



Professional Civil Engineering • Professional Land Surveying • Land Planning

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June 23, 2022

Carver Planning Board  
108 Main Street  
Carver, MA 02330

**Re: Ricketts Pond Business Park, Lot 1 – Site Plan Review**  
**Property Owner: RPBP, LLC**  
**Applicant: American Electrical Construction, Inc.**  
**Spring Street**  
**Carver Massachusetts**

Dear Planning Board Members,

This letter is in response to a review letter dated June 13, 2022 from Andrew G. Glines, P.E. of Fuss & O'Neill on behalf of the Town of Carver Planning Board.

Enclosed herewith are copies of the following:

- Plans entitled "Site Development Plans, Ricketts Pond Business Park, Lot 1, Off Spring Street, Carver, Massachusetts" prepared by McKenzie Engineering Group, Inc. (MEG) dated February 28, 2022 with a latest revision date of June 15. (Seven (7) full size and seven (7) 11 x 17)
- Closed Drainage System Calculations date of June 14, 2022. (Two (2) copies)

Responses by McKenzie Engineering Group, Inc. (MEG) correspond to the outline of the review letter. MEG responses are italicized and in blue.

1. If approved, F&O recommends a **condition** requiring that two (2) test pits be conducted in Infiltration Basin No. 2 to verify that there is adequate vertical separation from seasonal high groundwater, prior to directing stormwater from Lot 1 to the existing stormwater management basin.

*No Response Required.*

2. If approved, F&O recommends a **condition** requiring that Ricketts Pond Drive and associate utilities be constructed for the entire frontage of Lot 1 prior to the issuance of a Certificate of Occupancy.

*No Response Required.*

3. If approved, F&O recommends a **condition** requiring a bond to be established to cover the cost of the remaining portion of Ricketts Pond Drive to ensure the rest of the road and associated stormwater components and utilities will be constructed.

- a. F&O understands that this bond may have already been established, but would like the Town Planner to confirm.

*No Response Required.*

4. F&O has concerns with the proposed location of the 30,000 cistern, proposed 2:1 slope down- gradient of the cistern, and 15-foot tall modular block retaining wall at toe of slope.

- a. F&O recommends applicant revise this layout and grading approach. Moving the cistern further northwest and establishing a grading easement on Lot 2 would feasibility allow the cistern to be placed at the same elevation with a 3:1 down-gradient slope to elevation 146.

*The Applicant would prefer to keep all construction activity within the confines of their lot. Initial investigation of repositioning the cistern and grading at a 3:1 slope indicates that the easement would need to be rather substantial on Lot 2. The Applicant's fire protection engineer has determined that the cistern needs to have a volume of 25,000 gal. to be able to provide adequate fire protection to the largest (20,000 s.f.) building in lieu of the 30,000 gal. cistern originally shown on this application. The plans have been revised accordingly. The reduction in the size of the cistern in conjunction with the relocation of a portion of the proposed retaining wall (see response to 4b. below) results in the ability to lower the top of wall elevations. MEG consulted with Thiele Geotech Inc. (GTI) in Omaha Nebraska which provides structural engineering support for the Stone Strong brand of Modular Block walls. GTI indicated that the wall could be properly engineered to meet the site constraints (e.g. wall height, soil conditions and 2:1 slope at the top of wall) and that they can provide stamped structural engineering drawings. GTI also indicated that it would be desirable to provide a swale along the top of wall to direct runoff along the wall as opposed to allowing runoff to spill over the top of wall. To that end MEG has incorporated a stone rip rap lined swale along and parallel to the top of wall to direct runoff and prevent spillover. Note also that the relocation of the proposed retaining wall, reduction in the length of the proposed cistern and subsequent regrading results in a substantial reduction of the area of 2:1 slope adjacent to the wall.*

- b. Reducing the width of the proposed drive aisle along the west side of Building 3 (currently proposed to be 40 feet wide) would also allow for a more gradual down- gradient slope at the current cistern location.

*The driveway has been reconfigured to allow the wall to move closer to*

*Building #3 which in turn lowers the wall elevation. The width of the paved areas to the west and south sides of Building #3 have been maintained to accommodate delivery vehicles and trash trucks. The Emergency Vehicle Access Plan has been revised to reflect the revisions to the parking area.*

- c. If approved as is, F&O recommends a **condition** that a slope stability analysis be conducted and certified by a professional geotechnical engineer, prior to issuing a Building Permit for any structures on Lot 1.

*No Response Required.*

### Zoning By-Laws

#### 1. Section 2230 – Principal Use

- a. The site is located within the Spring Street Innovation Zoning District (SSID).
- b. Office is a permitted use authorized by Site Plan Review within this District.
- c. Warehouse is a use authorized by Special Permit within this District.
- d. Earth Removal is a prohibited use in this District. However, the proposed project does not meet the Town's definition of Earth Removal. Therefore, Earth Removal is not a proposed use.
  - i. The "Earth Removal" definition states that the following does not constitute earth removal: moving of earth materials under the provisions of a duly approved subdivision plan; work necessary for the construction of streets and the installation of utilities; work in connection with the excavation and grading of land incidental to construction of duly permitted structures. Since the Rickets Pond Business Park received Definitive Plan approval, the excavation underway is required to construct the proposed Rickets Pond Drive, utility distribution mains and services, as well as the associated commercial structures which are each individually reviewed under Site Plan Review and/or Special Permit), the proposed earthwork and site grading does not meet the Town's current definition of "Earth Removal". Therefore, Earth Removal is not a proposed use.

*No Response Required.*

#### 2. Section 2330: The Planning Board shall include findings for this section within the Decision Letter.

- a. Section 2331: F&O does not have any concerns with the building placement in regard to causing danger from fire, and understands that the Fire Department

has also approved building layout.

*No Response Required.*

- b. Section 2332: F&O does not have any concerns with the emergency access, and understands that the Fire Department has also approved emergency access.

*No Response Required.*

- c. Section 2333: F&O does not have any concerns with the proposed pedestrian routes from parking facilities to the existing and proposed buildings.

*No Response Required.*

- 3. Section 3130.b: Building elevations were provided for one building on sheet A-1, dated March 25, 2022. Applicant shall confirm which building this is on the Elevation Drawings, and provide elevation drawings for other two buildings.

- a. If other two (2) buildings have not been designed yet but will match the aesthetic of the first building, F&O recommends a **condition** of approval that requires building elevation drawings be submitted to the Town Planner and F&O before a Building Permit is issued for those buildings.

*No Response Required.*

- 4. Section 3130.g: Applicant has requested a **wavier** for providing existing trees 10" in caliper. F&O recommends approval of this waiver as the lot has previously been cleared, and the applicant depicts the current vegetation limits on their Exiting Conditions Plan.

*No Response Required.*

- 5. Section 3130.h: Applicant shall confirm mounting height for wall pack lighting. Building- mounted lighting must meet the requirements of Section 3166.

*All wall pack lighting will conform to applicable codes for mounting height as well as dark sky requirements.*

- 6. Section 3168: F&O defers to Board of Health for the review and approval of the proposed wastewater treatment system.

*A Septic System Design Plan has been submitted to and approved by the Carver Board of health.*

- 7. Section 3242: Applicant has requested a **waiver** for providing a 16-foot landscape buffer

along the perimeter of at least three sides of the parking area. F&O recommends approval of this waiver since: a 16-foot landscape buffer is provided on the south and west sides of the parking lot, a 16-foot landscape buffer is provided along the frontage of Lot 1 if you include the landscape strip within the right-of-way of Ricketts Pond Drive, and an 8-foot landscape buffer is provided on the north side of the property where it abuts another commercial use within the same subdivision.

*No Response Required.*

8. Section 3252:

- a. Additional screening shall be provided for propane tank.

*Additional screening has been provided for the proposed propane tank. Three Arborvitae trees are proposed behind the proposed propane tank to provide screening from Spring Street. Please refer to Landscaping Plan.*

- b. Since the southern side of the building includes three garage bay doors and a loading zone (see Left Side Elevation), F&O recommends that more plant material for screening is added on the western property line to further screen the property from Spring Street.

*Additional screening has been provided between the southerly face of Building 1 and Spring Street. A total of nine Arborvitae as well as the four previously proposed red cedar trees are proposed to provide screening from Spring Street. Please refer to Landscaping Plan.*

9. Section 3260:

- a. Pussy Willow shall be replaced with another plant species since it will provide very limited screening during winter months.

*The Applicant proposes to plant Pussy Willow as pollinator plantings as requested by the Board. The additional screening noted in the responses to comments under Section 3252 a. and b. above will provide year round screening.*

- b. Grass is not recommended to stabilize the 20-foot tall slope where the cistern is proposed. Slope will be susceptible to erosion if sufficient vegetated cover isn't maintained, and hill will be too steep to be mowed and maintained with conventional equipment. F&O recommends either regrading proposed slope to 3:1, or revise stabilization approach (e.g. evergreen groundcover, riprap, etc).

*The amount of 2:1 slope has been reduced where possible. As discussed with the Board during the June 21<sup>st</sup> site meeting, the Applicant is proposing to stabilize the 2:1 with a perennial wildflower mix which provide adequate, low-*

*maintenance vegetation as well as wildlife habitat.*

10. Section 3341: Applicant has requested a **waiver** for locating parking spaces in front of the principal building. F&O recommends approval of this waiver since twenty-one spaces are proposed in front of two buildings, having parking in front of the building allows the garage bay doors to be located on the side of rear of buildings, there is a 16-foot wide landscape island between Ricketts Pond Drive and the parking along the front of the building, and the rows of parking include landscape islands.

*No Response Required.*

11. Section 3345: Applicant has requested a **waiver** for bicycle racks. Due to the location and proposed use, F&O recommends approval of this waiver.

*No Response Required.*

12. Section 5330: The Planning Board shall include findings for this section within the Decision Letter. F&O believes that the benefits of the proposed Use outweigh any detrimental impacts, but ultimately defers to the Planning Board to make the determination.

*No Response Required.*

### **Drainage Report**

1. A **condition** is recommended to provide a site-specific Stormwater Pollution Prevention Plan (SWPPP) to the Town Planner and F&O prior to the issuance of a Building Permit.
  - a. It should be noted that a SWPPP for the subdivision has already been prepared by the developer and is included in the Stormwater Report for the Lot 1 submission.

*No Response Required.*

### **Plan Set**

1. Existing Conditions Plan, Sheet EX-1
  - a. Add storm drain systems within Ricketts Pond Drive to survey.  
*The storm drain system within Ricketts Pond Drive has been added to the Existing Conditions Plan as requested.*
2. Grading & Utility Plan, Sheet C-3
  - a. If project is approved, a **Condition** is recommended to reiterate that a Building Permit will be required for the retaining wall in excess of 4 feet.



*No Response Required.*

- b. Turn on existing contour labels.  
*Contour elevation labels have been turned on as requested.*
- c. F&O requests that additional catch basins be added within the vicinity of Building No. 3, specifically on the west side.
  - i. The flow path from spot grade 145.8 to Catch Basin 1-2 is over 300 feet long. *Catch Basin 1-2 has been relocated to reduce the flow path to approximately 225 ft. which also reduces its contributory area. MEG investigated the possibility of placing an additional catch basin to the west of the proposed dumpsters but was unable to do so due to a conflict with the proposed drainage pipe within the 20 ft. drainage easement. Revised closed drainage system calculations are being submitted herewith.*
  - ii. There is approximately 0.5 acre of upgradient pervious area proposed at 2:1 slope, and anticipated weep holes in the retaining wall which will produce runoff onto the proposed drive aisle.  
*Please refer to the response to comment c.i. above.*
- d. On-site grading has been revised at curb cut to address F&O's concern about Catch Basin 7 collecting stormwater runoff. Remove callout regarding "maintaining cape cod berm through entrance to Lot 1".  
*The callout has been removed as requested.*
- a. F&O strongly recommends reconfiguring the layout and slope for the cistern.  
See General Comments.  
*Please refer to the response to comment 4a. on page 2 above.*

We believe that the revisions to the plans and calculations as noted above adequately address the comments from F&O.

Please contact me at your convenience if you have any questions or require additional information.

Very truly yours,

MCKENZIE ENGINEERING GROUP, INC.



Alan Loomis  
Project Manager



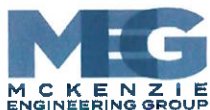
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Cc: Dawn Egan, American Electrical Construction, Inc.



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