



**CHRISTIANSEN & SERGI, INC.**  
**PROFESSIONAL ENGINEERS AND LAND SURVEYORS**

160 SUMMER STREET. HAVERHILL, MA 01830

**City of Newburyport Planning Board**  
**Modification to an Approved Subdivision**

Review Date: 3/1/18  
Plan Title: Site Plan at Lot 4B Donahue Court  
Applicant: Steve McConnell  
Applicant's Engineer: Millennium Engineering, Inc.  
Plan Date: February 6, 2018

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The submitted plan set was reviewed for compliance with the City of Newburyport Site Plan Review. The applicant has submitted the following plans and documents for Christiansen & Sergi, Inc. (CSI) to review:

1. Plans entitled Site Plan; Sheet 1 - 1, dated 2/6/2018
2. Stormwater Calculations, last revised 2/6/2018.

We have listed below those non-compliant issues we consider to be of most importance as well as engineering design issues that need to be addresses so that the project will be built and function as intended.

1. Subcatchments S100, S101, and S104 should be revised or more detail provided to ensure the runoff is being directed as shown. As shown, a portion of the pool may drain towards the stone drain along with some of the yard area. A portion of the driveway appears to not be directed into basin 1 as calculated and may not be collected at all.
2. A large area is allowed to flow overland and flow between the proposed wall and the rear of the house. A foundation drain should be proposed to ensure the runoff is removed from the foundation.
3. The stone drain should be revised. The current grading shows a swale across the stone drain which is covered by topsoil. Runoff will not be able to enter the drain as proposed. The area should be re-graded to show a low point over the stone drain to allow water to collect. An area drain should be proposed within the low spot and laterals of perforated pipe should be run within the stone drain to ensure the runoff is entering the drain.
4. An infiltration basin detail should be provided now that the applicant has revised basin 1 to infiltrate.

5. Donahue Court is already installed and the applicant should be working with the as-built grades of the road to ensure the drainage and grades will work. The proposed grades at the end of Donahue Court are a foot higher than the proposed grades on the approved plans.
6. The applicant is proposing walls over 6' in height. If the board allows these walls, the applicant will have to have a structural engineer design the walls and provide details.
7. A test pit was conducted within the footprint of the proposed dwelling. The test pit was located at the low elevation and shows groundwater estimated at 134". If groundwater at the high elevation within the dwelling is at 134", the basement floor will not be 2' above the ESHWT which is required by the Board of Health. We recognize that other test pits were performed on site and had a greater depth to groundwater. If the applicant can justify their findings and the Board of Health accepts then we have no further issues.

The Applicant should submit revised plans and a written response to these comments at their earliest convenience. The Applicant may request a digital copy of this review to expedite their response. Should the Applicant have any questions or comments regarding this review, the Applicant should correspond through the Planning Board, or may contact Christiansen & Sergi, Inc. at the discretion of the City of Newburyport Planning Board.

Regards,



Christiansen & Sergi, Inc.