COPY

RECEIVED

February 22, 2021

Planning Board
Grafton, MA

GRAVES ENGINEERING, Inc.
100 GROVE ST. | WORCESTER, MA 01605
T 508-856-0321
F 508-856-0357
gravesengineering.com

February 22, 2021

Christopher McGoldrick
Town Planner
Grafton Municipal Center
30 Providence Road
Grafton, MA 01519

Exhibit 27

Subject: **130 & 134 Worcester Street**
Special Permit and Site Plan Review

Dear Chris:

We received the following documents on February 16, 2021:

- Correspondence from WDA Design Group to Town of Grafton Municipal Center dated February 15, 2021, re: 130 & 134 Worcester Street Special Permit and Site Plan Review.
- Plans entitled Special Permit Submission for Discern'd Cannabis Purveyors, Inc., 130 & 134 Worcester Street dated January 8, 2021 and revised February 15, 2021, prepared by WDA Design Group for Discern'd Cannabis Purveyors, Inc. (11 sheets)
- Bound document entitled Stormwater Management Report for Application for Stormwater Permit, 130 & 134 Worcester Street Grafton, MA 01536 dated February 2021, prepared by WDA Design Group for Mr. Fawaz El Khoury.
- Bound document entitled Traffic Impact and Access Study, Marijuana Dispensary, 130 & 134 Worcester Street, Grafton, Massachusetts dated February 11, 2021, prepared by Ron Müller & Associates for Discern'd Cannabis Purveyors, Inc.
- Architectural plans entitled Proposed Cannabis Store Building, Discern'd Cannabis, 130 Worcester Street dated December 29, 2020 and revised February 10, 2021, prepared by John Marro III, A.I.A. (8 sheets)

Graves Engineering, Inc. (GEI) has been requested to review and comment on the plans' and supporting documents' conformance with applicable "Grafton Zoning By-Law" amended through October 21, 2019; Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook and standard engineering practices.

This letter is a follow-up to our previous review letter dated February 8, 2021. For clarity, comments from our previous letter are *italicized* and our comments to the design engineer's responses are depicted in **bold**. Previous comment numbering has been maintained.

Our comments follow:

Zoning By-Law

1. *Each sheet of the plans needs to bear the signature and stamp of the professional that prepared the plans. (§1.3.3.3.d.9)*
   Acknowledged. The plans have been revised to include the stamps of the corresponding professionals.

2. *Ownership of all abutting land on the western side of Worcester Street and approximate locations of buildings, driveways, and parking areas thereon within a maximum distance of 200' of the property lines need to be shown on the plans. (§1.3.3.3.d.11)*
   Acknowledged. The plans have been revised to include the abutters.

3. *Parking setback lines need to be shown on the plans. (§1.3.3.3.d.13)*
   Acknowledged. The plans have been revised to include the parking setback line.

4. *Lot coverage calculations showing percentage of buildings and percentage of pavement need to be added to the plans. On Sheet C2.00, the 40% maximum lot coverage requirement pertains to buildings only and the 17% shown as provided combines the areas of all proposed buildings and pavement. The values for percentage of buildings and percentage of pavement need to be shown separately. (§1.3.3.3.d.15)*
   Acknowledged. The table on Sheet C2.00 has been revised to separate the values for the percentage of buildings and the percentage of pavement.

5. *There appears to be a sewer manhole shown on the proposed sewer line on the site. If this is indeed a proposed sewer manhole, it will need to be labeled and elevation data will need to be provided. (§1.3.3.3.d.28)*
   Acknowledged. The sewer manhole shown on Sheet C3.00 has been revised to include the pertinent information.

6. *Loading spaces need to be clearly identified on the plans. There appears to be a loading area located southwest of the proposed building that is not at least 50 feet away from the closest street line. The applicant should identify the largest vehicle expected to access the site for deliveries, and confirm that the loading space meets the required setback and that there is enough room in the loading area for this vehicle to maneuver. (§1.3.3.3.d.19 & §4.2.3.2)*
   Acknowledged. On Sheet C2.00, the loading space is defined as fifteen feet wide and twenty feet long on the south end of the building.

7. *The size of the parking spaces needs to be shown on the plans. The parking space dimensions were scaled and found to be nine feet by eighteen feet, which is satisfactory. (§2.1)*
   Acknowledged. The plans have been revised to show the dimensions of the parking spaces on Sheet C2.00.

8. *The limits of the proposed covered front porch were not shown on the plans. Based on the architectural plans provided, the limit of the porch appears to be close to the front yard setback established in the "Intensity of Use Schedule". The porch should be added to the plans. (§3.2.3.2)*
   Acknowledged. The plans have been revised to show the covered front porch.

9. *The required number of parking spaces at the site needs to be added to the Zoning Summary Table on Sheet C2.00. (§4.2.2)*

Acknowledged. The required number of parking spaces was added to Sheet C2.00. GEI has no issue with the proposed number of parking spaces (48 spaces).

10. *GEI will comment on the extent of ground water recharge once sufficient stormwater management documentation is submitted. (§7.5.D)*
Based upon runoff volume information gleaned from in the hydrology computations, GEI has no issues relative to the proposed development replicating pre-development ground water recharge conditions. However, stormwater quality at the discharge point into each of the two infiltration systems needs to be further addressed. Sheet C3.00 appears to show an isolator row (by hatching) for the subsurface infiltration system. If so, then a construction detail needs to be provided for the isolator row. Also, to comply with §V.B.5.h(x) of the Town of Grafton's Wetlands Regulations, 80% totals suspended solids (TSS) removal needs to be achieved before stormwater is discharged into the infiltrating rows of the subsurface system or to the open infiltration basin. As currently proposed, stormwater discharged to the infiltrating rows of the subsurface system will have received 44% TSS removal (via catch basins and the isolator row, if proposed) and stormwater discharged to the open infiltration basin will have received 25% TSS removal (via the catch basin).

Hydrology & MassDEP Stormwater Management

11. *GEI did not receive any maps showing the pre-development and post-development watersheds. In order for GEI to complete our review, pre-development and post-development watershed maps must be submitted.*
Acknowledged. Pre- and post-development watershed maps were submitted. Although the subcatchments on the post-development watershed map were not labeled, GEI was able to discern the information.

12. *GEI did not receive any hydrology computations for existing conditions. In order for GEI to complete our review, existing conditions hydrology computations must be submitted.*
Acknowledged. Hydrology computations for the existing conditions were submitted; the computations are in order.

13. *The plans were lacking information pertaining to the outlet control structures of the three stormwater impoundments (e.g. orifice diameters, orifice elevations, weir elevations); GEI could not confirm the modeling of the outlet control structures in the hydrology computations. This information needs to be provided on the plans.*
The construction details for the outlet control structure on Sheet C3.00 and the underground infiltration system on Sheet C5.01 need to be coordinated with the hydrology model. On Sheet C3.00, the outlet control structure drawing shows one orifice and the data table could be misinterpreted as proposing a diameter between two inches and five inches; the hydrology computations modeled two five-inch orifices. As for the underground infiltration system, the hydrology computations modeled two six-inch orifices that are not shown on Sheet C3.00 nor the construction detail on Sheet C5.01.

14. *The width of the underground infiltration area in the "storage description" for Pond 3P: Underground Detention was conservatively modeled (underestimated) as 44.25 feet wide, but could be increased to 66 feet to be consistent with the plans.*
Acknowledged. The Underground Infiltration Facility FKA the Underground Detention has been redesigned; the computations are consistent with the plans.

15. *The design engineer needs to submit documentation to demonstrate compliance with the MassDEP Stormwater Management Standards.*
Documentation was submitted; specific comments are presented herein.

16. *Soil testing information needs to be submitted to confirm that there is at least two feet of separation between the bottom of the infiltration basins and the estimated seasonal high water table (ESHWT).*
Acknowledged. Soil testing information was submitted.

17. *On Sheet C2.00, there is a catch basin proposed at the proposed concrete dumpster pad. This design raises concern due to the potential of pollutants from the dumpster to discharge unknowingly directly into the stormwater management system. The catch basin should be located away from the dumpster pad.*
Acknowledged. The aforementioned catch basin (DCB-01) has been relocated outside the dumpster area.

18. *Infiltration basins must not be used for snow storage. Sheet C2.00 currently states that snow storage will occur in Detention 2P. The plans will need to be revised to show the snow storage at a different location.*
Acknowledged. Sheet C2.00 has been revised to show two locations for snow storage that are located outside of the infiltration basin.

19. *If the intent is for water to infiltrate into the ground from all three stormwater management structures (two basins and one underground system) then the word "Detention" needs to be replaced with "Infiltration" within their titles for consistency with the MassDEP Stormwater Handbook.*
The open stormwater basin was designed as and will function as an infiltration basin and therefore needs to be identified as an infiltration basin instead of a detention basin.

20. *Riprap needs to be provided at the discharge ends of pipe systems and at the outlets of the stormwater impoundments.*
Acknowledged. Riprap has been provided at the discharge ends of the pipe systems and at the outlets of the stormwater impoundments.

General Engineering Comments

21. *On Sheet C2.00, the location of the door at the top of the ramp on the south side of the building is inconsistent with the location of the door shown on the "Right Side Elevation" sheet of the architectural plans. The design engineer should confirm which door location is correct and revise the civil plans if necessary.*
Acknowledged. The architectural and civil plans have been revised to coordinate with one another.

22. *The Signage Summary Table on Sheet C2.00 indicates that only one of each handicap related sign is required. Handicap signage needs to be provided for each proposed handicap space.*
Acknowledged. The quantity of the signs has been revised to accommodate each of the proposed handicap spaces.

23. *There needs to be more information added to C3.00 regarding the handicap accessible parking to ensure compliance with Massachusetts Architectural Access Board (e.g. spot*

elevations). The slope within handicap parking and loading spaces must not be greater than 2% in any direction. Based on the current spot elevations provided, the slope within the staff handicap parking space and loading area is 4.5% between spot elevations 344.69 and 344.15.
The plans were revised, and additional spot elevations were provided. However, the access aisle at the southeastern side of the building will have a slope of 2.5% between the 349.28 and 349.00 spot elevations.

24. *The locations of the handicap accessible curb cuts for the two southern handicap parking spaces are not practical as they are located at the parking spaces and pedestrian access will be impeded by parked vehicles.*
Acknowledged. The plans were revised.

25. *The location of the proposed handicap staff parking space does not appear to be practical. The intent is for handicapped staff members who park in this space to enter the door on the northeast side of the building. Based on the architectural plans, the building does not have an elevator. Therefore, a handicapped staff member who would like to access the first floor would have to travel in the parking lot from the staff handicap space to the next closest handicap accessible entrance.*
Acknowledged. The aforementioned handicap accessible space has been relocated to the southern side of the building.

26. *On Sheet C3.00, all proposed drainage structures including manholes, catch basins, flared ends, and area drains need to be labeled and the rim and pipe invert elevations need to be provided for each structure. All proposed drainage pipes also need to be labeled, and the diameter, slope and material of each pipe needs to be provided.*
The plans were revised to include the necessary information. The Structure Table on Sheet C3.00 shows the pipe invert elevation for FES-02 at the same elevation as the invert at the outlet control structure; there should be some pitch on the pipe instead.

27. *On Sheet C3.00, the design engineer needs to identify the wide lines shown on the east side of the two infiltration basins.*
Acknowledged. The lines have been clarified to be a retaining wall.

28. *On Sheet C3.00, there are two dark boxes imposed on proposed contour lines. One is located in the concrete walkway northeast of the proposed building and the other is between the proposed infiltration basins. If these boxes are supposed to contain text identifying the elevations of the contours, they need to be corrected so that the elevation is properly displayed.*
Acknowledged. The two dark boxes have been removed.

29. *On Sheet C3.00, Detention 2P is missing a contour line for elevation "343."*
Acknowledged. The Detention 2P has been omitted from the site plans and the contours are in order.

30. *There are several construction details missing from the plans. Construction details for the following need to be added: drain manhole, catch basin, drain pipe trench section, flared end outlet, sewer manhole, fence, picket fence (if different from fence), cape cod berm, infiltration basin outlet structures, underground infiltration system, dumpster enclosure, and evergreen tree.*
Acknowledged. Construction details were added to the plans.

General Comments

31. *On Sheet EC-30, the assessors map reference information for only 130 Worcester Street was provided. Information for 134 Worcester Street needs to be added.*
Acknowledged. The assessors map reference information for 134 Worcester Street has been added.

32. *On Sheet C1.00, there are several notes that incorrectly reference the "Town of Westborough." These references should be changed to "Town of Grafton."*
Acknowledged. The notes have been changed to reference the "Town of Grafton".

33. *On Sheet C1.01, it is unclear what the symbol comprised of a circle with an "X" in the middle is representing. This symbol needs to be added to the legend.*
Acknowledged. The symbol has been added to the legend to define tree removal.

34. *The thick dashed line shown approximately along the centerline of Worcester Street is not identified in any of the legends and appears on several sheets. This line should either be labeled or added to the legend.*
Acknowledged. The aforementioned dashed line has been removed.

35. *On Sheet C4.00 there is a leader label that reads "Doesn't Match GIS. Their Property Line Goes to Water Line" but the leader is not pointing to anything. The leader location needs to be corrected or the label deleted if it is not relevant.*
Acknowledged. The aforementioned leader has been removed.

36. *GEI did not review for compliance with the Town of Grafton's Wetlands Regulations or Stormwater Management Regulations. The design engineer should be cognizant of these regulations and make sure all necessary and applicable requirements are met.*
No further comment.

37. *GEI understands that the Grafton Water District and the Grafton Sewer Department will review the plans relative to their respective utilities.*
No further comment.

38. *GEI did not review the architectural plans.*
No further comment.

Additional Comments February 22, 2021

39. **In the Stormwater Checklist under Standard 3: Recharge, there is a box checked stating the site is comprised solely of C and D soils and/or bedrock at the land surface. According to the USGS, soil groupings are A and B soils; the checklist needs to be revised.**

40. **In the Total Suspended Solids (TSS) Removal Calculations Worksheet for "Outlet FES-02" the Grass Channel and Extended Dry Detention Basin are not appropriate for this treatment train – a grass channel is not proposed, and the basin will function as an infiltration basin. Also, the 10% TSS removal credit for the street sweep requires a sweeping schedule that is more aggressive than the annual sweeping listed in the long term operation and maintenance plan; the street sweeping credit should be deleted**

unless the sweeping schedule is revised to follow Table SS1 in Volume 2, Chapter 1, Page 9 of the MassDEP Stormwater Handbook.

41. **On Sheet C3.00, in the "Pipe Table" Pipe – (6) is shown to be a concrete pipe whereas the other pipes are shown to be high-density polyethylene (HDPE). The engineer should clarify if "concrete pipe" is a typographical error.**

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,
Graves Engineering, Inc.

Jeffrey M. Walsh, P.E.
Principal

cc: Carolyn Burke, RLA; WDA Design Group