

March 18, 2022

James Hallisey, Zoning Agent
Andover Planning & Zoning Commission
17 School Road
Andover, CT 06232

Re: 580 Lake Road
Andover, CT

Dear Mr. Hallisey:

We are in receipt of Yantic River Consultants, LLC's comments dated March 16, 2022, regarding the project noted above. Our responses are indicated below in ***bold italic*** text and the following documents have been included with this resubmission:

- I. 10 Copies of the following Response to Comments Letter dated 03/18/2022
- II. 10 Copies of the revised Land Development Plan Set (24"x36"), dated 3/18/2022
- III. 2 Copies of the Traffic Study, dated 03/2022
- IV. 2 Copies of the revised Appendix G: Stormwater System Operations and Maintenance Plan, dated 03/18/2022
- V. 10 Copies of the Septic System Approval Email, dated 03/21/2022

SECTION 23 SITE PLAN REVIEW

1. 23.2.B.5 Site Features, Proposed:

- a) 23.2.B.5.b - Approximate future location of proposed pylon sign is shown. Location, dimensions, area, height, and type of construction should be provided.

Response: Acknowledged. Please refer to sheet OP-1 for the sign information chart and sheet DN-7 for the signage details.

- b) 23.2.B.5.e - The lot coverage is provided in the Zoning Information Table on Sheet OP-1 with surface coverage types shown in the Legend. The surfaces should be shown and labeled on the plan with areas to confirm the calculated coverage. It appears lot coverage does not include the area of "pervious pavement structure".

Response: The surface coverage hatches have been added to sheet OP-1. The surface coverages and labels are shown on sheet SP-1. The lot coverage calculation does not

include the pervious pavement structure area. An inset showing the impervious coverage area has been added to sheet OP-1.

2. 23.2.B.6 Parking and Drainage:

a) 23.2.B.6.a – Information necessary to confirm compliance with Section 12.

- i. 12.1 - States that all parking spaces shall be 9x18 feet. The parking spaces on the proposed plan are 9x20 feet. The standard space dimensions should be reduced to meet the required standard and reduce impervious surfaces.

Response: Acknowledged. The parking spaces have been reduced to 9'x18'.

- ii. 12.8.1 – The proposed site plan provides for 3.29 parking spaces per every 1000 sf of gross floor area, which exceeds the minimum (2) required for retail. The value is less than the maximum (5).

Response: Acknowledged.

- iii. 12.8.2.g – The site design incorporates a substantial area of pervious pavement for driveways and parking to reduce lot coverage totals. Reducing parking space dimensions and reducing parking to the minimum required would also substantially reduce impervious surfaces. I recommend the applicant provide justification to the Commission for exceeding the minimum requirements given the balance of impervious surfaces to lot coverage on this site.

Response: The applicant feels that the proposed number of parking spaces is necessary to operate the business. The proposed number of parking spaces is within the range of the number of allowed parking spaces.

b) 23.2.B.6.b & c – See below for stormwater management comments.

3. 23.4c Frontage Improvements:

- a) A sidewalk is proposed along the Lake Road frontage. The sidewalk should continue in a northerly direction up to the Route 6 pavement, with a landing area adjacent to the existing pedestrian button pole. This improvement is necessary to provide connectivity to an existing pedestrian way.

Response: The proposed Lake Road frontage sidewalk has been extended to the existing pedestrian button pole.

- i. A minimum 8' wide grass shelf should be provided between the Lake Road interior radius and the sidewalk for snow storage. ROW dedication or an easement is necessary. ROW dedication is recommended.

Response: Acknowledged. An 8' wide grass shelf has been provided between the Lake Road interior radius and the sidewalk for snow storage. A maintenance easement can be granted to the Town of Andover for the sidewalk maintenance.

- ii. Improvements in the Route ROW are subject to DOT review and approval.

Response: Acknowledged.

- b) A new sidewalk landing connecting the proposed sidewalk with Lake Road at the southeastern corner of the site is recommended to allow for interconnection of the Rail Trail corridor with the new sidewalk.

Response: A sidewalk landing in the southeastern corner of the site would present safety concerns for pedestrians. While there is an existing pedestrian button pole at the southeastern corner of the site, there are no sidewalks across either Lake Road or Route 6. Also, there is a guiderail across Lake Road. Directing pedestrians to cross in this location would not provide a refuge area out of the roadway for pedestrians.

4. 24.4.D Traffic Access:

- a) The driveway connecting the site with Route 6 exceeds 30'. Explanation should be provided for the record explaining the proposed driveway width. Connection with Route 6 subject to DOT review and approval.

Response: The driveway width has been reduced to a 30' width. Please refer to sheet SP-1.

- b) The proposed driveway connection to Lake Road is less than 100' to the adjacent driveway to the south. The reasoning for the selected driveway location and reduced separation should be provided for the record.

Response: The driveway connection location to Lake Road was selected to maximize the distance from the signalized intersection.

- c) A traffic report should be submitted for the record. Crash history should be provided for this area and left turn exit onto Route 6 should be discussed in detail to ensure there are adequate sight lines and no conflicts with driveway on the north side of Route 6.

Response: Acknowledged. Please see attached for the traffic study.

- d) Sidewalks should be continuous and interconnect adjacent pedestrian corridors. Interconnection with site sidewalk is also recommended.

Response: A sidewalk connection to the site sidewalk has been added. Please refer to sheet SP-1.

5. Stormwater Management Plan

- a) The stormwater management report certifies that the plan is in general compliance with the Town of Andover Stormwater Management Standards, attenuates peak flow up to the 100-year storm event, and provided treatment in accordance with the Stormwater

Quality Manual. Please see comments and recommendations that should be incorporated into the plan for consideration by the Commission:

- i. The plan relies on a pervious pavement structure for zoning compliance, specifically as it applies to lot coverage calculations. The proper design, installation, operation, and maintenance of this structure are critical to maintain the pervious nature of the product. I recommend the following:

1. A final engineered design for the pervious pavement structure, be submitted to the Town of Andover prior to issuance of a building permit

Response: A final engineered design for the pervious pavement structure will be submitted to the Town prior to the issuance of a building permit.

2. The design engineer oversee the installation and certify that it was constructed substantially in accordance with the design.

Response: Acknowledged. The design engineer will oversee the installation of the pervious pavement structure and certify that it was constructed in accordance with the design.

- ii. The design engineer should oversee the installation of the subsurface detention and infiltration system and treatment structures and certify that they were constructed substantially in accordance with the design.

Response: Acknowledged. The design engineer will oversee the installation of the subsurface detention system and treatment structures and certify that they were constructed in accordance with the design.

- iii. Appendix G of the report is the Stormwater System Operation and Maintenance Plan. This plan does not provide guidance on operating and maintaining the pervious pavement structure, which is prone to clogging and has specific maintenance requirements. O&M for the pervious pavement should be added to the report. Further, I recommend that the O&M be depicted on Sheet GD-1 of the plans.

Response: Acknowledged. The manufacturer's operation & maintenance guide has been added to Appendix G. Please refer to sheet OM-1 which has been added to the plan set for the O&M Manual.

- b) Following are comments and questions related to the calculations:

- i. The plan proposes approximately 7,500 square feet of pervious pavement structure over the easterly driveway and parking areas. The pervious pavement surfaces are not credited in the stormwater analysis as a conservative measure to account for winter freeze conditions. This approach is acceptable but may be overly conservative and result in unused storage capacity within the subsurface infiltration system. It

appears that the infiltration system has little to no outflow up to the 25-year storm event. Consideration should be given to discharging the building roof into the subsurface system to further encourage infiltration from impervious surfaces.

Response: There is little to no outflow up to the 25-year storm event out of the outlet pipe since the remainder of the inflow to the system will infiltrate. The analysis considered the pervious pavement area to be impervious to be conservative to account for winter freeze conditions. When the pervious pavement area is not in a freeze condition, it will infiltrate as well. The subsurface detention system does not have the capacity to allow for the entire building roof area to discharge to it. The front corner of the building area does discharge to the subsurface detention system. The swale along the northeastern edge of the property may infiltrate the roof runoff as well.

- c) A culvert is proposed at the southwest corner of the property, which receives flow from the developed property to the south. Lack of maintenance of the pipe inlet could result in backflow conditions and impact an abutting property.

- i. Can the flow be conveyed in an open channel/swale rather than a culvert?

Response: The flow is conveyed in a culvert due to the close proximity of the septic system and the invert from the roof downspout connection.

- ii. Rights to drain for the abutting property should be provided.

Response: Acknowledged. Rights to drain will be provided to the abutting property.

We trust these responses address your concerns. Should you require additional information, please feel free to contact me at 860-760-1908.

Sincerely,



Kimberly M. Masiuk, P.E.
Senior Project Manager