

No. C9-11

FEE \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



Application for a Permit to Construct ( ) Repair (x) Upgrade ( ) Abandon ( ) -  Complete System  Individual Components

Location	<u>218 Harkness Rd</u>	Owner's Name	<u>Gary Wiemokly</u>
Map/Parcel#	<u>180/40</u>	Address	<u>218 Harkness Rd</u>
Lot#	<u>40</u>	Telephone#	<u>413.531.6712</u>
Installer's Name		Designer's Name	<u>Alan E. Weiss R.S.</u>
Address		Address	<u>Belcher town</u>
Telephone#		Telephone#	<u>413.323.5957</u>

Type of Building Residence Lot Size 81,639.5 sq. ft.  
 Dwelling - No. of Bedrooms 4 Bedrooms Garbage grinder ( )  
 Other - Type of Building \_\_\_\_\_ No. of persons \_\_\_\_\_ Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 110 gpd Calculated design flow 440 Design flow provided 484 gpd  
 Plan: Date 9/29/09 Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title Septic System Repair Plan  
 Description of Soil(s) Class I  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator A. Weiss Date of Evaluation 9/24/09

DESCRIPTION OF REPAIRS OR ALTERATIONS Install New Septic System

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

\*Signed [Signature] Date 10/28/09

Inspections \_\_\_\_\_

No. 09-11

FEE 150.00

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired ( ), Upgraded ( ), Abandoned ( )

by: \_\_\_\_\_ at \_\_\_\_\_

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. \_\_\_\_\_ dated \_\_\_\_\_ Approved Design Flow \_\_\_\_\_ (gpd)

Installer [Signature] Designer: [Signature] Inspector: [Signature] Date: 11/12/09

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. C9-11

FEE 150.00 paid

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct ( ) Repair (x) Upgrade ( ) Abandon ( ) an individual sewage disposal system at 218 HARKNESS RD as described in the application for Disposal System Construction Permit No. C9-11, dated 11/2/09.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

Date 11/2/09 Board of Health [Signature]





ALAN E. WEISS, M.S., L.S.P.

Licensed Site Professional

Registered Sanitarian

Hydrogeologist

President

•Subsurface Investigations

•21E Site Investigations

•Pollution Remediation

•Percolation Tests and

Septic Designs

350 Old Enfield Rd.  
Belchertown, MA 01007  
(413) 323-5957 & 323-4916 (FAX)

Date: 9-24/07

Commonwealth of Massachusetts

Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A Weiss

Date: 9/24/07

Witnessed By: G. Courtmauche

Location Address or Lot # # 218 Harkness RD New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	Owner's Name, Address, and Telephone # Gary Wiemorkly 218 Harkness Rd.
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Office Review

531-6712

Published Soil Survey Available: No  Yes

Year Published

Publication Scale

Soil Map Unit

Drainage Class

Soil Limitations

Surficial Geologic Report Available: No  Yes

Year Published

Publication Scale

Geologic Material (Map Unit)

Landform

Flood Insurance Rate Map:

Above 500 year flood boundary No  Yes

Within 500 year flood boundary No  Yes

Within 100 year flood boundary No  Yes

Wetland Area:

National Wetland Inventory Map (map unit)

Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range: Above Normal  Normal  Below Normal

Other References Reviewed: \_\_\_\_\_





Location Address or Lot No. 278 Hartness RD, Amherst.

On-site Review

Deep Hole Number 112 Date: 9/24/09 Time: 10:30 Weather SUN 80°F

Location (identify on site plan) \_\_\_\_\_

Land Use residential Slope (%) 2 Surface Stones yes

Vegetation grass

Landform terraced

Position on landscape (sketch on the back) \_\_\_\_\_

Distances from:  
 Open Water Body 100+ feet      Drainage way 50+ feet  
 Possible Wet Area 100+ feet      Property Line 25+ feet  
 Drinking Water Well 100+ feet      Other \_\_\_\_\_

DEEP OBSERVATION HOLE LOG\*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
#1 0-9" 9"-24" 24"-120"	A <sub>g</sub>	FSL	10YR 3/2	NOT OBS 120"	-frable
	B <sub>w</sub>	LS	10YR 5/6		-frable, loose.
	C <sub>1</sub>	CS	10YR 4/6		-coarse sand + gravel 20% cobbles, rounded.
#2 0-9" 9-24" 24"-120"	A	FSL	10YR 3/2	120"	-frable
	B <sub>w</sub>	LS	10YR 5/6		-frable loose.
	C <sub>1</sub>	CS	10YR 4/6		-coarse sand + gravel 20% cobbles, rounded

\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Glacial Delta      Depth to Bedrock: 120"

Depth to Groundwater: Standing Water in the Hole: NOT      Weeping from Pit Face: NOT

Estimated Seasonal High Ground Water: 120"





Location Address or Lot No. # 213 Hoxkross Ad.

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date:	<u>9/24/09</u>	Time: <u>10:00 AM.</u>
Observation Hole #	<u>P<sub>1</sub></u>	<u>Repair</u>
Depth of Perc	<u>38"</u>	
Start Pre-soak	<u>10:15</u>	
End Pre-soak	<u>10:30</u>	
Time at 12"	<u>10:30</u>	
Time at 9"	<u>10:34</u>	
Time at 6"	<u>10:42</u>	
Time (9"-6")	<u>8</u>	
Rate Min./Inch	<u>3 <sup>Min</sup>/<sub>12</sub></u>	

\* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

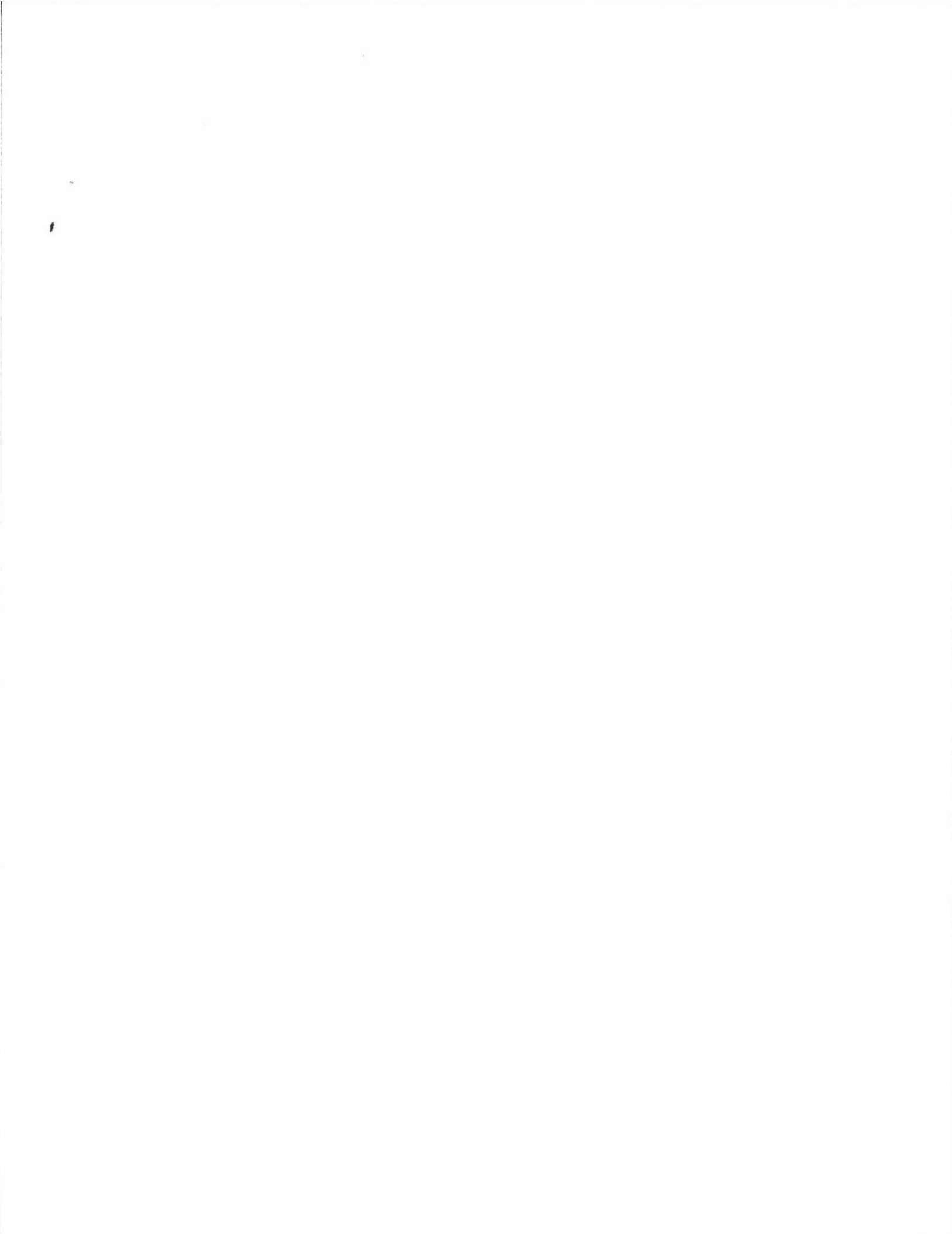
Site Passed  Site Failed

Performed By: A. Weiss

Witnessed By: G. Covatta

Comments: \_\_\_\_\_







Location Address or Lot No. 215 Harkness Rd.

Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole ..... inches
- Depth weeping from side of observation hole ..... inches
- Depth to soil mottles 120" inches
- Ground water adjustment ..... feet

Index Well Number ..... Reading Date ..... Index well level

Adjustment factor ..... Adjusted ground water level .....


Depth of Naturally Occurring Pervious Material

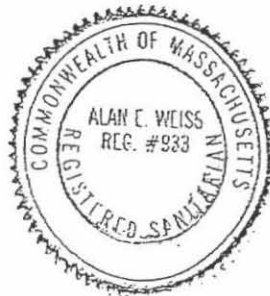
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? Yes

If not, what is the depth of naturally occurring pervious material? \_\_\_\_\_

Certification

I certify that on 6/1995 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

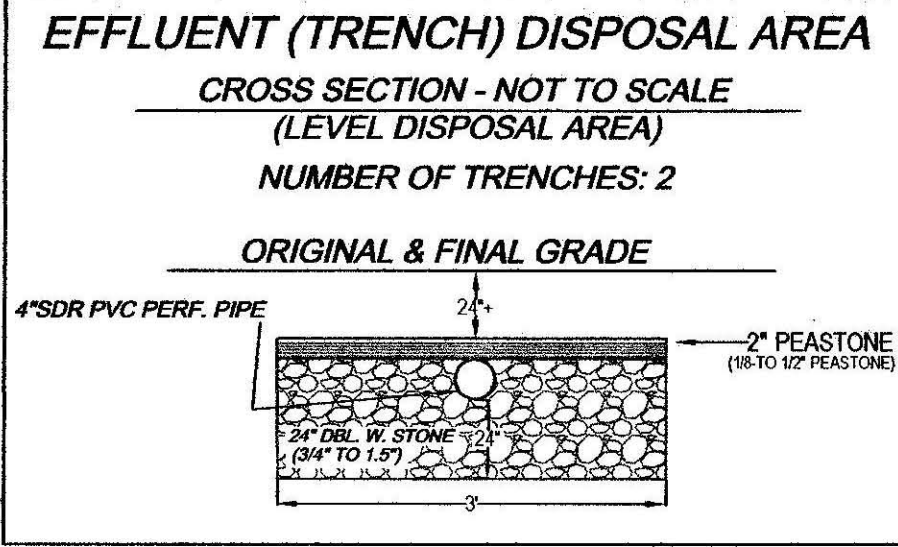
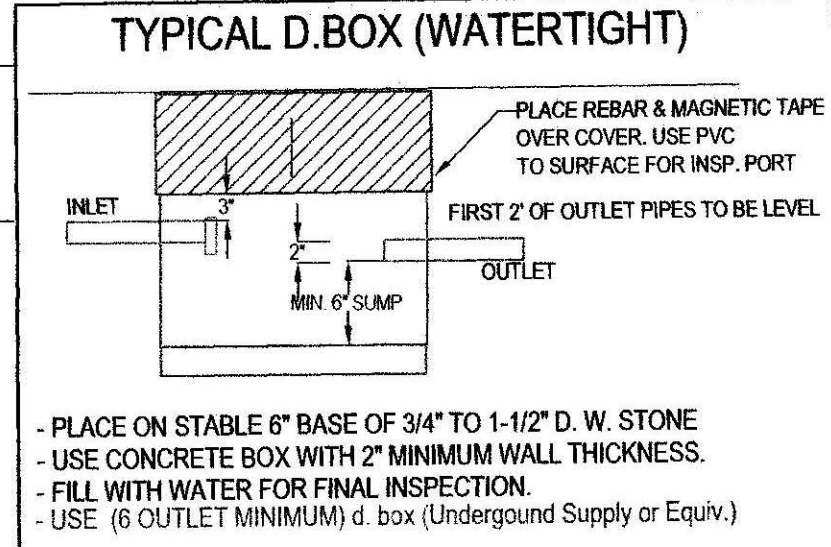
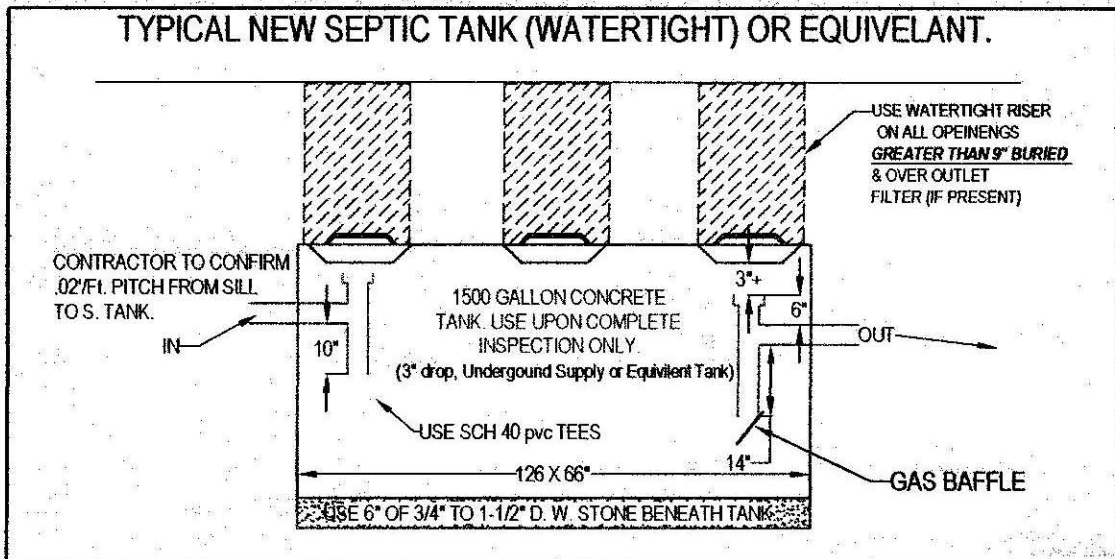
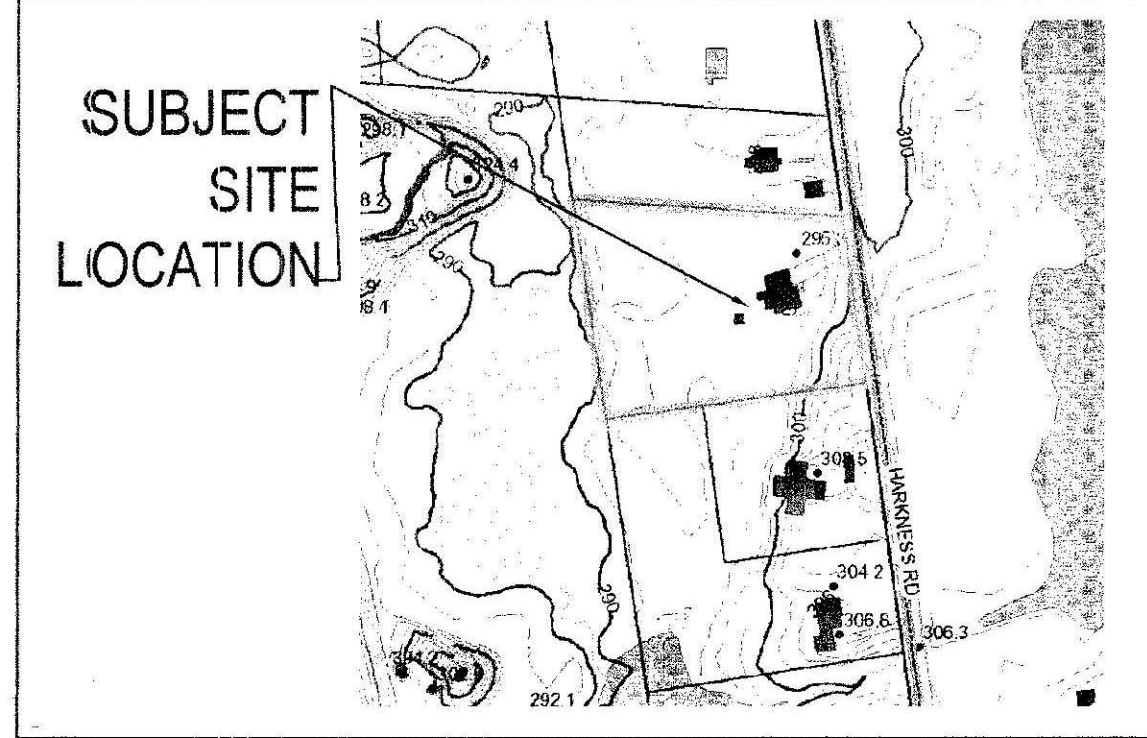
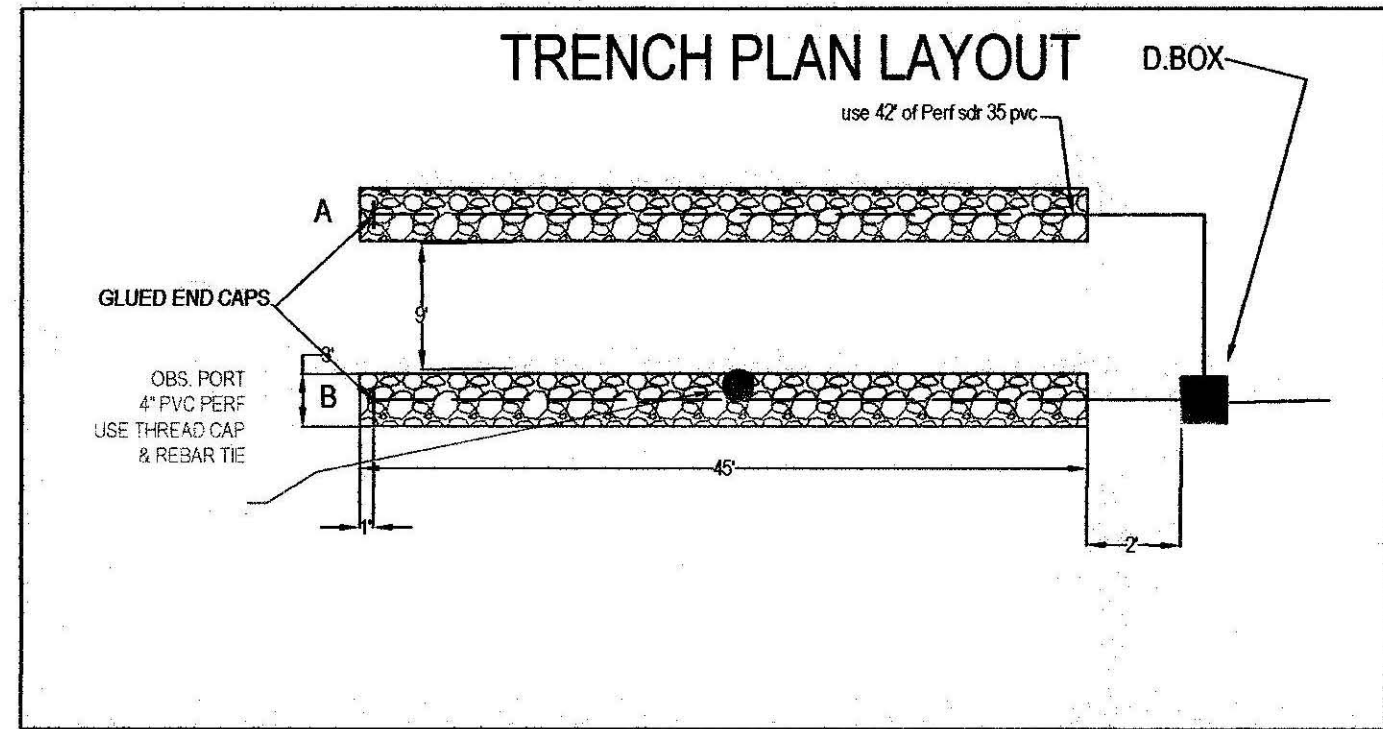
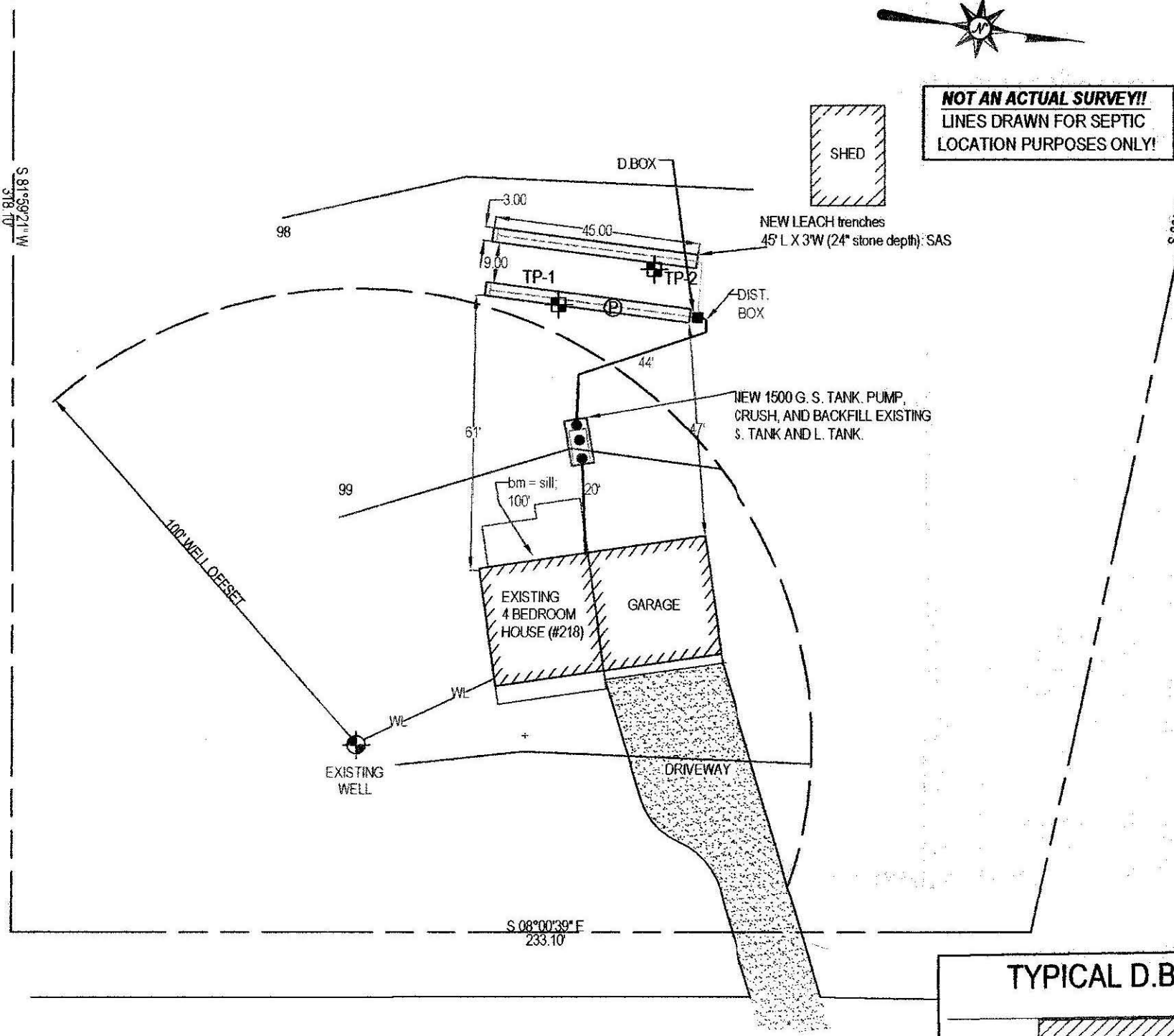
Signature  Date 9/24/07





PLOT PLAN  
MAP 18D LOT 40  
SCALE: 1"=30'  
81,639± Sq. Ft.  
1.874± Ac.

NOT AN ACTUAL SURVEY!!  
LINES DRAWN FOR SEPTIC  
LOCATION PURPOSES ONLY!

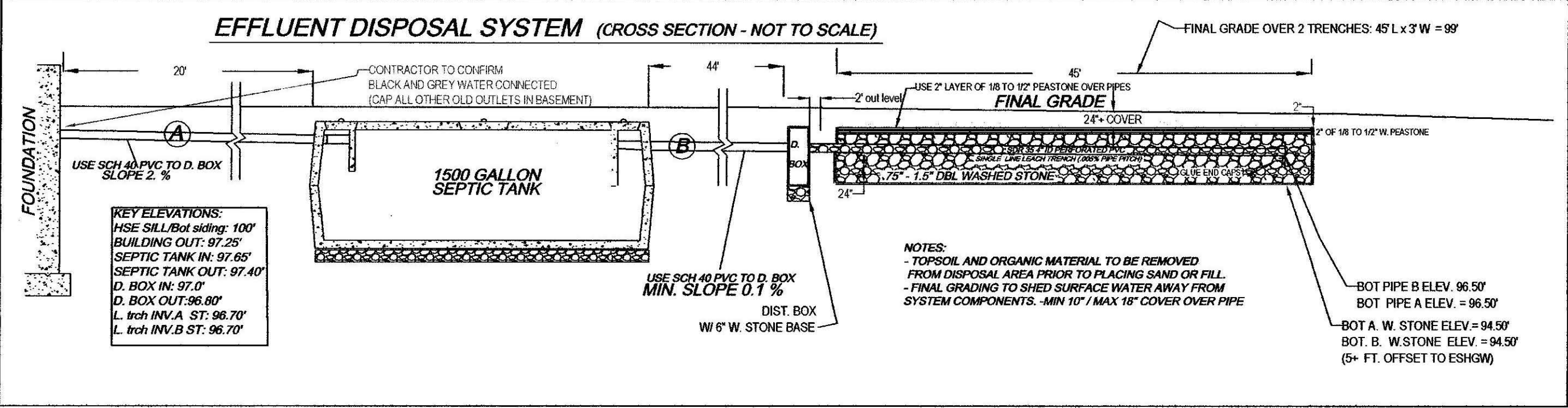


**DESIGN NOTES AND CALCULATIONS:**

- 4 (BEDROOM HOME) = 440 GPD. REQUIRED.
  - USE TWO TRENCHES: 3' WIDE X 45' LONG WITH 24" OF 3/4" TO 1/2" DBL WASHED STONE BELOW INVERT
  - BOTTOM AREA: 2 TRENCHES X (3' W X 45' L) = 270 SF.
  - SIDE AREA: 2 TRENCHES X (2' HT X 45' L) X 2 SIDES = 360 SF.
  - END AREA: 2 ENDS X (2' HT X 3' W) X 2 ENDS = 24 SF.
  - TOTAL AREA: 654 SF X 0.74 GAL/SF = 484 GPD
- GARBAGE DISPOSAL NOT ALLOWED.
- NO OTHER PRIVATE WELLS WITHIN 150 FEET OF SAS.
- NO OTHER WETLANDS WITHIN 100 FEET OF SAS. FILE RDA WITH CONSV. COMM.
- USE NEW 1500 GAL. S. TANK UPON COMPLETE INSPECTION ONLY.
- INSTALL & INSPECT SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET) IF NEEDED
- NOTE:
  - ALL COMPONENTS OF NEW SYSTEM MUST BE MARKED WITH MAGNETIC TAPE. BE SURE TO MAINTAIN 3" CLEARANCE FROM TOP OF TEES TO BOTTOM OF TANK COVERS & BOXES.
- USE LARGE STYLE (6 OUTLET) D BOX ONLY.
- ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2'. BOXES MUST HAVE 2" CONC. WALLS
- NOTE:
  - D. BOXES WITH MORE THAN 9" OF COVER SOIL MUST HAVE RISERS TO 6" OF SURFACE.
- USE APPROVED (75" X 112") DBL. WASHED STONE UNDER TANK & D. BOX FOR 6".
- CONFIRM STONE PROPERLY DOUBLE WASHED PRIOR TO PLACEMENT.
- USE PROPER SCH. 40 PVC TEES AS SHOWN.
- PRE & POST CONTOURS INOTED AS SAME. RESERVE: (not required for repairs).
- SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQD.
- USE TRENCHES DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
- USE 2% MIN. SLOPE OVER SAS
- CLEAR TOP AND SUB TO 36" MIN. AS NEEDED (INSPECTION REQUIRED).
- CLEAR PAST BASE OF B (MIN. 36") & SCARIFY UNDER TRENCH PRIOR TO STONE PLACEMENT.
- EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- SOIL RE-EVALUATION BY: A. WEISS, RS. ON 9/24/09 WITH G. Courtemarche, BOH AGENT
  - DEPTH OF PERC. 38"
  - PERC RATE = <2 MIN / IN.
  - CLASS I SOIL RATING
- NO TREES WITHIN 10 FT. OF NEW LEACH AREA.
- ENGINEER & TOWN TO INSPECT SUBGRADE. TOWN AND ENGINEER INSPECT AT FINAL.
- BM=100.00 @ (SILL AS NOTED). CONFIRM PROPER PIPE SLOPES
- USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
- GRADE MULCH AND SEED OVER SAS AS NOTED.
- USE OBSERVATION PORT NEAR CENTER OF STONE BED HAVE 4" PERFORATED, PVC INSPECTION PORTALS TO BOTTOM OF STONE BED, WITH RISER TO 3" OF SURFACE & THREADED CAP & MARK WITH RE-BAR.

**GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER.**

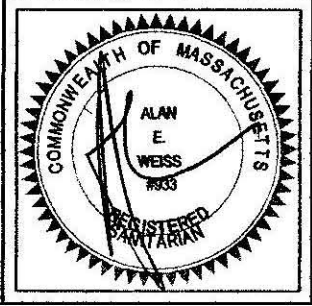
- HAVE TANK PUMPED EVERY 2 YEARS.
- MAINTAIN AREA OVER SEPTIC SYSTEM AS GRASSY OR SIMILAR GROUND COVER.
- DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF SYSTEM.
- USE ONLY LIQUID DETERGENTS & LOW FLOW WASHERS.
- WIPE ALL OIL AND GREASE FROM COOKWARE AND DISPOSE IN TRASH NOT SEPTIC.
- All Toilets and Faucets must be confirmed to not be leaking, because one leaking fixture can fail a septic system in ONE DAY.



TEST PIT LOG:				SOIL EVALUATOR:	DATE OF EVALUATION:
				A. WEISS, RS	09.24.2009
TP-1 EFF. ELEV: 99.0				TP-2 EFF. ELEV: 99.0	
DEPTH:	HORIZ.:	TEXTURE:	COLOR (MUNSELL):	DEPTH:	HORIZ.:
0-9"	A	FSL	10 YR 3.3	0-9"	A
		FRIABLE			
9-24"	Bw	LS	10yr 5.6	9-24"	Bw
		FRIABLE			
24-120"	C1	CS	10yr 4.6	24-120"	C1
		C. SAND & gravel			
		20% GRAV. & BOULDERS			
OXIDES:			NOT OBSERVED	OXIDES:	
EHWT:			120" = 89.0"	EHWT:	
STANDING H2O:			NOT OBSERVED	STANDING H2O:	
WEEPING:			NOT OBSERVED	WEEPING:	
BEDROCK:			120" - 126"	BEDROCK:	

**ATTENTION INSTALLER!!**  
CALL DIG SAFE BEFORE YOU DIG! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 40 - 40E REQUIRE THAT PREMARKING OF GAS, ELECTRIC, WATER, TELEPHONE AND CABLE T.V. UTILITY LINES BE MADE A MINIMUM OF 72 HOURS PRIOR TO GROUND BREAK FOR ANY EXCAVATION.

NOTE: INSTALLER MUST CONTACT ENGINEER/BD OF HEALTH 48 HOURS PRIOR TO SUBGRADE INSPECTION. INSTALLER MUST HAVE ALL BREAK OUT FILL ON SITE AND IN PLACE PRIOR TO SIGN OFF BY ENGINEER AT TIME OF FINAL INSPECTION OR APPROVAL WILL NOT BE GIVEN TO BACKFILL.



**SEPTIC SYSTEM REPAIR PLAN FOR GARY WIELMOKLY**  
218 HARKNESS ROAD  
AMHERST, MA

**Cold Spring Environmental Consultants Inc.**  
350 Old Enfield Road  
Belchertown, MA 01007

P.F.D. NO.: (413) 323-5957  
FAX: (413) 323-4916  
DATE: 09.29.2009  
SCALE: 1"=30'

c-Mail: AWEISS@charter.net

DRAWN BY: ALAN WEISS  
REVISED:  
DRAWING NUMBER: 109-3230-0924