

Civil Site Planning Environmental Engineering

133 Court Street Portsmouth, NH 03801-4413

October 8, 2025

Michael Behrendt, Town Planner Town of Durham 8 Newmarket Road Durham, NH 03824

Re: Preliminary Site Plan Review
RiverWoods Durham Phase II
Assessor's Map 209, Lot 33
Stone Quarry Drive and Dover Road
Durham, New Hampshire
Altus Project No. 5440

Dear Mr. Behrendt,

Altus Engineering (Altus) is in receipt of the Tighe & Bond's (TB) review comments dated October 1, 2025. We offer the following in response:

Site Plans

- 1. We have replaced one parking stall in the east parking lot with stripes to allow additional space for vehicles to turn around. The west lot was left untouched as it is our opinion that cars will utilize the driveway to the garage to turn.
- 2. To date the Fire Department has not asked for any additional turnarounds.
- 3. The majority of the delineated snow storage areas drain to the site and its drainage system. The few areas that do not will direct meltwater through an appropriate buffer prior to reaching a wetland.
- 4. We have attached an exhibit showing the turning movements of a SU-30 design vehicle at the maintenance garage.
- 5. An ADA space has been added to the maintenance garage's parking lot.
- 6. To our knowledge, the project does not require any waivers. Per our own parking demand projection, the site will have only three excess parking spaces or 2% of the total.
- 7. It is intended that mail and package deliveries will be to a central mail room inside the Community Center. We anticipate that move-in/out activities would occur either directly in front of the two residential buildings or in their garages to allow convenient access to the elevators. Aside from the initial occupation of the campus, we expect these to be infrequent occurrences.

Stormwater Management Plans

- 1. Riprap aprons, plunge pools and level spreaders are shown on Sheets C-7.1 and C-7.2.
- 2. We have enlarged the compactor enclosure and pitched it towards the parking lot. In doing so, YD #24 was eliminated.

Tel: (603) 433-2335 E-mail: Altus@altus-eng.com

Erosion Control Plans

1. It is anticipated that the site contractor will utilize the bioretenion ponds as temporary sediment traps prior to the placement of media and stone. This is called for in Note #12 on Sheet C-7.1 and in Note #7 under the Sequence of Major Activities on Sheet C-12.

Utility Plans

- 1. No response required.
- 2. We have adjusted the water pipe to CLDI.
- 3. We have added the gate valve as suggested.
- 4. To date the Fire Department has not indicated its dissatisfaction with the proposed hydrant layout.
- 5. The proposed overhead wires shown are the relocation of existing services along a public way. The plan remains unchanged as they are therefore not "new" or internal to the site.
- 6. Two new generators proximal to each residential building along with associated utilities are now shown on Sheets C-8.1 and C-8.2.
- 7. Given the constraints on maintaining gravity sewer flow, the 6" water service at sewer profile sta. 9+01.96 needs to be installed under the sanitary line in order to have adequate cover for frost protection. To minimize the chance of contamination, we are calling for the sewer to be encased in concrete to 10' on the side of the crossing.
- 8. All 12" sanitary pipe has been revised to 10".
- 9. Approximate trenching limits for the sewer extension are shown on Sheets C7-1 and C-7.2 as part of the limit of disturbance. We expect that the contractor's means and methods will dictate the actual limit. In this case, Severino Trucking has been selected for the site work and we have no concern over their ability to safely execute the deep sewer installation. They have indicated that they have no problem with the depth of this excavation and plan on using trench boxes and plates in order to maintain a trench width of 8'. This makes an SOE unnecessary as trench boxes are delivered with their own stamped certification sheets which will be kept on site for the duration of their use
- 10. We have evaluated the existing 24" culvert under Stone Quarry Drive and found it to be in good shape.
- 11. We have redesigned the sewer so that manholes are now no more than 285' apart.

Landscape Plans

- 1. The Applicant prefers to retain the ability to install plantings during the summer months. Per Note #'s 19 and 21 on the Landscape Plans, all plantings will be provided with adequate care and water from the time they arrive on site until final acceptance of the project. Following final acceptance, RiverWoods Durham will continue to provide supplemental water to all plantings via an automatic irrigation system. There is no risk of failure posed to the landscape installation by allowing plants to be installed during the mid-June through mid-September window. We are greatly concerned that disallowing planting during this time could negatively affect project sequencing and completion timelines.
- 2. We have presented the current layout to the Planning Board on several occasions and they have voiced no desire to see additional landscape islands in the east parking lot.

Details

- 1. The detail for OS #11 on Sheet C-14 has been adjusted to match the drainage model.
- 2. The liner requirements have been added to the Bioretention Pond detail on Sheet C-15.
- 3. The forcemain invert has been adjusted upward as suggested.

<u>Signage</u>

1. A monument sign has been added near the southeast corner of the Community Center as shown on Sheet C-4. We expect that this installation will conform to the Zoning Ordinance and that the style will be in line with the existing sign at the entrance to the main campus.

Traffic Impact Study

- 1. No response required.
- 2. GPI has analyzed the sightline requirements and no modifications to the plans are required with the exception of a slightly expanded clearing limit now shown on Sheet C-7.2.

Drainage Report

- 1. As shown in the revised proposed conditions Drainage Analysis, POA #2 shows slight decreases in volume for the 10- and 25-year events. After scouring the model for any inconsistency that would explain this and finding none, we have determined that the only plausible explanation is that the 0.50-acre reduction in watershed area from the pre- to post- models counters the 0.29-acre increase in impervious surface. POA #3 continues to show increased volumes for all analyzed storm events as expected.
- 2. No response required.
- 3. The O&M plan was and is included in Section 8 of the Drainage Analysis.
- 4. No response required.
- 5. As indicated above, riprap aprons, plunge pools and level spreaders are shown on Sheets C-7.1 and C-7.2.
- 6. As indicated above, the liner had been added to the Bioretention Pond detail on Sheet C-15.
- 7. Test pit data was and is provided in Section 6 of the Drainage Analysis.
- 8. As indicated above, the detail for OS #11 on Sheet C-14 has been adjusted to match the drainage model.

Anticipated State Permits Required

- 1. The NHDOT Driveway Permit application was filed on June 27, 2025.
- 2. We anticipate filing the NHDES Sewer Connection Permit application in the coming weeks.
- 3. The NHDES Alteration of Terrain Permit application is currently being complied and will also be submitted shortly.
- 4. The contractor will file for EPA NPDES coverage under the NH CGP at least fourteen days prior to commencement of work.

Altus hopes that the above information satisfies your concerns. Please call me if you have any questions or need any additional information. Thank you for your time and consideration.

Sincerely,

ALTUS ENGINEERING

Erik Saari Vice President

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TURNING MOVEMENT NOTES 30.00 THE GRAPHIC VEHICLE PROFILE SHOULD NOT BE CONSIDERED A COMPLETELY ACCURATE VISUAL DEPICTION OF THE DESIGN VEHICLE AND IS ONLY INTENDED TO CONVEY A GENERIC REPRESENTATION OF ITS GENERAL APPEARANCE. THIS EXHIBIT IS INTENDED TO DEMONSTRATE THAT THE PROJECT AS DESIGNED SHOULD BE ABLE TO ADEQUATELY ACCOMMODATE THIS DESIGN 20.00 VEHICLE. SU-30TURNING MOTIONS SHOWN WERE GENERATED USING AUTOTURN SOFTWARE BY TRANSOFT SOLUTIONS, INC. feet Width : 8.00 Track : 8.00 Lock to Lock Time : 6.0 Steering Angle : 31.8 PROPOSED GARAGE ±2,400 S.F ()00 **LEGEND** FRONT TRACK REAR TRACK VEHICLE BODY/OVERHANG BIVERWOODS DURHAM **TITLE**



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PROJECT	MINEUMOODS DOUBIN
	PHASE II
	TAX MAP 209 LOT 33
	STONE QUARRY DRIVE
	DURHAM, NH
SCALE	

<u>ALE</u> 8.5"x11": 1" = 30'

DATE OCTOBER 3, 2025

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ACCESS EXHIBIT

SHEET NUMBER

1 of 1