

INLAND WETLANDS – WEDNESDAY, SEPTEMBER 2, 2020  
138 CAMP WORKCOEMAN ROAD - REVISED APPLICATION

**Note:** This application packet replaces the packet that was originally posted

PLEASE REFER TO THIS PACKET DURING THE MEETING.

TOWN OF NEW HARTFORD  
INLAND WETLANDS AND WATER COURSE COMMISSION  
APPLICATION FOR PERMIT

1. Applicant(s) Name: JOE WELKER  
Home Address: 130 CAMP WOLCOEMAN RD. NEW HARTFORD, CT 06057  
Business Address: \_\_\_\_\_  
Phone - Home: 646 251-9270 Business: \_\_\_\_\_  
Email Address: welkerjoe5@gmail.com  
Applicant(s) interest in land (owner, lessee, option holder, etc.) \_\_\_\_\_  
\*\*If applicant is not the owner, then the owner's consent, duly acknowledged, to the proposed activity, must be attached to the application.

2. Owner(s) If same as applicant, so state.  
Owner(s) Name: SAME + COLLEEN WELKER  
Home Address: \_\_\_\_\_  
Business Address: \_\_\_\_\_  
Phone - Home: \_\_\_\_\_ Business: \_\_\_\_\_  
Email Address: \_\_\_\_\_

3. Location of Proposed Activity: 130 CAMP WOLCOEMAN RD  
Assessor's Map #: \_\_\_\_\_ Block #: \_\_\_\_\_ Parcel #: \_\_\_\_\_ Zone: \_\_\_\_\_  
\*\*Detailed description or plot plan may be submitted.

Area (acres): 1.2 Square Feet, if less than 2 acres: \_\_\_\_\_  
Total acreage of wetlands on property: NOT SURE

4. Description of the proposed activity: ADDITION TO EXISTING & SUB SURFACE SEWAGE  
SANITATION SYSTEM

5. Alternatives considered by the applicant and why the proposal to alter wetlands set forth in the application was chosen: NONE

6. Names and addresses of adjacent property owners within 100 feet. \*\*Information can be obtained at the Assessor's Office.

JIM & LAURA MINOR @ 126 C. WOLCOEMAN  
BILL & SUE ANCLAR @ 128 " "  
DAVE & LORRAINE MINER @ 134 " "  
BOY SCOUTS OF AMERICA

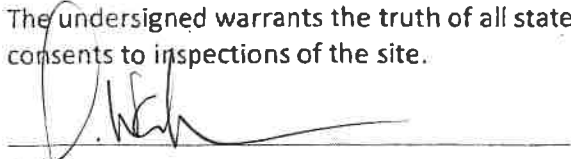
7. Any other information: \_\_\_\_\_

20-08-04  
OK. 1442

**YOU MUST ALSO SUBMIT:**

- 9 Copies of a Site Plan showing existing and proposed conditions in relation to wetlands and watercourses.
- 9 Copies of all other documents pertaining to the application.
- \$120.00 Application Fee.
- Completed DEP Inland Wetlands Activity Report.

The undersigned warrants the truth of all statements made in conjunction with this application and consents to inspections of the site.

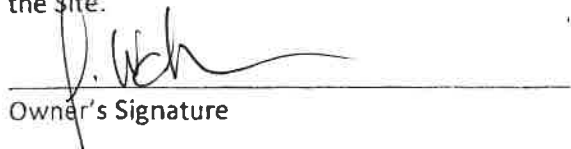


Applicant's Signature

JOSEPH WELKER

Print or Type Name

The undersigned owner(s) of record consent to the submission of this application and to inspections of the site.



Owner's Signature

JOSEPH WELKER

Print or Type Name

.....  
FOR COMMISSION USE:

Receipt Number: \_\_\_\_\_ Date Received: \_\_\_\_\_

Amount Paid: \_\_\_\_\_



# Town of New Hartford, CT

## Property Listing Report

Map Block Lot

06A-112-064

Bldg #

1

Sec #

1

PID

4803

Account

00234400

### Property Information

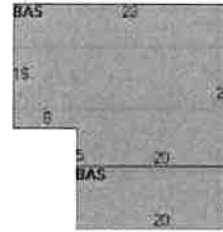
Property Location	130 CAMP WORKCOEMAN ROAD
Owner	WELKER JOSEPH R AND COLLEEN A
Co-Owner	na
Mailing Address	140 W 79TH STREET #2E NEW YORK NY 10024
Land Use	1013 SFR Water
Land Class	R
Zoning Code	R4
Census Tract	3061

Neighborhood	10
Acreage	1.2
Utilities	Well,Septic
Lot Setting/Desc	Rural Level
Book / Page	0266/0944
Fire District	1

### Photo



### Sketch



### Primary Construction Details

Year Built	1929
Building Desc.	SFR Water
Building Style	Cottage
Building Grade	Below Average
Stories	1
Occupancy	1.00
Exterior Walls	Vertical Wood
Exterior Walls 2	NA
Roof Style	Gable
Roof Cover	Asphalt
Interior Walls	K Pine/A Wood
Interior Walls 2	NA
Interior Floors 1	Soft Woods
Interior Floors 2	NA

Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bedrooms	02
Full Bathrooms	0
Half Bathrooms	1
Extra Fixtures	0
Total Rooms	4
Bath Style	Average
Kitchen Style	Average
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

### (\*Industrial / Commercial Details)

Building Use	Residential
Building Condition	A
Sprinkler %	NA
Heat / AC	NA
Frame Type	NA
Baths / Plumbing	NA
Ceiling / Wall	NA
Rooms / Prtns	NA
Wall Height	NA
First Floor Use	NA
Foundation	NA

**GENERAL NOTES :**

1. LOT AREA = 53,884 +/- SF. OR 124 +/- ACRES (TO EDGE OF WATER)
2. ZONE = R-4
3. DEED REFERENCE = VOL 266 P 944
4. ASSESSORS REFERENCE = MAP 6A BLOCK 112 LOT 64
5. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED ON SEPTEMBER 26, 1996.
6. TYPE OF SURVEY = PROPERTY SURVEY
7. BOUNDARY DETERMINATION CATEGORY = RE-SURVEY
8. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREIN HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS ARE APPROXIMATE AND OTHER SUCH FEATURES MAY EXIST UNKNOWN TO DUFUR SURVEYING ASSOCIATES. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455
9. EXISTING TOPOGRAPHY BASED ON APPROXIMATE USGS DATUM AND FIELD VERIFIED BY RONALD H. DUFUR - L.S. #12319.

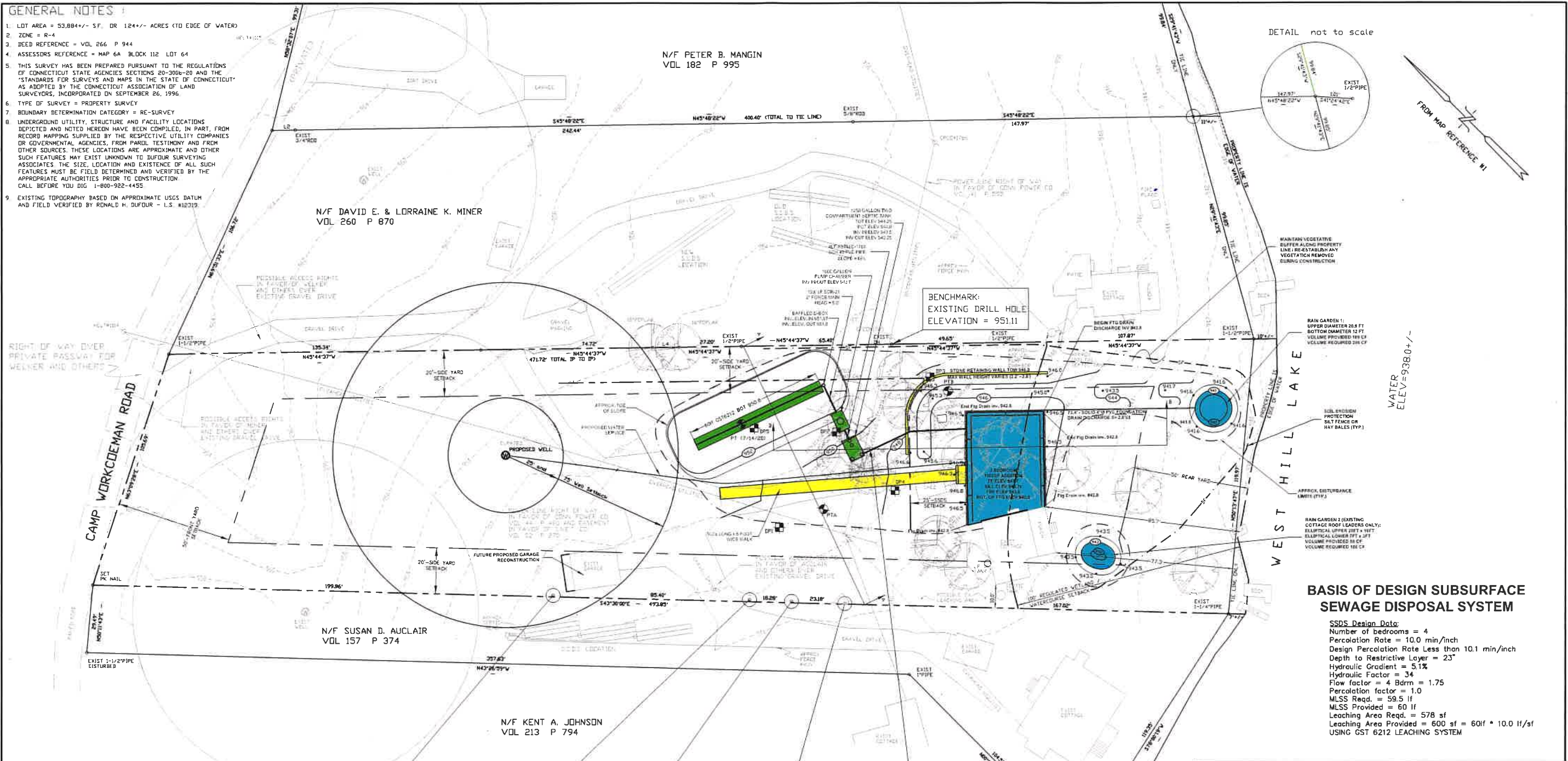
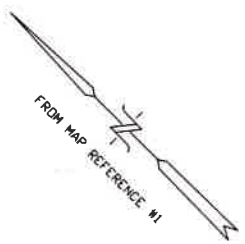
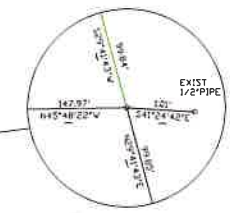
N/F PETER B. MANGIN  
VOL 182 P 995

N/F DAVID E. & LORRAINE K. MINER  
VOL 260 P 870

N/F SUSAN D. AUCLAIR  
VOL 157 P 374

N/F KENT A. JOHNSON  
VOL 213 P 794

DETAIL not to scale

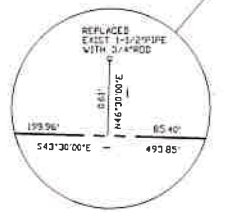


**BASIS OF DESIGN SUBSURFACE SEWAGE DISPOSAL SYSTEM**

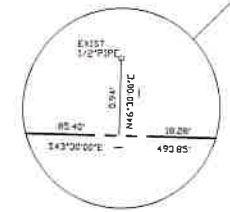
**SSDS Design Data:**  
 Number of bedrooms = 4  
 Percolation Rate = 10.0 min/inch  
 Design Percolation Rate Less than 10.1 min/inch  
 Depth to Restrictive Layer = 23'  
 Hydraulic Gradient = 5.1%  
 Hydraulic Factor = 34  
 Flow factor = 4 Bdrm = 1.75  
 Percolation factor = 1.0  
 MLSS Req. = 59.5 lf  
 MLSS Provided = 60 lf  
 Leaching Area Req. = 578 sf  
 Leaching Area Provided = 600 sf = 60lf \* 10.0 lf/sf  
 USING GST 6212 LEACHING SYSTEM

**MAP REFERENCES :**

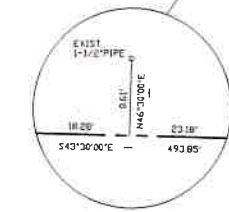
1. "PROPERTY SURVEY PREPARED FOR DAVID E. & LORRAINE K. MINER 1134 CAMP WORKCOEMAN ROAD WEST HILL LAKE NEW HARTFORD, CONNECTICUT, SCALE:1"=20', DECEMBER 24, 2009. RONALD H. DUFUR - L.S. #12319
2. "AS-BUILT SURVEY, 128 CAMP WORKCOEMAN ROAD NEW HARTFORD, CONNECTICUT, SCALE:1"=20', SEPTEMBER 2007. DICARA LAND SURVEYING SERVICES
3. "PROPERTY SURVEY PREPARED FOR PETER B. MANGIN & THOMAS V. BEECHER, CAMP WORKCOEMAN ROAD WEST HILL LAKE NEW HARTFORD, CONNECTICUT, SCALE:1"=20', MAY 5, 2004. RONALD H. DUFUR - L.S. #12319
4. "MAP OF LAND OWNED BY ADAM & WINIFRED A. FESTA CAMP WORKCOEMAN ROAD NEW HARTFORD, CONNECTICUT SCALE:1"=200', JANUARY 24, 1986. RONALD H. DUFUR - L.S. #12319
5. "PLAN OF LOTS OWNED BY FRED H. BALDWIN NEW HARTFORD, CONNECTICUT, SCALE:1"=100', APRIL 29, 1921. F.N. MOORE - L.S.
6. "SURVEY OF PROPERTY TO BE CONVEYED BY THE ESTATE OF WILLIAM C. NETH TO F. EVELYN SMITH NEW HARTFORD, CONN SCALE:1"=40', JULY 7, 1965. DOUGLAS G. LITTLE - L.S.



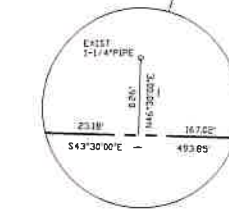
DETAIL not to scale



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**LINE DATA**

LINE	BEARING	DISTANCE
1	S43°30'00\"/>	
2	S43°30'00\"/>	
3	S43°30'00\"/>	
4	N43°44'37\"/>	



**SITE PLAN ADDITION / SSDS**

**130 Camp Workcoeman Road**

Prepared For  
*Joseph and Colleen Welker*

New Hartford, Connecticut

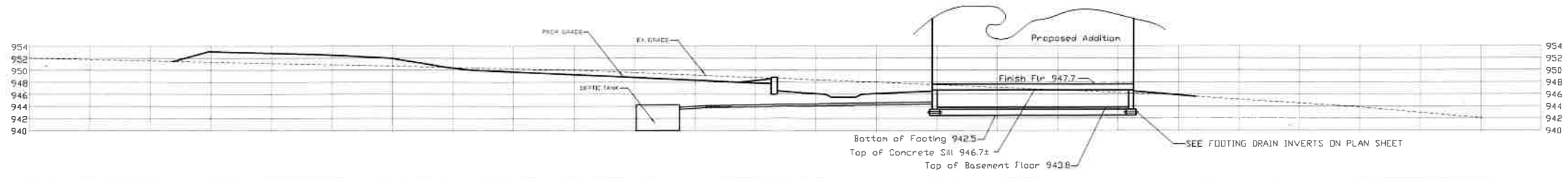
**LAUREL ENGINEERING, LLC**  
Civil, Seismic, Structural Consultants  
49 Center Street - Winsted, Connecticut 06098

Phone (860) 379-6898      E-Mail laureleng@earthlink.net

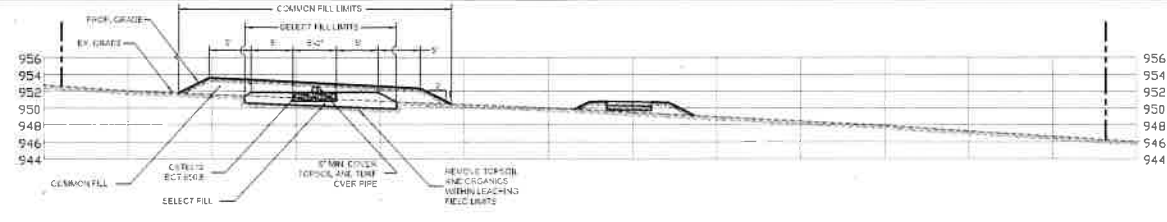
Scale:	1" = 20'	Project No.:	20-112
Drawn By:	RC	File Name:	SSDS-Plan.dwg
Revised Through:	08/31/20	Submitted:	07/24/20

**1**

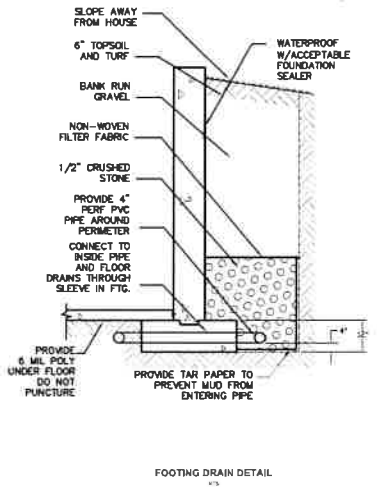
Revised 8/31/20



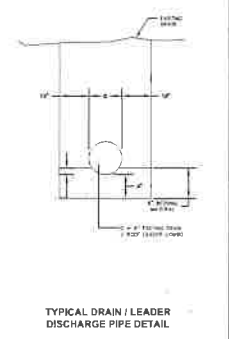
SECTION B-B



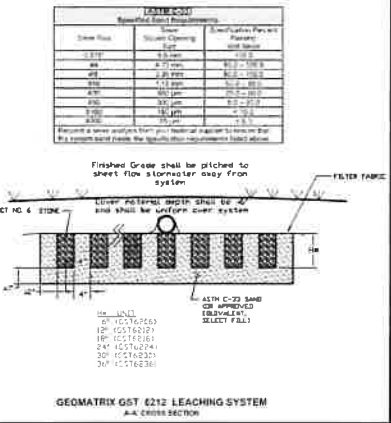
SECTION A-A



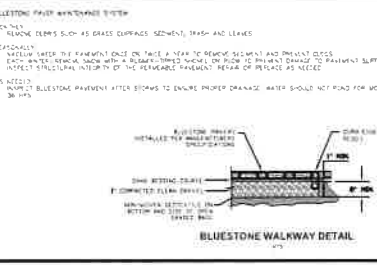
FOOTING DRAIN DETAIL



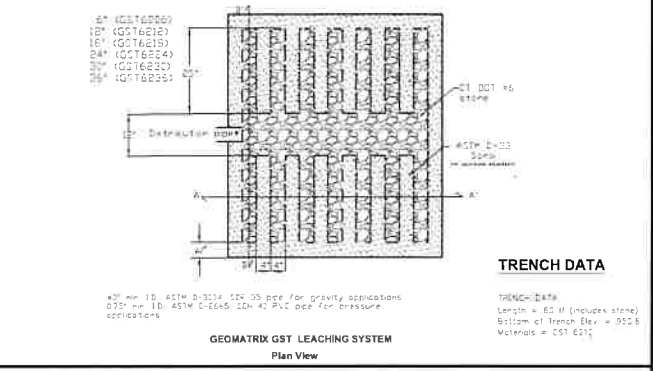
TYPICAL DRAIN / LEADER DISCHARGE PIPE DETAIL



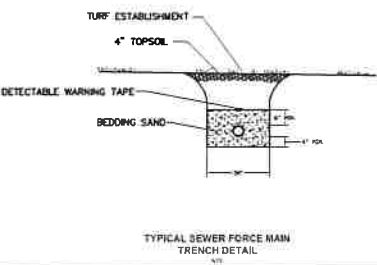
GEOMATRIX GST 6212 LEACHING SYSTEM



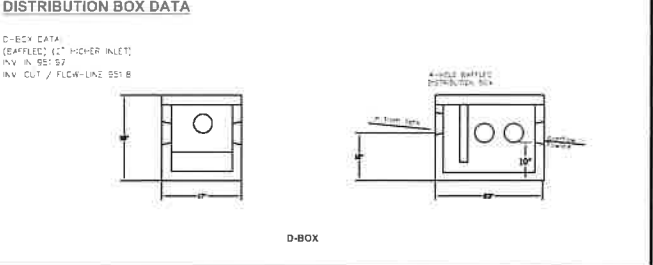
BLUESTONE WALKWAY DETAIL



TRENCH DATA



TYPICAL SEWER FORCE MAIN TRENCH DETAIL



D-BOX

- Notes:
- All construction activities are outside wetland or watercourse areas.
  - Leaching field is outside the regulated watercourse setback areas.
  - The soil profile is consistent throughout the site.
  - All activities on this site shall follow procedures set forth in the current Sediment and Erosion Control Guidelines (DEEP Bulletin 34) prepared by the Connecticut Council on Soil and Water Conservation in cooperation with the Connecticut Department of Energy and Environmental Protection as amended.
  - All erosion control devices shall be in-place prior to commencement of work.
  - All necessary modifications arising from the Town's initial visit to the site shall be addressed prior to commencement of work.
  - Inspection of sediment and erosion control devices shall be performed weekly and within 24 hrs of a precipitation event greater than 0.5".
  - If any sediment and erosion control devices are deficient or require maintenance all construction operations shall be suspended and recommence upon repair of such devices.
  - Once final grade is completed, any excess materials shall be removed from the site.
  - Owner is prohibited from discharging any future water system to the septic system.
  - Driveways (if proposed) shall be installed per town of New Hartford Driveway Ordinance 2B.
  - Select Fill Source shall be approved only if sieve test is less than two weeks old. Engineer shall perform a minimum of two percolation test on the in-place select fill and field verify system location prior to installing leaching system.
  - All adjacent property wells are further than 75-ft from proposed system.
  - All adjacent septic systems are further than 75-ft of proposed well location.
  - Construction of the leaching trenches is based on maintaining a minimum distance of 18-inches above the restrictive layer. If Contractor finds conditions differ, then the design engineer shall be so informed prior to proceeding with trench layout.
  - Engineer shall provide layout out dimensions for contractor prior to installation.
  - Location of Utilities lines is approximate. Contractor must determine where Utilities are prior to Construction. USE THE CALL BEFORE YOU DIG SERVICE.

**SOIL TEST DATA**

TEST PIT NO. 1

0" TO 4"	FOREST LITTER / TOPSOIL
4" TO 30"	ORANGE BROWN FINE SANDY LOAM
30" TO 75"	GREY TILL
ROOT DEPTH	48"
MOTTLES	27"
REFUSAL	NONE
WATER	48"

TEST PIT NO. 2

0" TO 9"	FOREST LITTER / TOPSOIL
9" TO 23"	YELLOW BROWN FINE SANDY LOAM
23" TO 84"	GREY TILL
ROOT DEPTH	48"
MOTTLES	23"
REFUSAL	NONE
WATER	48"

TEST PIT NO. 3

0" TO 6"	FOREST LITTER / TOPSOIL
6" TO 26"	ORANGE BROWN FINE SANDY LOAM
26" TO 84"	GREY TILL
ROOT DEPTH	26"
MOTTLES	26"
REFUSAL	NONE
WATER	60"

**PERC TEST DATA**

START TIME AT END OF 2HR PRE-SOAK: 12:40

TIME	READING	WATER DROP
12:40	2 1/2" (start)	0"
12:50	6 1/2"	4"
1:00	8 1/2"	2"
1:10	10"	1 1/2"
1:20	11"	1 1/2"
1:30	12 1/2"	1 1/2"
1:40	13 1/2"	1 1/2"
1:50	14 1/2"	1 1/2"
2:00	15 1/2"	1 1/2"

PERC HOLE DEPTH = 20 1/2" (18" WATER)  
 PERC RATE: 10.0 MIN. / INCH

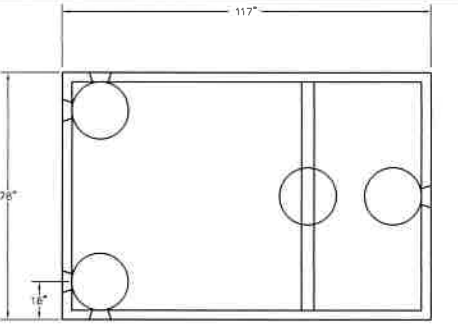
Soil Profile:  
 0"-4" Topsoil / Organics  
 3" - 20 1/2" Yellow/Brown Fine Sandy Loam

TEST PIT NO. 4

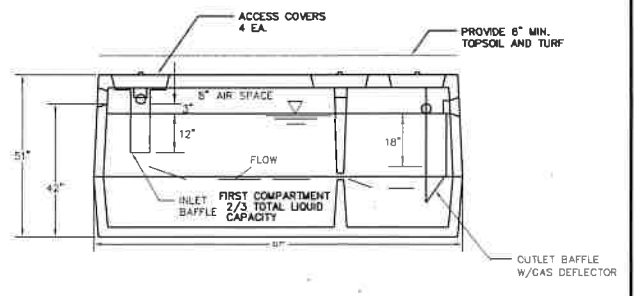
0" TO 2"	FOREST LITTER / TOPSOIL
2" TO 26"	ORANGE FINE SANDY LOAM
26" TO 75"	GREY TILL
ROOT DEPTH	26"
MOTTLES	26"
REFUSAL	NONE
WATER	60"

TEST PIT NO. 5

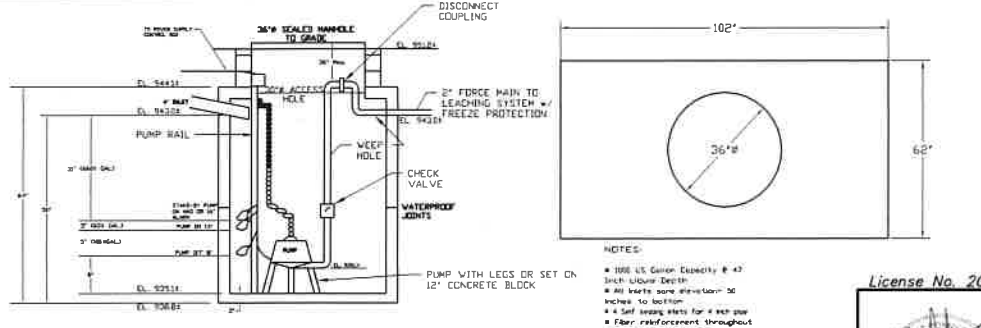
0" TO 3"	FOREST LITTER / TOPSOIL
3" TO 38"	YELLOW BROWN FINE SANDY LOAM
38" TO 80"	GREY TILL
ROOT DEPTH	22"
MOTTLES	23"
REFUSAL	NONE
WATER	NONE



1250 GAL. STLB SEPTIC TANK DETAIL



NOTE: PROVIDE 24" DIAMETER RISERS TO GRADE



NOTE: PROVIDE 24" DIAMETER RISERS TO GRADE

1100 GALLON PUMP STATION W/ SINGLE PUMP AND ALARM

**DETAILS AND NARRATIVES**

130 Workcoeman Road

Prepared For  
Joseph and Colleen Welker

New Hartford Connecticut

**LAUREL ENGINEERING, LLC**

Civil, Seismic, Structural Consultants  
49 Center Street - Winsted, Connecticut 06098

Phone (860) 379-6898 E-Mail laureleng@earthlink.net

Scale:	NTS	Project No.:	20-112	Drawing No. <b>2</b>
Drawn By:	RC	File Name:	SSDS-Plan.dwg	
Revised Through:	08/20/20	Original Submitted:	08/24/20	

License No. 20338



**SUBSURFACE SEWAGE DISPOSAL SYSTEM  
TECHNICAL SPECIFICATIONS**

**Site Preparation:**

Clear and grub areas leading field to the clearing limits shown on the plan. The contractor shall exercise extreme care in removing surface boulders and topsoil within the area of the leaching field. Topsoil shall be stockpiled (in a convenient area) and protected from erosion. Erosion control measures shall be installed as shown on the plan.

**House Location:**

The contractor shall verify the benchmarks and control points shown on the plan prior to the layout of leaching field. The house and leaching field shall be staked-out by a Licensed Land Surveyor.

**Select Fill (if needed):**

The following steps should be taken to insure proper placement of the select fill:

1. Provide 24-hr notice to engineer for inspection prior to scarifying the leaching area.
2. Obtain approval of the fill material from the Sanitarian.
3. Provide a gradation test if required by the Sanitarian.
4. First layer of fill shall be laid in a 12" lift on the scarified ground before compaction. Thereafter, compact fill in six-inch lifts, improper compaction operations can cause system failure.
5. Field density requirements for fill material shall be 90% Standard Proctor Density.
6. Extend fill a minimum of 10 (ten) feet beyond the last trench before tapering off.

The select fill shall meet the following specifications:

1. The select fill shall not contain any material larger than the three (3) inch sieve.
2. Up to 45% of the dry weight of the representative sample may be retained on the #4 sieve.  
Note: This is the gravel portion of the sample. (Gravel is defined as material between the No. 4 and 3-inch sieves).
3. The material that passes the #4 sieve is then re-weighed and the sieve analysis is started.
4. The remaining sample shall meet the following gradation criteria.

**Gradation of Fill Less Gravel**

Sieve	Wet Sieve Percent Passing by Weight	Dry Sieve Percent Passing by Weight
No. 4	100%	100%
No. 10	70 - 100%	70 - 100%
No. 40	10 - 50%	10 - 75%
No. 100	0 - 20%	0 - 5%
No. 200	0 - 5%	0 - 2.5%

\* Percent passing the #40 sieve can be increased to no greater than 25% if the percent passing the #100 sieve does not exceed 10% and the #200 sieve does not exceed 5%.

**Septic Tank:**

The septic tank shall be a 1,250 gallon two compartment pre-cast concrete septic tank meeting all the latest specifications defined in the Connecticut Public Health Code, with particular reference to baffles, compartments, manhole access and concrete. The tank shall be properly baffled at the inlet and outlet, and shall be watertight with joints sealed with a butyl sediment or equal. The tank shall be constructed and installed to support AASHTO HS-10 design loading. Note depth of tank and the need for risers on access holes.

**Pump, Basin and Force Main:**

Basin  
Use a simplex or duplex pump basin in conformance with the following:

1. The pump basin shall be an 1000 gallon pump chamber as manufactured by Richards Corp.
2. The basin shall be constructed of precast concrete.
3. The basin shall have a minimum wall thickness of 3".
4. The basin shall have a cover made of steel a top manhole risers to grade.
5. The cover shall be attached to the basin by cap screws mated to threaded inserts molded into the basin rims.
6. The basin, cover, pumps, piping, and controls (if any) shall be compatible and pre-assembled to insure a proper fit.
7. Location of basin shall be prepared early during the initial site-work phase.
8. Locate placement area, excavate to the proper depth and backfill with sand until foundation work is in progress.
9. The sand should remain until the piping and basin is installed.
10. The depth of the hole should allow for the depth of the basin plus additional depth for base material (6" of one-inch stone and 6" of Type N mortar).

**Basin Installation:**

1. Dig test pit to determine if ground water level. If high ground water is encountered inform Engineer. Excavation must be dewatered using pump inlet and outlet protection as outlined in ConDEEP 2002 Sediment and Erosion Control Guidelines (DEP Bulletin 34).
2. Remove sand fill down to undisturbed soil.
3. Place an 8" layer of one inch stone 6" below the bottom of proposed basin.
4. Place a 6" layer of Type N mortar and set basin in wet mortar just as mortar is about to set.
5. The stone, mortar and basin shall be set below the finished floor elevation.
6. Adjust basin so that it is level.
7. After the mortar has set, attach inlet piping and fill tank to the level of the inlet pipe.
8. Pour concrete anti-buoyancy cap on top of chamber if Engineer specifies.

**Pump**

The pump shall be a centrifugal type with a minimum capacity of 33 gallons / min. at 9 1/2 ft. head as supplied by Litco Supply (Torrington, CT) or equal.

Pump turn-on and turn-off level shall be adjusted by the contractor so that not less than 100.00 gallons nor more than 120.00 gallons are pumped during one complete cycle.

**Force Main**

The force main shall be a coiled 2.00 inch diameter polyethylene plastic flexible pressure pipe (180psi min.) in conformance with the State Health Code. No joints are permitted within 75 feet of a well or within 25 feet of an open watercourse or groundwater drains. Either a baffle or an elbow (pointing downward) shall be installed on the force main discharge in the septic tank at the end of the force main. Force main shall be insulated above frost depth.

**House Sewer**

The sewer pipe connecting the house with the septic tank shall be four-inch diameter SDR-40 PVC water pipe in conformance with ASTM D-1785 w/ rubber compression gasket joints (ASTM D 3139) or Solvent weld couplings/fittings using proper two step PVC solvent solution procedure. The slope of the sewer shall be a minimum of 0.25 inches per foot (1/4" per ft.). The inverts and pipe length shown on the plan should be used for this project. The Contractor shall install the pipe in an even trench and on a continuous slope. Bedding Sand shall be fine sandy loam 100% passing the #4 sieve and 7-15% passing the #200 sieve. Detectable Underground Warning Tape shall be 2" wide, made from 5 mil, triple layer lamination of aluminum foil core enclosed in 100% virgin polyethylene.

**Other Sewers**

The sewage distribution pipe from the tank to the pump chamber shall be four-inch diameter solid SDR-35 PVC in conformance with ASTM D-3034 w/compression gasket joints. The pipe from the pump chamber to the distribution box shall be sdr-21 pvc in accordance with ASTM D-2241. The pipe shall be laid with a minimum of cover of 2-ft. underneath any drive section and a minimum cover of 1-ft elsewhere. The pipe from the distribution box over the GSM leaching units shall be perforated SDR-35 in accordance with ASTM-D3034. Bedding Sand shall be fine sandy loam 100% passing the #4 sieve and 7-15% passing the #200 sieve.

**Distribution Boxes**

Distribution boxes shall be pre-cast concrete. Distribution boxes shall be set on a 12" layer of crushed stone to prevent differential settlement or heaving from frost. The D-box shall be oriented to provide for high-level overflow as shown by the plan.

**Leaching Field**

The bottom of each trench and the distribution pipes shall be level throughout the trench. The maximum deviation from level permitted for this operation is one-inch in seventy-five feet.

Sewage pipe used in the leaching field shall be four-inch diameter perforated SDR-38 PVC in conformance with ASTM D-3350. The pipe shall be laid straight and all inverts shall be level and set to the elevations shown on the plan.

Leaching system shall be 12"H x 62"W GST 6212 as manufactured by Geomatrix or equal. The system shall be manufactured and installed with a minimum of 6-inch of cover. Distribution pipe must have a minimum four-inch diameter.

A layer of filter fabric must be placed to cover the entire width and length of each trench.

The filter fabric provided shall be in conformance with the Connecticut Public Health Code, Regulations and Technical Standards for Subsurface Sewage Disposal Systems, Revised January 1, 2007 as indicated in Appendix C.

In accordance with the manufacturer's recommendations all inlets and outlets shall be mortared or sealed with an appropriate seal or gasket. The opening at the house shall be mortared once the pipes have been installed.

All drains shall be a minimum of 25 feet from any septic system component.

**Loam, Seed and Mulch**

The following operations should be completed as soon as possible upon the completion of the fill slopes, septic system, and yard grading:

1. Cover the entire area with a minimum of 4" of topsoil and rake to smooth entire area.
2. Spread lime at the rate of 90lbs. per 1,000 sq. ft.
3. Spread 10-10-10 fertilizer at the rate of 7.5lbs. per 1,000 sq. ft.
4. Spread grass seed at the rate of 5lbs. per 1,000 sq. ft.
5. Spread mulch hay at the rate of 79-90lbs. per 1,000 sq. ft.

**Miscellaneous**

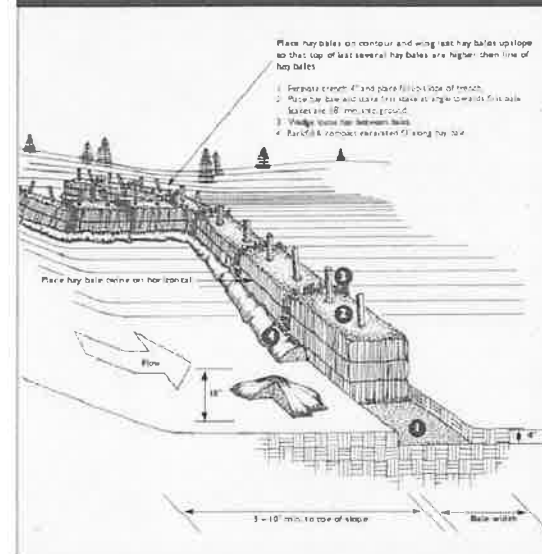
Water restrictive measures should be implemented (i.e. water saver toilet and shower head.)

Plumbing in the basement exits through the basement wall therefore plumbing for interior appliances etc. shall be limited.

A benchmark shall be set and the leaching system and house shall be staked out by a Licensed Land Surveyor, prior to any work at this site. A Licensed Land Surveyor shall set any required pins prior to commencement of work.

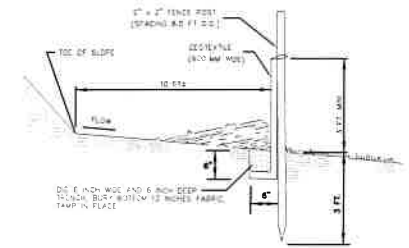
Any future water treatment systems shall not discharge to the subsurface sewage disposal system.

**Figure HB-3 Placement and Construction of a Hay Bale Barrier**

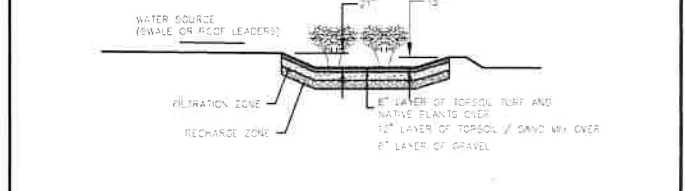
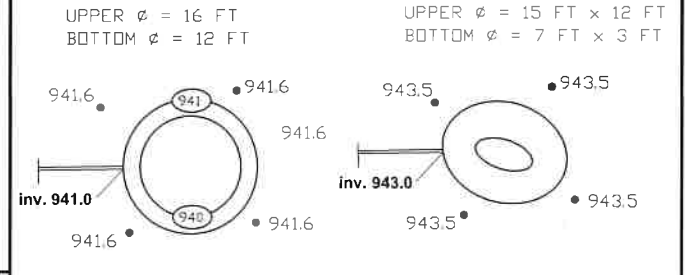


**NOTES:**

1. GEOTEXTILE FABRIC TO BE INSTALLED PERMANENTLY TO REMAIN PERMANENTLY IN PLACE AND NOT TO BE REMOVED.
2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE FABRIC SHALL BE OFFICALLY FASTENED TO A COMMON POST BY WELDING EACH END OF THE FABRIC TOGETHER. THE POST SHALL BE ATTACHED AS SPECIFIED IN NOTE 1. BONDING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT JOINTS.



**EROSION CONTROL (FILTER FABRIC)**



**RAIN GARDEN  
PLANTING SCHEDULE**

Species	Quantity
Sweetgum	(2) 6\"/>

**DETAILS AND NARRATIVES**

**130 Workcoeman Road**

Prepared For  
**Joseph and Colleen Welker**

New Hartford Connecticut

**LAUREL ENGINEERING, LLC**

Civil, Seismic, Structural Consultants  
49 Center Street - Winsted, Connecticut 06098

Phone (860) 379-6896	Project No.: 20-112	<b>3</b>
Drawn By: RC	File Name: SSDS-Plan.dwg	
Revised Through: 08/20/20	Original Submitted: 08/24/20	

License No. 20338

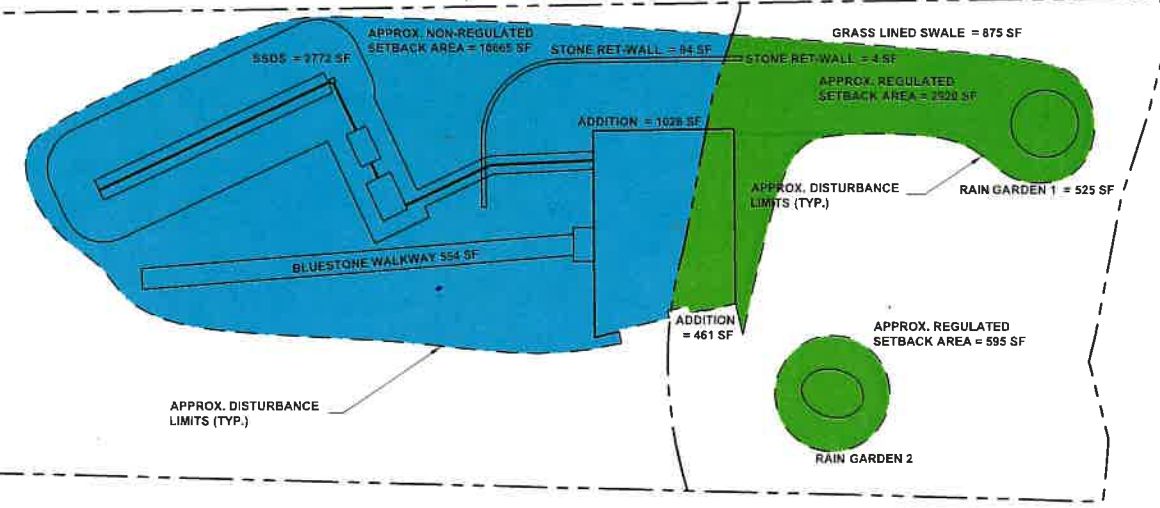


**WETLANDS INFORMATION TABLE**

WETLAND ACTIVITY (0 SF)	REGULATED ACTIVITY (3,515 SF)	NON-REGULATED ACTIVITY (10665 SF)
	RAIN GARDEN 1 525 SF	HOUSE ADDITION 1028 SF
	RAIN GARDEN 2 595 SF	SSDS 2772 SF
	GRASS LINED SWALE 875 SF	PERMEABLE WALK 554 SF
	HOUSE ADDITION 461 SF	HOUSE ADDITION 461 SF
	MISC GRADING & TURF ESTABLISHMENT 1059 SF	MISC GRADING & TURF ESTABLISHMENT 6794 SF
	STONE RETAINING WALL 4 SF	STONE RETAINING WALL 84 SF

TOTAL LOT AREA = 53,892 SF

APPROX. DISTURBANCE LIMITS (NON-REG-SETBACK) AREA = 10,665 SF  
 APPROX. DISTURBANCE LIMITS (REG-SETBACK) AREA = 3515 SF  
 APPROX. DISTURBANCE LIMITS TOTAL AREA = 14,180 SF

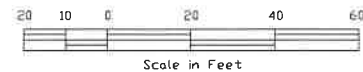


TOTAL LOT AREA = 53,892 SF

TOTAL LOT SIZE = 53,892 SF  
 TOTAL PROPOSED IMPERVIOUS COVERAGE = 5640 SF  
 TOTAL PROPOSED IMPERVIOUS LOT COVERAGE = 5640 / 53892 = 10.5%  
 TOTAL PROPOSED BUILDING COVERAGE = 2592 SF  
 TOTAL PROPOSED BUILDING COVERAGE = 2592 / 53892 = 4.8%

TOTAL LOT AREA = 53,892 SF

TOTAL LOT SIZE = 53,892 SF  
 TOTAL EXISTING IMPERVIOUS COVERAGE = 4558 SF  
 TOTAL EXISTING IMPERVIOUS LOT COVERAGE = 4558 / 53892 = 8.5%  
 TOTAL EXISTING BUILDING COVERAGE = 1043 SF  
 TOTAL EXISTING BUILDING COVERAGE = 1043 / 53892 = 1.9%



License No. 20338



**DISTURBANCE / COVERAGE LIMITS**

**130 Workcoeman Road**

Prepared For  
 Joseph and Colleen Welker

New Hartford

Connecticut

**LAUREL ENGINEERING, LLC**

Civil, Seismic, Structural Consultants  
 49 Center Street - Winsted, Connecticut 06098

Phone (860) 379-6698

E-Mail laureleng@earthlink.net

Scale:	1" = 20'	Project No.:	20-112	Drawing No. <b>4</b>
Drawn By:	RC	File Name:	SSDS-Plan.dwg	
Revised Through:	08/20/20	Original Submitted:	08/24/20	





### Water Quality Volume - #130 Camp Workcoeman Road-ADDITION

Water Quality Volume is the amount of stormwater runoff that should be captured and treated in order to remove a majority of stormwater pollutants. The recommended WQV, which results in the capture and treatment of the entire runoff volume for 90 percent of the average annual storm events, is equivalent to the runoff associated with the first one-inch of rainfall.

Ref: Connecticut Stormwater Quality Manual  
Chapter 7  
Pages 7-4 through 7-6

Where:

$$WQV = (1)(R)(A)/12$$

1" = Depth of rainfall during "water quality storm" event

R = Volumetric Runoff Coefficient =  $0.05 + [0.009 \times I]$

I = Percent Impervious Cover (e.g. use 50 (not 0.50) for 50% impervious)

Impervious  
0.04 acres

A = Site Area (acres)= 4.92 acres

#### Stormwater Quality Basin

I = 11.68 Percent Impervious Cover

R = 0.16 R (Volumetric Runoff Coefficient):

A = 0.30 Acres Watershed to water rain garden

WQV<sub>tot</sub> = 0.0039 Acre-Feet **Recommended**  
= 169 Cubic Feet

Actual Stormwater Quality Basin Volume from AutoCAD plans

Elevation ft	Rain Garden Area sq ft	Rain Garden Pool Volume cu ft	Water Quality Volume stored %	
940	113	0		
941	201.00	157	93%	=93% of WQV stored at 1-ft depth in rain garden
941.5	313	286	169%	=169% of WQV stored at 1.5-ft depth in rain garden



### Water Quality Volume - #130 Camp Workcoeman Road-Ex. Cottage

Water Quality Volume is the amount of stormwater runoff that should be captured and treated in order to remove a majority of stormwater pollutants. The recommended WQV, which results in the capture and treatment of the entire runoff volume for 90 percent of the average annual storm events, is equivalent to the runoff associated with the first one-inch of rainfall.

Ref: Connecticut Stormwater Quality Manual  
Chapter 7  
Pages 7-4 through 7-6

Where:

$$WQV = (1)(R)(A)/12$$

1" = Depth of rainfall during "water quality storm" event

R = Volumetric Runoff Coefficient =  $0.05 + [0.009 \times I]$

I = Percent Impervious Cover (e.g. use 50 (not 0.50) for 50% impervious)

Impervious  
0.02 acres

A = Site Area (acres)= 4.92 acres

#### Stormwater Quality Basin

I = **61.92** Percent Impervious Cover

R = **0.61** R (Volumetric Runoff Coefficient):

A = **0.03** Acres Watershed to water quality swale

WQV<sub>tot</sub> = **0.00** Acre-Feet **Recommended**  
= **59** Cubic Feet

Actual Stormwater Quality Basin Volume from AutoCAD plans

Elevation ft	Rain Garden Area sq ft	Rain Garden Pool Volume cu ft	Water Quality Volume stored %	
942	19	0		
943	134.00	77	131%	=131% of WQV stored at 1-ft depth in rain garden
943.5	302	186	317%	=317% of WQV stored at 1.5-ft depth in rain garden

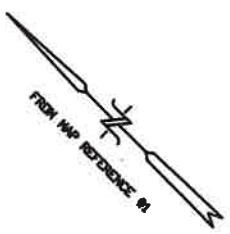
**GENERAL NOTES :**

1. LOT AREA = 53,844 +/- SF. OR 1.24 +/- ACRES (TO EDGE OF WATER)
2. ZONE = R-4
3. DEED REFERENCE = VOL 266 P 344
4. ASSESSORS REFERENCE = MAP 6A BLOCK 132 LOT 64
5. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 36-300b-80 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INCORPORATED ON SEPTEMBER 26, 1996.
6. TYPE OF SURVEY = PROPERTY SURVEY
7. BOUNDARY DETERMINATION CATEGORY = RE-SURVEY
8. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS ARE APPROXIMATE AND OTHER SUCH FEATURES MAY EXIST UNKNOWN TO SURVEYING ASSOCIATES. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-485-4405.
9. EXISTING TOPOGRAPHY BASED ON APPROXIMATE UGSS DATUM AND FIELD VERIFIED BY RONALD H. DUFOR - L.S. 82219.

RIGHT OF WAY OVER PRIVATE PASSWAY FOR WELKER AND OTHERS

CAMP WORKCOEMAN ROAD

DETAIL not to scale



N/F PETER B. MANGIN  
VOL 182 P 995

N/F DAVID E. & LORRAINE K. MINER  
VOL 260 P 870

N/F SUSAN D. AUCLAIR  
VOL 157 P 374

N/F KENT A. JOHNSON  
VOL 213 P 794

Watershed to Rain Garden  
13077 SF = 0.300 acres

volume of rain garden (full)  
= 311 cu. ft.

BENCHMARK  
EXISTING DRILL HOLE  
ELEVATION = 951.11

VOLUME OF COTTAGE  
RAIN GARDEN = 186  
CU.FT.

**BASIS OF DESIGN SUBSURFACE  
SEWAGE DISPOSAL SYSTEM**

**SSDS Design Data:**  
 Number of bedrooms = 4  
 Percolation Rate = 10.0 min/inch  
 Design Percolation Rate Less than 10.1 min/inch  
 Depth to Restrictive Layer = 23"  
 Hydraulic Gradient = 5.1%  
 Hydraulic Factor = 34  
 Flow factor = 3(150)/300 = 1.75  
 Percolation factor = 1.0  
 M.L.S.S. Req'd. = 59.5 lb  
 M.L.S.S. Provided = 60 lb  
 Leaching Area Req'd. = 578 sq ft  
 Leaching Area Provided = 600 sq ft = 60ft x 10.0 ft/ft  
 USING GST 6212 LEACHING SYSTEM

WATERSHED TO COTTAGE  
RAIN GARDEN = 1158 SF  
= 0.03 ACRES

**SITE PLAN ADDITION / SSDS**

**130 Workcoeman Road  
WATERSHED MAP**

Prepared For  
Joseph and Colleen Welker

**LAUREL ENGINEERING, LLC**

Civil, Seismic, Structural Consultants  
49 Center Street - Winsted, Connecticut 06098

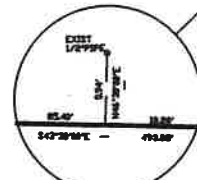
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Drawn By:	RC	File Name:	SSDS-Plan.dwg		
Revised Through:	xx/xx/20	Submitted:	xx/xx/20		

**MAP REFERENCES :**

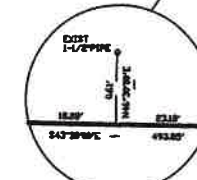
1. PROPERTY SURVEY PREPARED FOR DAVID E. & LORRAINE K. MINER 8134 CAMP WORKCOEMAN ROAD WEST HILL LAKE NEW HARTFORD, CONNECTICUT, SCALE 1"=80', DECEMBER 24, 2009. RONALD H. DUFOR - L.S. 812219
2. "AS-BUILT SURVEY, 189 CAMP WORKCOEMAN ROAD NEW HARTFORD, CONNECTICUT, SCALE 1"=80', SEPTEMBER 2007. DECARA LAND SURVEYING SERVICES
3. "PROPERTY SURVEY PREPARED FOR PETER B. MANGIN & THOMAS V. BEEDER, CAMP WORKCOEMAN ROAD WEST HILL LAKE NEW HARTFORD, CONNECTICUT, SCALE 1"=80', MAY 5, 2004. RONALD H. DUFOR - L.S. 812219
4. "MAP OF LAND OWNED BY ADAM & WINIFRED A. FESTA CAMP WORKCOEMAN ROAD NEW HARTFORD, CONNECTICUT SCALE 1"=800', JANUARY 24, 1986. RONALD H. DUFOR - L.S. 812219
5. "PLAN OF LOTS OWNED BY FRED H. BALDWIN NEW HARTFORD, CONNECTICUT, SCALE 1"=180', APRIL 29, 1921. F.M. MOORE - L.S.
6. "SURVEY OF PROPERTY TO BE CONVEYED BY THE ESTATE OF WILLIAM C. METH TO F. EVELYN SMITH NEW HARTFORD, CONN. SCALE 1"=40', JULY 7, 1963. DOUGLAS G. LITTLE - L.S.



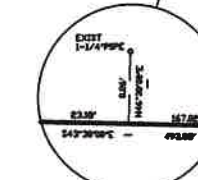
DETAIL not to scale



DETAIL not to scale



DETAIL not to scale



DETAIL not to scale

**LINE DATA**

1	1.25" DIA. PVC PIPE	100.00'
2	1.25" DIA. PVC PIPE	100.00'
3	1.25" DIA. PVC PIPE	100.00'
4	1.25" DIA. PVC PIPE	100.00'



Scale in Feet