



Jacobson

June 29, 2022

Mr. Frank DeFelice, Chairman  
Durham Planning and Zoning Commission  
30 Town House Road  
P.O. Box 428  
Durham, Connecticut 06422

Re: Jay Juliano  
3 Lot Re-Subdivision, Lots No. 4, 5 and 6  
48R Shady Lane  
NLJA PN 855-0065

Dear Mr. DeFelice:

Our office has conducted an engineering review of design drawings and a drainage report prepared for Jay Juliano for a proposed 3 lot re-subdivision, located on the east side of Shady Lane in Durham. The land proposed for the 3 new building lots (Lots No. 4, 5 and 6) is 6.3 acres in area and is a portion of Lot No. 3 that was created as part of a 2016 subdivision. The land area for the 3 proposed building lots consists of an existing hay field with a wooded perimeter area.

Shady Lane in this location is a dirt road that has been used to access the existing hayfield on the subject parcel and other wooded parcels located to the south. It is our understanding that the current status of Shady Lane is an unimproved Town Road.

The design drawings were prepared by Patrick M. Benjamin, P.E. and the survey by Robert A Bascom, L.S. of Bascom & Benjamin, LLC in Durham, Connecticut. Inland wetlands were flagged by Eric Davison, certified soil scientist of Chester, Connecticut. Design documents were submitted to our office on May 17 and May 20, 2022. The subject property was field inspected on October 7, 2021 and preliminary review comments were provided to the design engineer on February 1, 2022.

The design was reviewed for conformance with the engineering requirements of the Town of Durham Subdivision Regulations.

The design documents are described as follows:

<u>Description</u>	<u>Sheet No.</u>	<u>Date</u>	<u>Revision</u>
Property/Boundary Survey	1 of 3	2/2/22	-
Site Development Plan	2 of 3	2/2/22	-
Soil Test Data, Notes & Details	3 of 3	2/2/22	-
Stormwater Analysis	-	2/1/22	-

The following comments and recommendations are provided for your consideration.

A. General

As noted above, Shady Lane is an unimproved town road. It is our understanding that the Town of Durham will be making certain improvements to the roadway to make it accessible to vehicular traffic for the



Jacobson

Mr. Frank DeFelice, Chairman  
Durham Planning and Zoning Commission  
RE: Jay Juliano Re-Subdivision, 48R Shady Lane

June 29, 2022  
Page 2 of 3

proposed house lots and for emergency services. These improvements will include a turnaround configuration at the south end of Shady Lane at the southwesterly portion of Lot No. 6. The easement area in favor of the Town of Durham is being provided at the southwest corner of Lot No. 6 for the turnaround area.

Given that the road improvements will be made by the Town of Durham, references on the Site Development Plan to gravel driveway improvements on Shady Lane should be eliminated.

#### B. Site Development Plan

1. Drainage - As discussed during our preliminary review stage, the design engineer has provided curtain/surface drains to collect surface runoff from the localized westerly watershed lawn areas and from the driveways, and directed this flow to a natural drainage swale in the easterly watershed. House roof leaders are directed easterly to rain gardens on each lot, which are designed to infiltrate water into the soil. House footing drains are directed to the east as well.
2. We generally concur with the stormwater drainage analysis report and provisions made to control post-development runoff rates.
3. The outlet of the curtain/surface drain on Lot No. 6 is connected to the curtain/surface drain outlet pipe on Lot No. 5. For this reason, a drainage easement in favor of Lot No. 6 is provided on Lot No. 5.
4. It is recommended that the "surge rip-rap" stone in the 2 proposed drain outlet detention pools be defined as to stone size. Modified rip-rap size would be suitable.
5. Show or call out a construction entrance on each lot.
6. Show a paved apron on the driveway for each house lot.
7. It is recommended that a drainage easement be provided on Lot No. 4 in favor of Lot No. 5, and a drainage easement be provided on Lot No. 3 in favor of Lot No. 4, in the vicinity of the proposed detention pools for the drain outlets. It is recommended that a drainage easement be provided on Lot No. 5 in favor of Lot No. 6 in the vicinity of the proposed infiltration scour pad for the Lot No. 6 footing drain outlet.
8. The proposed stormwater management system for the 3 lot re-subdivision is dependent on the proposed curtain/surface drainage system and detention outlet pools. We would ask what provisions will be made as part of the re-subdivision approval to require the respective lot owners to operate and maintain the drainage systems as proposed and enforcement of the same? Perhaps language on the approved subdivision drawings and deeds for the respective lots could be used for this purpose.



Jacobson

Mr. Frank DeFelice, Chairman  
Durham Planning and Zoning Commission  
RE: Jay Juliano Re-Subdivision, 48R Shady Lane

June 29, 2022  
Page 3 of 3

C. Details

1. The design engineer should indicate if a soil planting layer will be provided in the proposed rain gardens (as is typically provided), in addition to the 3 inch surface layer of mulch.
2. Provide a paved driveway apron detail.
3. Provide a detail for the cleanouts proposed for the curtain/surface drain lines.
4. It is recommended that a detail or call out be provided for rodent screens on the outlets of the surface/underdrain and footing drain outlet pipes.

Should you have any questions or require any additional information, please feel free to call.

Sincerely,

NATHAN L. JACOBSON & ASSOCIATES, INC.

Brian C. Curtis, P.E.

enclosures

cc: Laura Francis, First Selectman  
Robin Newton, Town Planner  
John Jenkins, Durham Road Foreman  
Patrick Benjamin, P.E.

L:\08550065 Juliano Resubdivision Shady La\Correspondence\2022-6-29 L DeFelice review.docx