

DRAINAGE REPORT
218 Hillspoint Road
Westport, CT

- PREPARED FOR -

Inveswell LLC

February 23, 2026

- PREPARED BY -

The Huntington Company, LLC.
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1. Site Description:

The subject property is a 6,276±-sf parcel of land located on the west side of Hillspoint Road in Westport, Connecticut, directly across from Old Mill Road. The parcel lies approximately 350'± west of Long Island Sound.

2. Existing Conditions:

The site currently contains an asphalt driveway, with the remaining area consisting of lawn cover. The site slopes generally from west to east, allowing runoff to drain toward Hillspoint Road, where it enters the Town of Westport's road drainage system, ultimately discharging into Long Island Sound.

According to the Fema Flood Insurance Rate Map, the property lies partially within Flood Zone AE (13) and partially within Zone X.

According to the NRCS Soil Survey mapping, site soils are classified as Charlton-Urban land complex (Hydrologic Soil Group B) and Hinckley-Urban land complex (Hydrologic Soil Group A). Deep test holes were performed and a percolation test was conducted on March 27, 2025 by Huntington Company, LLC. The data for all testing can be found on Sheet 2 of 2 of the site plans.

3. Proposed Conditions:

The client proposes to remove the existing asphalt driveway and construct a primary residence with 2-bay garage underneath, a detached ADU, permeable paver driveway, patio/walk and in-ground pool/spa. The property will be served by public water and municipal sewer. To mitigate stormwater impacts associated with the new impervious surfaces and to enhance groundwater recharge, a permeable paver driveway with gravel storage bed underneath as well as a subsurface detention system is proposed. The systems will collect runoff from the driveway, roof area of the primary residence and ADU as well as the pool overflow.

4. Design Objectives:

The stormwater management design has been developed to meet or exceed the Town of Westport requirements for stormwater quality. As the site drains directly toward Long Island Sound, the design specifically addresses water quality (WQV) requirements.'

5. Summary of Water Quality Volume

Water Quality Volume	WQV
Water Quality Required	245.4 ft ³
Water Quality Provided	365 ft ³

6. Conclusion:

(4) 12” high H-20 concrete galleries embedded in washed stone and permeable paver driveway with storage bed underneath will be more than sufficient to meet the design objectives (See location and details on the site plan). Runoff from the proposed roof area of the primary residence and ADU as well as the pool overflow will discharge into the proposed subsurface detention system and gravel storage bed. The driveway runoff will also be routed through the gravel storage bed under the driveway.

By incorporating Structural LID BMP’s into the design and providing attenuation of the stormwater runoff from the site, it is our professional opinion that upon proper installation of the storm drainage systems water quality will be improved.

**APPENDIX A – Water Quality
Volume Calculations**

**WATER QUALITY VOLUME DESIGN CALCULATIONS
FOR #218 HILLSPPOINT ROAD**

Water Quality Volume (WQV):

$$\text{WQV} = 1''(\text{R})(\text{A})/12$$

$$\text{R} = \text{volumetric runoff coefficient} = 0.05 + 0.009(\text{I})$$

$$\text{A} = \text{site area}$$

Water Quality Volume Calculations For "Site"

$$\text{R} = 0.05 + 0.009(46.59) = 0.4693$$

$$\text{A} = \text{Site} = 6,276 \text{ ft}^2$$

$$\text{Impervious Coverage (Inc. Residence, ADU, Patio/Walk, Pool, Driveway)} = 2,924 \text{ ft}^2$$

$$\text{I} = 2,924 \text{ ft}^2 / 6,276 \text{ ft}^2 = 46.59\%$$

$$\text{WQV} = 1'' (0.4693) (6,276 \text{ ft}^2) / 12 = 245.4 \text{ ft}^3$$

$$\text{Water Quality Volume Required} = 245.4 \text{ ft}^3$$

WQV Provided:

$$(4) 12'' \text{ High H-20 Concrete Galleries: } 76 \text{ ft}^3$$

Storage Bed Under Driveway:

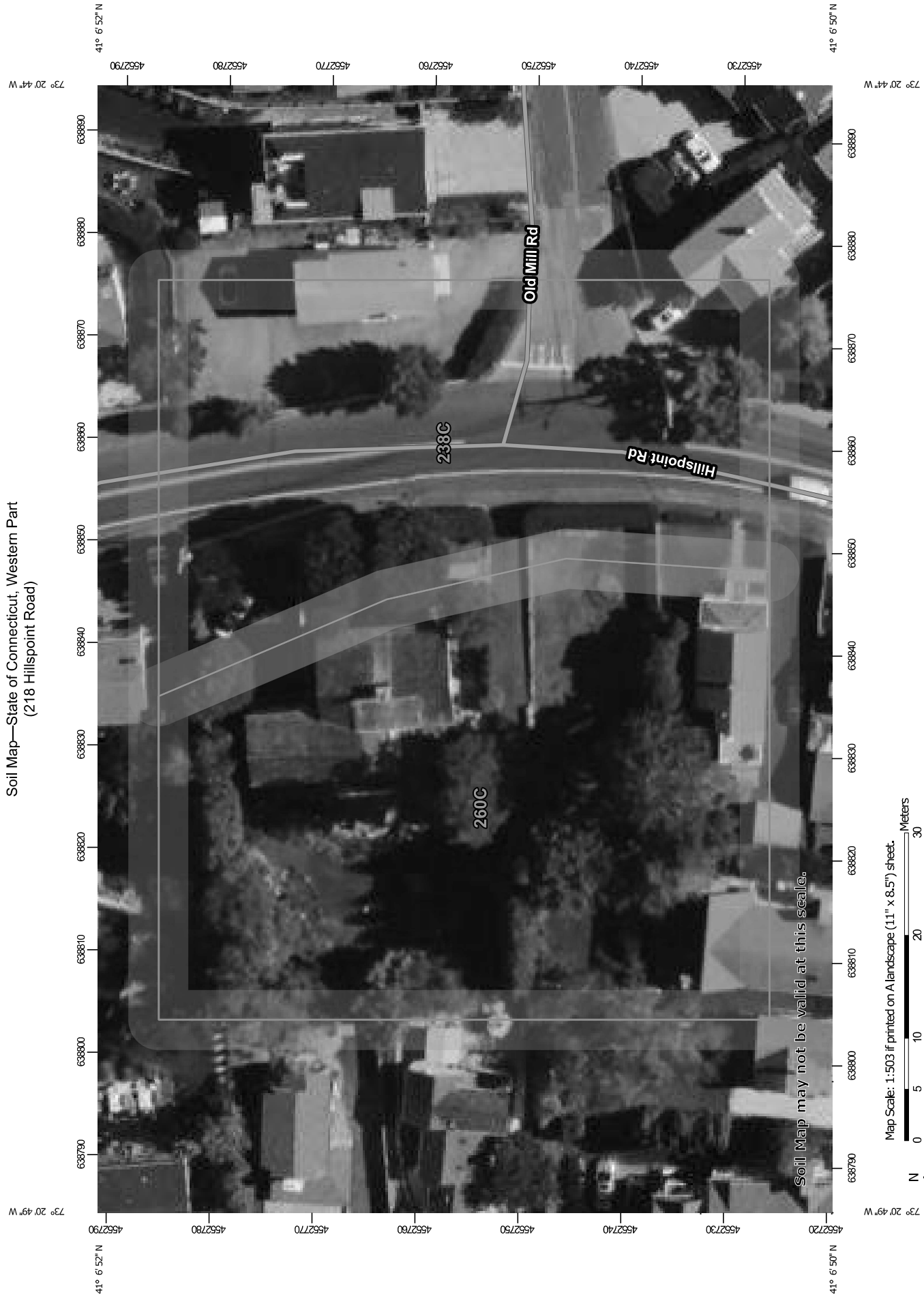
$$= 872 \text{ sf} \times 0.83' \text{ (Min. Depth)} \times 0.40 \text{ (Voids)} = 289 \text{ ft}^3$$

$$\text{Total WQV Provided} = 76 \text{ ft}^3 + 289 \text{ ft}^3 = 365 \text{ ft}^3$$

$$\text{Total Retention Storage Volume} = 365 \text{ ft}^3 > \text{Water Quality Volume} = 245.4 \text{ ft}^3$$

APPENDIX B
NRCS Soils Map

Soil Map—State of Connecticut, Western Part
(218 Hillspoint Road)



Soil Map may not be valid at this scale.

Map Scale: 1:503 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
238C	Hinckley-Urban land complex, 3 to 15 percent slopes	0.5	43.3%
260C	Charlton-Urban land complex, 8 to 15 percent slopes	0.6	56.7%
Totals for Area of Interest		1.1	100.0%

State of Connecticut, Western Part

238C—Hinckley-Urban land complex, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9lkt
Landscape: Valleys
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 40 percent
Urban land: 35 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landscape: Valleys
Landform: Terraces, Outwash plains, Kames, Eskers
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glaciofluvial deposits derived from granite and/or schist and/or gneiss

Typical profile

Ap - 0 to 8 inches: gravelly sandy loam
Bw1 - 8 to 20 inches: very gravelly loamy sand
Bw2 - 20 to 27 inches: very gravelly sand
C1 - 27 to 42 inches: stratified cobbly coarse sand to extremely gravelly sand
C2 - 42 to 60 inches: stratified cobbly coarse sand to extremely gravelly sand

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Description of Urban Land

Typical profile

H - 0 to 6 inches: material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Windsor

Percent of map unit: 5 percent
Landscape: Valleys
Landform: Terraces, Outwash plains, Kames
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landscape: Valleys
Landform: Terraces, Outwash plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Udorthents

Percent of map unit: 5 percent
Anthropogenic features: Urban land
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Merrimac

Percent of map unit: 3 percent
Landscape: Valleys
Landform: Terraces, Outwash plains, Kames
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Walpole

Percent of map unit: 3 percent
Landscape: Outwash plains

Landform: Drainageways on terraces, Depressions on terraces
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Agawam

Percent of map unit: 2 percent
Landscape: Valleys
Landform: Terraces, Outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Scarboro

Percent of map unit: 2 percent
Landscape: Outwash plains
Landform: Terraces, Drainageways, Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: State of Connecticut, Western Part

Survey Area Data: Version 6, Sep 16, 2025

State of Connecticut, Western Part

260C—Charlton-Urban land complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2xff8
Landscape: Glaciated uplands
Elevation: 0 to 890 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton and similar soils: 40 percent
Urban land: 35 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landscape: Glaciated uplands
Landform: Ridges, Ground moraines, Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam
C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat):
Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: F144AY034CT - Well Drained Till Uplands

Hydric soil rating: No

Description of Urban Land

Setting

Landscape: Glaciated uplands

Anthropogenic Feature: Urban land

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 0 inches to manufactured layer

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: Unranked

Minor Components

Chatfield

Percent of map unit: 10 percent

Landscape: Glaciated uplands

Landform: Bedrock-controlled ridges, Bedrock-controlled hills

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Nose slope, side slope, crest

Down-slope shape: Convex

Across-slope shape: Linear, convex

Hydric soil rating: No

Udorthents

Percent of map unit: 5 percent

Landscape: Glaciated uplands

Landform: Ridges

Landform position (three-dimensional): Tread

Anthropogenic features: Fills

Down-slope shape: Convex, linear

Across-slope shape: Convex, linear

Hydric soil rating: No

Sutton

Percent of map unit: 5 percent

Landscape: Glaciated uplands

Landform: Ground moraines, Hills

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Leicester

Percent of map unit: 5 percent

Landscape: Glaciated uplands

Landform: Hills, Ground moraines, Drainageways, Depressions

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave, linear

Across-slope shape: Concave

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: State of Connecticut, Western Part

Survey Area Data: Version 6, Sep 16, 2025

**APPENDIX C – MS4 Impervious
Cover Reduction Worksheet**

Town of Westport Department of Public Works

Town Hall, 110 Myrtle Ave.
 Westport, Connecticut 06880
 (203) 341-1120



By: The Huntington Company, LLC
 Dated: 02/23/26
 Revised: _____

MS4 Impervious Cover Reduction Worksheet

Address: 218 Hillspoint Road, Westport, CT
GIS ID #: E04-112-000
Lot Area: 6,276 SF

Existing Conditions

Impervious Items	Area (SF)	
	Disconnected	Connected
Ex. Driveway	0	902
Ex. Walk & Patio	2	0
	0	0
	0	0
	0	0

Totals

2	902
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 SF

Proposed Conditions

Impervious Items	Area (SF)	
	Disconnected	Connected
Pr. Bldg Cov.	1,280	0
Pr. Perm. Driveway	1,000	0
Pr. Pool	100	0
Pr Walk/Patio/Walls	544	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0

Totals

2,924	0
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 SF

Connected Impervious Area Reduction

Existing Connected Impervious Cover 902 SF
Proposed Connected Impervious Cover 0 SF
Reduction 902 SF
Percent Reduction 100.0%