

1236 BAY RD.
7 bedrooms -

9/23 PERE'S

10/18 PLAN REVIEW

10/19

PLAN APPROVAL



Plan:

11-02

Designed by:

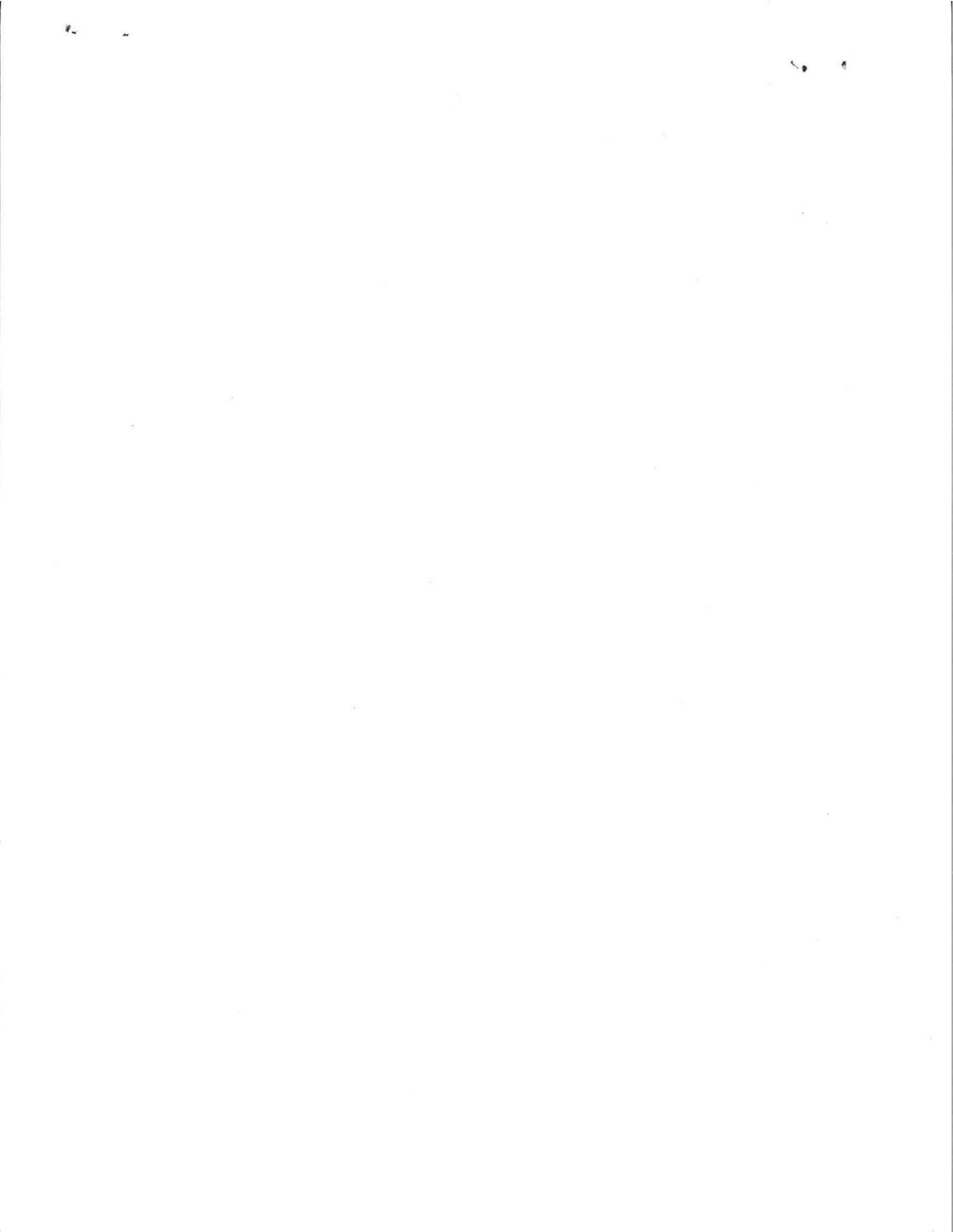
ALAN WEISS

CHECK LIST FOR SEPTIC PLANS

- Application page attached to plan
- PE or RS stamp, date, signature
- Variances to property-line setback distances must have Surveyor Stamp 15020 (3)
- Legal boundaries noted
- Easements noted (NA)
- Dwellings and buildings existing or proposed noted
- Location of driveway or parking areas, other impervious areas
- Location and dimensions of reserve area (new) CMR 15.248(1), 15.104(4)
- System design calculations
- Garbage grinder Y or N (N)
- Benchmark not disturbed during construction, within 75 feet of facility CMR 15.220 (4)(q)
- North arrow CMR 15.200 (4) (g)
- Contours
- Deep hole location and data
- Perc hole location and data
- Elevations
- Names of approving authority and soil evaluator CMR 15.211 p. 49
- Location of every water supply, public and private. CMR 15.220(k):
 - Within 400 feet of system in case of surface water and gravel packed public water supply
 - Within 250 feet of system in case of tubular public water supply
 - Within 150 feet of private supply wells 100' septic sys. & 5' tank
- Well statement if applicable (NA)
- Location of any surface waters, rivers, vegetated wetlands
- Location of water lines and other subsurface utilities
- Observed and adjusted ground water elevation in the vicinity of system 15.220 (4)(n) 120"
- Profile of system
- Locus plan to show location of facility, including nearest street
- Materials of construction and specs for system
- Gas Baffle 15.227.4
- Pipe in center line of tank 310 CMR 15.227, 15.06(8)
- Double washed stone
- Schedule 40 PVC for trafficked areas, house to tank
- Distances noted from house to tank, etc. 25'
- If dosing is proposed, design and specs of dosing system (NA)
- When alternative technology is required, complete plan and specs, including hydraulic profile (NA)
- Trenches preferred over beds CMR 15.240 (6)
- Buoyancy calculations for tanks or components partly below H2O table 15.221(8) p. 56 (NA)
- 3 to 1 slope outside of mound, toe ending 5 feet from property line
- Local upgrade requests on the plan (NA)
- Local upgrade forms attached to application (NA)
- Note on plan listing all variances sought in conjunction with the plan (NA)

NOTES:

System is approved for
 7 bedrooms, owner wishes to
 open 139 B.



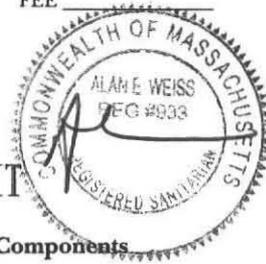
No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



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

Location	<u>1236 Bay Rd.</u>	Owner's Name	<u>Gary Beard</u>
Map/Parcel#	<u>30B-15</u>	Address	<u>1236 Bay Rd.</u>
Lot#	<u>18</u>	Telephone#	<u>256-6002</u>
Installer's Name	<u>Adair's Septic</u>	Designer's Name	<u>Alane Weiss</u>
Address	<u>Amherst, MA</u>	Address	<u>Beldosun MA.</u>
Telephone#	<u>253-1519</u>	Telephone#	<u>323-5957</u>

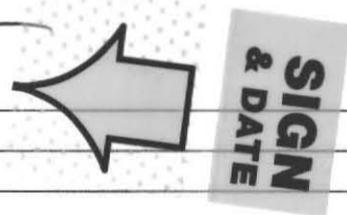
Type of Building Residence / BtB Lot Size 1.33 AC + 3.0 AC TOTAL sq. ft.
 Dwelling - No. of Bedrooms 7 Garbage grinder No
 Other - Type of Building _____ No. of persons _____ Showers (), Cafeteria ()
 Other Fixtures _____
 Design Flow (min. required) 110 gpd Calculated design flow 770 Design flow provided 784 gpd
 Plan: Date 10/14/2010 Number of sheets _____ Revision Date _____
 Title septic system Design.
 Description of Soil(s) _____
 Soil Evaluator Form No. _____ Name of Soil Evaluator A. Weiss Date of Evaluation 9/23/2010

DESCRIPTION OF REPAIRS OR ALTERATIONS New Septic System for Upgrade.

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 Gary Beard Date 10/18/2010

Inspections _____



No. 1102

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: Adair's Septic
at 1236 Bay Rd

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. 1102, dated 10/14. Approved Design Flow 784 (gpd)

Installer Adair

Designer: Alane Weiss Inspector: Steph Caridomane Date: _____

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

No. 11-02

FEE 150.00

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct Repair () Upgrade () Abandon () an individual sewage disposal system at 1236 Bay Rd as described in the application for

Disposal System Construction Permit No. 1102, dated 10/18/2010

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

Date 10/18/2010 Board of Health Steph Caridomane

S.E. # 13267



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

Licensed Site Professional
Registered Sanitarian
Hydrogeologist
President

- Wetland Consults
- Soil and Water Testing
- 21E Site Investigations
- Percolation Tests and
- Septic Designs
- Title 5 Inspections

60 Old Enfield Rd.
Belchertown, MA 01007
13) 323-5957 & 323-4916 (FAX)
aweiss@charter.net

Date: 9/23/10

Commonwealth of Massachusetts
Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: *A. Weiss*
Witnessed By: *C. Courtmanche*

Date: *9/23/2010*

Location Address or Lot # <i>1236 Bay Rd. MAP. 306 / LOT 18.</i> <i>Adding Bedrooms</i> New Construction <input checked="" type="checkbox"/> Repair <input checked="" type="checkbox"/>	Owner's Name, Address, and Telephone # <i>Garry & Deew Beard 1236 Bay Rd. Amherst, MA 01002</i>
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256 - 6002

Office Review

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)

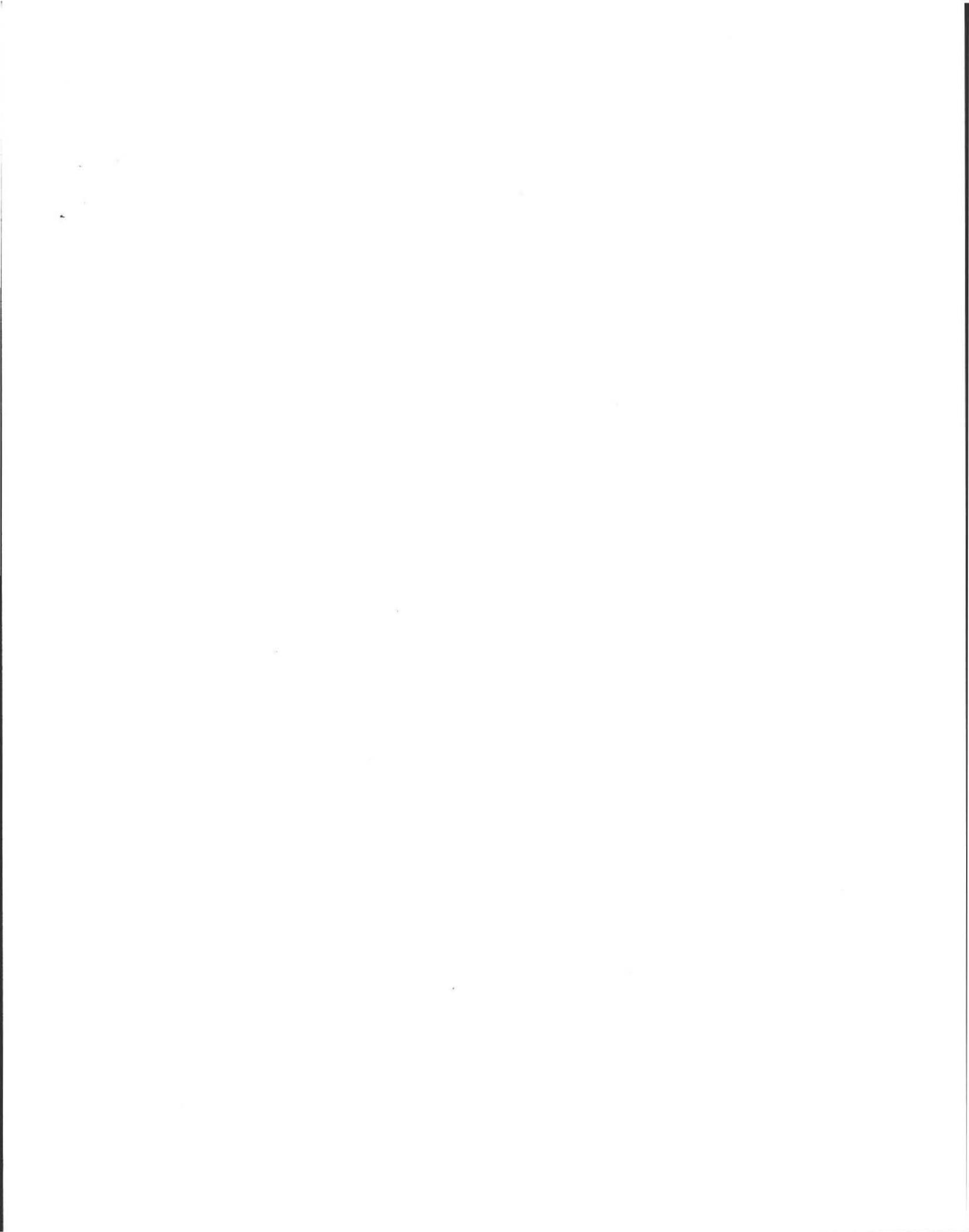
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range : Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. 1236 Bay St.

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: <u>9/23/2010</u>		Time: <u>9 AM</u>
Observation Hole #	<u>P₁</u>	<u>P₂</u>
Depth of Perc	<u>46"</u>	<u>44"</u>
Start Pre-soak	<u>9:08</u>	<u>9:08</u>
End Pre-soak	<u>9:11</u>	<u>9:26</u>
Time at 12"	<u>9:13</u>	<u>9:26</u>
Time at 9"	<u>9:14</u>	<u>9:31</u>
Time at 6"	<u>9:19</u>	<u>9:39</u>
Time (9"-6")	<u>42</u>	<u>8</u>
Rate Min./Inch	<u>42</u>	<u>3 ^{MIN}/_{IN}</u>

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

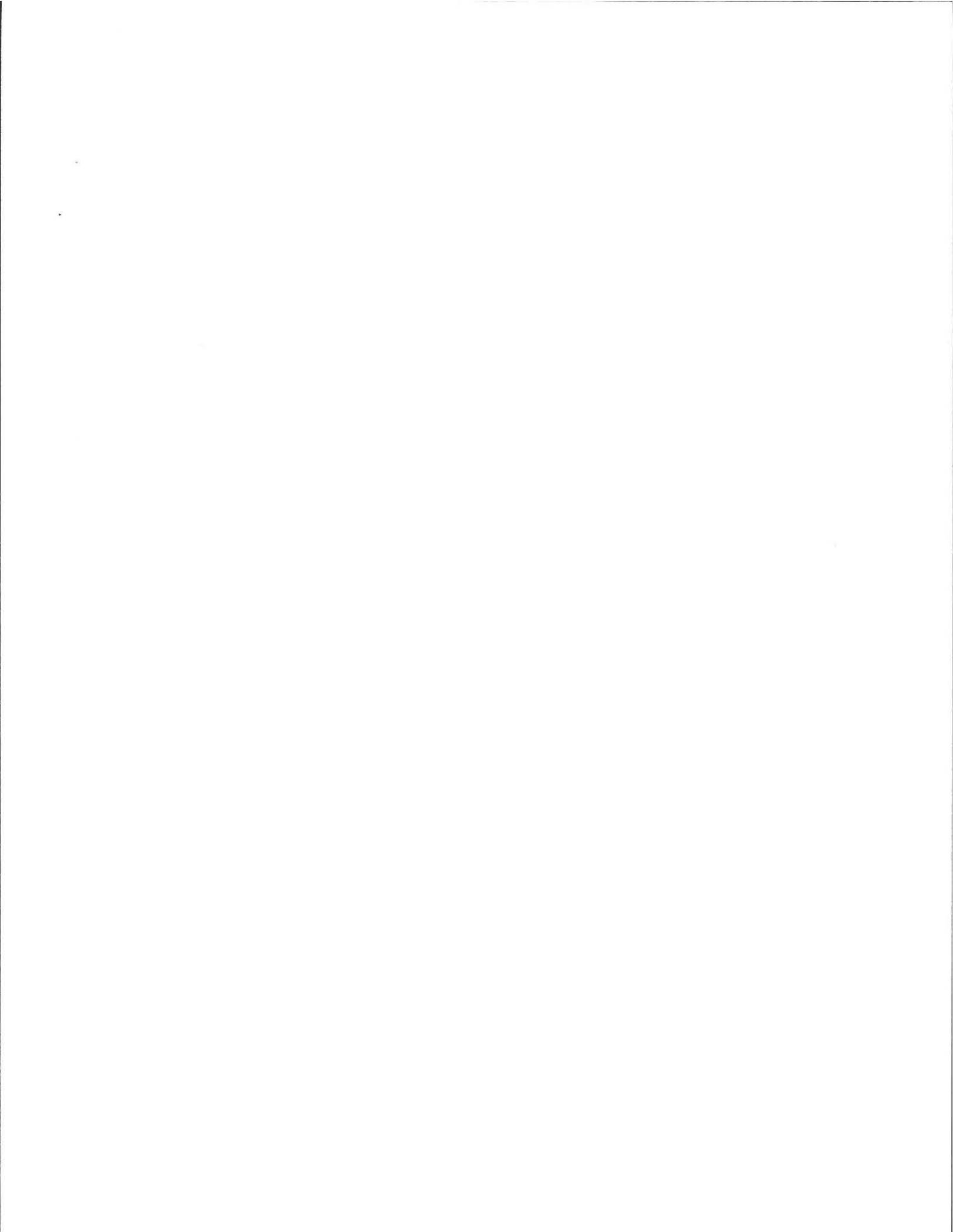
Site Passed Site Failed

Performed By: A. Weiss

Witnessed By: G. Courtmade

Comments: _____





Location Address or Lot No. 1236 Bay RD

On-site Review

Deep Hole Number 1+2⁵→3+4 Date: 9/23/2010 Time: _____ Weather Sun 60°

Location (identify on site plan) _____

Land Use Resid. / Slope (%) 2 Surface Stones few

Vegetation Mixed decid.

Landform 1st road.

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 See plan. 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)
0-6" 6-38" 38"-120"	A B _w C	FSC LS LS/S	10YR3/3 10YR5/6 10YR5/4	NOT obs	- Frable - Frable C. SAND + F. SAND inter-layered.
0-4" 4"-46" 46"-120"	A B C ₁	FSC LS LS/S	↓	↓	↓ F. Sand well sorted
0-14" 14"-46" 46"-120"	A B _c C	FSC LS S	↓	↓	F. Sand, well sorted

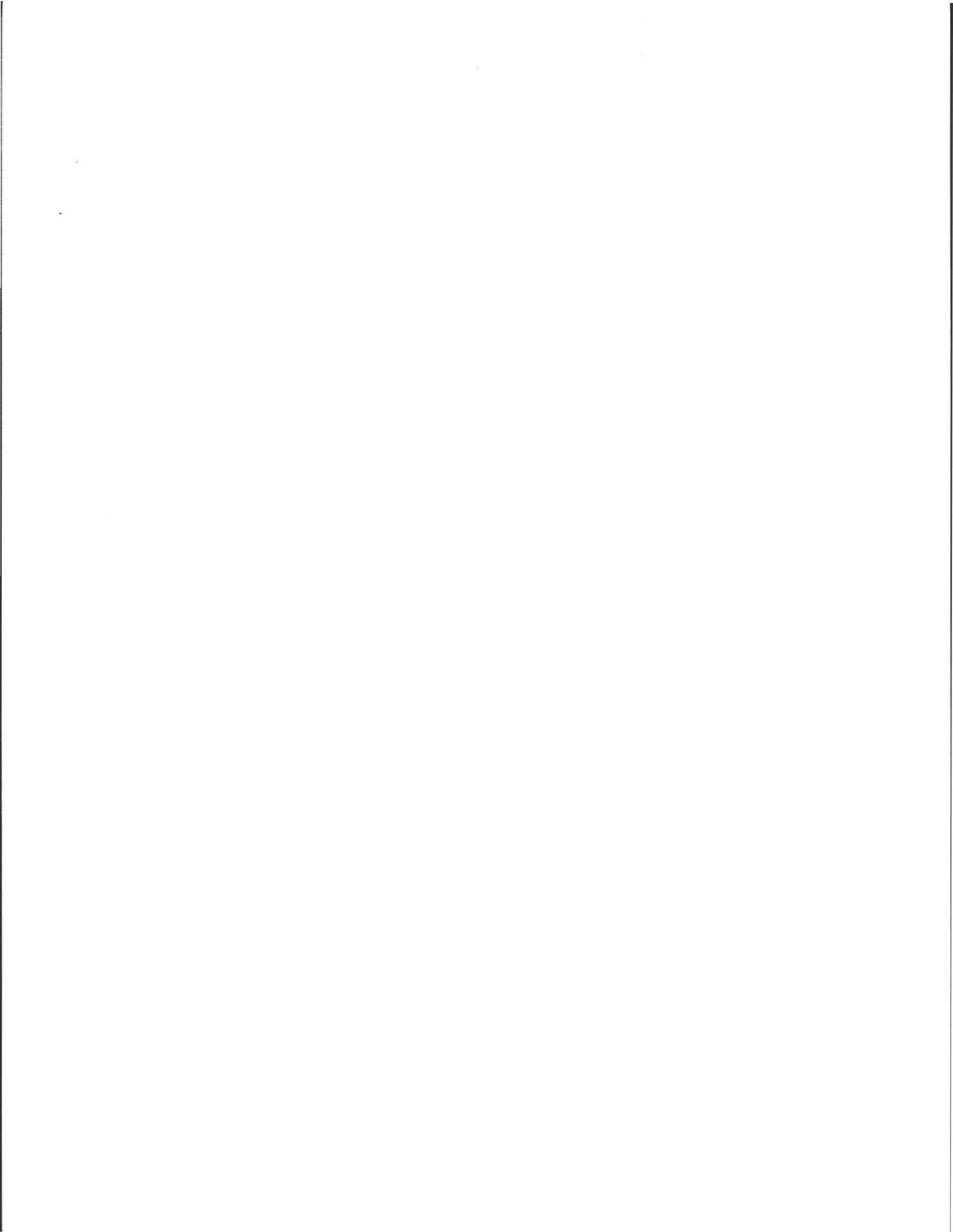
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) limestone rock Depth to Bedrock: 120'+

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

Estimated Seasonal High Ground Water: 120'+ (eff.)





Location Address or Lot No. 1736 BAY RD. , Amherst.

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 effective
- Ground water adjustment..... feet

Index Well Number Reading Date Index well level

Adjustment factor Adjusted ground water level

Depth of Naturally Occurring Pervious Material

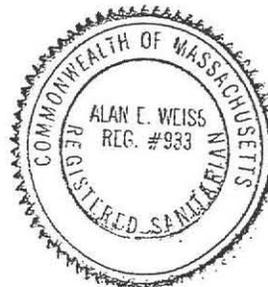
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

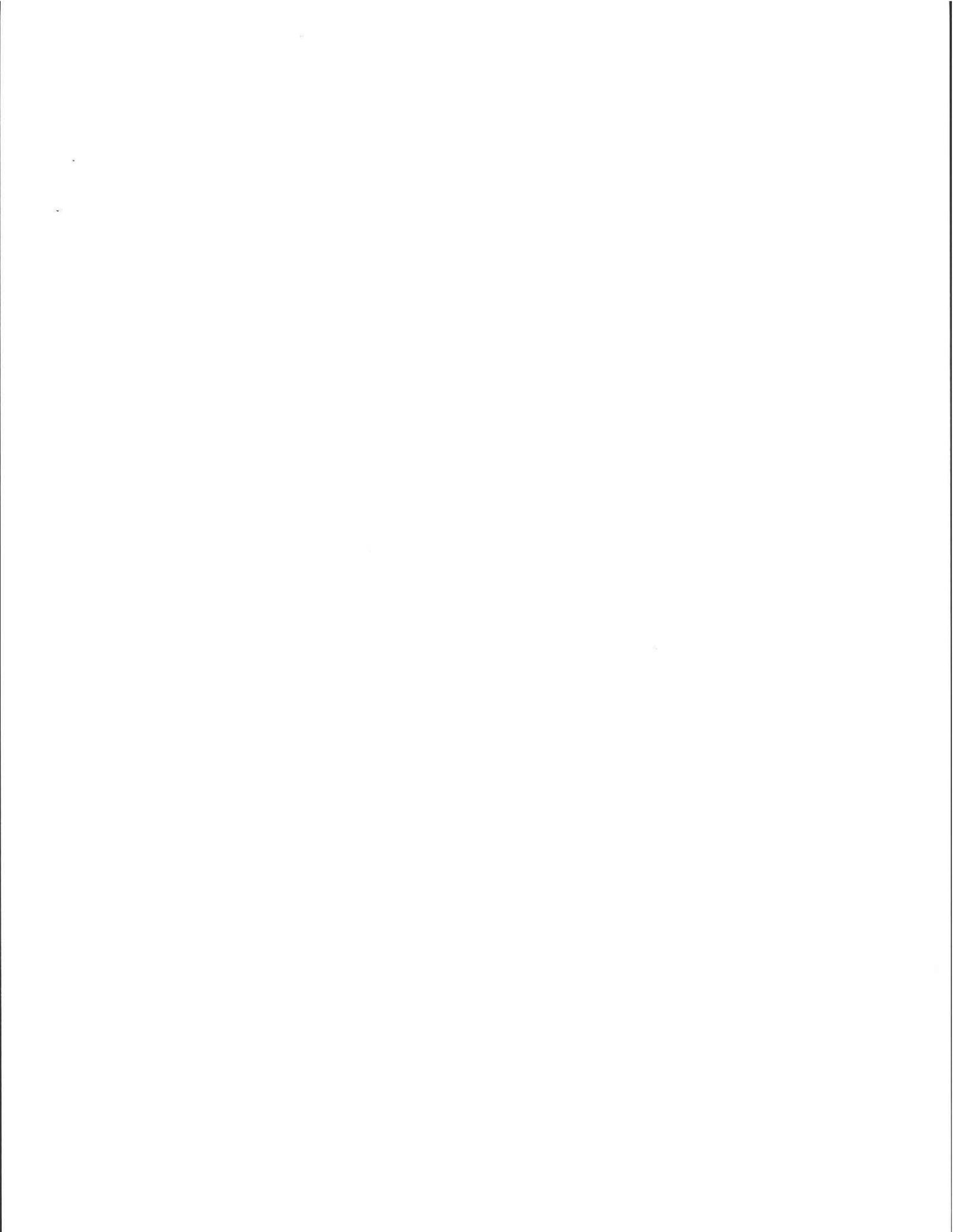
If not, what is the depth of naturally occurring pervious material? _____

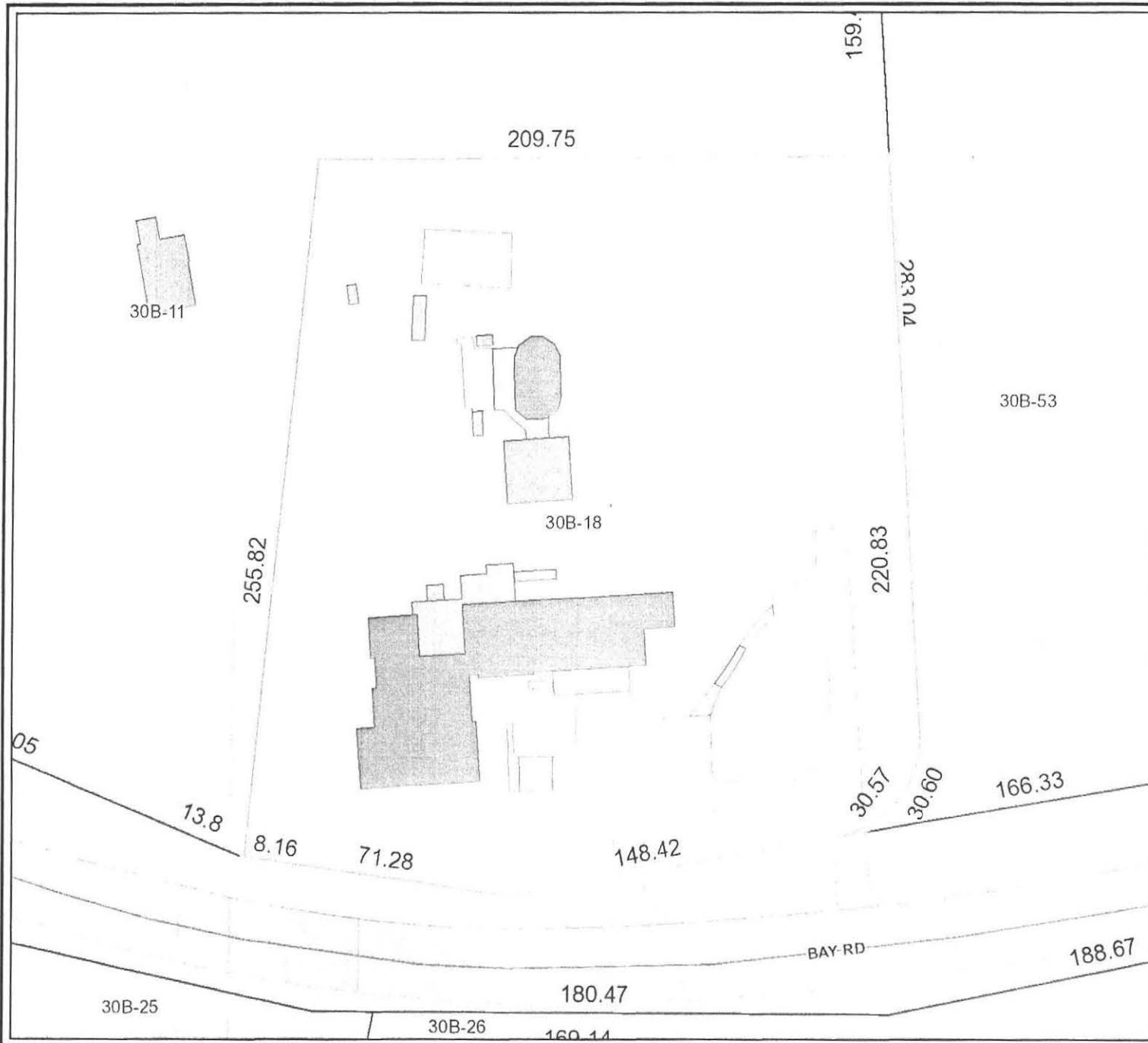
Certification

I certify that on 6/95 (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 [Signature] Date 9/23/2010







- Property Map**
 - Property Lines
 - Property Line
 - Hydrographic Property Line
 - Right of Way Line
 - Town Boundary
 - Other Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
- Sidewalks**
 - Transportation
 - Paved street polygons
 - Unpaved street polygons
 - Bridges
 - Bridge decking and structure
 - Foot Bridge
 - Rail Bridge
- Basemap**
 - Trails
 - Rail Lines
- Structures**
 - Building
 - Foundation or in construction
 - Outbuilding or Miscellaneous
 - Deck, Porch, Stairs or
 - Mobile home, Trailer
 - Swimming Pool
 - Building Ruins
 - Water storage tank
- Rivers and Streams**
 - Stream
 - Major Culverts
 - Hydro Connector
 - Headwalls, Floodwalls
- Landcover**
 - Brush and scrub vegetation
 - Tree and forest vegetation
 - Cultivated field
 - Gravel pile
 - Quarry
 - Miscellaneous Impervious Surfaces
- Parking**
 - Parking Paved
 - Parking Unpaved
- Driveways**
 - Driveway Paved
 - Driveway Unpaved

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet
 Vertical Datum: NAVD88, Feet

Planimetric & topographic basemap features compiled at 1"=40' scale from April, 2009 Aerial Photography, Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures and underground utility locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.

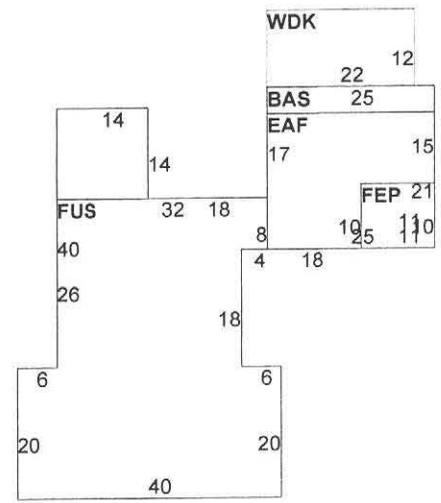
1" = 50 ft



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CONSTRUCTION DETAIL				CONSTRUCTION DETAIL (CONTINUED)			
Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description
Style	10		Family Duplex				
Model	01		Residential				
Grade	26		Grade = 130%				
Stories	2		2 Stories	Foundation			
Occupancy	2			MIXED USE			
Exterior Wall 1	20		Brick/Masonry	Code	Description	Percentage	
Exterior Wall 2	25		Vinyl Siding	1040	TWO FAMILY MDL-01	100	
Roof Structure	03		Gable/Hip	COST/MARKET VALUATION			
Roof Cover	03		Asph/F Gls/Cmp	Adj. Base Rate:		116.30	
Interior Wall 1	03		Plaster/SkimC	Section. RCN:		493,801	
Interior Wall 2	05		Drywall/Sheet	Net Other Adj:		0.00	
Interior Flr 1	12		Hardwood	Replace Cost		493,801	
Interior Flr 2				AYB		1770	
Heat Fuel	02		Oil	EYB		1983	
Heat Type	06		Steam	Dep Code		GD	
AC Type	01		None	Remodel Rating			
Total Bedrooms	06		6 Bedrooms	Year Remodeled			
Total Bthrms	2			Dep %		25	
Total Half Baths	0			Functional Obslnc		0	
Total Xtra Fixtrs				External Obslnc		0	
Total Rooms	10		10 Rooms	Cost Trend Factor		1	
Bath Style	02		Average	Condition			
Kitchen Style	02		Modern	% Complete			
				Overall % Cond		75	
				Apprais Val		370,400	
				Dep % Ovr		0	
				Dep Ovr Comment			
				Misc Imp Ovr		0	
				Misc Imp Ovr Comment			
				Cost to Cure Ovr		0	
				Cost to Cure Ovr Comment			

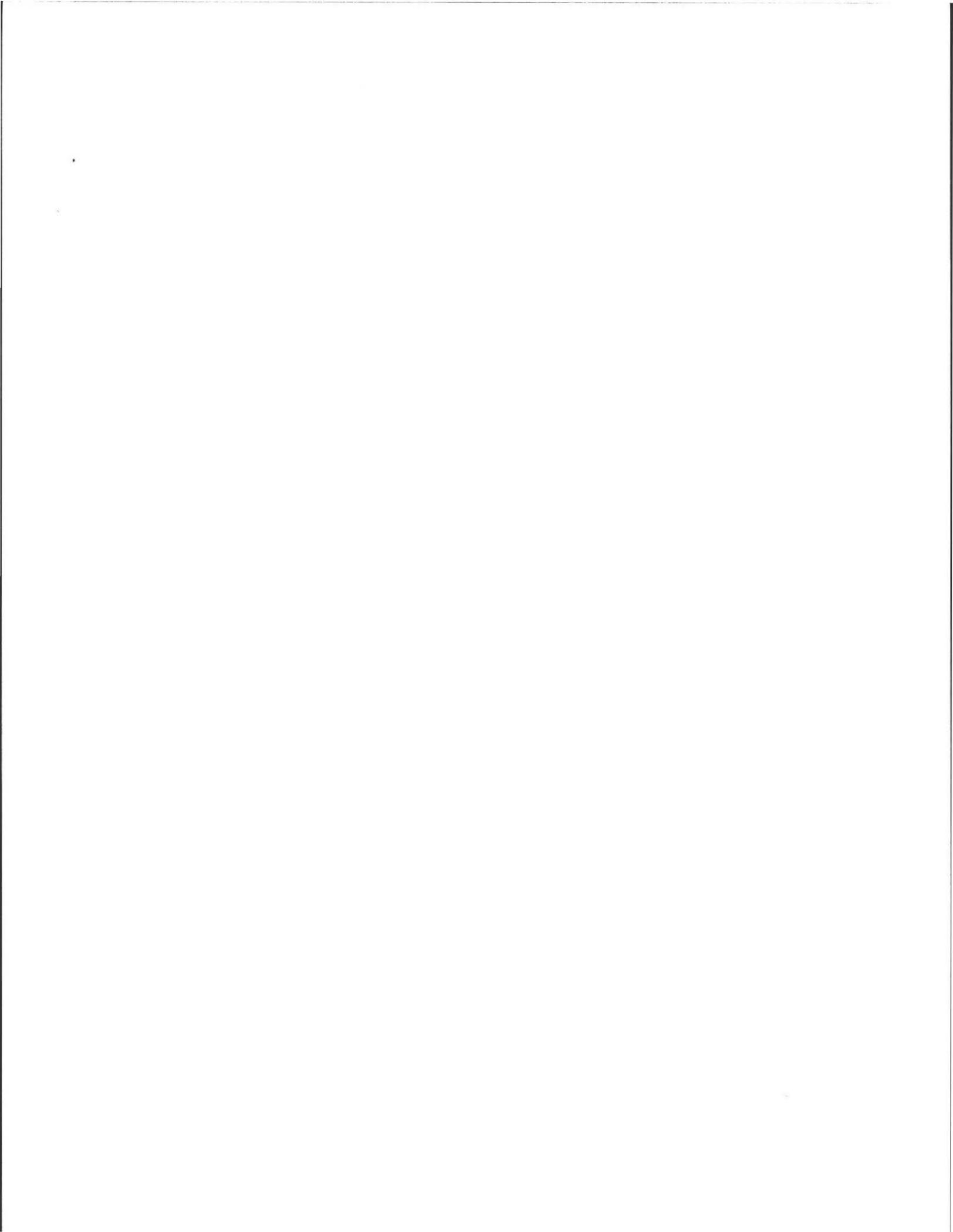
UBM[1420]



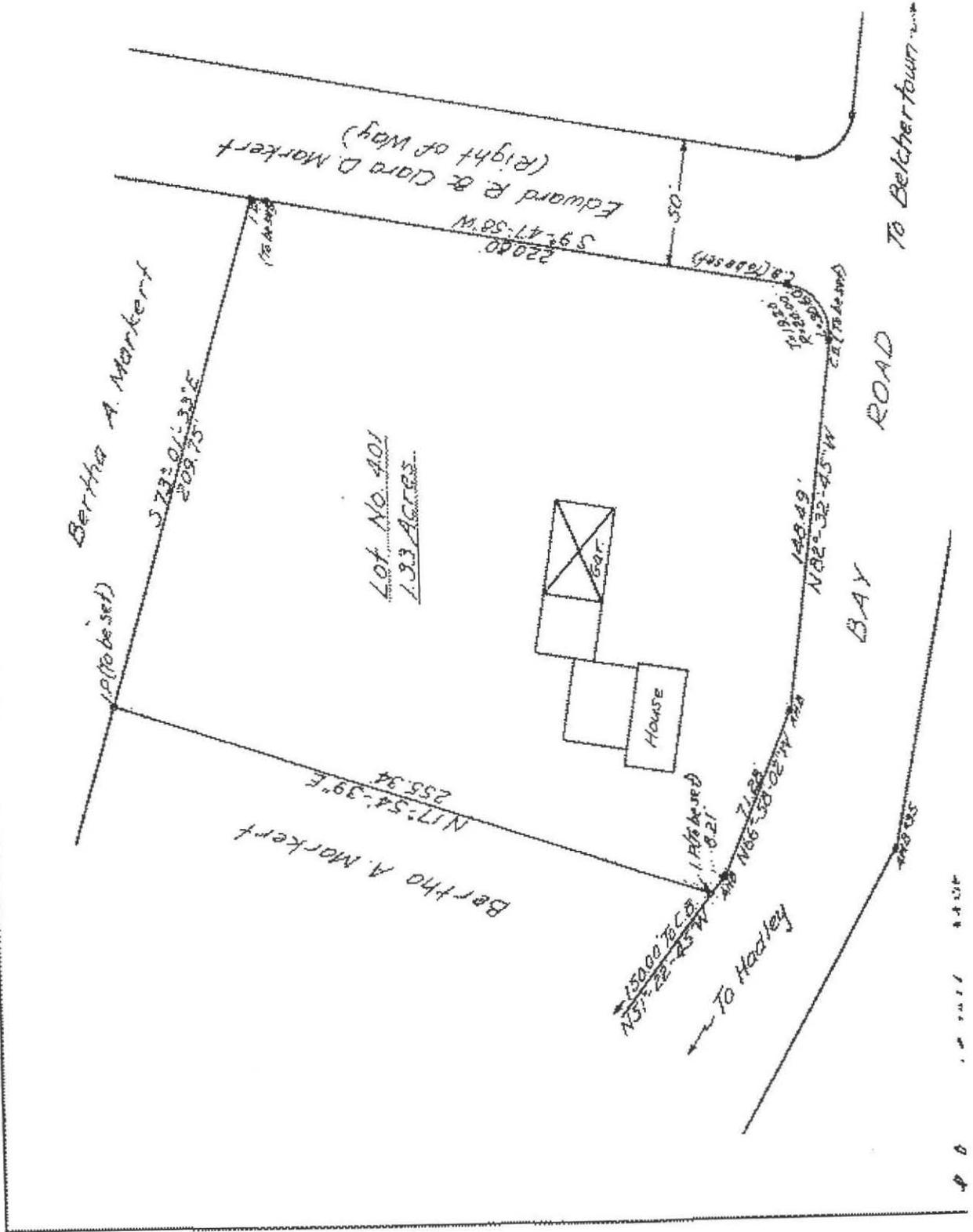
OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)												
Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
FGR1	GARAGE-AVE			L	320	20.00	1951	0			50	3,200
SHD1	SHED FRAME			L	100	8.00	1916	0			10	100
FGR5	W/LOFT GOOI			L	952	35.00	1951	0			50	16,700
FPL3	FIREPLACE 2			B	2	4,000.00	1983	1			100	6,000

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
BAS	First Floor	2,271	2,271	2,271	116.30	264,113
EAF	Attic, Expansion, Finished	184	525	184	40.76	21,399
FEP	Porch, Enclosed, Finished	0	110	77	81.41	8,955
FUS	Upper Story, Finished	1,404	1,560	1,404	104.67	163,282
UBM	Basement, Unfinished	0	1,420	284	23.26	33,029
WDK	Deck, Wood	0	264	26	11.45	3,024
Ttl. Gross Liv/Lease Area:		3,859	6,150	4,246		493,801

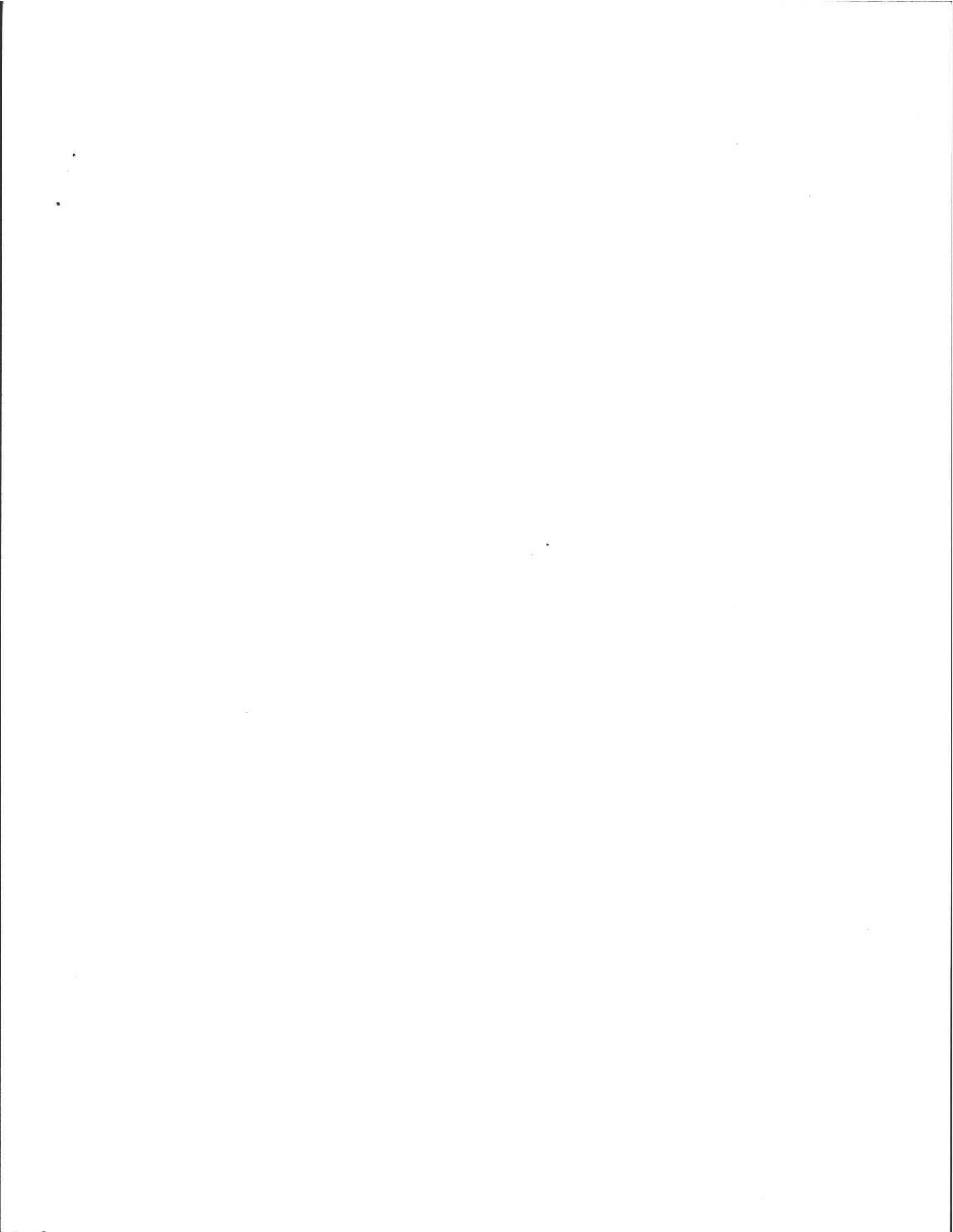




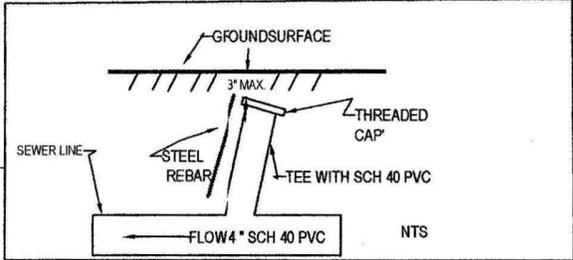
1" = 60'



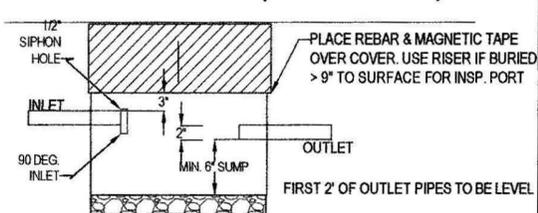
1966 Survey by Russell Snow, PLS. PBK. 66
p. 39



CLEAN OUT EVERY 100 FT OR TURN REQUIRED



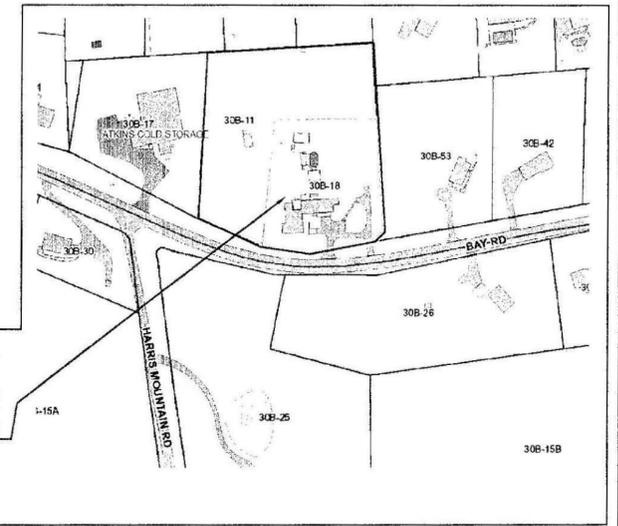
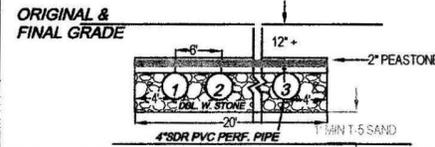
TYPICAL D.BOX (WATERTIGHT)



- PLACE ON STABLE 6" BASE OF 3/4" TO 1-1/2" D.W. STONE
- USE CONCRETE BOX WITH 2" MINIMUM WALL THICKNESS.
- FILL WITH WATER FOR FINAL INSPECTION.
- USE LARGE STYLE D.BOX 6 outlet (Underground Supply)

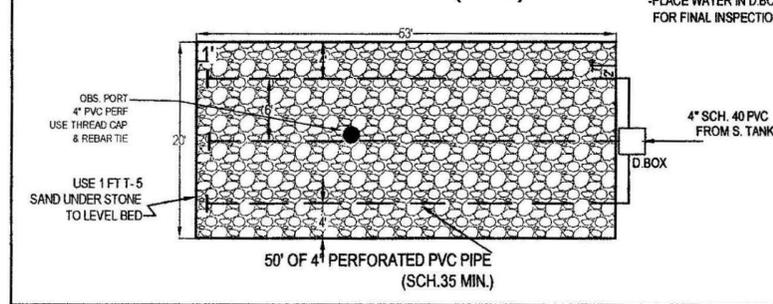
EFFLUENT DISPOSAL AREA

CROSS SECTION - NOT TO SCALE
(LEVEL DISPOSAL AREA)
NUMBER OF SEPTIC LINES: 3
CENTER TO CENTER SPACING: 6'



SUBJECT SITE LOCATION

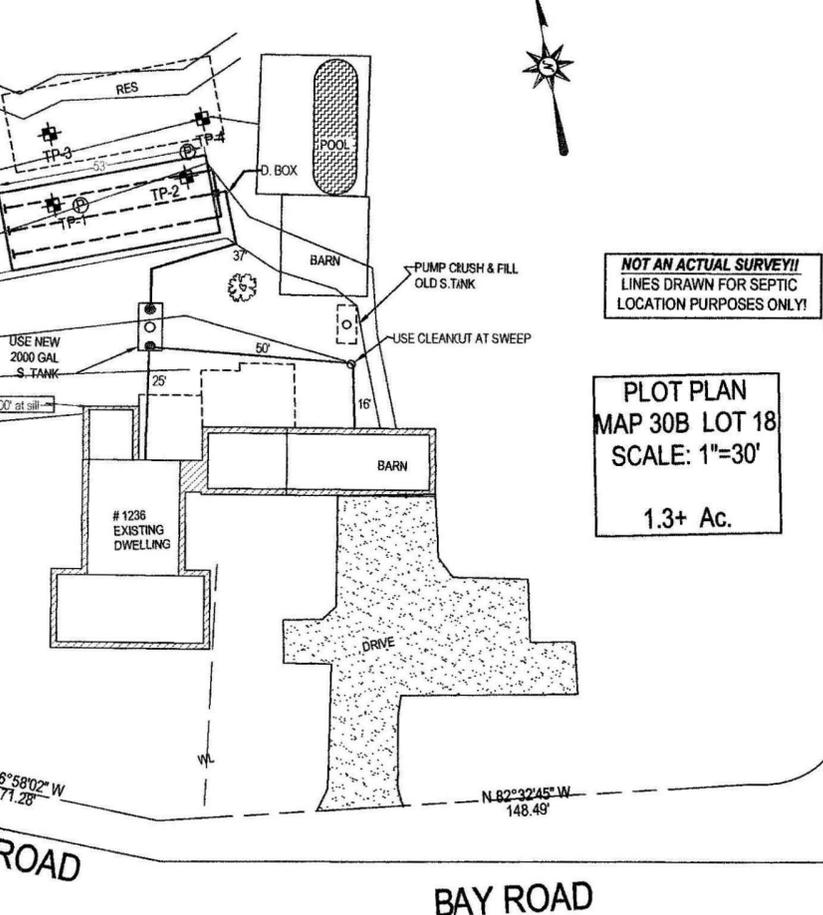
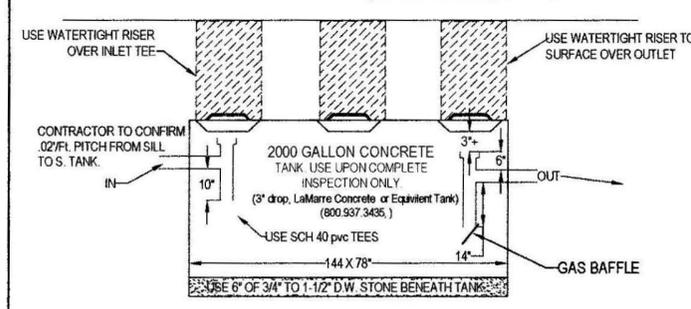
LEACH FIELD DETAIL (NTS)



GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER

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

TYPICAL 2000 GAL SEPTIC TANK (WATERTIGHT) OR EQUIVALENT.



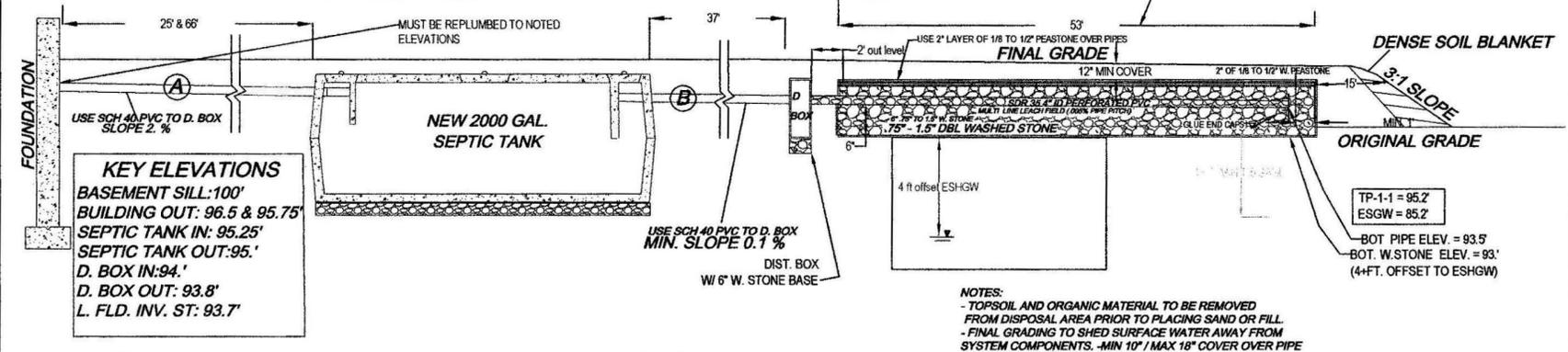
NOT AN ACTUAL SURVEY!!
LINES DRAWN FOR SEPTIC LOCATION PURPOSES ONLY!

PLOT PLAN
MAP 30B LOT 18
SCALE: 1"=30'
1.3+ Ac.

DESIGN NOTES AND CALCULATIONS:

- 1.) 7 BEDROOM HOME X 110 GPD /BR = 770 GPD. REQUIRED,
 - Use ONE FIELD: 20" WIDE X 53' LONG WITH 6" OF 3/4" TO 1 1/2" DBL WASHED STONE BELOW INVERT
 - BOTTOM AREA: 20' W X 53' L = 1060 SF.
 - SIDE AREA: 0 SF.
 - TOTAL AREA: 1060 SF X 0.74 GAL/SF = 784 GPD
3. GARBAGE DISPOSAL NOT ALLOWED, ...
4. NO OTHER PRIVATE WELLS WITHIN 150 FEET OF SAS.
5. NO WETLANDS WITHIN 100 FEET OF SAS
6. USE S. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
 - INSTALL & INSPECT SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET).
- 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.
7. USE LARGE STYLE (6 OUTLET) D.BOX ONLY.
- 7A. 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.
8. USE (175'-1 1/2") STONE UNDER TANK & D. BOX FOR 6" FOR STABLE BASE.
 - USE ONLY DBL. WASHED APPROVED (75'-1.5") FOR PLACEMENT IN LEACH AREA.
9. USE PROPER SCH. 40 PVC TEES AS SHOWN.
10. PRE & POST CONTOURS NOTED AS NECESSARY. RESERVE AS NOTED
11. SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQ'D.
13. USE FIELD DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
14. USE 2% MIN. SLOPE OVER SAS
 - CLEAR TOP AND SUB TO .46" MIN. AS NEEDED (INSPECTION REQUIRED).
 - CLEAR PAST BASE OF B (MIN. .46") & SCARIFY UNDER BED PRIOR TO TILL V SAND/STONE PLACEMENT.
 - EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
15. SOIL EVALUATION BY A. WEISS, RS. ON 09.23.2010 (G. COURTMANICHE, BOH AGENT).
 - DEPTH OF PERC. 46 & 44"
 - PERC RATE = 3 & <2 MIN/IN.
 - CLASS 1 SOIL RATING
16. NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
17. ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSPECT AT FINAL
18. BM=100.00 @ (SILL AS NOTED). CONFIRM PROPER PIPE SLOPES
 - USE INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
19. GRADE MULCH AND SEED OVER SAS AS NOTED.
20. INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
21. 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

EFFLUENT DISPOSAL SYSTEM (CROSS SECTION - NOT TO SCALE)



KEY ELEVATIONS
BASEMENT SILL: 100'
BUILDING OUT: 96.5 & 95.75'
SEPTIC TANK IN: 95.25'
SEPTIC TANK OUT: 95.1'
D. BOX IN: 94.1'
D. BOX OUT: 93.8'
L. FLD. INV. ST: 93.7'

- NOTES:
- TOPSOIL AND ORGANIC MATERIAL TO BE REMOVED FROM DISPOSAL AREA PRIOR TO PLACING SAND OR FILL.
 - FINAL GRADING TO SHED SURFACE WATER AWAY FROM SYSTEM COMPONENTS. -MIN 10' / MAX 18" COVER OVER PIPE

TEST PIT LOG:				SOIL EVALUATOR: A. WEISS, RS		DATE OF EVALUATION: 09.23.2010	
TP-1 EFF. ELEV: 95.2	DEPTH:	HORIZ:	TEXTURE:	TP-2 EFF. ELEV: 95.2	DEPTH:	HORIZ:	TEXTURE:
0-6"	A	FSL	10 YR 3.3	0-4"	A	FSL	10 YR 3.3
6-38"	Bw	LS	10 YR 5.6	4-46"	Bw	LS	10 YR 5.6
38-120"	C1	LS/S	10 YR 5.4	46-120"	C1	LS/S	10 YR 5.4
			INTERLAYERED				15% GRAV. & BOULDERS
OXIDES: NOT OBSERVED				OXIDES: NOT OBSERVED			
EHW: 120" = EFF. 85'				EHW: 120" EFF.			
STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED			
WEEPING: NOT OBSERVED				WEEPING: NOT OBSERVED			
BEDROCK: 120" -126+				BEDROCK: 120" -126+			

SEPTIC SYSTEM PLAN FOR GARRY BEARD
1236 BAY ROAD
AMHERST, MA

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

PROJECT: (413) 323-5957
SCALE: (413) 323-9116
DATE: 10.14.2010
SCALE: 1"=30'
DRAWN BY: AEW
CHECKED BY: AEW
REVISED:
DRAWING NUMBER: 110-3468-0923

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.



PERMITS/INSP PAYMENT RECPT#: 11057627
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 01/10/11 TIME: 12:39
CLERK: courtman DEPT:

PAID BY:
PAYMENT METH: CHECK 3270

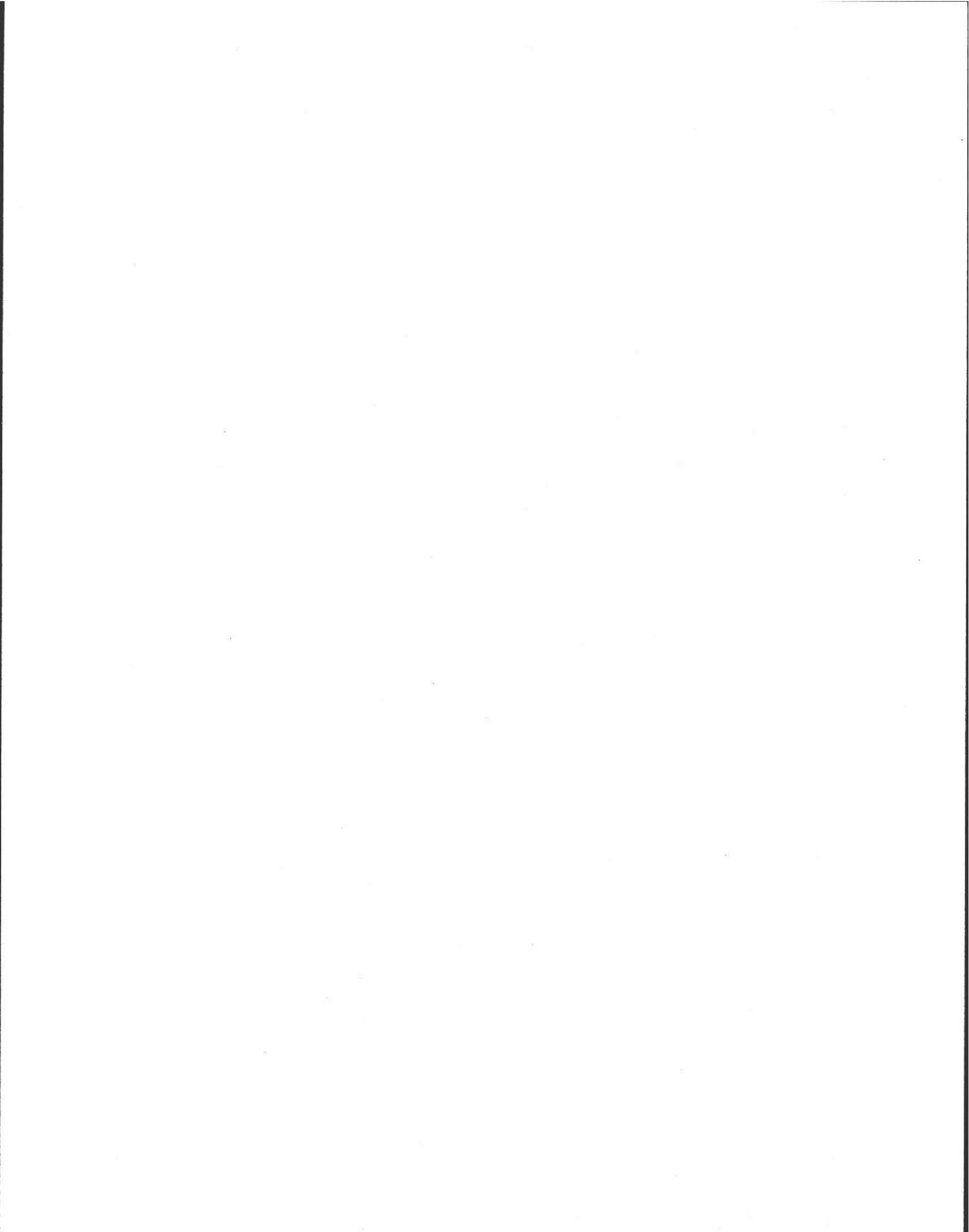
REFERENCE:

AMT TENDERED: 150.00
AMT APPLIED: 150.00
CHANGE: .00

SITE ADDRESS: BEARD

FEES:
HEA017 SEPTIC TANK PER 150.00

TOTAL PAID: 150.00



No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



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

Location <u>1236 Bay Rd.</u>	Owner's Name <u>Garry Beard</u>
Map/Parcel# <u>30B-15</u>	Address <u>1236 Bay Rd.</u>
Lot# <u>18</u>	Telephone# <u>256-6002</u>
Installer's Name <u>Adair's Septic</u>	Designer's Name <u>Alan Weiss</u>
Address <u>Amherst, MA</u>	Address <u>Baldstown MA.</u>
Telephone# <u>253-1519</u>	Telephone# <u>323-5957</u>

Type of Building Residence / BFB Lot Size 1.33 ac + 3.0 ac TOTAL sq. ft.

Dwelling - No. of Bedrooms 7 Garbage grinder No

Other - Type of Building _____ No. of persons _____ Showers (), Cafeteria ()

Other Fixtures _____

Design Flow (min. required) 110 gpd Calculated design flow 770 Design flow provided 784 gpd

Plan: Date 10/14/2010 Number of sheets _____ Revision Date _____

Title septic system Design.

Description of Soil(s) _____

Soil Evaluator Form No. _____ Name of Soil Evaluator A. Weiss Date of Evaluation 9/23/2010

DESCRIPTION OF REPAIRS OR ALTERATIONS New Septic System for Upgrade.

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 Garry Beard Date 10/18/2010

Inspections _____



No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, _____, 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 _____

Designer: _____ Inspector: _____ Date: _____

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

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

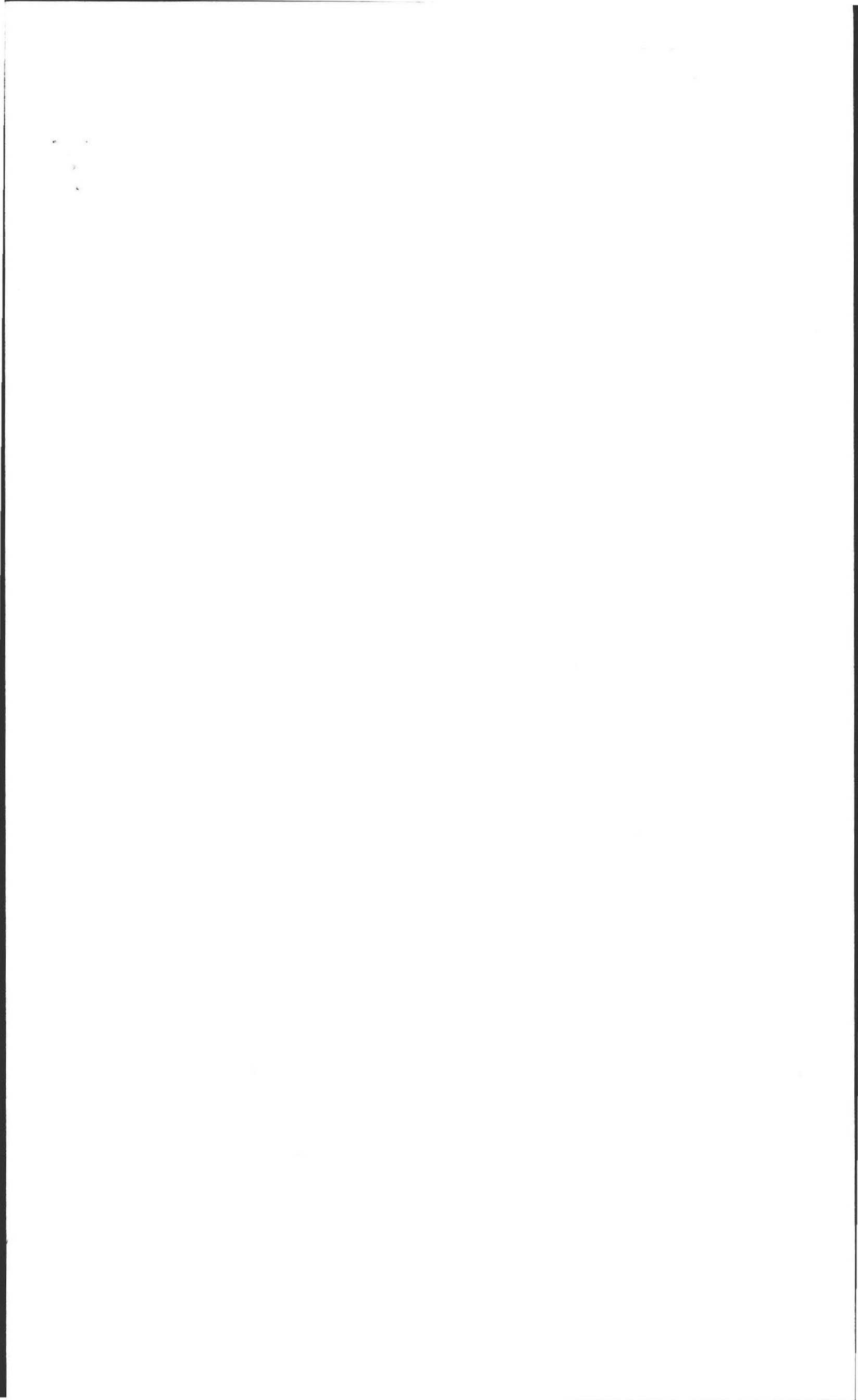
Board of Health, _____, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct () Repair () Upgrade () Abandon () an individual sewage disposal system at _____ as described in the application for

Disposal System Construction Permit No. _____, dated _____.

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



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

Licensed Site Professional
Registered Sanitarian
Hydrogeologist
President

- Wetland Consults
- Soil and Water Testing
- 21E Site Investigations
- Percolation Tests and
- Septic Designs
- Title 5 Inspections

50 Old Enfield Rd.
Belchertown, MA 01007
13) 323-5957 & 323-4916 (FAX)
aweiss@charter.net

Date: 9/23/10

Commonwealth of Massachusetts
Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: *A. Weiss*
Witnessed By: *C. Courtmache*

Date: *9/23/2010*

Location Address or Lot # <i>1236 Bay Rd. MAP. 306 / LOT 18. Adding Bedrooms</i> New Construction <input checked="" type="checkbox"/> Repair <input checked="" type="checkbox"/>	Owner's Name, Address, and Telephone # <i>Garry + Doreen Beard 1236 Bay Rd. Amherst, MA 01002 256-6002</i>
--	---

Office Review

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)

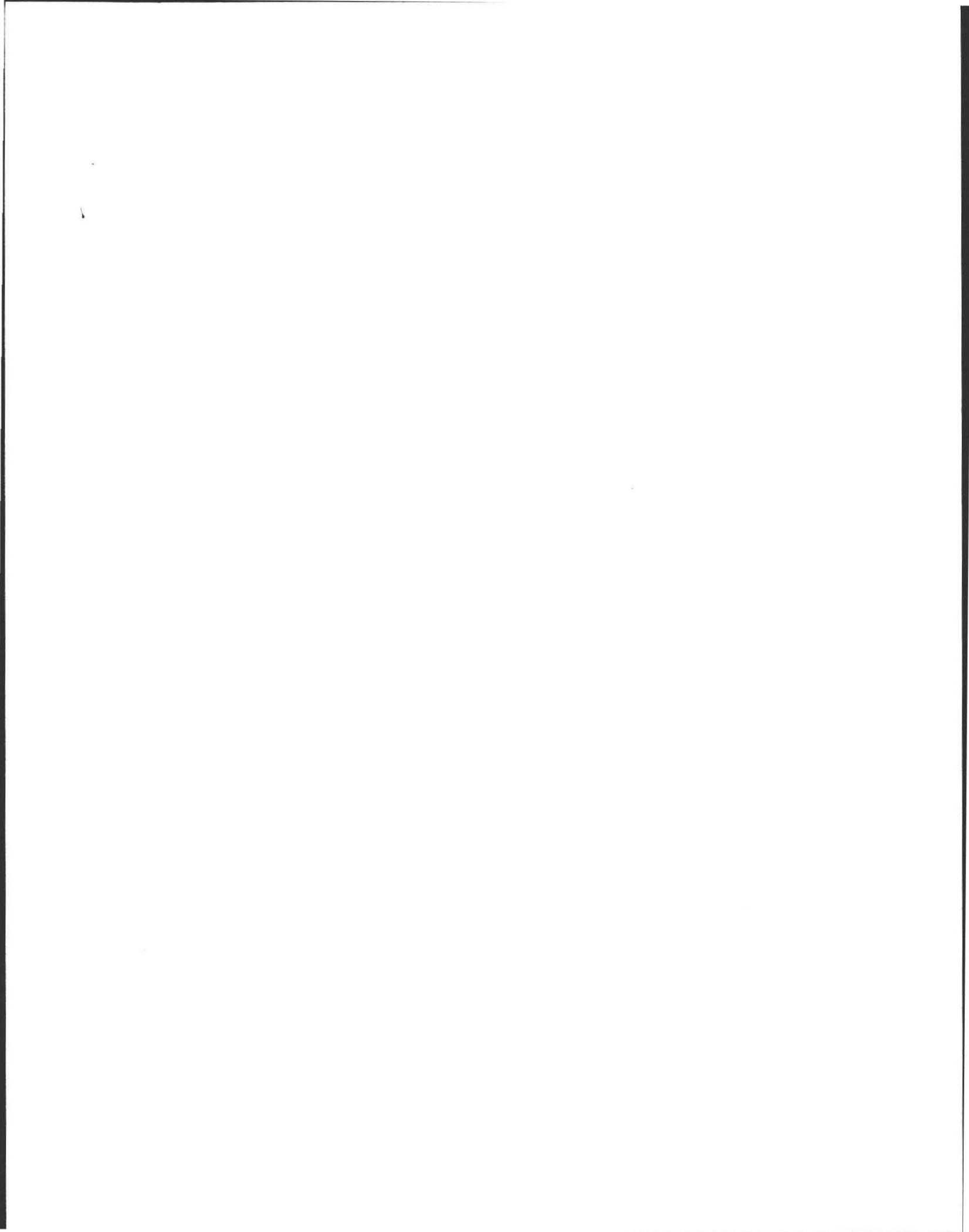
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range : Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. 1236 Bay St.

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: <u>9/23/2010</u>		Time: <u>9 AM</u>
Observation Hole #	<u>P₁</u>	<u>P₂</u>
Depth of Perc	<u>46"</u>	<u>44"</u>
Start Pre-soak	<u>9:08</u>	<u>9:08</u>
End Pre-soak	<u>9:11</u>	<u>9:08</u>
Time at 12"	<u>9:13</u>	<u>9:26</u>
Time at 9"	<u>9:14</u>	<u>9:26</u>
Time at 6"	<u>9:19</u>	<u>9:31</u>
Time (9"-6")	<u>42</u>	<u>9:31</u>
Rate Min./Inch	<u>42</u>	<u>8</u>
		<u>3 ^{MIN} / IN</u>

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

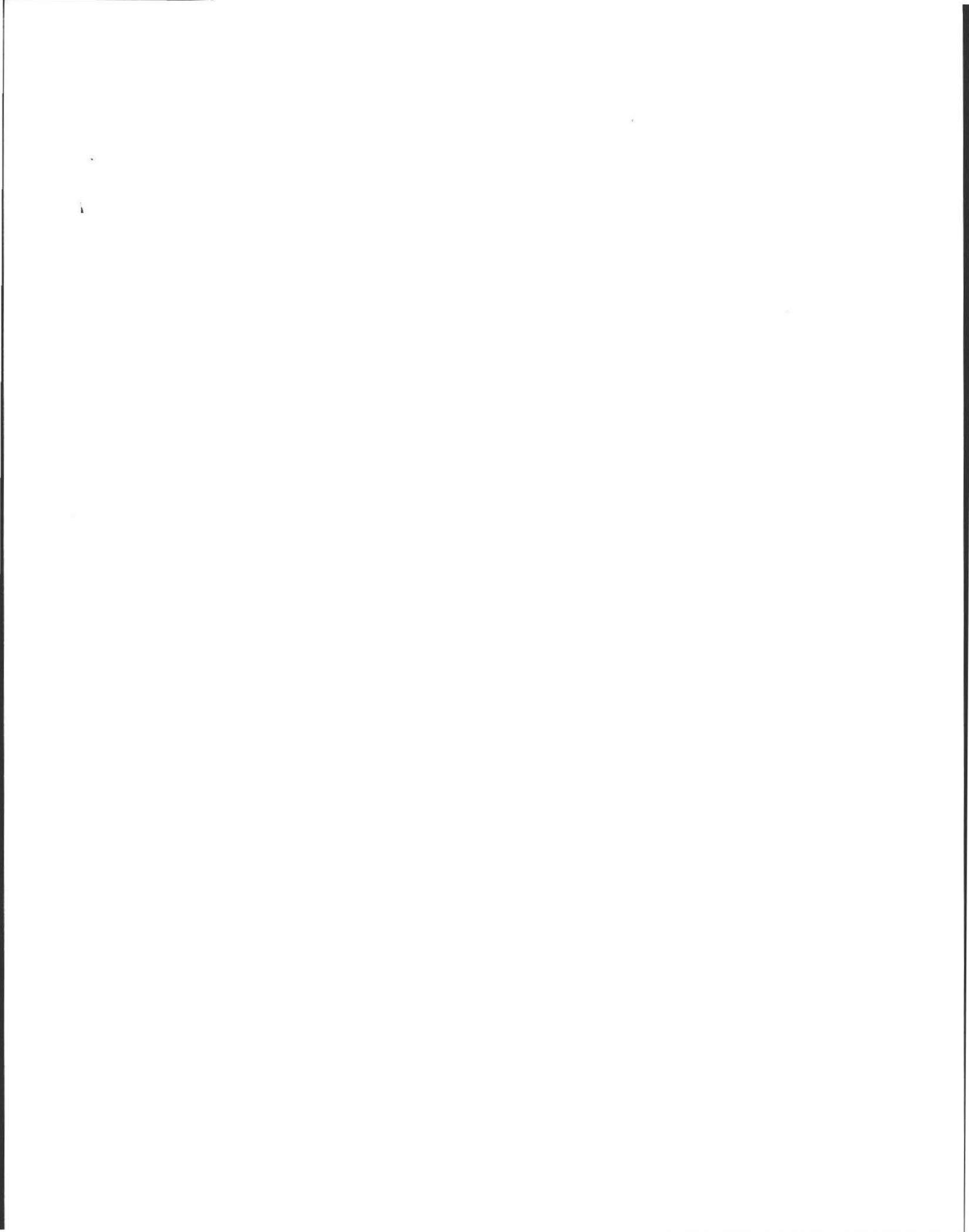
Site Passed Site Failed

Performed By: A. Weiss

Witnessed By: G. Cavatone

Comments: _____





Location Address or Lot No. 1236 Bay RD

On-site Review

Deep Hole Number 1+2³⁺⁴ Date: 9/23/2010 Time: _____ Weather Sun 60°

Location (identify on site plan) _____

Land Use Res. d. / Slope (%) 2 Surface Stones few

Vegetation Mixed decid.

Landform level

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 500' + feet
 Drinking Water Well 100' + feet Other plow

DEEP OBSERVATION HOLE LOG*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-6" 6-38" 38"-120"	A B _w C	FSC LS LS/S	10YR 3/3 10YR 5/6 10YR 5/4	NOT OBS	- Frable - Frable C. SAND + F SAND inter-layered
0-4" 4"-46" 46"-120"	A B C ₁	FSC LS LS/S	↓	↓	↓ F. Sand well sorted
0-14" 14"-46" 46"-120"	A B _c C	FSC LS S	↓	↓	F. Sand, well sorted

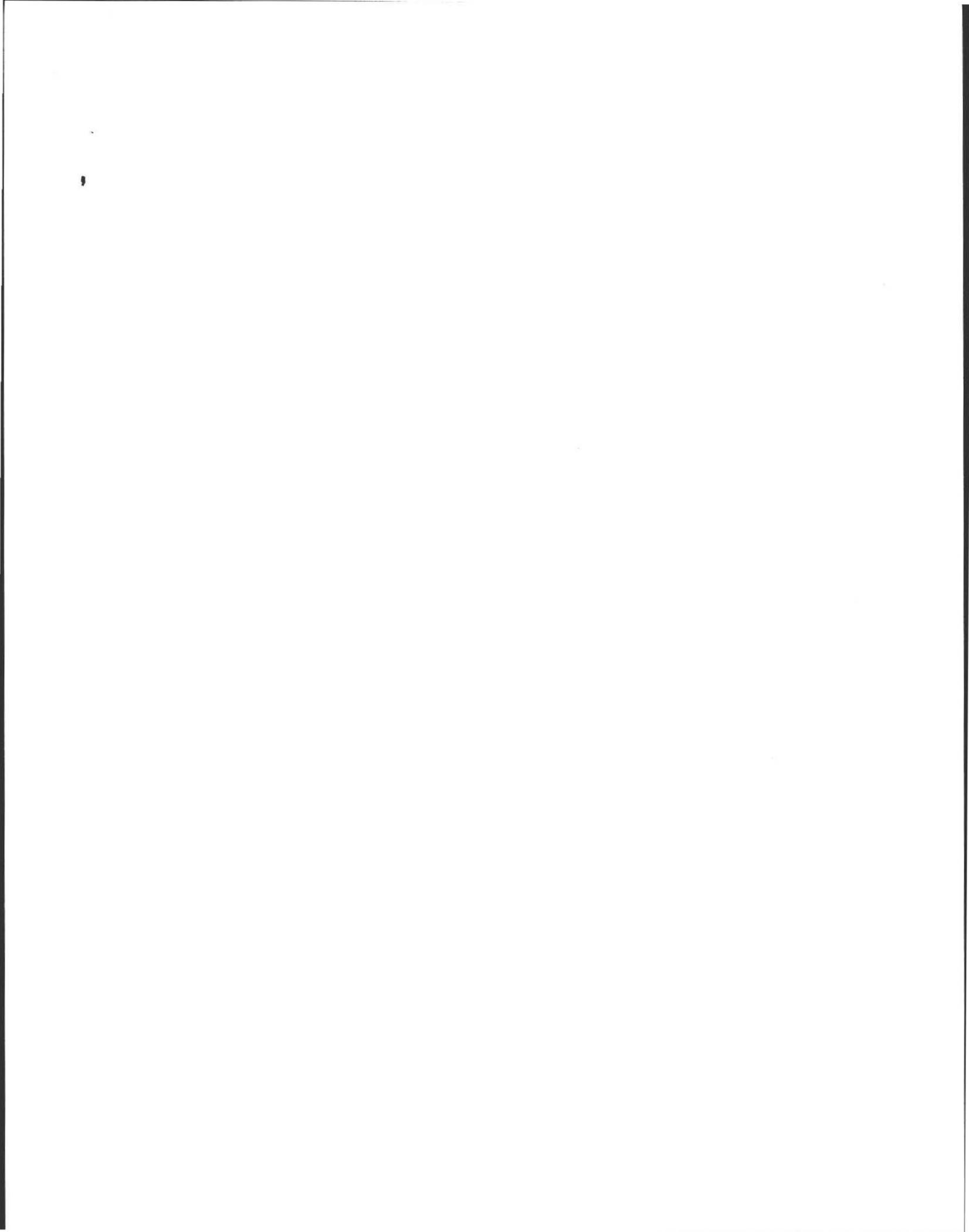
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) lacustrine beach Depth to Bedrock: 120" +

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

Estimated Seasonal High Ground Water: 120" + (eff.)





Location Address or Lot No. 1736 BAY RD. , Amherst.

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 effective
- 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

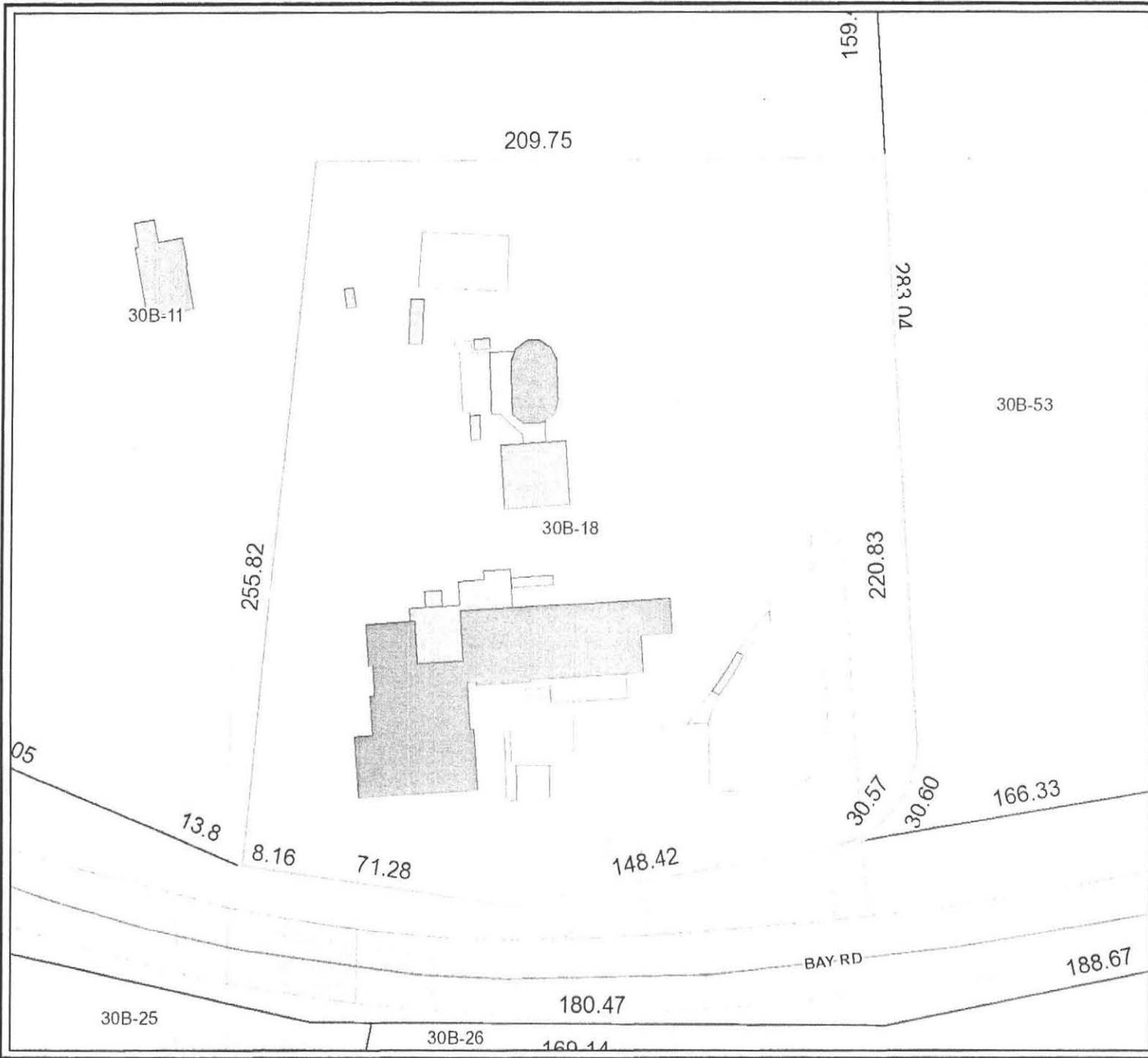
I certify that on 6/95 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature [Signature] Date 9/23/2010



5

4



- Property Map**
- Property Lines
 - Property Line
 - Hydrographic Property Line
 - Right of Way Line
 - Town Boundary
 - Other Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
- Sidewalks**
- Transportation
 - Paved street polygons
 - Unpaved street polyg
 - Bridges
 - Bridge decking and str
 - Foot Bridge
 - Rail Bridge
- Basemap**
- Trails
 - Rail Lines
- Structures**
- Building
 - Foundation or in const
 - Outbuilding or Miscell
 - Deck, Porch, Stairs or
 - Mobile home, Trailer
 - Swimming Pool
 - Building Ruins
 - Water storage tank
- Rivers and Streams**
- Streams
 - Major Culverts
 - Hydro Connector
 - Headwalls, Floodwalls
- Landcover**
- Brush and scrub vege
 - Tree and forest vege
 - Cultivated field
 - Gravel pile
 - Quarry
 - Misc Impervious Surfa
- Parking**
- Parking Paved
 - Parking Unpaved
- Driveways**
- Driveway Paved
 - Driveway Unpaved

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet
 Vertical Datum: NAVD88, Feet

Planimetric & topographic basemap features compiled at 1"=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures and underground utility locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.

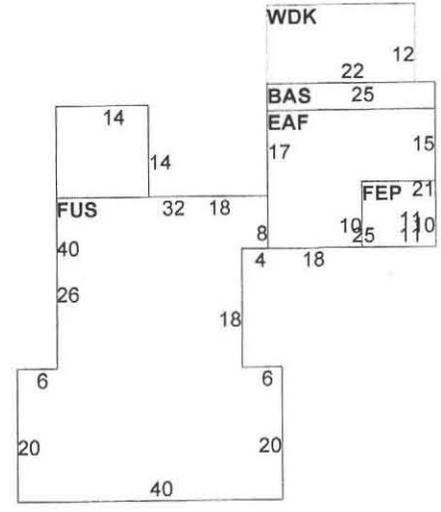
1" = 50 ft



1
2
3

CONSTRUCTION DETAIL				CONSTRUCTION DETAIL (CONTINUED)			
Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description
Style	10		Family Duplex				
Model	01		Residential				
Grade	26		Grade = 130%				
Stories	2		2 Stories	Foundation			
Occupancy	2			MIXED USE			
Exterior Wall 1	20		Brick/Masonry	Code	Description	Percentage	
Exterior Wall 2	25		Vinyl Siding	1040	TWO FAMILY MDL-01	100	
Roof Structure	03		Gable/Hip	COST/MARKET VALUATION			
Roof Cover	03		Asph/F Gls/Cmp	Adj. Base Rate:	116.30		
Interior Wall 1	03		Plaster/SkimC	Section. RCN:	493,801		
Interior Wall 2	05		Drywall/Sheet	Net Other Adj:	0.00		
Interior Flr 1	12		Hardwood	Replace Cost	493,801		
Interior Flr 2				AYB	1770		
Heat Fuel	02		Oil	EYB	1983		
Heat Type	06		Steam	Dep Code	GD		
AC Type	01		None	Remodel Rating			
Total Bedrooms	06		6 Bedrooms	Year Remodeled			
Total Bthrms	2			Dep %	25		
Total Half Baths	0			Functional ObsInc	0		
Total Xtra Fixtrs				External ObsInc	0		
Total Rooms	10		10 Rooms	Cost Trend Factor	1		
Bath Style	02		Average	Condition			
Kitchen Style	02		Modern	% Complete	75		
				Overall % Cond	75		
				Apprais Val	370,400		
				Dep % Ovr	0		
				Dep Ovr Comment			
				Misc Imp Ovr	0		
				Misc Imp Ovr Comment			
				Cost to Cure Ovr	0		
				Cost to Cure Ovr Comment			

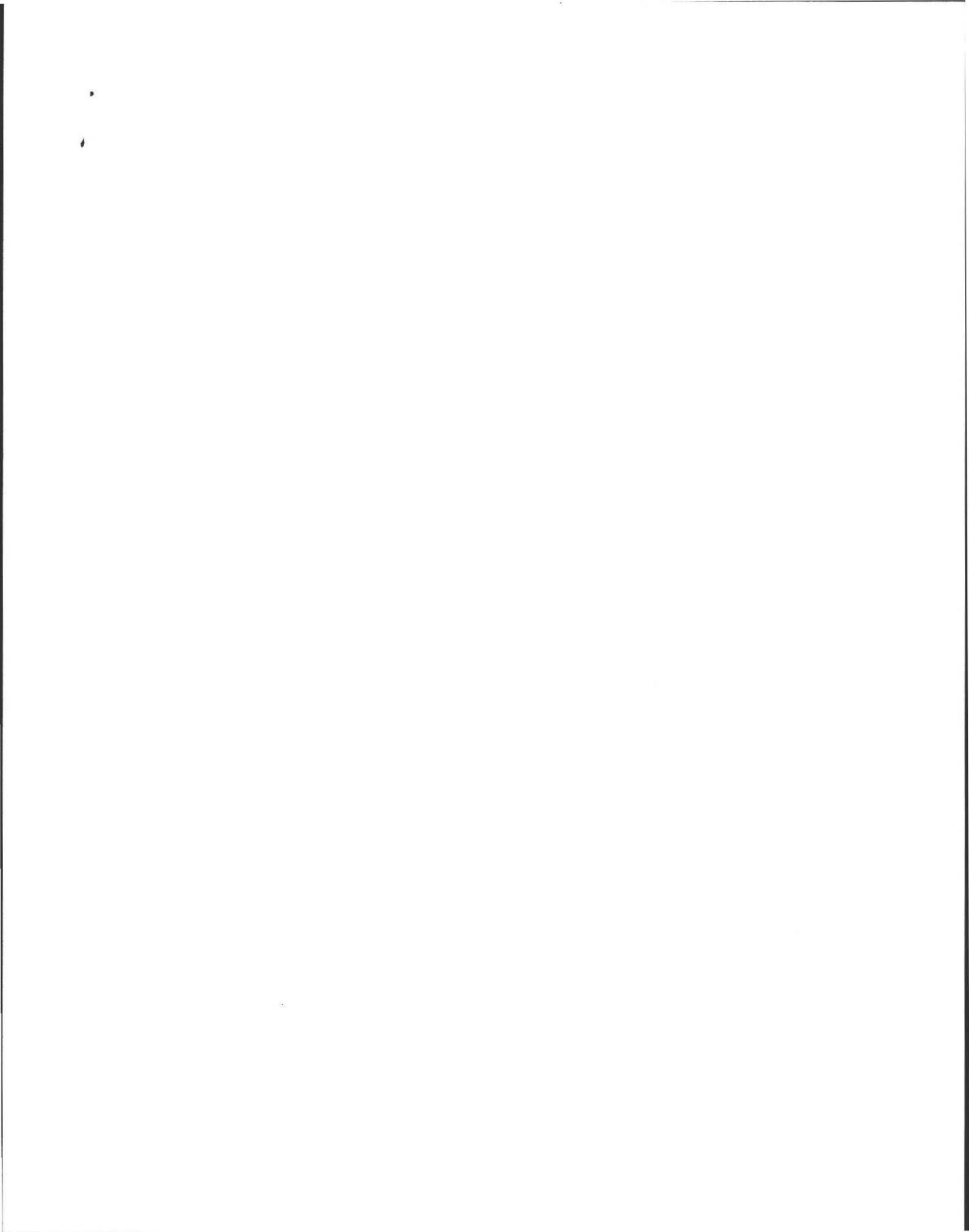
UBM[1420]



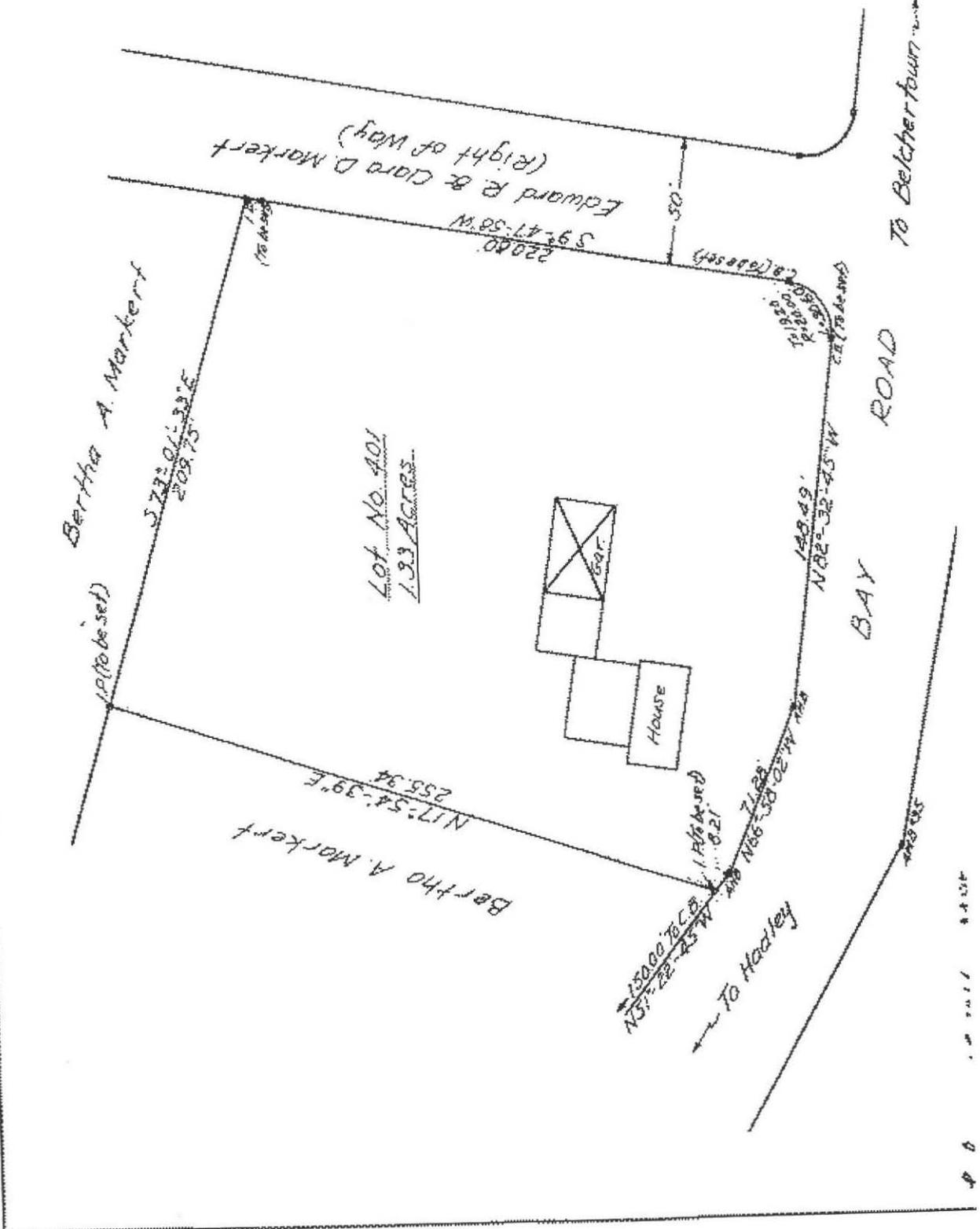
OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)												
Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
FGR1	GARAGE-AVE			L	320	20.00	1951		0		50	3,200
SHD1	SHED FRAME			L	100	8.00	1916		0		10	100
FGR5	W/LOFT GOOI			L	952	35.00	1951		0		50	16,700
FPL3	FIREPLACE 2			B	2	4,000.00	1983		1		100	6,000

BUILDING SUB-AREA SUMMARY SECTION						
Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
BAS	First Floor	2,271	2,271	2,271	116.30	264,113
EAF	Attic, Expansion, Finished	184	525	184	40.76	21,399
FEP	Porch, Enclosed, Finished	0	110	77	81.41	8,955
FUS	Upper Story, Finished	1,404	1,560	1,404	104.67	163,282
UBM	Basement, Unfinished	0	1,420	284	23.26	33,029
WDK	Deck, Wood	0	264	26	11.45	3,024
Ttl. Gross Liv/Lease Area:		3,859	6,150	4,246		493,801

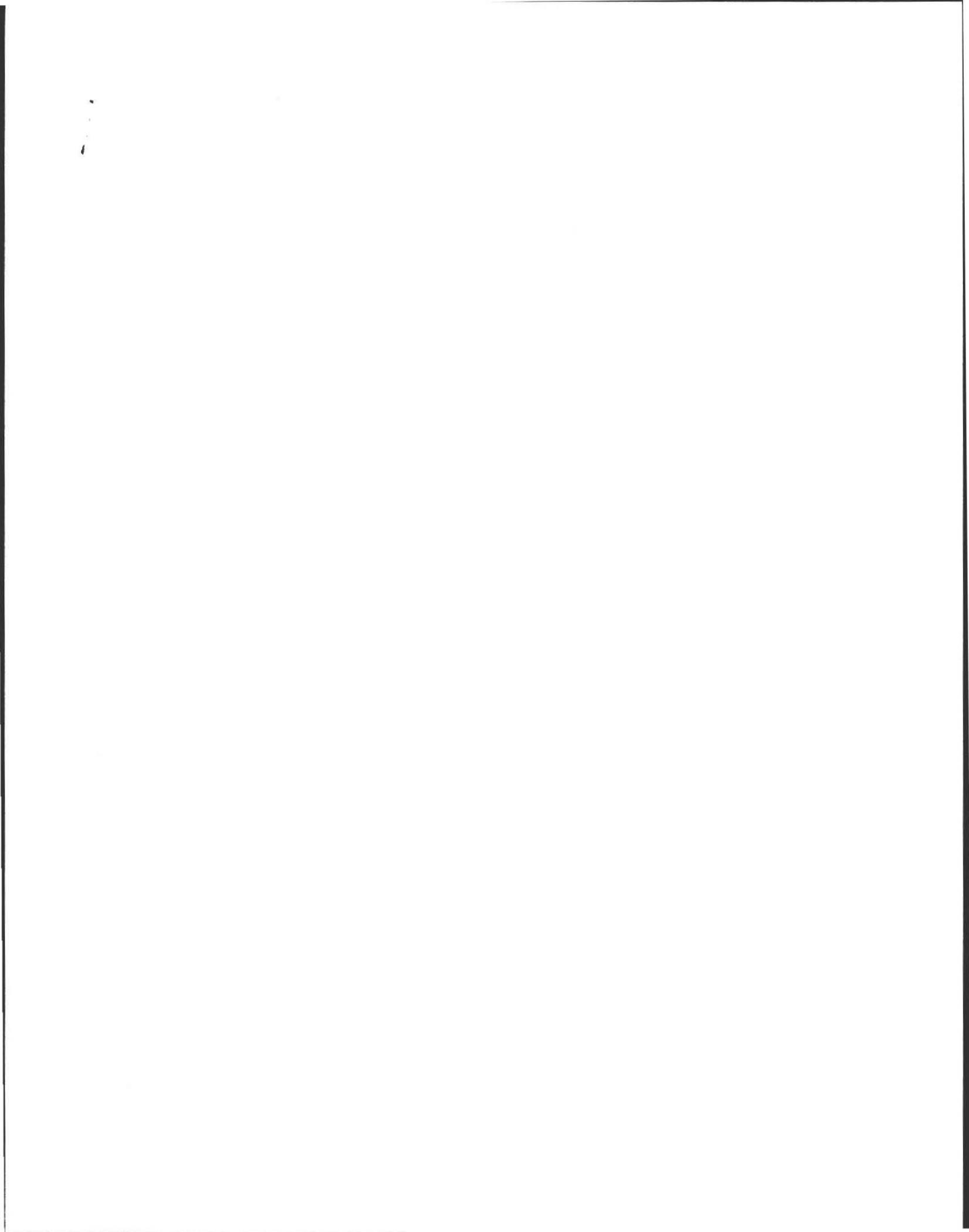




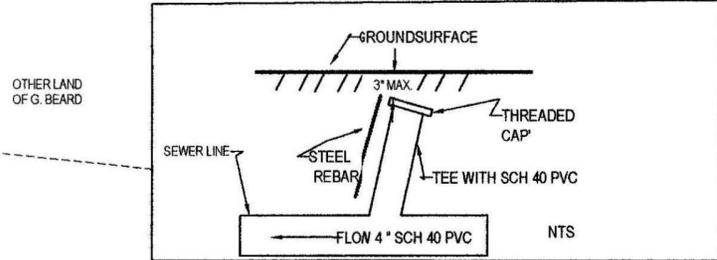
1" = 60'



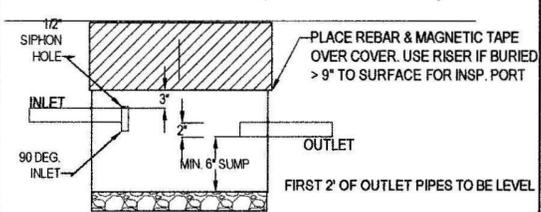
1966 Survey by Russell Snow, PLS. PBK. 08
P. 39



CLEAN OUT EVERY 100 FT OR TURN REQUIRED



TYPICAL D.BOX (WATERTIGHT)

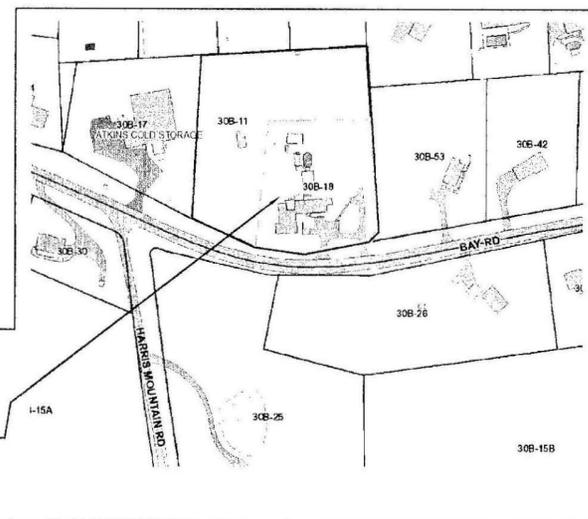
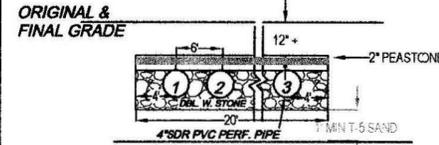


- PLACE ON STABLE 6" BASE OF 3/4" TO 1-1/2" D.W. STONE
- USE CONCRETE BOX WITH 2" MINIMUM WALL THICKNESS.
- FILL WITH WATER FOR FINAL INSPECTION.
- USE LARGE STYLE D.BOX 6 outlet (Underground Supply)

EFFLUENT DISPOSAL AREA

CROSS SECTION - NOT TO SCALE
(LEVEL DISPOSAL AREA)

NUMBER OF SEPTIC LINES: 3
CENTER TO CENTER SPACING: 6'



SUBJECT SITE LOCATION

DESIGN NOTES AND CALCULATIONS:

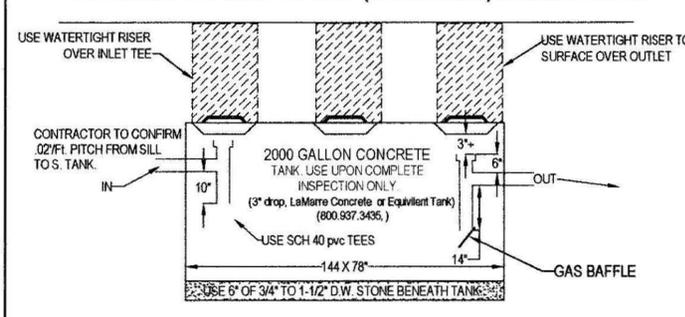
- 7 BEDROOM HOME X: 110 GPD /BR = 770 GPD. REQUIRED.
 - USE ONE FIELD: 20' WIDE X 53' LONG WITH 6" OF 3/4" TO 1-1/2" DBL WASHED STONE BELOW INVERT
 - BOTTOM AREA: 20' W X 53' L = 1060 SF.
 - SIDE AREA: 0 SF.
 - TOTAL AREA: 1060 SF X 0.74 GAL/SF = 784 GPD
- GARBAGE DISPOSAL NOT ALLOWED...
- NO OTHER PRIVATE WELLS WITHIN 150 FEET OF SAS.
- NO WETLANDS WITHIN 100 FEET OF SAS
- USE S. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
 - INSTALL & INSPECT SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET).
- 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 (75"-1 1/2") STONE UNDER TANK & D. BOX FOR 6" STABLE BASE
 - USE ONLY DBL. WASHED APPROVED (75"-1.5") FOR PLACEMENT IN LEACH AREA.
- USE PROPER SCH. 40 PVC TEES AS SHOWN
- PRE & POST CONTOURS HNOTED AS NECESSARY, RESERVE AS NOTED
- SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQD.
- USE FIELD 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 46" MIN. AS NEEDED (INSPECTION REQUIRED).
 - CLEAR PAST BASE OF B (MIN. 46") & SCARIFY UNDER BED PRIOR TO TITL V SAND/STONE PLACEMENT.
 - EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- SOIL EVALUATION BY A. WEISS, RS. ON 09.23.2010 (G. COURTMANCHE, BOH AGENT).
 - DEPTH OF PERC. 46" & 44"
 - PERC RATE = 3.8 < 2 MIN / IN.
 - CLASS 1 SOIL RATING
- NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
- ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSP 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.
- INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
- 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

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

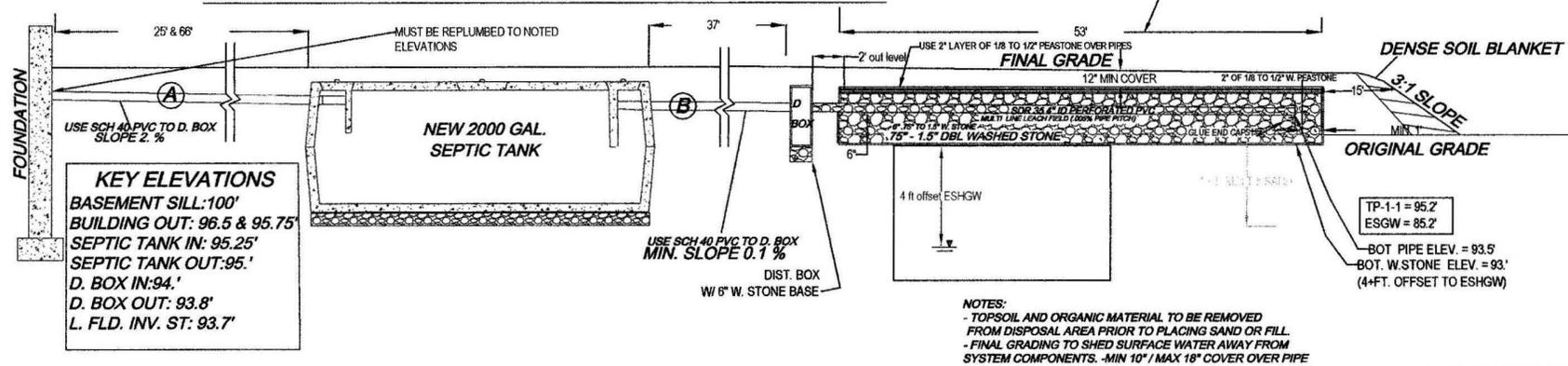
PLOT PLAN
MAP 30B LOT 18
SCALE: 1"=30'
1.3+ Ac.

- 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.

TYPICAL 2000 GAL SEPTIC TANK (WATERTIGHT) OR EQUIVARIANT.



EFFLUENT DISPOSAL SYSTEM (CROSS SECTION - NOT TO SCALE)



TEST PIT LOG:				SOIL EVALUATOR:		DATE OF EVALUATION:	
				A. WEISS, RS.		09.23.2010	
TP-1 EFF. ELEV. 95.2	DEPTH	HORIZ.	TEXTURE	TP-2 EFF. ELEV. 95.2	DEPTH	HORIZ.	TEXTURE
0-6"	A	FSL	10 YR 3.3	0-4"	A	FSL	10 YR 3.3
6-38"	Bw	LS	10YR5.6	4-46"	Bw	LS	10YR5.6
38-120"	C1	LS/S	10 YR 5.4	46-120"	C1	LS/S	10 YR 5.4
							15% GRAV. & BOULDERS
OXIDES:	NOT	OBSERVED		OXIDES:	NOT	OBSERVED	
EHWT:	120"	= EFF	85'	EHWT:	120"	EFF.	
STANDING H2O:	NOT	OBSERVED		STANDING H2O:	NOT	OBSERVED	
WEEPING:	NOT	OBSERVED		WEEPING:	NOT	OBSERVED	
BEDROCK:	120"	-126"		BEDROCK:	120"	-126"	

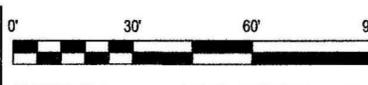
NOTE TO INSTALLER: A PLUMBER MUST INSPECT INSIDE PLUMBING AND FIX ANY LEAKING FAUCETS OR TOILETS IF FOUND TO BE LEAKING OR FLOWING IMPROPERLY INTO SEPTIC SYSTEM PRIOR TO FINAL INSPECTION



SEPTIC SYSTEM PLAN FOR GARRY BEARD
1236 BAY ROAD
AMHERST, MA
Cold Spring Environmental Consultants Inc.
350 Old Enfield Road
Belchertown, MA. 01007

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.

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P.J.F.O.N.C. (413) 323-5957
F.A.X. (413) 323-4916
DATE: 10.14.2010
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