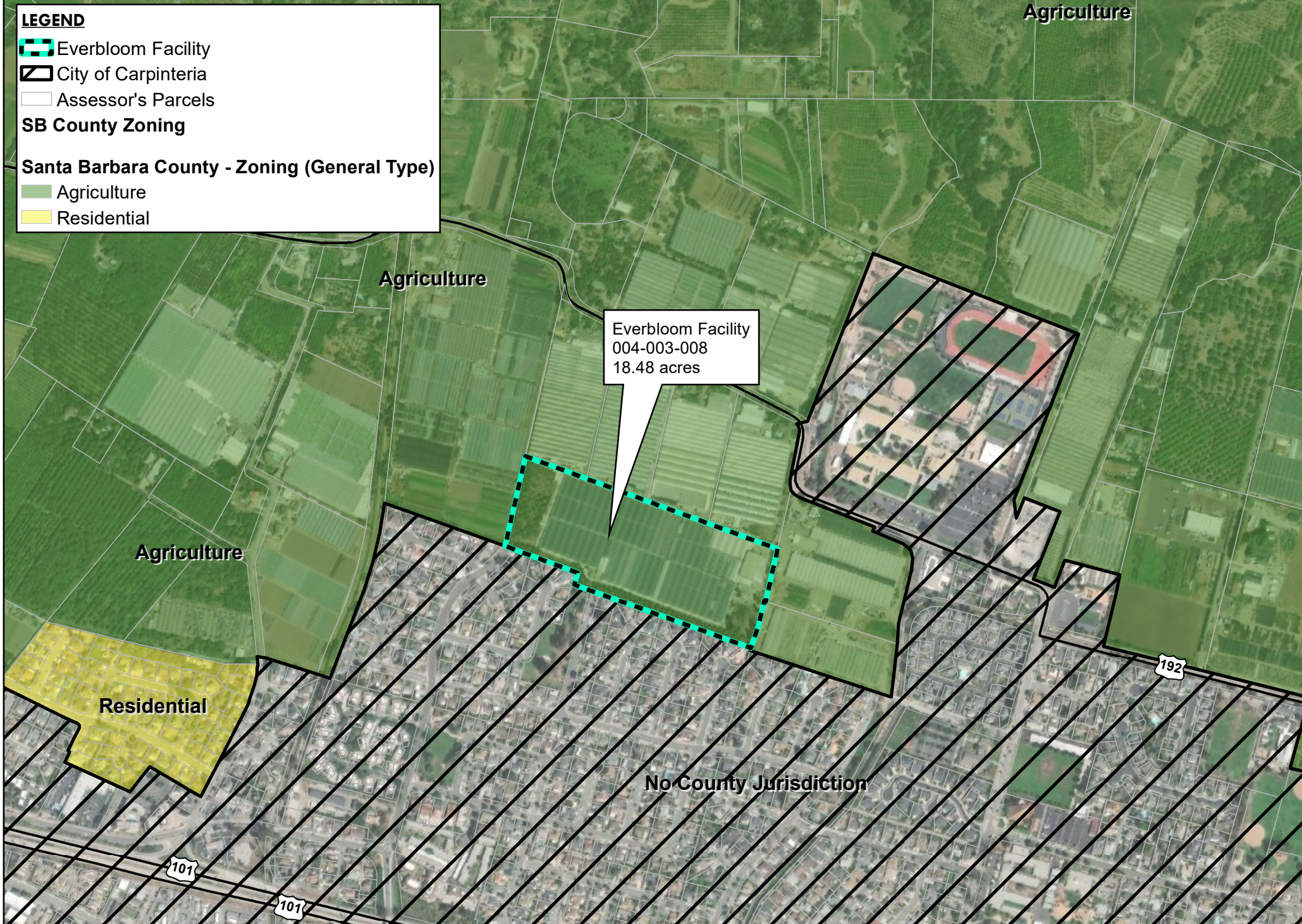
 Assessor's Parcels

SB County Zoning

Santa Barbara County - Zoning (General Type)

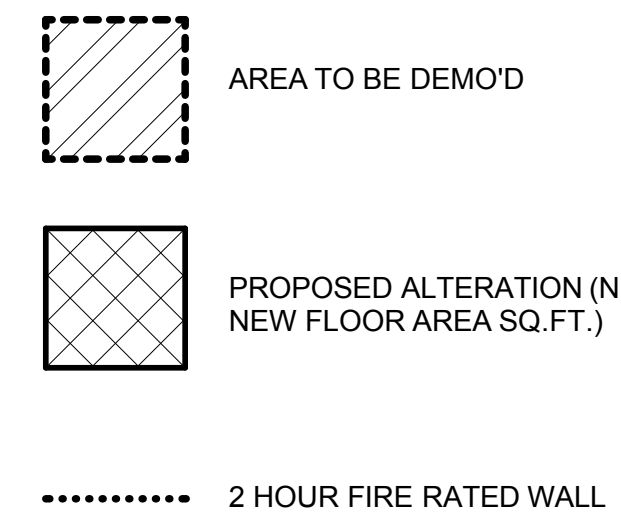
 Agriculture

 Residential



Everbloom Facility
004-003-008
18.48 acres

Attachment 2
Everbloom - Site Plan



Legend

EXISTING PERMITTED

PROPOSED ADDITIONS

AS-BUILT ADDITION TO REMAIN

general notes

1. DIMENSIONS HAVE BEEN ROUNDED TO THE NEAREST INCH

AB

DESIGN STUDIO
INCORPORATED

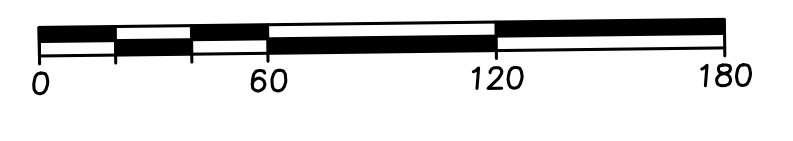
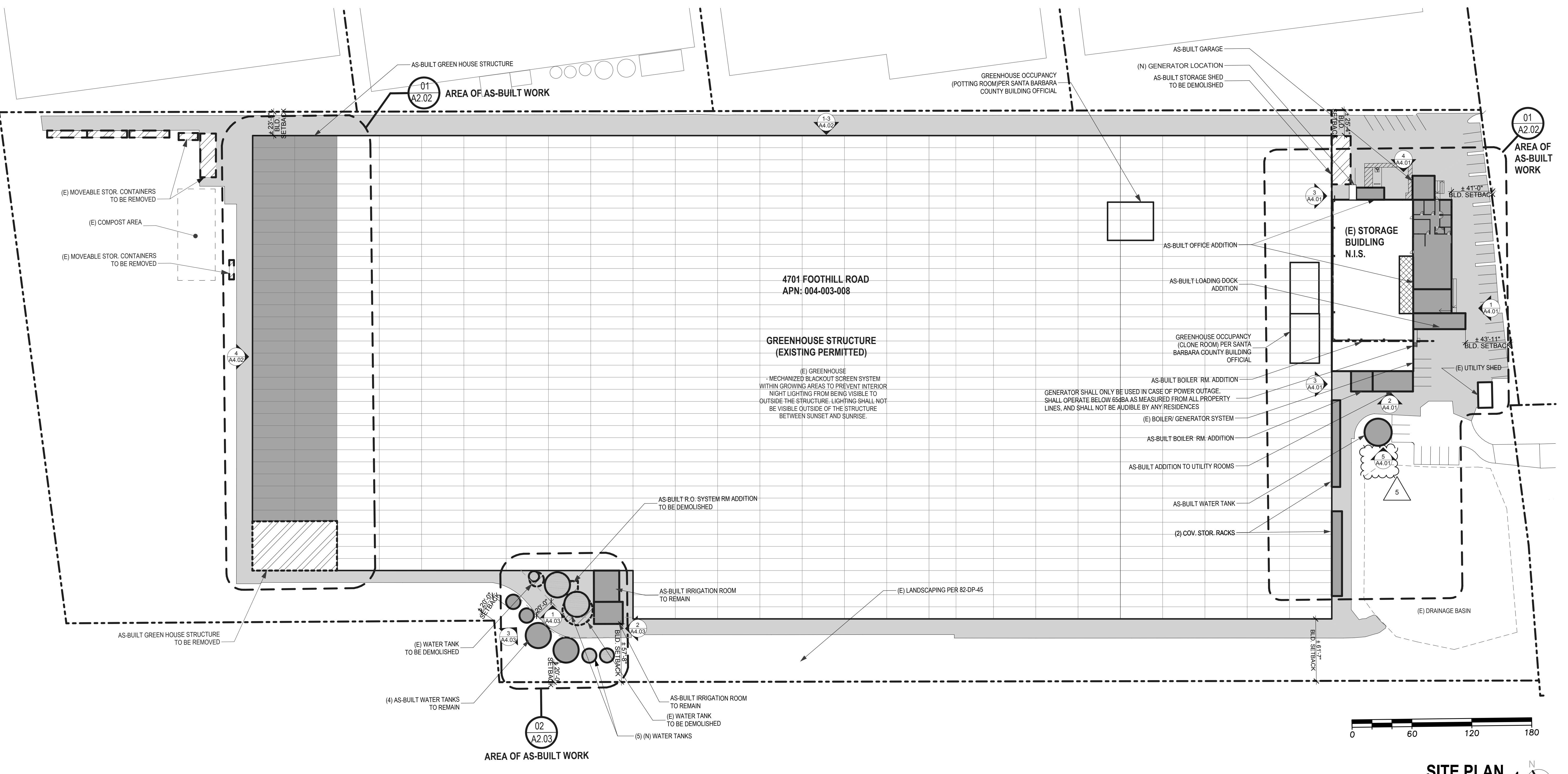
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SITE PLAN

SCALE: 1" = 50'

1

AB design studio, inc.	
7/13/2021	
plot stamp	
print / revision	
05.31.2019	BAR SUBMITTAL
04.03.2020	PLANNING SUBMITTAL
06.04.2020	REVISED PROGRESS PLANS
06.12.2020	REVISED PROGRESS PLANS
06.30.2020	REVISED PROGRESS PLANS
project info	
PROJECT 19027.00	
EVER-BLOOM, INC.	
PROJECT ADDRESS 4701 FOOTHILL ROAD CARPINTERIA, CA 93013	
OWNER CONTACT EVER-BLOOM, INC.	

A2.01

ENLARGED SITE PLAN

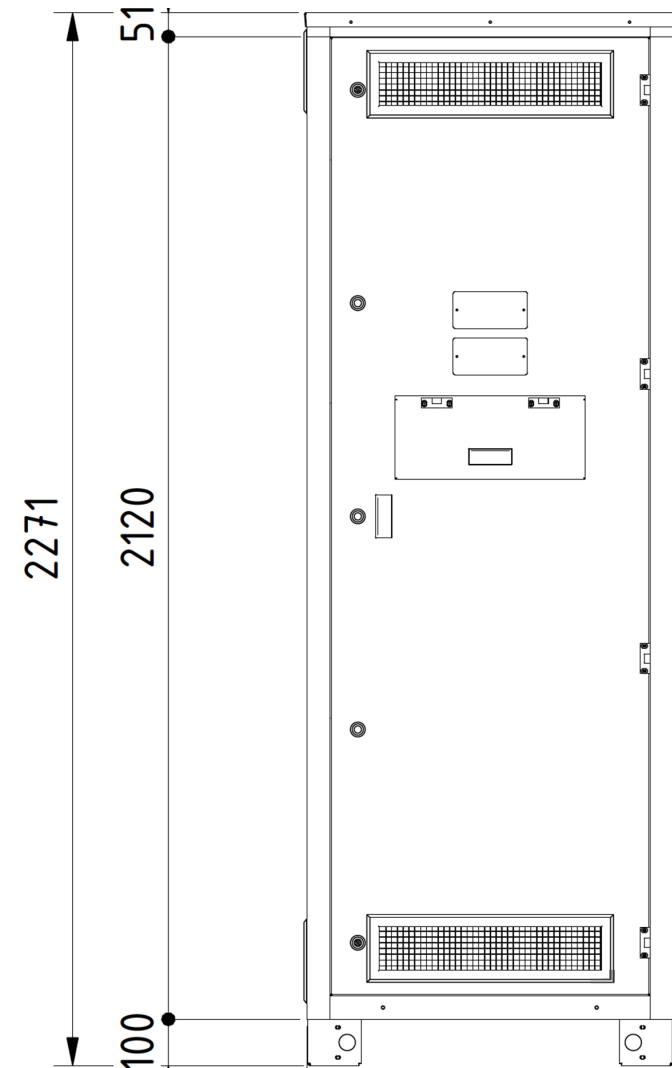
Attachment 3
Envinity Group Regenerative Carbon Scrubbers - Technical Specifications

Solution

Technical specifications

Product Name	CFS-3000
Start	Slow start
Capacity	3,000 m ³ /h
Size	2,271 x 800 x 800 mm
Weight	350 KG
Materials	Powder coated steel
Power input	480 VAC - 3 Phase delta


1 kWatt (1 amp 480)



Attachment 4
Everbloom Odor Control Plan

plan legend

- PROPERTY LINE
- 6" PVC PERFORATED ODOR VENT PIPE CONNECTED TO ODOR ABATEMENT CONTROL SYSTEM
- REGENERATIVE CARBON SCRUBBERS



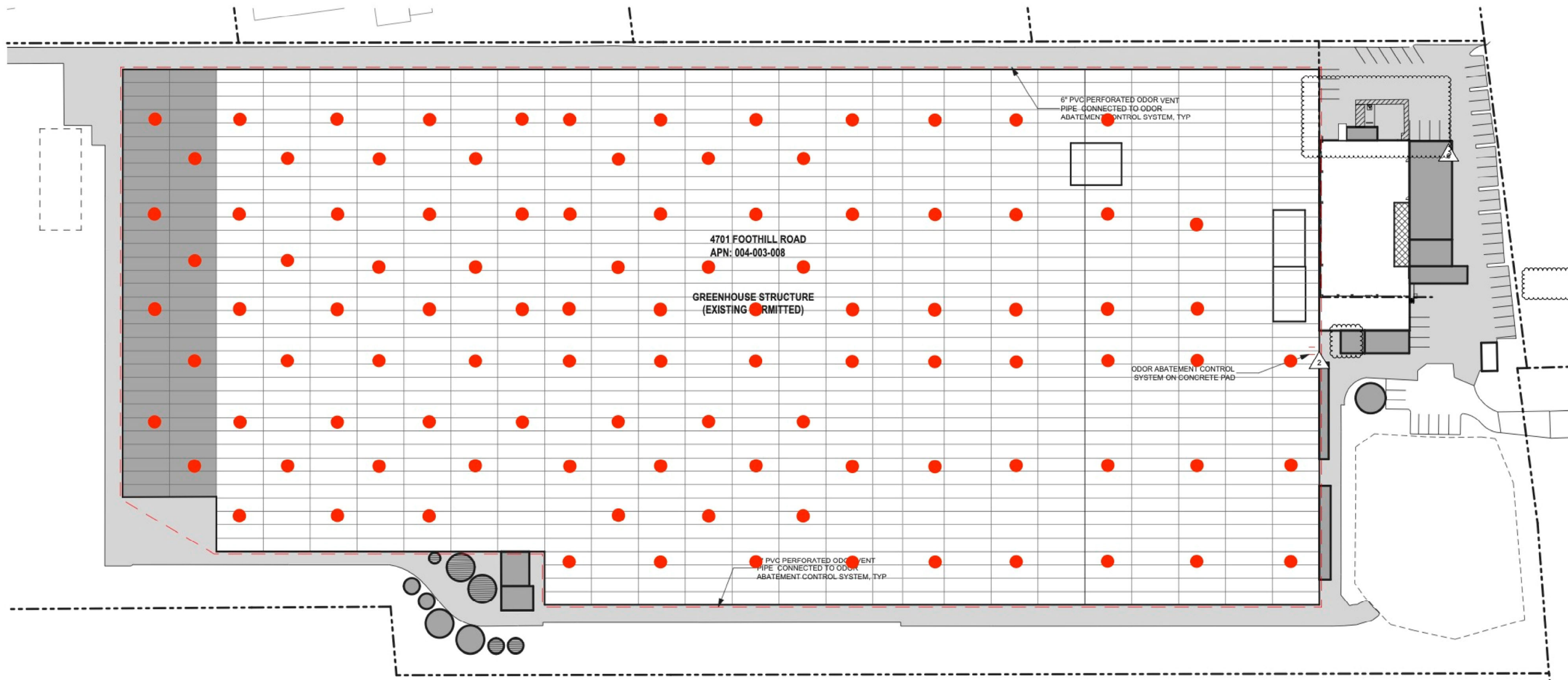
Technical specifications

Product Name	CFS3000
Start	Slow start
Capacity	3,000 m ³ /h
Size	2,271 x 800 x 800 mm
Weight	275 KG
Materials	Powder Coated Steel
Power input	480 VAC - 3 Phase delta

REGENERATIVE CARBON SCRUBBER SPEC CFS 3,000



ODOR CONTROL UNIT 2



ODOR CONTROL PLAN
SCALE: 1" = 50'





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F X | 8 0 5 . 9 6 3 . 2 3 0 0
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04.03.2020
PLANNING SUBMITTAL
04.04.2020
REVISED PROGRESS PLANS
04.12.2020
REVISED PROGRESS PLANS
04.30.2020
REVISED PROGRESS PLANS
09.30.2020
REVISED PROGRESS PLANS
PROJECT INFO
PROJECT 1903104
EVER-BLOOM, INC.
PROJECT ADDRESS
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OWNER CONTACT
EVER-BLOOM, INC.



A0.04
ODOR CONTROL PLAN

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