The Commonwealth of Massachusetts
Town of Cheshire
Massachusetts

OFFICE OF
THE PLANNING BOARD

P. O. Box 647
Cheshire, MA 01225
Tel. (413) 743-1690 Ext. 18

Notice of Decision

Date:	June 4, 2020
Petitioner(s)	Francis Maguire Stafford Sanctuary Nom Trust
Premises:	80 Stafford Hill Road, Cheshire, MA
Northern Berkshire Registry of Deeds:	Map: 235 Lot: 014.3 Book: 1657 Page: 255

On January 7, 2020, pursuant to Mass. Gen. Laws, ch. 40A, sec. 9 and the Zoning Bylaws for the Town of Cheshire, Stafford Green, Inc. applied for a special permit for outdoor marijuana cultivation at a site located at 80 Stafford Hill Road, Cheshire, MA 01225.

After due notice was given, public hearings on the application were held on January 27, 2020, February 24, 2020, March 23, 2020 and May 28, 2020.

After reviewing the evidence presented, hearing from proponents of the application and opponents of the application and upon due deliberation, this Board hereby grants Stafford Green, Inc., a Special Permit for an outdoor marijuana cultivation site located at 80 Stafford Hill, Cheshire, MA 01225 **SUBJECT TO AND CONDITIONED UPON** the following conditions:

1. Marijuana cultivation shall be limited to a 40,000 square feet canopy area, Tier 5 pursuant to the regulations of the Massachusetts Cannabis Control Commission with plant cultivation contained within 500 planters, measuring 20'x4' each with a height of between 18"-24". No inground marijuana or hemp cultivation shall be done on site.

2. The cultivation area shall be surrounded by an 8' high chain link security fence, pursuant to the January 2020 site plan, with fabric mesh for camouflage. See attached Site Plan of January 2020.

3. Screening shall be planted and maintained on the Sand Mill Road side of the project consisting of a minimum of 6' high Eastern Red Cedar trees planted 5' on center with a 5' offset in a staggered fashion. Trees shall be monitored by Stafford Green Decision.

4. Stafford Green and replaced as necessary to provide continuous screening. See attached Site Plan.

5. Irrigation shall be provided by two water tanks located onsite which will not utilize a ground water well, now or in the future. See attached Site Plan.

6. Stafford Green, Inc. shall comply with all recommendations made by the Cheshire Fire Chief for driveway and emergency vehicle access. See attached.

7. Stafford Green, Inc. shall obtain Health Department approval for use of onsite portable sanitary restrooms or "Porta-Potties".

8. Concrete slabs, greenhouses, security and storage containers, and office trailers shall be constructed or installed in accordance with the Massachusetts Building Code and with the approval of the Cheshire Building Commissioner.

9. Stafford Green, Inc. shall provide a Security plan as presented to and accepted by Cheshire Police Chief Timothy Garner.

10. An Odor Monitoring Plan dated February 18, 2020 shall be utilized and maintained through initial and subsequent cultivation periods. See attached Odor Monitoring Plan.

11. Stafford Green, Inc. shall comply with the Odor Management and Response Plan dated March 13, 2020 that was presented to this Board. See attached Odor Management and Response Plan dated March 13, 2020.

12. Stafford Green, Inc. shall utilize a minimum of one Odor Mitigation Misting Device, Odorboss 60G, as presented to the Board. See attached Odor Management and Response Plan dated March 13, 2020 and Odorboss 60G.

13 A site visit is tentatively planned for spring/summer 2021 to ascertain that all conditions have been met and fall 2021 for odor monitoring with two weeks prior written notice to Stafford Green, Inc. Stafford Green, Inc. shall comply with all Board recommendations following such site visit.

A vote was taken by the Board with Peter Traub, Fran Griswold, Nick Graham and Donna DeFino voting in the affirmative and Ron DeAngelis voting against.

Notice of Decision – Stafford Green, Inc., 80 Stafford Hill, Cheshire, MA 01225

Dated:

Donna DeFino, Chairperson

Francis Griswold
Peter H. Traub
Ronald W. DeAngelis
Nick Graham

I hereby certify that 20 days have elapsed from the date this certification was issued from the Town Clerk and that no appeal has been filed with this office.

Signed and certified this _____ day of _____ 2020

Cheshire Town Clerk

----- Forwarded Message -----
From: Tom Francesconi <cheshirechief@gmail.com>
To: Carole Hilderbrand <carolehilderbrand@yahoo.com>
Sent: Wednesday, April 15, 2020, 12:48:09 PM EDT
Subject: Re: Proposed Outdoor Grow Facility Plans

Just for clarification also Carole, the owner has to be in compliance with C527 regardless of what the planning board does or doesn't "allow" within their jurisdiction and/or the permits. The requirements to be in compliance with c527 are not for debate and only fall under the fire service jurisdiction.

Tom

On Wed, Apr 15, 2020 at 12:03 Carole Hilderbrand <carolehilderbrand@yahoo.com> wrote:
Thank you!
On Wednesday, April 15, 2020, 11:43:40 AM EDT, Tom Francesconi <cheshirechief@gmail.com> wrote:

Hi Carole,

I have been in contact with the State Dept of Fire Services Fire Engineer Kristen McDonough. I forwarded to her the site plans for the proposed Stafford Green outdoor grow facility proposal. I received the following email from her on the rules and regulations Mr. Maguire will have to be in compliance with in order to move forward with his project. You had asked me to obtain this information for the planning board.

I do ask if you have any questions you contact me first and I will speak to the State Engineer as they work through the local fire chiefs. However, her explanation of what needs to be done is pretty clear on the surface.

Again, if you have any questions or concerns feel free to contact me.

Tom Francesconi
Fire Chief

---------- Forwarded message ---------
From: **McDonough, Kristen (DFS)** <kristen.nich@state.ma.us>
Date: Wed, Apr 15, 2020 at 10:36
Subject: RE: Proposed Outdoor Grow Facility Plans
To: Tom Francesconi <cheshirechief@gmail.com>

Chief Francesconi,

Upon your request, I have briefly reviewed this site plan submittal for the proposed new outdoor cannabis growing facility located at 80 Stafford Hill Road in Cheshire, MA.

After my review of this submittal, I have the following comments:

1. **The plans appear to show there will be multiple buildings on the site.**The site will therefore need to comply with the fire department access requirements of 527 CMR 1.00: Chapter 18.

2. **The access road to the building on the site appears to measure approximately 12 feet wide.**Fire department access roads are required to have a minimum width of 20 feet. [527 CMR 1.00: 18.2.3.4.1.1]

3. **The turning radius from Stafford Hill Road onto the site does not appear to be wide enough.**A minimum turning radius of 25 feet is required. [527 CMR 1.00: 18.2.3.4.3.1]

4. **The proposed road on the site does not appear to be paved.**The fire department access road shall be designed and maintained to support the imposed loads of the fire apparatus and shall have an all-weather driving surface. [527 CMR 1.00: 18.2.3.4.2]

5. **There does not appear to be a turn-around for fire apparatus on the access road.**A turn-around must be provided for dead-end fire department access roads in excess of 150 feet in length. [527 CMR 1.00: 18.2.3.4.4]

6. **Please provide fire apparatus access road plans, including a swept path analysis, for further review by the fire department.** [527 CMR 1.00: 18.1.1.4]

Regardless of review comments or omissions, the facility must be designed and constructed in full compliance with The Massachusetts State Fire Code (527 CMR 1.00), 780 CMR – 9th Edition, NFPA Standards, any other applicable code or standard and good engineering practice.

If you have any questions, feel free to contact me.

Sincerely,

Kristen E. McDonough (Nich)

Massachusetts Division of Fire Safety

Phone: 978-567-3376

kristen.nich@mass

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Chief Tom Francesconi

Cheshire Fire Department
29 South Street
P.O. Box 598
Cheshire, MA 01225
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(860) 243-9380 Fax: (860) 243-9431
www.odorscience.com

February 18, 2020

ODOR MONITORING PLAN
OUTDOOR CANNABIS CULTIVATION – CHESHIRE, MA

A description of the specific tasks and a proposed schedule is provided below:

Task 1	Conduct Baseline Odor Survey – Phase 1: Initial Growing Season 2020
Task 2	Determine Odor Emission Profiles: Hemp vs. Cannabis
Task 3	Conduct Odor Monitoring During Phase 2 Grow Conditions

Task 1. Baseline Odor Survey – Data collected June through November 2020

The initial effort will be to have OS&E conduct a series of systematic odor surveys in the areas surrounding a grow plot of approximately 5 acres located at 80 Stafford Hill Road in Cheshire, MA. The objective of this survey is to provide a baseline assessment of odors in the area documenting the locations, character, intensities and sources of odors within an approximate ½ mile radius of the grow plot during its initial growing season in the summer of 2020. Baseline odor surveys will provide the background information useful for future development of the cultivation site.

The proposed schedule calls for the initial planting to take place in mid-June of 2020. The grow cycle of the plants will typically result in peak flowering (and odor emission potential) during August and September. Harvesting of the crop will begin in early October. Drying of the crop, which will be conducted indoors, will be conducted during October through early November 2020.

To document the potential for off-site odor impacts from the Phase 1 initial growing operations, OS&E will conduct a series of ambient odor surveys throughout the grow cycle. The baseline surveys will be carried out by an OS&E Odor Scientist with extensive experience in quantification and characterization of ambient odors. During the surveys, the concentration, intensity, character, and the likely source of any odor detected during these surveys will be documented along with the meteorological conditions.

Odor concentration, in terms of dilution-to-threshold (D/T) ratio, will be measured using a portable olfactometer as described in Attachment A. Odor intensity will be measured by comparison with the 8-point butanol intensity reference scale in accordance with ASTM Method E-544-10.

The surveys will be conducted by slowly driving or walking through accessible areas surrounding the cultivation site. The locations of all of the observed odors will be recorded on a detailed map. As well

as being conducted on different days during the cannabis grow cycle, the surveys will be conducted at various times of day and evening to document the full range of diurnal meteorological patterns. The surveys will canvass an area generally within a ½ mile radius of the grow plot's perimeter.

Specific routes traveled during the surveys will depend on meteorological conditions, primarily wind direction. When odors are detected, the odor plume will be followed upwind to determine the source of the odor. The odor plume will also be followed in the downwind direction until the odors can no longer be detected, to document the aerial extent of the odor or its "footprint". In addition to the alignment of the odor plume, odor character will be used to correlate odors with their sources if odors other than those related to the grow plot are detected.

The number of surveys needed to adequately account for the variability of odor emissions throughout the initial growing cycle as well as the diurnal variability in meteorological conditions and in community activity patterns, varies depending on the number of potential odor sources in an area, the complexity of their odor emissions, topography of the area and the meteorological conditions. It is anticipated that surveying over a period of 12 different days (June through November, as outlined below) will be sufficient to adequately characterize the odors in the subject area that would be typical of the Phase 1 grow conditions.

Month	Number Survey Days
June	1
July	2
August	3
September	3
October	2
November	1

The results of the Task 1 baseline odor survey will be provided in a report which will describe the methodology used in the surveys and the results. The results will be presented in a tabular and graphical format.

Budget

The cost for Task 1 will be dependent upon the actual number of survey days. Based on 12 different days throughout the grow cycle as listed above, and reporting, the cost is estimated not-to-exceed $23,000.

Task 2. Determine Odor Emission Profiles: Hemp vs. Cannabis – Summer 2020

In addition to the odor baseline data, determining the odor emission profile of hemp plants, compared to cannabis plants will be needed to project the potential odor impact from different proposed grow scenarios. The Cheshire project team will provide OS&E with access to a select number of hemp and cannabis plants at the same flowering growth cycle. The plants will be individually isolated and covered with a sampling hood. Odor samples will be collected from within the sampling hoods under specified test conditions.

Samples will be collected into Tedlar gas sampling bags using the evacuated drum sampling technique. The odor samples will be returned to OS&E's Olfactory Laboratory for quantification and characterization.

Odor Analysis

The samples will be analyzed by dynamic dilution olfactometry using a trained and screened odor panel. The odor panelists are chosen from OS&E's pool of panelists from the Greater Hartford area who actively participate in ongoing olfactory research and represent an average to above average sensitivity when compared to a large population. The samples will be quantified in terms of dilution-to-threshold (D/T) ratio and odor intensity in accordance with ASTM Methods E-679-04 and E-544-18, respectively. The odor panelists will also be asked to describe the odor character of the samples at varying dilution levels. The odor panel methodology is described in Attachment B.

Budget

The cost for Task 2 will be dependent upon:
Location - where the sampling is done (grow site or OS&E lab),
Scale – number of plants, size of enclosure and the
Number of odor samples collected and analyzed by the odor panel
($260/sample including the cost of the Tedlar bag).

Task 3. Conduct Odor Monitoring During Phase 2 Grow Conditions: Cannabis

In order to establish a longer-term odor baseline for the Cheshire outdoor grow operation and to assess the off-site odor impact potential from other proposed grow scenarios, OS&E will conduct routine odor monitoring. The odor monitoring will be conducted in accordance with a protocol which specifies the monitoring schedule and procedures developed by OS&E based on information obtained during the baseline surveys.

As the odor monitoring progresses, the key information to be derived will include:

- range of odor intensity associated with the grow conditions compared to those detected during the baseline grow conditions
- correlation of the odor trends with both the growing season and seasonal meteorological conditions
- Determining the need for and feasibility of odor mitigation measures for proposed changes to site grow conditions

Budget

The specific scope of work and cost estimate for Task 3 will be provided upon the completion of Task 1.

Sincerely,
ODOR SCIENCE & ENGINEERING, INC.

Martha O'Brien
Principal

ATTACHMENT A

Measurement of Ambient Odor Levels

Odor Concentration

Odor concentration is defined as the number of dilutions with odor-free air, which is needed to make an odor undetectable to a given fraction, typically 50%, of a panel of odor observers, representative of normal human population. Accordingly, odor concentration is expressed in self explanatory dimensionless units of "dilutions to threshold", also designated D/T.

If the odor is estimated to be sufficiently strong, typically above 30 D/T, odor concentration is often measured by dynamic dilution olfactometry. In that case a sample of the odor is collected in a suitable container, typically a bag made of impervious and chemically inert plastic material, such as Tedlar. The samples are shipped overnight to an odor laboratory where they are measured with a panel of screened and trained odor observers. This procedure is used primarily for analysis of odors collected directly from industrial sources. This procedure is not well suited for the low level ambient level odors, in large part due to potential deterioration of such samples associated with sample storage and transport. For this reason the analysis of ambient odors is typically performed in the field using portable olfactometers such as a Scentometer or Nasal Ranger as described below.

Portable olfactometers operate on a principle of dynamic dilution. As the observer inhales through the nostrils, ambient air is drawn into the instrument. The air then passes through two activated carbon beds, which remove the odor. The odor-free air enters the central chamber of the instrument where it is mixed with odorous air in known dilution ratios. The odorous air enters the instrument though a set of holes of increasing diameter, located on the instrument's back plate. After having adjusted to breathing the odor-free air, the observer opens the smallest hole. This admits the smallest amount of odorous air into the instrument for mixing with the odor-free air. If the observer does not detect an odor at that dilution level, he closes the hole, opens the next larger hole and again attempts to detect an odor. This procedure is continued until an odor is detected. The highest dilution level at which the odor was first detected, is reported as odor concentration.

Odor concentration does not provide as direct an indication of how objectionable an odor may be as does odor intensity. The reason is that different odors with the same odor concentration could have significantly different intensities. Nevertheless, odor concentration does provide helpful information as part of odor assessment. Some states and other jurisdictions have developed regulations limiting ambient odors based on odor concentration as measured by a portable olfactometer. In most cases the limit has been set at 7 to 1 dilutions to threshold.

Odor Intensity – Butanol Intensity Reference Scale

Odor intensity is the perceived strength of the odor sensation. More than any other property of odor, perceived odor intensity is what triggers odor complaints. It is measured by comparing the intensity of the odor perceived to that noted when sniffing standardized concentrations of a reference odorant. In this country, n-butanol is used as the reference odorant as described in ASTM Method E544-10, "Recommended Standard Practices for Referencing Suprathreshold Odor Intensity". The now widely used n-butanol odor intensity scale is based on n-butanol vapor as the odorant at eight concentrations. The concentration increases by a factor of 2 at each intensity step starting with approximately 15 ppm at step 1 and ending with approximately 2000 ppm at step 8. OS&E has developed a field kit which uses aqueous solutions of n-butanol to

produce the standard vapor concentrations in the head space of the eight individual containers. In comparing intensities of various odors the differences in odor character are ignored as in comparing the intensities of lights of different colors.

The following description is provided as an aid in interpreting the odor intensity levels.

odor intensity (E544-18)	description of perceived odor
0.5 – 1	odor is detectable and recognizable but would generally be noticed only if looked for, such as during an odor survey
2	odor is clearly recognizable but may not to be considered objectionable except in sensitized communities
3 and higher	odor is sufficiently intense to cause a distraction of a person fully occupied by some activity, such as conversation. Odor would typically be considered objectionable and would be expected to cause odor complaints

ATTACHMENT B
Odor Science & Engineering, Inc.
Odor Panel Methodology

Measurement of Odor Levels by Dynamic Dilution Olfactometry
Odor concentration is defined as the dilution of an odor sample with odor-free air, at which only a specified percent of an odor panel, typically 50%, will detect the odor. This point represents odor threshold and is expressed in terms of "dilutions-to-threshold" (D/T).

Odor concentration was determined by means of OS&E's forced choice dynamic dilution olfactometer. The members of the panel who have been screened for their olfactory sensitivity and their ability to match odor intensities, have participated in on-going olfactory research at OS&E for a number of years.

In olfactometry, known dilutions of the odor sample were prepared by mixing a stream of odor-free air with a stream of the odor sample. The odor-free air is generated in-situ by passing the air from a compressor pump through a bed of activated charcoal and a potassium permanganate medium for purification. A portion of the odor free air is diverted into two sniff ports for direct presentation to a panelist who compares them with the diluted odor sample.

Another portion of the odor-free air is mixed in a known ratio with the odor from the sample bag and is then introduced into the third sniff port. A panelist is thus presented with three identical sniff ports, two of which provide a stream of odor-free air and the third one a known dilution of the odor sample. Unaware of which is which, the panelist is asked to identify the sniff port which is different from the other two, i.e., which contains the odor. The flow rate at all three nose cups is maintained at 3 liters per minute.

The analysis starts at high odor dilutions. Odor concentration in each subsequent evaluation is increased by a factor of 2. Initially a panelist is unlikely to correctly identify the sniff port which contains an odor. As the concentration increases, the likelihood of error is reduced and at one point the response at every subsequently higher concentration becomes consistently correct. The lowest odor concentration at which this consistency is first noticed, represents the detection odor threshold for that panelist.

As the odor concentration is increased further in the subsequent steps, the panelist becomes aware of the odor character, i.e. becomes able to differentiate the analyzed odor from other odors. The lowest odor concentration at which odor differentiation first becomes possible, represent the recognition odor threshold for the panelist. Essentially all of OS&E's work is done with recognition odor threshold. By definition the threshold odor is equal to 1 D/T (i.e. the volume of odorous air after dilution divided by the volume before dilution equals one).

The panelists typically arrive at threshold values at different concentrations. To interpret the data statistically, the geometric mean of the individual panelist's thresholds is calculated.

The olfactometer and the odor presentation procedure meet the recommendations of ASTM Standard Practice for Determination of Odor and Taste Thresholds by a Forced-Choice Ascending Concentration Series of Limits (ASTM E679-04). The analysis will be carried out in the OS&E Olfactory Laboratory in Bloomfield, Connecticut.

Odor Intensity

Odor intensity is determined using reference sample method with n-butanol as the reference compound (ASTM Method E-544-18). The n-butanol odor intensity scale is based on n-butanol vapor as odorant at eight concentrations. The concentration increases by a factor of two at each intensity step, starting with approximately 15 ppm at step 1.

Odors of widely different types can be compared on that scale just like the intensities of the lights of different colors can be compared to the intensity of standard, e.g. white light. Odor character and hedonic tone are ignored in that comparison. Odor intensities are routinely measured as part of the dynamic dilution olfactometry measurements. The n-butanol vapor samples are presented to the panelists in closed jars containing the standard solutions of n-butanol in distilled water. The vapor pressure above the butanol solutions corresponds to the steps on the n-butanol scale. To observe the odor intensity, a panelist opens the jar and sniffs the air above the liquid. The panelist then closes the jar so that the equilibrium vapor pressure of butanol can be re-established before the next panelist uses the jar. The odor in the jar is compared with unknown odor present at the olfactometer sniff port.

The relationship between odor concentration and intensity can be expressed as a psychophysical power function also known as Steven's law (Dose-Response Function). The function is of the form:

$$I = aC^b$$

where:

I = odor intensity on the butanol scale
C = the odor level in dilution-to-threshold ratio (D/T)
a,b = constants specific for each odor

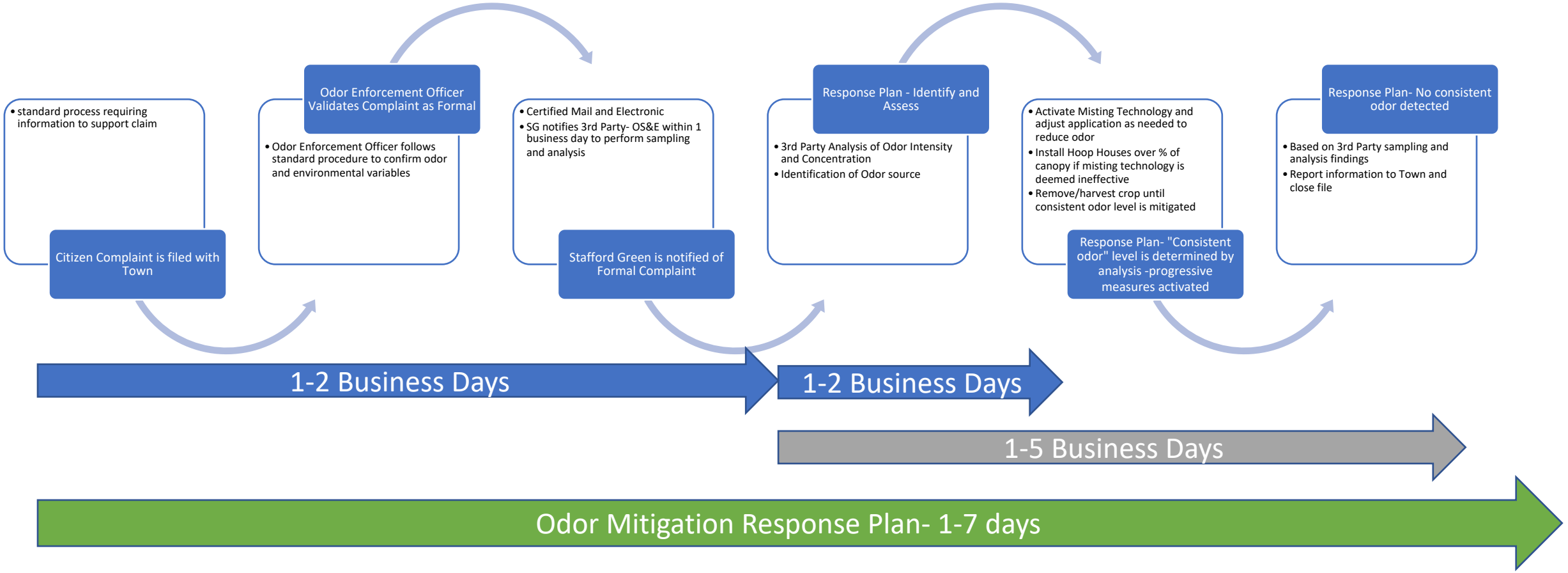
The major significance of the dose-response function in odor control work is that it determines the rate at which odor intensity decreases as the odor concentration is reduced (either by atmospheric dispersion or by an odor control device).

Odor emissions are used as input to an odor dispersion model, which predicts odor impacts downwind under a variety of meteorological conditions. Whether or not an odor is judged objectionable depends primarily in its intensity. The dose-response constants are used to convert predicted ambient odor concentration to intensity levels. OS&E experience has shown that odors are almost universally considered objectionable when their intensity is 3 or higher on the 8-point n-butanol scale. In general, the lower the intensity, the lower the probability of complaints.

Odor Character Description

Odor character refers to our ability to recognize the similarity of odors. It allows us to distinguish odors of different substances on the basis of experience. We use three types of descriptors, general such as “sweet”, “pungent”, “acrid”, etc. or specific references to its source such as “orange”, “skunk”, “paint”, “sewage”, etc., or to a specific chemical, e.g. “methyl mercaptan”, “butyric acid”, or “cyclohexane”. In the course of the dynamic dilution olfactometry measurements, the odor panelists are asked to describe the character of the odors they detect.

Response Plan Process



Odor Mitigation Misting Device

ODORBOSS® 60G

odor BOSS

OB-60G

The OB-60G is designed to disperse water soluble air treatment agents using water as the delivery vehicle.

- Devices oscillate up to 180 degrees
- Odor mitigation range of 200’
- Complete mist dissipation after 50’
- Fitted with a 500-gallon (1893 L) water tank
- 16 hours of runtime without refilling.
- OdorBoss air treatment chemical is non-toxic, natural essential oil product that breaks the bonds and neutralizes the odorous lipid molecules.
- Adjustable throw angle: 0° to 50°
- Single air atomizing nozzle.

OVERALL MEASUREMENTS:

Width: 8.5 feet (102 inches, 2.62 meters).
Length: 20.5 feet (246 inches, 6.25 meters).
Height: 9.17 feet (110 inches, 2.80 meters).
Weight: 4,800 lbs. (2,177.24 kilograms).

Odor Management and Response Plan (OMRP)

Prepared for Cheshire Planning Board by Stafford Green, Inc.

March 13, 2020

Odor Management and Response Plan: Definitions

Odor Intensity (BIRS) Butanol Intensity Reference Scale. Odor intensity is the perceived strength of the odor sensation. More than any other property of odor, perceived odor intensity is what triggers odor complaints. It is measured by comparing the intensity of the odor perceived to that noted when sniffing standardized concentrations of a reference odorant.

Odor Nuisance: one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property.

Odor Nuisance Formal Complaint: Stafford Green requests that at minimum, but not limited to, that the following information be gathered by the zoning enforcement officer at the time that a complaint is received or prior to conducting an onsite investigation.

1. Name(s) and address(es) of complainant(s).
2. Driving directions to the site of the complaint and source as necessary.
3. Where on their property was the complainant when they experienced the odor?
4. Description of odor.
5. Dates, times, frequency, and duration when the complainant(s) experienced the odor.
6. Is the odor on-going, past or intermittent at the complainant's residence or business at this time?
7. Nature of any allegation of effects on the complainant's health, property, animals, or vegetation.
8. Nature of any allegation of interference with the normal use and enjoyment of the complainant's property, animals, or vegetation.
9. Alleged source of the odor.
10. Meteorological conditions (temp, wind direction, wind speed, etc.)
11. Does the complainant want an investigator to come to their residence or business? If we go to their residence or business, they may lose their confidentiality because state vehicles are marked. Explain to the complainant that their confidentiality may be lost during an investigation to confirm nuisance. We cannot substantiate a nuisance if we don't go to the complainant's residence or business, but we can look for issues at the alleged source.
12. For an OS&E odor measurement on private property, complainant will be asked to sign a waiver

Odor Nuisance Investigation: An investigation is used to determine whether a nuisance odor violation should be issued based on whether the frequency, intensity, duration, and offensiveness of detected and documented odors combined cause interference with the normal use and enjoyment of animal life, vegetation, or property. If the preponderance of the evidence does not confirm the presence of odors in such concentration and duration as to be injurious to or affect human health, welfare, animal life, vegetation, or property, the investigator will still evaluate all the evidence collected during the course of the investigation.

Purpose of Policy:

1. To offset odors before they rise to intensity or concentration levels that may be deemed a formal "public nuisance."

2. To establish a plan for response and action on heightened odor levels, whether detected by Stafford Green or complained about by nearby residents.

Odor Management: combines use of early detection technology, odor reduction and order dispersal methods

1. **Early Detection Technology** scientifically determines intensity, concentration and unique odor profile.

    a. Through a contract with Stafford Green, Odor Science & Engineering, Inc., of Bloomfield Connecticut, will collect odor data starting June 1st throughout the season, analyzing odor intensity levels, odor concentration levels and unique odor profiles, and provide appropriate detection technology for mitigation steps.

    b. Stafford Green staff will be trained to monitor and interpret data to identify intensity of odor. If and when odor intensity is consistently detected, mitigation steps described below will be taken.

2. **Reduction and Odor Dispersal Methods** include the following:
    a. Windbreak/Buffers[1]- reduction in odor, dust particles and noise through design and maintenance of a windbreak/buffer program. Initial design detail provided on submitted site plans.

    b. High Fragranced Flowers and Ground Cover – Stafford Green will be incorporating an array of beneficial flowers that serve as natural deterrents/pesticide and omit high levels of fragrance. E.g. Jasmine, Lavender, Honeysuckle, Roses, Geraniums, Mint, Thyme, Chamomile, Basil and Rosemary

[1] USDA-Natural Resources Conservation Service(NRCS)- Plant Materials Program – submitted to planning board

3. **Response Plan** Upon confirmed detection of consistent level of odor intensity, Stafford Green will immediately activate misters. Additionally, upon receipt of a formal complaint and accompanying analysis, Stafford Green will immediately undertake mitigation measures as follows:

    a. Activate misting technology based on environmental variables, the number of misters and level of misting to be determined by OS&E and manufacturer's specifications.

    b. Collect and preserve all data necessary to establish odors levels, before and after initial mitigation measures.

    c. Stafford Green will retest to confirm that odor is appropriately mitigated. If not, Stafford Green will increase distribution until adequately mitigated.

    d. Upon mister activation, 5 rows of hoop house materials are ordered and prepped on site

4. **Contingency Plan**. If misting technology fails (via formal complaint) to sufficiently mitigate odor,

    a. Stafford Green will immediately implement a containment and neutralization plan consisting of the progressive erection of temporary hoop houses and use of carbon filtering technology to neutralize odors[2].

    b. Hoop houses ordered and installed continually based on daily measurements to contain order, until 100% of crop is covered, if necessary

    c. Stafford Green will retest odor emanation until confirmed effective.

5. **Hoop House installation at 100%**

    a. If a formal complaint is registered at 100% hoop house coverage, Stafford Green will immediately begin removing crop as needed to reduce odors to an acceptable level, until the entire crop is removed if necessary.

[2] Hoop House Mitigation Structure detailed overview shared with planning board

6. **Engagement of Cannabis Control Commission (CCC)**. If after exhausting all methods above, odors are not sufficiently mitigated, Stafford Green recognizes that the Town of Cheshire may report Stafford Green's failure to comply with the conditions of its special permit to the CCC and that the CCC may take investigative action as required and may require Stafford Green to cease operations until Stafford Green is in compliant with local bylaws.

Odor Management and Response Steps Overview:

Initial Response: If an odor is detected, and health effects are alleged by a complainant the complaint will be prioritized for immediate response and an investigation will be conducted as soon as possible, but no greater than 2 business days.

Preemptive Steps:

1. OS&E[3] implements Odor data collection program starting June 1st, before cannabis planting. Each data collection results in an instantaneous Butanol Intensity Reference Scale (BIRS) rating determination on site.
    a. In addition, there will be scheduled and standard odor data logging throughout the grow season by trained Stafford Green managers and independently by OS&E
2. If odor detected at "consistent odor level" on BIRS scale for any odor documented by engineers, it will be recorded in the log.

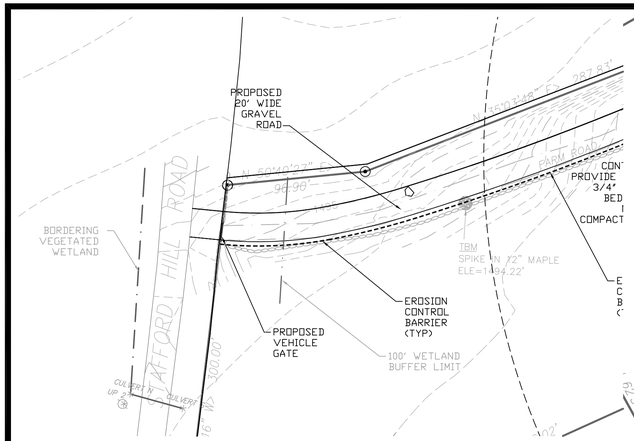
Formal Complaint Response Steps:

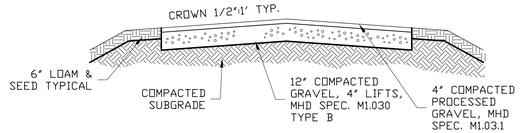
1. If formal odor complaint received, OS&E takes readings within 2 business days (with the intention of Stafford Green addressing it the same business day) to detect "consistent odor level" and identify its source.
2. If "consistent odor level" is detected, at the 500' buffer over standard measurement period after formal complaint, it is recorded by OS&E and mister technology is activated same day. Location, amount and frequency will be adjusted as required to mitigate intensity of identified odor.
3. If after a formal complaint is filed and the mister technology is unable to mitigate the odor, Stafford Green will install hoop house mitigation structures[4] (structures installed immediately)
4. OS&E makes measurement within 2 business days of formal complaint at 500' buffer

[3] OS&E Odor Monitoring Plan- Submitted to planning board

[4] Hoop House Mitigation Structure Overview – provided to planning board

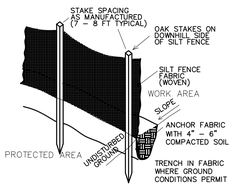
and determines how many hoop houses needed in order to reduce the intensity level of odor on BIRS scale.



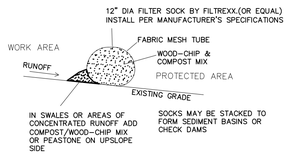


TYPICAL DRIVEWAY CROSS-SECTION

NO SCALE



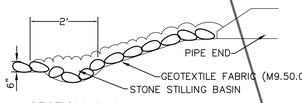
TYPICAL SILT FENCE INSTALLATION



TYPICAL FILTER SOCK INSTALLATION

SEDIMENT BARRIER ALTERNATIVES

(CONTRACTOR'S OPTION)

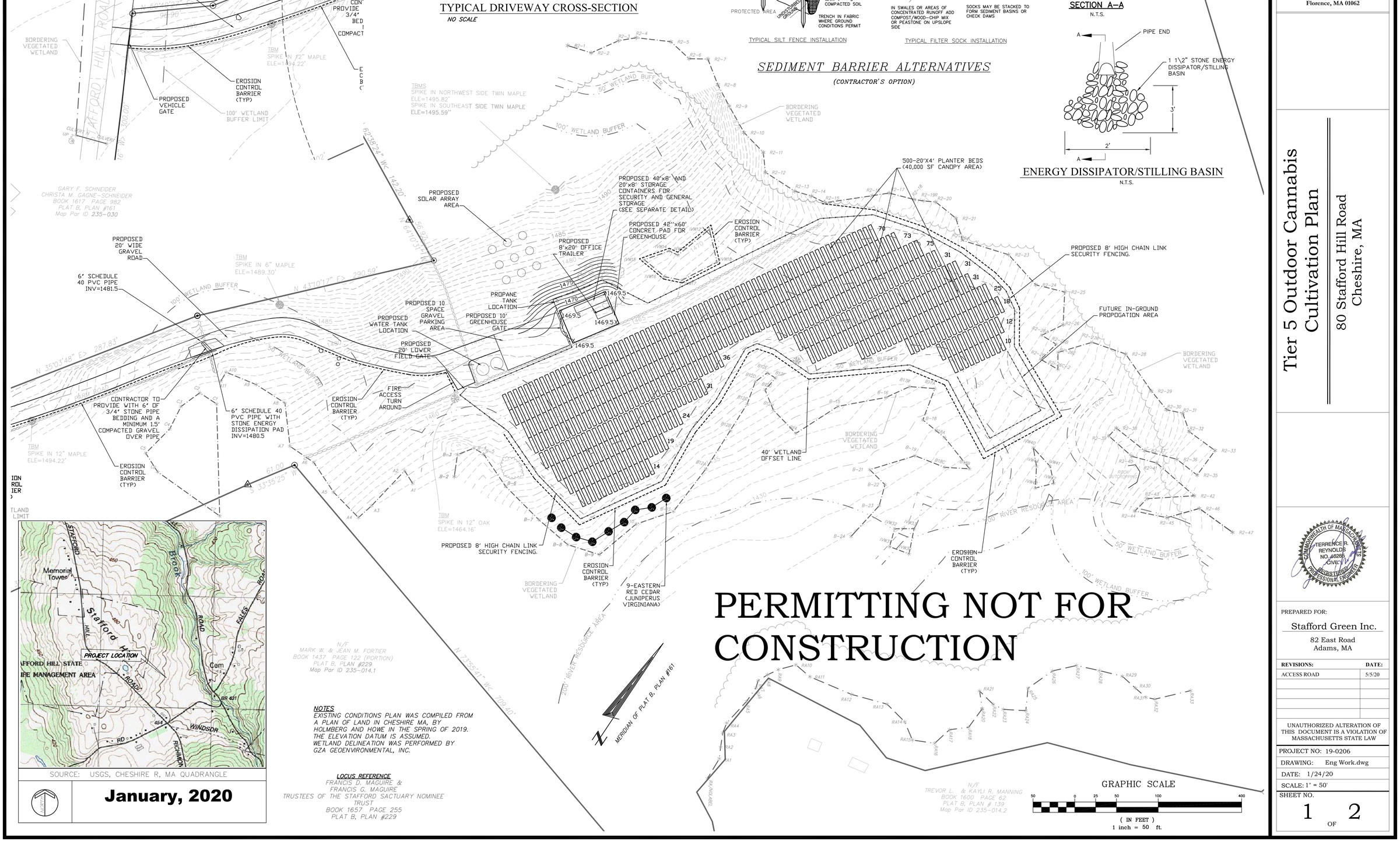


SECTION A–A

N.T.S.

ENERGY DISSIPATOR/STILLING BASIN

N.T.S.



SOURCE: USGS, CHESHIRE R, MA QUADRANGLE

January, 2020

NOTES

EXISTING CONDITIONS PLAN WAS COMPILED FROM A PLAN OF LAND IN CHESHIRE MA, BY HOLMBERG AND HOWE IN THE SPRING OF 2019. THE ELEVATION DATUM IS ASSUMED. WETLAND DELINEATION WAS PERFORMED BY GZA GEOENVIRONMENTAL, INC.

LOCUS REFERENCE

FRANCIS D. MAGUIRE & FRANCIS G. MAGUIRE TRUSTEES OF THE STAFFORD SACTUARY NOMINEE TRUST BOOK 1657 PAGE 255 PLAT B, PLAN #229

PERMITTING NOT FOR CONSTRUCTION

GRAPHIC SCALE

50 0 25 50 100 400

(IN FEET)

1 inch = 50 ft.

T Reynolds Engineering

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Tier 5 Outdoor Cannabis Cultivation Plan

80 Stafford Hill Road
Cheshire, MA

COMMONWEALTH OF MASSACHUSETTS
TERRENCE R. REYNOLDS
NO. 46285
CIVIL
REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR:

Stafford Green Inc.

82 East Road
Adams, MA

REVISIONS:	DATE:
ACCESS ROAD	5/5/20

PROJECT NO: 19-0206

DRAWING: Eng Work.dwg

DATE: 1/24/20

SCALE: 1" = 50'

SHEET NO.

1 OF 2