

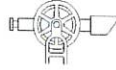
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**THOMPSON-LISTON**  
ASSOCIATES, INC.

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**RECEIVED**

**November 2, 2020**

**Planning Board**  
Grafton, MA

November 2, 2020

Chris McGoldrick, Town Planner  
Grafton Municipal Center  
30 Providence Road  
Grafton, Massachusetts 01519

# Exhibit 10

Re: Definitive Subdivision filing for  
The Ridings Adams Road, Grafton, Massachusetts

Dear Mr. McGoldrick:

Enclosed are four full sized sets and two reduced size sets of revised Definitive Subdivision Plans now dated October 30, 2020. These Plans were revised pursuant to the March 8, 2019 review letter from the peer reviewer, Graves Engineering, Inc.

I'd like to take this opportunity to explain how each of the comments in the peer reviewer's letter dated 19 October 2020 were addressed. The form that this letter will take is that I will repeat each of the peer reviewer's comments in italics and respond in normal text.

**Subdivision Rules & Regulations**

1. *Acknowledged. On Sheet L1, the north arrow is specified as Massachusetts Turnpike Grid.*

No response is necessary.

2. *Per Sheet 1 of the plans, the applicant is requesting a waiver to allow iron rods instead of granite monuments at all property line bends (where the proposed lots meet the open space) of the open space parcels, and the plans were revised to show iron rods at these locations. The plans do not propose bounds or iron rods to mark the open space at the perimeter of the subdivision; the plans do show existing drill holes at some perimeter locations, which are (appropriately) to be retained. GEI defers to the Planning Board whether the perimeter points also need to have bounds or iron rods installed where drill holes are not present, and GEI understands that the Planning Board will address the waiver request.*

*A construction detail for the granite bounds was provided on Sheet D2; the construction detail shows the top of the bounds six inches above the ground surface, which is acceptable for wooded areas. However the top of the bounds need to be installed flush with the ground surface at grassed areas and the construction detail needs to be revised accordingly.*

I want to note that some perimeter points, where a drill hole is not noted area still located along stone walls making bound or iron rod installation impractical. In regard to the granite bound

detail on Sheet D2, we added a note to it calling for installation of bounds along the rights of way to be such that the top of the bound is flush with the ground surface.

3. *Acknowledged. The plan sheets have numbers sequentially 1 through 41*

No response is necessary.

4. *Acknowledged. Each sheet has been revised and space is provided for the Planning Board.*

No response is necessary.

5. *The design engineer's response indicated that "the subdivision rules would allow vertical granite curbing at the intersection radii and cape cod berm otherwise." This statement is inconsistent with the Subdivision Rules and Regulations (SR&R). The SR&R require vertical granite curb at intersections, along roads where the grade exceeds 2% and at curves with a radius of less than 250 feet (ss4.2.1.2a, b & c). Cape Cod berm is allowed wherever vertical granite curb is not required. Only Liberty Circle, which will have a 2% grade, would qualify for Cape Cod Berm.*

Libbey Lane near its intersection with Adams Road would also qualify to use Cape Cod berm as would the entrance of Empire Circle off Libbey Lane. The applicant is requesting a waiver to use sloped granite curbing throughout the site as it provides the benefits of vertical granite in durability and has a better appearance and is more forgiving for the occasional vehicle parking alongside it. The Applicant will spend more for sloped granite curbing throughout the site than he would for the combination of vertical granite and Cape Cod berm that he is allowed under the SR&R but believes sloped granite curbing is the best choice and worth the expense.

6. *GEI reviewed the stormwater management documents that were provided with the Conservation Commission application. GEI is addressing the stormwater management review in its letter to the Commission, which is being copied to the Planning Board.*

As noted at the Board's last meeting, the Conservation Commission has now issued an Order of Conditions for this project.

7. *Acknowledged. Rational method calculations have been provided and are in order.*

No response is necessary.

8. *The plans have been revised to relocate catch basins outside of driveway openings. However, the catch basin adjacent to the Lot EC8 driveway will be too close to the driveway to allow for a granite inlet stone and end treatment on the curb. The catch basin and driveway need to be separated more.*

In response, we moved the driveway for Lot EC8 further from the catch basin. This can be seen on Sheets G5 and P5.

9. *Acknowledged. The details for catch basin frames/grates and the manhole rims/covers have been revised to state to coordinate with the "Grafton DPW".*

No response is necessary.

10. *Acknowledged. Sheet G5 has been revised to show that RCP is to be used at the outlet of the stormwater basin.*

No response is necessary.

### **Zoning Bylaw**

11. *Acknowledged. The trail easement across Lot EC12 fka Lot 20 has been revised to be twenty-five (25) feet wide as shown on Sheet G5.*

No response is necessary.

12. *No further comment.*

No response is necessary.

13. *The engineer responded that if needed, the applicant will just extend the lots to encompass the grading as they exceed the open space requirement. Again, GEI defers to the Planning Board whether the grading for lot development can occur on adjacent common land. Please refer to Sheets 24 and 25 to see the grading of the lots, now labeled "EC11", "EC13" and "EC15".*

As the peer reviewer notes, the Applicant is setting aside 61% of the site as open space, well in excess of the required 40%. He is not extending grading into open space because he is barely meeting the requirement and cannot make the lots bigger.

14. *No revisions were made.*

We have now fixed the error, on multiple sheets, of referring to the site's zoning as the "R4" zoning district and not "R40".

### **Hydrology & MassDEP Stormwater Management**

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

No response is necessary.

16. *Acknowledged. The hydrology computations have been revised to analyze lots LC9-LC1, fka Lots 35-39, respectively. This is the area tributary to Adams Road. The computations show a slight decrease in peak rates of runoff.*

No response is necessary.

17. *Acknowledged. The drainage maps have been revised so the hydrologic divide is on the back of the Lots EC8, EC10 and EC12, fka lots 18, 19 and 20, respectively.*

No response is necessary.

18. *Acknowledged. The hydrology computations have been revised to model the slope at 6% and the Tc path is shown on the post-development drainage area plan.*

No response is necessary.

19. *GEI reviewed the stormwater management documents that were provided with the Conservation Commission application. GEI is addressing stormwater management review in its letter to the Commission, which is being copied to the Planning Board.*

As noted above, the Grafton Conservation Commission has now issued an Order of Conditions.

20. *Acknowledged. The slope has been revised to roughly 10H:1V on Lots EC14 and EC15 fka Lots 21 and 22, respectively.*

No response is necessary.

21. *Acknowledged. The plans have been revised to show the stormwater basin off of Liberty Circle fka Olive Circle to be an infiltration basin.*

No response is necessary.

### **General Engineering**

22. *The engineer responded that this curb radii is to accommodate the Fire Department vehicles. Other subdivisions in Grafton typically have a curb radius of 25 to 30 feet. GEI still stands by its original comment and recommends that the plans be revised unless the fire department specifically requests a 45 foot radius.*

The push for larger curb radii is actually coming from the State Fire Marshall's office which is trying to have new construction ensure that larger fire department vehicles can turn into commercial developments, industrial developments and subdivision roads without driving across the centerline of the road or driveway. This desire has been communicated to us in several other Towns.

23. *Acknowledged. The detail has been revised to include a hood and the sump has been revised to four feet deep.*

No response is necessary.

24. *Acknowledged. The construction detail for the "Typical Drop Manhole" has been removed from Sheet D1.*

No response is necessary.

25. *Acknowledged. The pertinent elevations have been provided on Sheet D1.*

No response is necessary.

26. *Acknowledged. The typographical error has been revised to show the invert out for DMG 9+90 to be at elevation 441.90.*

No response is necessary.

27. *Acknowledged. The pre- and post-development drainage area plans have been revised to 1" = 160'.*

No response is necessary.

### **General Comments**

28. *Acknowledged. The proposed tree line has been revised to go around the stormwater basin off Empire Circle fka Randolph Circle.*

No response is necessary.

29. *Acknowledged. Sheet G1 has been revised to refer to the outlet pipes as 15" and the pipe material was revised from HDPE to reinforced concrete.*

No response is necessary.

30. *GEI has reviewed the project for compliance with the Grafton Stormwater Regulations and the Grafton Wetland Regulation. Comments regarding these topics can be found under separate cover to the Conservation Commission, which is being copied to the Planning Board..*

As noted in response to comments #'s 6 and 19, the Grafton Conservation Commission has issued an Order of Conditions.

### **Additional Comments, October 19, 2020**

31. *The plans now show fences to be located around the perimeter of the stormwater basins. The plans need to identify the locations and size of the gates. For example, on Sheet G5, a gate needs to be provided along the access easement for the stormwater basin off Empire Circle.*

We added notes calling for a 12 foot wide, 2 leaf gate to be installed for access at each basin.

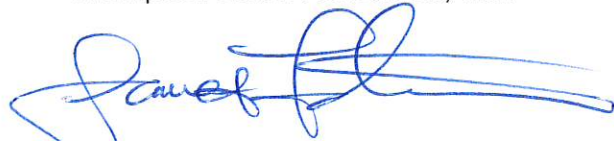
32. *The scale labels (1" = 40') and scale bars on Sheets 17 and 18 need to be revised to 1" = 60' scale label (1" = 60') and scale bar on Sheet 21 needs to be revised to 1"=50'.*

We made the requested revisions to these three sheets.

If there are any additional questions, please contact me. Thank you.

Sincerely,

Thompson-Liston Associates, Inc..

A handwritten signature in blue ink, appearing to read "James Tetreault", with a long horizontal flourish extending to the right.

James Tetreault, PE

Enclosures

Cc: Steven Venincasa  
Graves Engineering, Inc.