

EXHIBIT

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December 20, 2016

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PLANNING BOARD
GRAFTON, MA

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**Subject: Proposed Contractor's Garage
104 Creeper Hill Road
Special Permit, Site Plan, Stormwater Regulations and Wetland
Regulations Review**

Dear Joe and Maria:

We received the following documents on December 6, 2016:

- Correspondence from MetroWest Engineering Inc. to Graves Engineering Inc. dated December 4, 2016, re: Conservation Commission and Planning Board Site Plan Review Application.
- Plans entitled Site Plan Set, Proposed Site Development, 104 Creeper Hill Road, Grafton Massachusetts dated November 1, 2016 and revised December 4, 2016, prepared by MetroWest Engineering, Inc. (12 sheets)

We also received the following documents on December 19, 2016:

- Correspondence from MetroWest Engineering Inc. to Grafton Conservation Commission dated December 15, 2016, re: 104 Creeper Hill Road, Grafton, MA, DEP File #164-0926.
- Plans entitled Site Plan Set, Proposed Site Development, 104 Creeper Hill Road, Grafton Massachusetts dated November 1, 2016 and last revised December 14, 2016, prepared by MetroWest Engineering, Inc. (12 sheets)
- Groundwater mounding calculations: Calculator 9 – Groundwater Mounding Calculator by GroundwaterSoftware.com dated December 9, 2016, utilizing the Hantush (1967) Derivation.

This letter is a follow-up to our previous review letter dated November 18, 2016. For clarity, comments from our previous letter are *italicized* and our comments to the Applicant's responses are depicted in **bold**. Previous comment numbering has been maintained. As part of our initial review, GEI witnessed soil testing at the infiltration basin on October 31, 2016.

Our comments follow:

Zoning By-Law

1. *The Engineer must revise the plans to include the approximate location of the buildings and driveways within two hundred feet of the property lines. There are two buildings*

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located south of the project driveway, at least one of which is located within two hundred feet of the property line. (§1.3.3.3.d.11)

Acknowledged. The approximate locations of existing buildings and driveways within two hundred feet of the property lines have been added to the Proposed Layout Plan.

2. *Proposed lighting at the site was not shown on the plans. The Board may wish to inquire of the applicant if any exterior lighting is anticipated. (§1.3.3.3.d.22)*

Acknowledged. The design engineer responded that the only exterior lighting will be at building entrances and garage doors.

3. *Proposed signage at the site was not shown on the plans. The Board may wish to inquire of the applicant if any signage is anticipated. (§1.3.3.3.d.23)*

Acknowledged. The applicant has stated that no exterior signage is proposed as part of this project.

4. *A proposed dumpster area at the site was not shown on the plans. The Board may wish to inquire of the applicant if any dumpster area is anticipated. (§1.3.3.3.d.24)*

Acknowledged. A proposed 8' by 8' dumpster area has been added to Sheet C301 near the northeast corner of the building.

5. *The plans show one tree within five feet of the parking lot. There is a total of sixteen parking spaces, therefore a total of four trees within five (5) feet of the parking lot are required. However, there is a generous amount of landscaping (eight trees and ten shrubs) proposed within the thirty-foot-wide strip located between the parking area and Creeper Hill Road. We defer to the Planning Board if the proposed planting scheme is acceptable relative to the trees' proximity to the parking spaces. (§4.2.4.5)*

No further comment.

Grafton's Regulations Governing Stormwater Management

6. *GEI has no issues relative to compliance with these regulations.*

No further comment.

Regulations for the Administration of the Wetlands By-Law

7. *GEI has no issues relative to compliance with these regulations.*

No further comment.

Hydrology & MassDEP Stormwater Management Review

8. *GEI reviewed the hydrology computations and found them to be in order.*

No further comment.

9. *The watershed delineation plans and the Street Drainage Basin Delineation Plan do not have scale bars. If the stormwater report is resubmitted for any other reason, then these delineation plans should be revised to identify their scales.*

The Applicant has stated that scale bars have been added to the watershed delineation plans and the Street Drainage Delineation Plan. GEI did not receive these revised plans, however, our previous review determined the hydrology

computations were in order. Therefore, this comment did not affect the findings of this follow-up review.

10. *Compliance with the MassDEP Stormwater Standards and Handbook is reasonable except as noted in the following comment.*

Compliance with MassDEP Stormwater Standards and Handbook is reasonable.

11. *The bottom of the infiltration basin (elevation 362 feet) meets MassDEP's required groundwater offset of two feet. However, three leaching basins are proposed below the bottom of the infiltration basin and could reasonably be expected to receive stormwater through their loose-fitting manhole covers. In short, the leaching basins do not meet the required groundwater offset and need to be revised or eliminated.*

Acknowledged. The leaching basins have been eliminated and replaced with a 3' wide by 1' deep stone trench that meets the required groundwater offset.

12. *On Sheet C400, the proposed spot elevations of 372.6, 372.4, 372.5, 373.2 and 373.0 located near the salt shed need to be revised to be consistent with the proposed topographic contours in this area. More importantly, spot elevations also need to be provided on the west side of the salt shed and pertinent salt shed elevations (e.g. top of pad, top of wall if a concrete wall is proposed) need to be identified, and the proposed grading needs to show that stormwater runoff from the west side of the salt shed will be directed around the salt shed so that it will not come into contact with the stored salt.*

Acknowledged. A foundation wall with top elevations has been added to the proposed salt shed. Additionally, grading around the salt shed has been revised to direct stormwater runoff around the shed.

13. *The plans must be revised to identify a snow storage location. Snow storage should occur as far from Flint Pond as reasonably possible.*

Acknowledged. A snow storage area has been added to the Proposed Layout Plan on Sheet C301. It is located in the northwest corner of the proposed bit. conc. pavement area.

General Engineering

14. *GEI has no issues.*

No further comment.

General Comments

15. *The plans do not propose a gate on the new gravel access road located on the west side of the site. If a gate is being considered, then the gate should be set back from Creeper Hill Road a distance similar to the proposed sliding gate at the project's main entrance to allow for vehicle queuing.*

Acknowledged. A gate has been added on the new gravel access road approximately 40 feet off of the edge of Creeper Hill Road.

16. *On Sheet C400, the proposed 366 topographic contour located approximately 40 feet northeast of the concrete apron (by the limit of the flood zone) does not connect into the existing 366 contour but instead passes beyond the existing contour. This appears to be a minor drafting issue that doesn't require grading revisions, but should be addressed nonetheless.*

Acknowledged. The aforementioned contour has been revised to meet with the existing 366 contour.

17. *GEI has not reviewed the plans with respect to the proposed septic system. We understand that the Grafton Board of Health will review the proposed septic system design.*

No further comment.

18. *GEI has not reviewed the plans with respect to the proposed water utilities. We understand that the Grafton Water District will review the proposed water system design.*

No further comment.

Additional Comments, December 20, 2016

19. **The groundwater mounding calculations are in order.**

20. **We have no issues with the proposed rain garden. The rain garden will receive stormwater runoff from a portion of the roof.**

21. **We have no issue with the design engineer's rationale for estimating the Flood Zone A elevation or the conclusion that the elevation could be approximately 363 feet. We also checked the plans for another project (Flint Pond Estates) located adjacent to Irish Dam. The delineation of the Flood Zone A on those plans was based upon an earlier version of FEMA mapping. Nevertheless, the delineation of the Flood Zone A was inconclusive relative to establishing an elevation; the flood zone line crossed multiple topographic contours.**

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.
Vice President

cc: Brian Nelson, Metrowest Engineering, Inc.