



Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

March 23, 2020

Sean Gunning  
711 Southington Road  
Berlin, Connecticut 06437

RE: Septic Location Inspection, 167 Summit Wood Road (Lot 10), Berlin

Mr. Gunning,

As you are aware, I conducted an inspection on a portion of the above-referenced property on February 24, 2020. The purpose of the inspection was to identify a suitable location for a septic leach field. The inspection was conducted with Barbara Gigliotti, Supervising Sanitarian for the Central Connecticut Health District, and Sean Merrigan, State of Connecticut Department of Public Health.

The above-referenced lot has been partially developed, with preliminary grading completed to a point that facilitated access and installation of a house foundation. Due to widespread soil disturbance, areas that had been previously identified as suitable leach field locations now contain fill material deemed unsuitable. During the inspection, all potentially suitable on-site locations were evaluated.

The only suitable location, as depicted on the Septic System/Site Plan (revised 3/19/2020), is in a wooded upland area north of the proposed residence and driveway. This location is adjacent to (within 10 feet of) a narrow groundwater discharge wetland and approximately 60 feet upgradient of an intermittent watercourse. The following are comments regarding the potential for wetland and/or watercourse impacts, and recommendations for impact minimization:

1. No groundwater was observed to 60" within the Test Pit D, closest to the proposed primary location. Additionally, mature forest exists between the primary location and downgradient intermittent watercourse. Given these conditions, (lack of groundwater transport, and intervening vegetated buffer), the Connecticut Public Health Code's (January 2018) minimum recommended separation to an open watercourse of 50 feet, and lack of a feasible alternative, this location is acceptable relative to the downgradient watercourse.
2. The adjacent wetland finger is primarily driven by groundwater inputs from the east, whereas the propose leach field is located to the west of the wetland finger. Further, the proposed leach field would infiltrate at elevation 248 (2 feet below existing elevation 250). The adjacent wetland surface is situated at a similar elevation, and therefore, unlikely to be directly impacted by leachate.

3. Consideration may be given to shade-tolerant emergent plug plantings within the wetland finger in order to mitigate for any potential groundwater impacts. The plantings would enhance the removal of soluble pollutants and nutrients through uptake and adsorption, The following are suggested plantings:

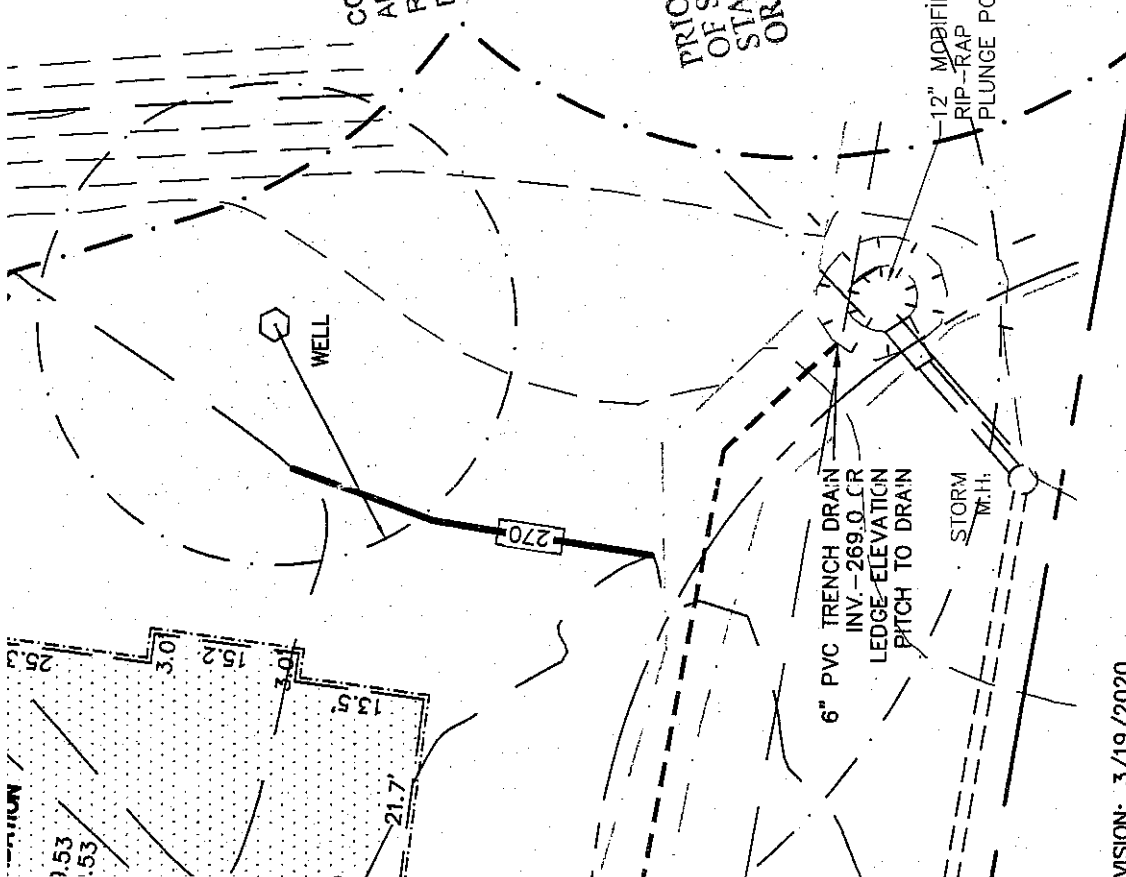
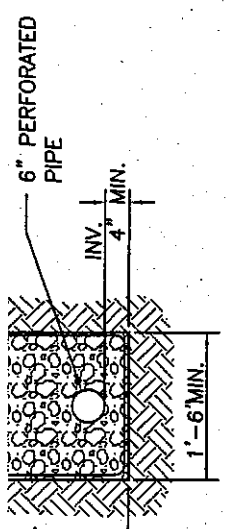
Botanical Name	Common Name	Size	Minimum Spacing	Quantity
<b>Emergent Plugs</b>				
<i>Aster cordifolius</i>	Blue Wood Aster	2" plugs	2FT-O.C.	30
<i>Aster divaricatus</i>	White Wood Aster	2" plugs	2FT-O.C.	30
<i>Carex stricta</i>	Tussock Sedge	2" plugs	2FT-O.C.	50
<i>Glyceria striata</i>	Fowl Manna Grass	2" plugs	2FT-O.C.	50

If you have any questions regarding these findings, please feel free to contact me.

Respectfully submitted,



Matthew Davison, PWS, PSS, CPESC, CT Forester



**APPROVED**

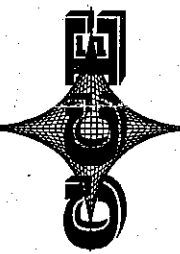
CCHD PLAN REVIEW  
 APPROVED *[Signature]*  
 REVISION REQUIRED *710*  
 DATE *8.15.20*  
 REVIEWED BY *[Signature]*

**PRIOR TO INSTALLATION  
 OF SEPTIC SYSTEM  
 STAKEOUT BY ENGINEER  
 OR SURVEYOR REQUIRED**

- SPECIAL CONCERNS**
1. SEE SITE PLAN NOTED IN MAP REFERENCE 2 FOR OTHER SITE RELATED CONSTRUCTION ACTIVITIES.
  2. SEPTIC TANK IS TO BE WATERTIGHT AND TESTED IN ACCORDANCE WITH STATE HEALTH CODE
  3. THE ENGINEER SHALL OVERSEE THE CONSTRUCTION OF THE DRAINAGE SYSTEM AND THE RESTORATION OF THE SEPTIC SYSTEM AREA TO THE DETAILS SHOWN ON THE PLAN.
  4. INSTALL CURTAIN ALONG INTERMITTENT WATER COURSE  
 INSTALL STORM DRAIN PIPE TO LINES & GRADES SHOWN ON PLAN. TIGHT PIPE SHALL BE USED WHERE NOTED.  
 CLEAN DRAINWAY OF ALL PIPE STONE & UNSUITABLE MATERIAL TO SUBGRADE. BACK FILL TRENCH WITH SELECT COMMON FILL (PERC RATE OF 10-20 MIN/IN), COMPACT TO 90% MODIFIED PROCTOR.
  5. SEPTIC SYSTEM SHALL BE STAKED BY THE DESIGN ENGINEER ELEVATIONS AND LAYOUT WILL BE REVIEWED BY THE ENGINEER AND BY CENTRAL CT HEALTH DIST. NO CONSTRUCTION OF THE SYSTEM SHALL START UNTIL APPROVAL BY THE SANITARIAN AND ENGINEER.
  6. STRIP SYSTEM AREA OF ALL TOP SOIL AND STOCK PILE. INSTALL SEPTIC FILL AND SYSTEM IN ACCORDANCE TO THE GENERAL NOTES & INSTALLATION NOTES LISTED ELSEWHERE ON THIS SHEET. SEPTIC FILL SHALL BE PLACED IN THE RESERVE AREA AS SHOWN ON THE PLANS AT THE TIME OF THE PRIMARY SYSTEM INSTALLATION.
  6. FINAL AS BUILT SHALL BE PROVIDED BY THE ENGINEER

VISION: 3/19/2020

**CONNECTICUT CONSULTING ENGINEERS L.L.C.**  
**PROFESSIONAL CIVIL ENGINEERS**



STIGE DRIVE  
 E 110  
 39-8636

MERIDEN, CT. 06450  
 FAX 203-238-0840

DESIGN BY SDP	CHECKED BY SDP	PROJ. NO.	CAD DRAW. NO.
SCALE			

**SEPTIC SYSTEM/SITE PLAN**

PREPARED FOR

**SEAN GUNNING**  
 167 SUMMIT WOOD DRIVE (LOT 10)

CONTRACT



TOWN OF BERLIN  
Inland Wetlands  
and  
Water Courses Commission  
240 Kensington Road • Berlin, CT 06037  
Office (860) 828-7022 • Fax (860) 828-7180

CERTIFIED MAIL: 7017 3380 0000 1148 2577

February 10, 2020

Mr. Sean Gunning  
711 Southington Road  
Berlin, CT 06037

**Re: Application 20-02W**

Dear Mr. Gunning:

Please be advised that during its meeting of February 4, 2020, the Town of Berlin Inland Wetland and Water Courses Commission voted unanimously to approve the above referenced application. This approval was granted contingent upon the following;

1. That all erosion and sedimentation control devices (as designated on plans) be installed to the satisfaction of the Wetlands Agent prior to the commencement of construction.
2. That all other construction related activities be installed in accordance with the submitted plans entitled: "Septic System/Site Plan prepared for Sean Gunning, 167 Summit Wood Drive (Lot 10), Berlin, CT, by Connecticut Consulting Engineers LLC, Meriden, CT, 6/3/05, Revised 2/2/20, "

Please be advised that this permit will become effective on February 22, 2020 following a successful completion of the Fifteen (15) day appeal period commencing on February 8, 2020.

Attached is a copy of the legal notice, which appeared in The Herald, classified section, on February 7, 2020. If you should have any further questions regarding this matter, please do not hesitate to call me at (860) 828-7069.

Sincerely,

James P. Horbal  
Agent for the Inland Wetlands Commissions

Attachment

cc: William Jackson, IWWC Chairman  
Maureen Giusti, AICP - Interim Town Planner