

RJO'CONNELL & ASSOCIATES, INC.

CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

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July 31, 2019

Shrewsbury Planning Board
100 Maple Avenue
Shrewsbury, MA 01545

Regarding: Edgemere Crossing at Flint Pond
 Site Plan Review by Graves Engineering, Inc.

Dear Planning Board Members:

RJ O'Connell & Associates, Inc. is in receipt of the peer review comments by Graves Engineering, Inc. dated July 23, 2019 for the above referenced project. We have reviewed the comments listed below in italics with the associated responses.

Rules and Regulations Special Permit and Site Plan Review

1. *GEI has no issues relative to compliance with the Shrewsbury Rules and Regulations Governing Special Permits & Site Plan review except as noted in the two following comments.*

Response: N/A

2. *On Sheet C-2B, the southernly set of two handicap parking spaces at the 24,250 square-foot retail building needs more information to show proper grading (2% maximum in any direction). (§IV.1.g.19)*

Response: Spot grades will be added to handicap parking spaces shown on Grading and Drainage plan C-2B

3. *There needs to be delineation for any areas to be used as un/loading spaces (§IV.1.g.12 & ZBL §VII.F.3.c2)*

Response: A delineation and labels will be added to loading and dumpster areas.

Zoning Bylaw

4. *GEI has no issues relative to compliance with the Shrewsbury Zoning Bylaw except as noted in the two following comments.*

Response: N/A

5. *On Sheets L-1 and L-2B, there are two sections on the north side of the project between the two entrances that have a break in landscaping. The landscaping provided needs to be continuous along the edge of Route 20 or groupings with the equivalent of one canopy tree per 25 linear feet of frontage. (§VII.N.7.b)*

Response: The total number of trees incorporated in the landscaped areas in question comport to the requirement of one (1) canopy tree per twenty five (25) linear feet of frontage; however, the canopy trees have been grouped to be more visually appealing and reserve site corridors from Route 20 into the retail complex.

6. *The 24,250 square-foot retail building needs to include outdoor amenities. (§VII.N.9.d)*

Response: Outdoor amenities to incorporate seating areas will be added to the plans.

7. *On Sheet C-4D, there may be a potential issue with reaching the rear side of Building 8A in the case of a fire. GEI defers to the Fire Department if there is adequate access for their emergency response needs (§VII.F.3.c.7)*

Response: A Vehicle Maneuvering Plan C-11 will be submitted that shows emergency and service vehicle turning movements. The proposed hydrant locations will also be shown on drawing C-11 Vehicle Maneuvering Plan. The Applicant intends to meet with the Shrewsbury Fire Department directly to review access for all buildings, fire hydrant locations and turning movements.

Hydrology & Stormwater Management Review

8. *GEI has reviewed the hydrology (HydroCAD) calculations and found them to be in order except as noted in the following three comments.*

Response: N/A

9. *GEI disagrees with the use of "Woods, fair" ground cover for modeling the wooded areas. Per TR-55, "woods, fair" represents ground cover whereby the woods are grazed by not burned, and some forest litter covers the soil. Based upon aerial photography and GEI's understanding that the woods are currently not being used, the wooded areas appear to consist of "Woods, good" ground cover (the woods are protected from grazing, and litter and brush adequately cover the soil). Furthermore, Appendix C of MassDEP's Hydrology Handbook for Conservation Commissioners states "Most woods in Massachusetts have forest litter and brush covering the soil and should be considered in "good hydrologic condition." A few trails on the first floor should not change this." In short, the woods should be modeled as having "good" ground cover.*

Response: The existing and proposed hydrologic models, and all associated computations, will be updated to include Woods Good condition instead of Woods Fair condition.

10. *On Sheet C-7, the table shows the orifice for OCS-1 to be thirty-six inches by four inches which differs from the HydroCAD model. The orifice was modeled to be thirty inches by three inches. This information needs to be consistent.*

Response: The orifice for OCS-1 on sheet C-7 will be updated to be consistent with the hydrologic model.

11. *On Sheets C-2A – C-2E, the discharge culvert pipes' diameters and slopes for Basins 1 – 5 and Basin 7 are inconsistent with what was modeled in HydroCAD. This information needs to be consistent.*

Response: Discharge pipes for Basins 1-5 & 7 will be updated to be consistent with the hydrologic model.

12. *GEI has no issues with the pipe sizing calculations.*

Response: N/A

13. *GEI has no issues relative to compliance with the MassDEP Stormwater Standards and Handbook.*

Response: N/A

14. *On Page 12 of the Stormwater Report, the engineer has a table with drawdown calculations. GEI was unable to confirm the reported drawdown times using the other data provided in the table. Nevertheless, GEI's estimated drawdown times met the MassDEP standard of no more than 72 hours. For the record, the design engineer should recheck the calculated draw down times to confirm they are correct and give an example of how the drawdown times were calculated.*

Response: The calculations for drawdown times will be updated to show variables demonstrating the drawdown times will be less than 72 hours.

15. *References to the Cambridge Water Department needs to be removed from Section 4 – Snow Management of the Stormwater Report. Also, relative to snow storage areas, Section 4 refers to a Site Layout Plan; the reference needs to be changed to the Snow Management Plan – SheetSMP-1. GEI has no issues with the proposed snow storage locations (at parking areas) provided that stored snow is removed as necessary to maintain adequate parking for the retail and residential uses.*

Response: Primary snow storage areas are to be located in parking fields and the owners will monitor snow storage areas to ensure adequate parking is provided. A separate written operation and maintenance procedure addressing snow management will be submitted to the Planning Board for review.

General Engineering Comments

16. *On Sheet C-1C, there are two leader notes pointing to the existing 12-inch CI Grafton State Hospital Water Main. One leader states "Protect existing waterline until ... inspected and made operational" while the other states, "435 linear feet to be removed." However, the length of the waterline enclosed by the "cloud" line-type is approximately 715 feet. The design engineer needs to clarify the length of the water main to be removed.*

Response: The label will be updated to clearly demarcate the 725-foot length of water line to be removed.

17. *On Sheets C-1A – C-1E, the infiltration basins will be utilized as temporary sediment basins during construction. To preserve the intended infiltration rates, a note should be added to excavate the temporary sediment basins to one foot above the proposed infiltration basin bottom elevations and maintain those elevations until the tributary areas are permanently stabilized. Upon stabilization of the tributary areas, the bottoms of the basins can then be excavated to the proposed elevations and stabilized.*

Response: A note will be added to the Demolition and Erosion Control Plans C-1A – C-1E stating, "All temporary sediment basins shall be set to one foot above the proposed infiltration basin bottom elevations and maintain those elevations until the tributary areas are permanently stabilized. Upon stabilization of the tributary areas, the bottoms of the basins can then be excavated to the proposed elevations and stabilized."

18. *On Sheet C-4A, it is unclear if a sidewalk is proposed along Hartford Turnpike between the two project entrances. GEI understands that off-site improvement plans are being prepared by another engineer. Nevertheless, considering the new residential and retail uses and the pedestrian traffic these uses will generate, consideration should be given to a sidewalk along Hartford Turnpike.*

Response: The proposed 10 ft. mixed used path along Route 20 will be labeled on the Overall Site Plan OS-1 and associated Parking and Traffic Control Plan C-4A – C-4C.

19. *On Sheet C-4B, a sidewalk should be provided from the main access driveway to the 24,250 square-foot retail building.*

Response: A sidewalk will be added to accommodate pedestrians to the 24,250 sf retail building along the southernly side of the entrance driveway.

20. *On Sheet C-7, the construction detail for the outlet control structure needs to provide the width and length of the structure.*

Response: Dimensions of the Outlet Control Structures will be added to Detail 9 on sheet C-7.

21. *On Sheet C-7, the construction detail for the drain manhole needs to include an invert channel.*

Response: The engineer will work with DPW superintendent on construction details associated with adding invert channels to drain manholes.

22. *A schedule of parking signs needs to be provided on the plans (e.g. details for W11A-2, R5-1, R1-1).*

Response: A traffic control schedule is shown on drawing C-4E, Site Parking and Traffic Control Plan.

General Comments

23. *On Sheet OS-1, the north arrow is facing the wrong direction and needs to be revised.*

Response: The north arrow will be updated.

24. *On Sheet OS-1, there is a typographical error for footnote 1. It refers to (§VII.O.10.A for Mixed-Use Development and needs to be corrected to (§VII.N.10.A)*

Response: The footnote will be corrected to read §VII.N.10.A

25. *On Sheet OS-1, there appears to be a typographical error in the zoning table. Under the open space section, it refers to footnote 4; no such footnote is on this sheet.*

Response: The footnote will be removed from table.

26. *GEI understands that a separate stormwater design and permit package for the off-site basins will be prepared by VHB and submitted as part of the off-site roadway improvement package.*

Response: Correct. The off-site basins are not part of the Site Plan Review process of the Shrewsbury Planning Board.

27. *GEI understands water and sewer utilities will be reviewed by Shrewsbury Water and Sewer Departments respectively.*

Response: N/A

28. *GEI understands a traffic consultant will review on-site traffic circulation and vehicle parking configurations.*

Response: N/A

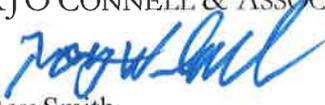
29. *GEI understands the signs (other than traffic signs) will be reviewed by Shrewsbury Planning Board and/or Town Staff.*

Response: Consistent with discussions with the Town Planner, the Applicant intends to incorporate the proposed plan revisions noted in this response letter at a later date and subsequent to review of traffic and circulation items so as to minimize the revision iterations submitted to the Planning Board and its peer review consultants.

Please call me if you have any questions at 781-279-0180.

Sincerely,

RJ O'CONNELL & ASSOCIATES



Roy Smith
Vice President

cc: Jim Lamp
Carmin Tomas
Chuck Morneau
Michael Buckley
Mark Donahue