

CONSTRUCTION NOTES

- ALL TREES, BUSHES, BOULDERS, DEBRIS AND TOPSOIL MUST BE REMOVED PRIOR TO PLACING ACCEPTABLE FILL THROUGHOUT THE LEACH FIELD AREA, WHICH INCLUDES THE AREA BELOW THE LEACH FIELD, THE EXTENSIONS, AND THE SLOPED EMBANKMENTS.
- PROPERTY LINES ARE APPROXIMATE ON THIS PLAN.
- SYSTEM MUST BE INSTALLED IN STRICT ACCORDANCE WITH THE APPROVED PLANS. ANY CHANGES MUST BE APPROVED BY THE DESIGNER & NHDES PRIOR TO CONSTRUCTION.
- ANY DISCREPANCIES IN THE APPROVED PLANS & THE ACTUAL SITE CONDITIONS MUST BE REPORTED BY THE INSTALLER TO THE DESIGNER AND TO THE NHDES PRIOR TO CONSTRUCTION.
- NO RESPONSIBILITY FOR THE PROPER OPERATION OF THIS SYSTEM IS ASSUMED UNLESS CONSTRUCTION HAS BEEN SUPERVISED BY STEVEN J. SMITH & ASSOC., INC.
- THE CONSTRUCTION APPROVAL IS GOOD FOR FOUR YEARS FROM THE DATE OF APPROVAL.

OPERATING REQUIREMENTS

- SEPTIC TANKS SHALL BE INSPECTED FOR ACCUMULATION OF SLUDGE AND SCUM AT LEAST ONCE EVERY YEAR.
- GREASE, BULKY WASTE, TOXIC OR HAZARDOUS WASTES SHALL NOT BE INTRODUCED INTO THE SEPTIC SYSTEM.
- IF AFTER THIS SYSTEM IS CONSTRUCTED IT APPEARS TO BE IN FAILURE, ACTION SHALL BE TAKEN TO CORRECT THE PROBLEM.

CONSTRUCTION MATERIALS

Septic Tank & Pump Chamber:
Item # 1500H2, H-20 1,320 Gallon Concrete Septic Tank with 240 Gallon Pump Chamber by Andrew J. Foss Co. Concrete Products, Farmington, NH 755-2515.

Distribution Box:
Item # SB5, Small Box - 5 Outlet Concrete Distribution Box by Andrew J. Foss Co., Farmington, NH 755-2515.

Flow Equalizers:
SSI Inc. Flow Equalizers, (2 required) for outlet pipes from D-Box. Available from Huber Design Assoc., PO Box 401, Hancock, NH 03449, 525-4320.

System Modules:
Standard In-Drain Type B Module, (10 required). Available from Huber Design Assoc., PO Box 401, Hancock, NH 03449 525-4320. (Note Geo-textile (Mirafi 140N or equal) fabric to cover top & sides of modules provided with modules.)

Sealants:
All connections, joints, and pipes to be sealed with "Therm-O-Seal", Ploy-Lok Seals or equal.

Fill Materials:
Sand Bed around Modules: Medium to coarse sand with an effective size of 0.175 to 2.00 mm with no more than 5% passing the #200 sieve and no particles larger than 3/4".
Backfill: Clean, permeable soil, free of topsoil, humus, dredgings, frozen material or stones greater than 6" in any direction.
Loam: Clean loam capable of supporting vegetative cover over the leach field.

CONSTRUCTION MATERIALS (Con't)

Pump:
Myers Simplex ME3F11 Effluent Pump (18, 120V) capable of pumping 45 GPM at 17' TDH w/ SJE 20PMD115 switch. Install SJE Model 101H High Water Alarm in building. Available at Blake Equipment Co., Alton, NH 1-800-552-0389.

Effluent Filter:
A-1800 Zabel Filter, (1 required) for outlet pipe inside septic tank. Available from Huber Design Assoc., PO Box 401, Hancock, NH 03449, 525-4320. Provide access cover for cleaning and maintenance.

DESIGN ELEVATIONS

og Uphill	=	546.00'
Depth to ESHWT	=	1.50'
ESHWT Elevation	=	544.50'
Distance up to BB	=	4.00'
Elevation BB	=	548.50'
Height of Modules	=	0.58'
Top of Modules	=	549.08'
Depth of Cover (Min.)	=	1.00'
FG (Min.)	=	550.08'

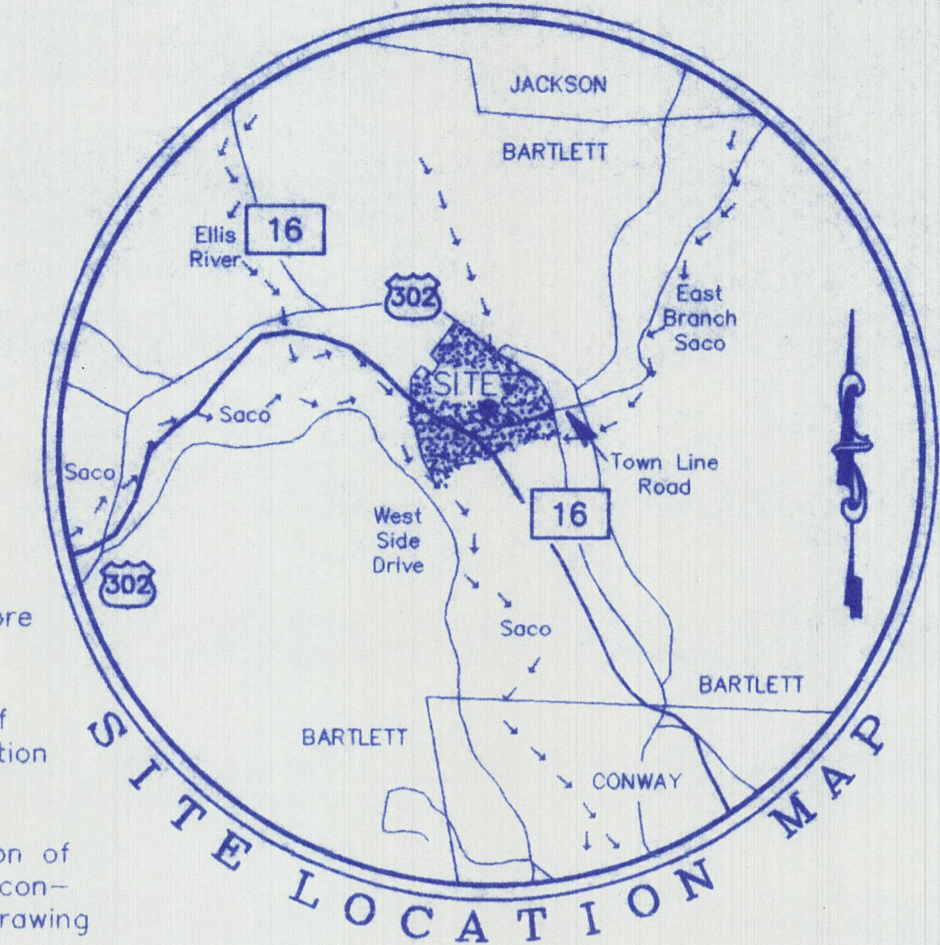
CONSTRUCTION ELEVATIONS

ITEM	Elevation
INV OUT @ BUILDING	541.00'
SEPTIC TANK INVERT IN	540.20'
SEPTIC TANK INVERT OUT	540.03'
D-BOX INVERT IN	549.26'
D-BOX INVERT OUT	549.18'
TOP OF IN-DRAIN MODULES	549.08'
Existing Ground	
Uphill side of modules	546.00'
FINISH GRADE ABOVE MODULES (Minimum)	550.08'

NOTE: The finish grade over the bed shall extend for a minimum of 5 feet beyond the bed before tapering of to a 3:1 slope.

There shall be a minimum of a 4" layer of loam suitable for seeding and proper stabilization of the slope over the fill and system.

Approval of this plan allows for construction of this In-Drain design only. Construction of a conventional system requires a separate design drawing and NHDES approval.



TEST PIT & PERCOLATION TEST DATA

Test Pit	Soil Profile	Percolation Test	Rate
Test Pit 1 12/11/98	0-10" 10YR4/4 Dark Yellowish Brown Coarse Compact Sand	Percolation Test 1 12/11/98	Rate < 2 Minutes per Inch
	10-22" 7.5Y6/6 Reddish Yellow Coarse Sand & Gravel Mottled	Percolation Test 2 12/11/98	Rate < 2 Minutes per Inch
	22-40" 2.5Y6/2 Light Brownish Gray Firm Silt Mottled		
	40-96" 5Y6/6 Olive Yellow Compact Silty Sand Mottled		
	ESHWT = 18" No Seeps No Ledge to 96"		

DESIGN & SOIL NOTES

Soil Type & Lot Loading Capacity:
Carroll County Soil Survey Sheet Number 11
CnC, Colton gravelly loamy fine sand, 8-15% Slope
NHDES Soil Group 1, f = 1.1
Loading capacity = 1800 Gallons per Acre
Acre required for 300 gallons per day = 0.17
Acre available > 10.

Design Load:
1 to 4 Part-time observers or maintenance personnel, without a cafeteria or showers @ 15 GPD/P
Total Design Load = 60 GPD. Use 300 GPD. (Minimum Commercial System) [6/28/01 REVISED LOADING, ADD 15 EMPLOYEES w/ NO CAFETERIA AT 15 GPD/Person = 225 GPD PLUS The Existing Loading of 60 GPD = TOTAL LOADING OF 285 GPD]

System Sizing:
5 Type B Eljen In-Drain Modules per 150 GPD,
10 Modules required for 300 GPD Design Load.

Hydric Setbacks:
System exceeds Hydric Soils A & B setbacks.

Replacement System Statement:
In the event of system failure, it shall be rebuilt in kind in the same location.

Design Intent:
Bottom of Modules to be no less than 2.5' above original ground along the center line of the uphill row of modules in this system.

Field Data:
Field Book 517/55, Test Pit Book 16/71
Base Map from plan by White Mountain Survey Co., Ossipee, NH 03864, 539-4118.

DESIGN & GENERAL NOTES

Owner of Record:
Mount Washington Observatory Charitable Remainder Annuity Trust
PO Box 2310
North Conway, NH 03860-2310
(603) 356-8645

Lot Location:
NH Route 16 & US Route 302
Bartlett, Carroll County, New Hampshire
Lot of Record

Tax Map, Block & Lot Number:
Map 1 Rt 016
Block 201
Lot L10

Dead:
Carroll County Registry of Deeds
Book 1726 Page 113

Commercial Subsurface Disposal System:
Design Flow = 300 GPD
Disposal Method: Raised Level Eljen In-Drain System

System Designer:
Peter W. Howard, PE 7668, NHDES 830
Steven J. Smith & Associates, Inc.
6 Lily Pond Road
Gilford, NH 03246-6685
REVIEWED AND APPROVED JUL 05 2001
NEW HAMPSHIRE DEPT. OF ENVIRONMENTAL SERVICES WATER DIVISION
Signature: Peter W. Howard
Date: 7-11-01

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Date: 7-11-01

REVISIONS

6/28/01	Add new building & 15 employees
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DATE: 6/27/01
SCALE: 1" = 20'
FIELD BOOK: 517
SDSKPROJ NO.: 98095
SHEET NO.: BLANK
DWG NO.: 98095SDS.dwg

STEVEN J. SMITH & ASSOCIATES, INC.
ENGINEERS
SURVEYING & PLANNING

REVISED SUBSURFACE DISPOSAL SYSTEM
for
Mt. Washington Observatory Charitable Remainder Trust
PO Box 2310 ~ Us route 302 & NH Route 16
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PHONE (603) 524-1888
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6 LILY POND ROAD, GILFORD, N.H. 03246

PROJECT NO. 98095

