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CIVIL ENGINEERING - LAND DEVELOPMENT - SITE PLANS - STORMWATER MANAGEMENT

**Stormwater Management Report
For Land Use Commissions Submittals
Avery Brook Homes Subdivision,
Stoddards Warf Road, Ledyard, Connecticut**

May 20, 2024
Revised 6/21/2024

EXISTING CONDITIONS: Reference is made to the following Plan Set: "Plan Showing Resubdivision Property of Avery Brook Homes LLC 96, 98 and 100 Stoddards Wharf Road, A.K.A. Connecticut Route 214 Ledyard, Connecticut" Scales as shown, March 2024, Revised June 2024, By Dieter & Gardner, Gales Ferry, CT. The property is located on the north side of Stoddards Wharf Road approximately one quarter mile east of the intersection of Whalehead Road and Stoddards Wharf Road. The property is wooded. The property drains primarily to the east and north.

STORMWATER MANAGEMENT: The Rational Method was used to analyze stormwater runoff in accordance with the Town of Ledyard's Ordinance Regulating the Management of Stormwater Runoff. This proposal will not increase the peak rate of runoff from the property nor will it increase the potential for downstream flooding. A Pre-Development versus Post-Development analysis is provided on Page 6 of the attached calculations.


WATER QUALITY: The Connecticut D.E.E.P. 2004 Stormwater Quality Manual (SWQM) defines the Water Quality Volume (WQV) as the volume of runoff from a one-inch rainfall event. SWQM Paragraph 7.4.1 states: "In the northeastern U.S., the 90 percent rainfall event is equal to approximately one inch, which is consistent with the recommended WQV sizing criteria for Connecticut." Therefore, by treating the WQV, the proposal effectively meets the requirements of the SWQM.

Runoff from roadway pavement drains to low-point catch basins and then piped to underground retention/infiltration areas where it is held and infiltrated into the subsoil. Proposed driveways will be gravel and stone to provide additional infiltration. Stormwater runoff leave the property as sheet flow over wide areas. There are no channelized flows to cause erosion.

The subsoil throughout the property consists of sand and gravel with no evidence of seasonally high ground water. The soil conditions are excellent for infiltrating storm water. Therefore, roof runoff from each of the proposed homes will have an infiltration area, sized to hold and infiltrate the WQV thereby providing groundwater recharge per the SWQM guidelines. Surface water runoff is measurably reduced by infiltrating clean roof runoff back into the groundwater.

CONCLUSION: The proposed development meets the requirements of the Connecticut D.E.E.P. 2004 Stormwater Quality Manual and will not have adverse effects on down-gradient properties, nor will it increase the potential for downstream flooding and is in keeping with the policies and goals of the Ledyard Planning and Zoning Commission.

Submitted by:
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