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

1. Applicant(s) Name: Joan Miller
   Home Address: 573 Steele Rd. New Hartford CT. 06057
   Business Address: _____
   Phone – Home: 860 693 8382 Business: _____
   Email Address: Joanmiller41@att.net
   Applicant(s) interest in land (owner, lessee, option holder, etc. Owner
   **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 as Applicant
   Home Address: _____
   Business Address: _____
   Phone – Home: _____ Business: _____
   Email Address: _____

3. Location of Proposed Activity: 573 Steele Rd. New Hartford CT.
   Assessor's Map #: 029 Block #: 015 Parcel #: 08A Zone: R2
   **Detailed description or plot plan may be submitted.

   Area (acres): 6.3 Square Feet, if less than 2 acres: _____
   Total acreage of wetlands on property: _____

4. Description of the proposed activity: Replace existing septic system leaching area with new leaching area

5. Alternatives considered by the applicant and why the proposal to alter wetlands set forth in the application was chosen: This is the most prudent and feasible location to replace the failed existing leaching Area.

6. Names and addresses of adjacent property owners within 100 feet. **Information can be obtained at the Assessor's Office. Joseph and Claudia Rossi 545 Steele Rd. N.H. CT. 06057
   Matthew C. Norton 603 Steele Rd. N.H. CT. 06057
   Nicholas V. Labbadia 576 Steele Rd. N.H. CT. 06057

7. Any other information: _____

20-08-04
CK 2481

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.

Joan C Miller _____ Joan Miller _____

Applicant's Signature Print or Type Name

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

Joan C Miller _____ Joan Miller _____

Owner's Signature Print or Type Name

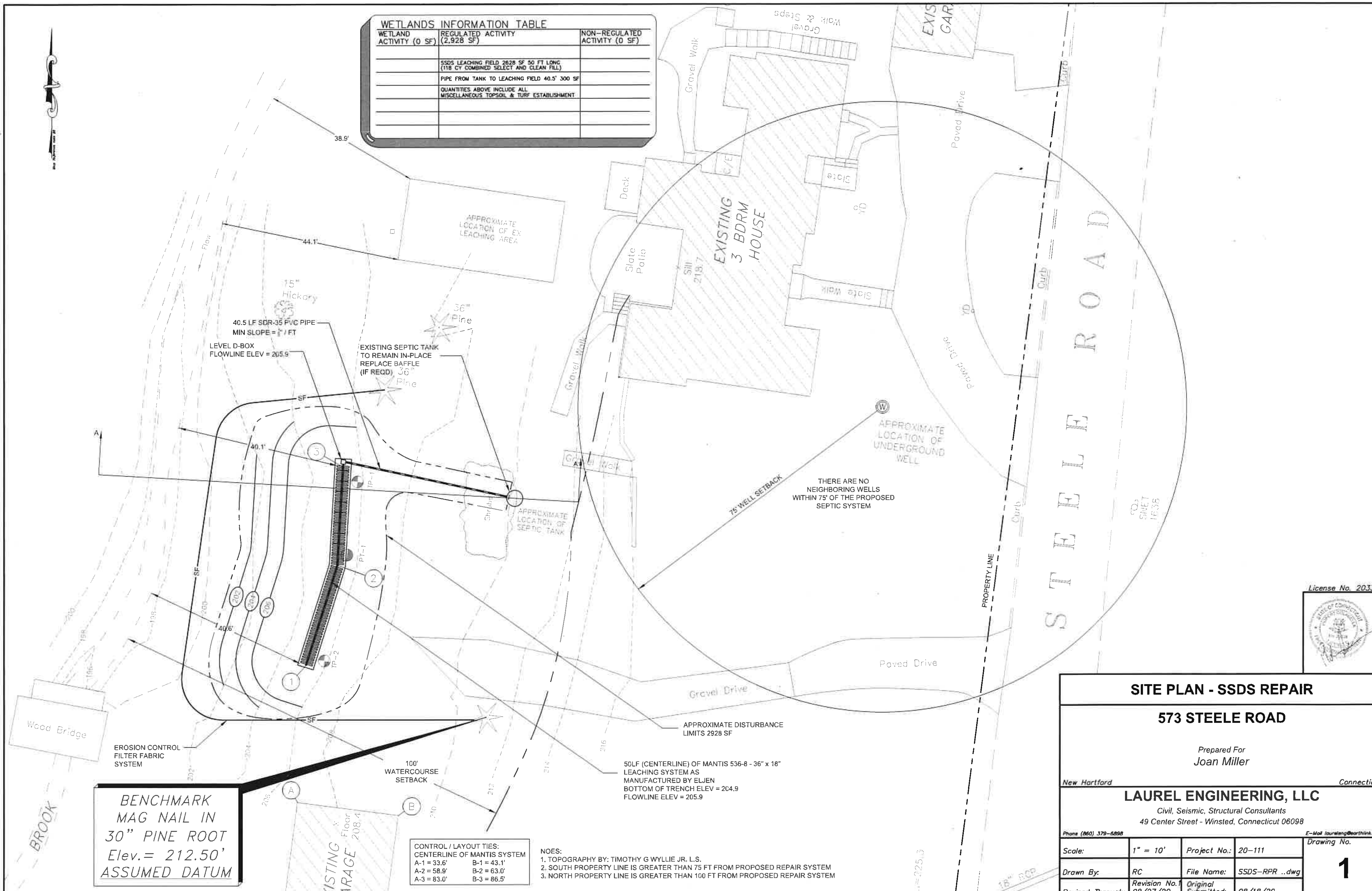
FOR COMMISSION USE:

Receipt Number: _____ Date Received: _____

Amount Paid: _____

WETLANDS INFORMATION TABLE

WETLAND ACTIVITY (0 SF)	REGULATED ACTIVITY (2,928 SF)	NON-REGULATED ACTIVITY (0 SF)
	SSDS LEACHING FIELD 2628 SF 50 FT LONG (118 CY COMBINED SELECT AND CLEAN FILL)	
	PIPE FROM TANK TO LEACHING FIELD 40.5' 300 SF	
	QUANTITIES ABOVE INCLUDE ALL MISCELLANEOUS TOPSOIL & TURF ESTABLISHMENT	



CONTROL / LAYOUT TIES:
CENTERLINE OF MANTIS SYSTEM

A-1 = 33.6'	B-1 = 43.1'
A-2 = 58.9'	B-2 = 63.0'
A-3 = 83.0'	B-3 = 86.5'

NOES:
1. TOPOGRAPHY BY: TIMOTHY G WYLLIE JR. L.S.
2. SOUTH PROPERTY LINE IS GREATER THAN 75 FT FROM PROPOSED REPAIR SYSTEM
3. NORTH PROPERTY LINE IS GREATER THAN 100 FT FROM PROPOSED REPAIR SYSTEM

License No. 20338

SITE PLAN - SSDS REPAIR

573 STEELE ROAD

Prepared For
Joan Miller

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" = 10'	Project No.:	20-111	Drawing No. 1
Drawn By:	RC	File Name:	SSDS-RPR ..dwg	
Revised Through:	Revision No.1 08/27/20	Original Submitted:	08/18/20	

SUBSURFACE SEWAGE DISPOSAL SYSTEM
TECHNICAL SPECIFICATIONS

Site Preparation:

Clear and grub areas leaching 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 (if reqd) and leaching field should 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 common 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 existing tank shall remain in-place and a new baffle shall be installed (if reqd.)

House Sewer

The sewer pipe connecting the house with the septic tank shall be four-inch diameter SCH 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 ⅜" 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 encased in 100% virgin polyethylene

Other Sewers

The sewage distribution pipe from the tank to the distribution box shall be four-inch diameter solid SDR-35 PVC in conformance with ASTM D-3034 w/compression gasket joints. The pipe shall be laid in an even trench and on a continuous slope. The slope of this pipe shall be a minimum of ¼"/ft. Bedding Sand shall be fine sandy loam 100% passing the ⅜" 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 inverts on 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 as shown in the mantis 536-8 cross section on this plan. The pipe shall be laid straight and all inverts shall be level and set to the elevations shown on the plan.

Leaching chambers shall be Mantis 536-8 18" H x 36" W units as manufactured by Eljen or equal. The units shall be 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 current Connecticut Public Health Code, Regulations and Technical Standards for Subsurface Sewage Disposal Systems, Revised through today's date.

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

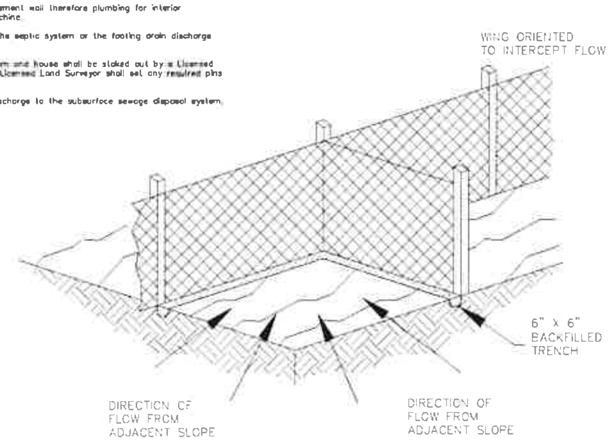
Water restrictive measures should be implemented (i.e. water saver toilet and shower head.)

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

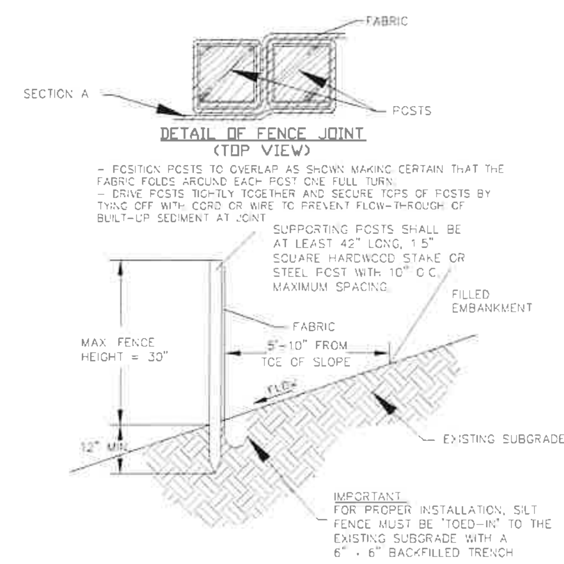
Roof gutters shall not be tied into any part of the septic system or the footing drain discharge piping.

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.



WING DETAIL
(IF REQUIRED BY ENGINEER)



INSTALLATION SECTION

SEDIMENTATION AND EROSION CONTROL (FILTER FABRIC SYSTEM)

NTS

SOIL TEST DATA

TP-1	TP-2	
0-18" Topsoil 18"-39" Yellow Brown Fine Sandy Loam Firm 39"-80" Brown Medium Sand w/Gravel Mottles @ n/a Roots @ 37" Water @ n/a Ledge @ n/a	0-11" Topsoil 11"-23" Yellow Brown Fine Sandy Loam Firm 23"-86" Brown Medium Sand w/Gravell Mottles @ n/a Roots @ 21" Water @ n/a Ledge @ n/a	IN ATTENDANCE: P. Gigliotti Reg. San. FVHD J. Miller Owner D. Johnson Backhoe Op. R. Colabella P.E. Laurel Eng. Test Performed: June 5, 2020 Use 23" as restrictive layer

SSDS DESIGN DATA

Number of bedrooms = 3
Design Perc Rate < Less than 10.1 min/inch
Depth to Restrictive Layer = 23"
Hydraulic Gradient = 16.6 %
Hydraulic Factor = 24
Flow factor = 3(150)/300 = 1.5
Percolation factor = 1.0
MLSS Reqd. = 36 lf
MLSS Provided = 50 lf
Leaching Area Reqd. = 495 sf
Leaching Area Provided = 550 sf (50lf of Eljen Mantis 536-8 units @ 11SF/LF with a 6" min. width of specified fill around trench.

PERC TEST DATA

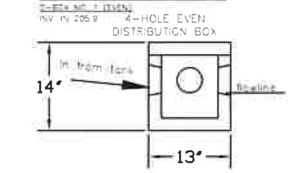
PERC TEST NO.1

TIME	WATER DEPTH	WATER DROP
1:12	END PRESOAK 22"	N/A
1:17	2½"	0"
1:22	9"	6½"
1:27	10¼"	1¼"
1:32	11¼"	1"
1:37	12¼"	1"
1:42	13"	¾"
1:47	13½"	½"
1:52	14¼"	¾"
1:57	14¾"	½"
2:02	15¼"	½"
2:07	15¾"	½"
2:12	16¼"	½"
2:27	16¾"	½"

PERC RATE: 10.0 MIN. / INCH
HOLE DEPTH = 22"
PERCOLATION TESTS PERFORMED
BY LAUREL ENGINEERING, LLC JUNE 2020

DISTRIBUTION BOX DATA

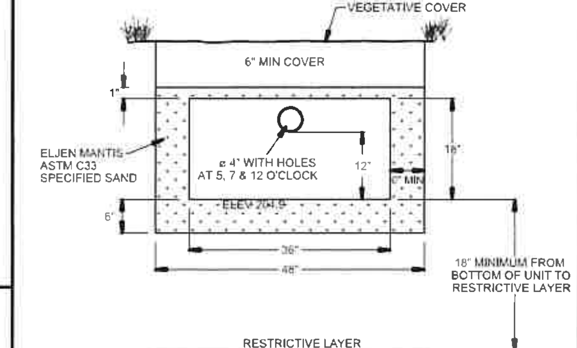
D-BOX NO. 1 (EVEN)
INV. IN 205.9 4-HOLE EVEN DISTRIBUTION BOX



D-BOX NO. 1

D-BOX DETAIL

NTS



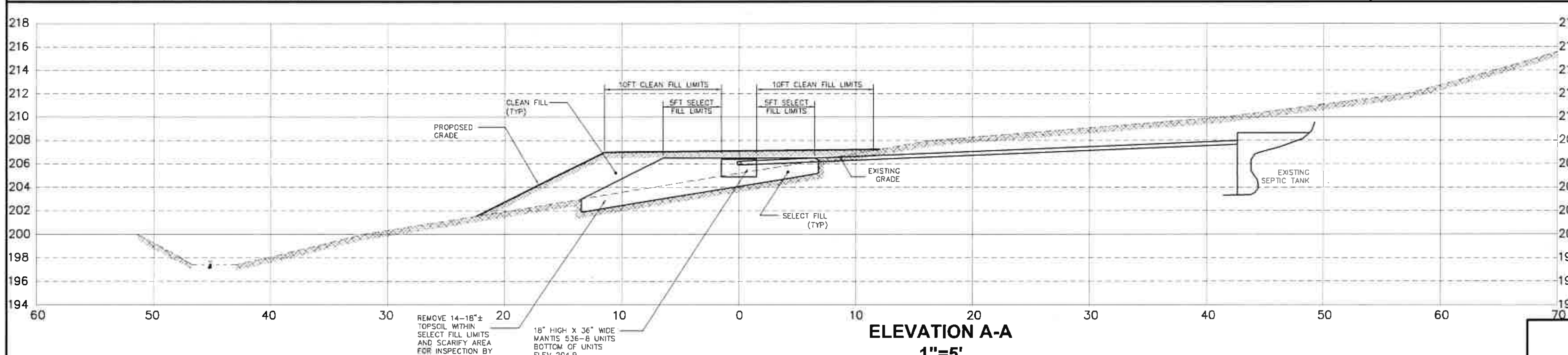
NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURESED FROM THE TOP OF THE UNIT TO FINISHED GRADE

MANTIS 536-8 CROSS SECTION

Eljen Mantis Specified Sand Requirements		
Sieve Size	Sieve Square Opening Size	Specification Percent Passing Wet Sieve
0.375"	9.5 mm	100.0
#4	4.75 mm	95.0 – 100.0
#8	2.36 mm	80.0 – 100.0
#16	1.18 mm	50.0 – 85.0
#30	600 µm	25.0 – 60.0
#50	300 µm	5.0 – 30.0
#100	150 µm	< 10.0
#200	75 µm	< 3.0
Request a sieve analysis from your material supplier to ensure that the system sand meets the specification requirements listed above.		

TRENCH DATA

TRENCH NO. 1
Length = 50 lf
Bottom of Trench Elev. = 204.9
Materials = 18"high X 36" wide Eljen MAntis 536-8 with ASTM C33 sand around trench



ELEVATION A-A

1"=5'

Notes:

1. All construction activities are outside wetland or watercourse areas.
2. All construction activities are within regulated setback areas.
3. The soil profile is consistent throughout the site.
4. 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.
5. All erosion control devices shall be in-place prior to commencement of work.
6. The Contractor shall notify the Town's inland wetlands agent one week prior to construction in writing prior to commencement of work.
7. All necessary modifications arising from the Town's initial visit to the site shall be addressed prior to commencement of work.
8. Inspection of sediment and erosion control devices shall be performed weekly and within 24 hrs of a precipitation event greater than 0.5".

Notes Cont.

9. 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.
10. Once final grade is completed, any excess materials shall be removed from the site.
11. Owner is prohibited from discharging any future water system to the septic system
12. 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-situ select fill and field verify system location prior to installing leaching system.
13. All adjacent property wells are further than 75-ft from proposed system.
14. Construction of the leaching trenches is based on maintaining a minimum distance of 18-inches above the restrictive layer which is set at 23". If Contractor finds conditions differ, then the design engineer shall be so informed prior to proceeding with trench layout.

DETAILS AND NARRATIVES

573 STEELE ROAD

Prepared For
Joan Miller

New Hartford *Connecticut*

License No. 20338

LAUREL ENGINEERING, LLC

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

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

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