

*REQUEST FOR DETERMINATION*  
*OF APPLICABILITY*

*UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT  
AND TOWN OF ACTON WETLANDS BYLAW*

*FOR:*

*451 MAIN STREET  
MAP F3A, PARCEL 55  
ACTON, MA*

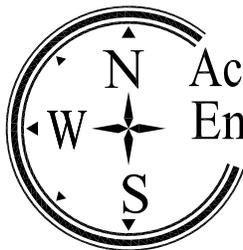
*PREPARED FOR:*

*FORREST BEAN  
451 MAIN STREET  
ACTON, MA*

*SUBMITTED TO:*

*ACTON CONSERVATION COMMISSION AND  
THE DEPARTMENT OF ENVIRONMENTAL PROTECTION*

*PREPARED BY:*



*Acton Survey &  
Engineering, Inc.*

*97 GREAT ROAD, UNIT 6  
ACTON, MA 01720  
(978) 263-3666*



# WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

## A. General Information

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Forrest Bean		E-Mail Address	
Name			
451 Main Street			
Mailing Address			
Acton	MA	01720	
City/Town	State	Zip Code	
978-844-0852			
Phone Number	Fax Number (if applicable)		

2. Representative (if any):

Acton Survey & Engineering, Inc.		actonsurvey@actonsurvey.com	
Firm		E-Mail Address	
Mark Donohoe			
Contact Name			
PO Box 666			
Mailing Address			
Acton	MA	01720	
City/Town	State	Zip Code	
978-263-3666	978-635-0218		
Phone Number	Fax Number (if applicable)		

## B. Determinations

1. I request the Acton make the following determination(s). Check any that apply:  
Conservation Commission

- a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Acton  
Name of Municipality

- e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).

---



---



---



# WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

## C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

451 Main Street	Acton
Street Address	City/Town
F-3A	35
Assessors Map/Plat Number	Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

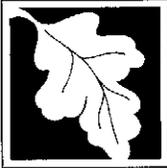
Existing single family home on east side of main street in Acton Center. Lot consists of an existing single family home with a barn and garge located to the rear of the house. A gravel driveway provides access to the barn and garage from Main Street. The area to the east of the barn and garage is an existing residential lawn with minimal slope. The lawn is surrounded by stone walls and a bordering vegetated wetland is located on property of others east of the rear lot line.

- c. Plan and/or Map Reference(s):

Proposed Subsurface Sewage Disposal System Repair	11/4/10 (Rev
Title	11/24/10)
_____	_____
Title	Date
_____	_____
Title	Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

Upgrade of existing subsurface sewage disposal system. The proposed system is located on the rear (eastern) portion of the lot due to the presence of abandoned farm ditches in other areas of the yard. All alterations are to be offset greater than 50 feet from wetlands.



## WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

### C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

A subsurface sewage disposal system which is constructed in compliance with Title shall be presumed to protect the interest of the Wetlands Protection Act [310 CMR 10.03(3)]. The buffer zone does not contain an Outstanding Resource Water and the 13<sup>th</sup> edition of the Natural Heritage Atlas does not indicate the site to be located in Estimated or Priority Habitat Areas of state listed wetlands wildlife.

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
- Single family house on a lot recorded after 8/1/96
- Expansion of an existing structure on a lot recorded after 8/1/96
- Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- New agriculture or aquaculture project
- Public project where funds were appropriated prior to 8/7/96
- Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- Residential subdivision; institutional, industrial, or commercial project
- Municipal project
- District, county, state, or federal government project
- Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

---

---

---



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

Acton  
City/Town

**WPA Form 1- Request for Determination of Applicability**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**D. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Forrest Bean

Name

451 Main Street

Mailing Address

Acton

City/Town

MA

State

01720

Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

*Forrest Bean*  
Signature of Applicant

*12/2/10*  
Date

*[Signature]*  
Signature of Representative (if any)

*12/14/10*  
Date



**Town of Acton**  
 472 Main Street  
 Acton, MA 01720  
 Telephone (978) 264-9622  
 Fax (978) 264-9630

Brian McMullen  
 Assistant Assessor

**Parcel Location** 451 Main Street  
**Parcel I.D.:** F3.A-55

Location	Parcel ID	Owner	Co-Owner	Mailing Address	City	ST Zip
10 NEWTOWN RD	F3.A-27	MALLOY DANIEL W	MALLOY CAROLYN S	10 NEWTOWN ROAD	ACTON	MA 01720
6 NEWTOWN RD	F3.A-33	HUGHES JOHN W + LINDA L	MALAMUD SOPHIA A	6 NEWTOWN RD	ACTON	MA 01720
438 MAIN ST	F3.A-37	ANDERSEN NANCY T	ANDERSEN DONALD A	438 MAIN ST	ACTON	MA 01720
446 MAIN ST	F3.A-38	MCBRIDE OWEN	MCBRIDE SARAH	446 MAIN ST	ACTON	MA 01720
450 MAIN ST	F3.A-38-1	BIRCH NATHAN A		PO BOX 2153	ACTON	MA 01720
452 MAIN ST	F3.A-39	ELICKS KRISTOPHER D	ELICKS MICHELE M	452 MAIN STREET	ACTON	MA 01720
460 MAIN ST	F3.A-40	ROUGHAN-HOWES MATTHEW	PALMER MELINDA	460 MAIN ST	ACTON	MA 01720
461 MAIN ST	F3.A-46	MORGAN CARA A	MUYSKENS JOHN III	461 MAIN ST	ACTON	MA 01720
3 CONCORD RD	F3.A-47	TOWN OF ACTON		472 MAIN STREET	ACTON	MA 01720
437 MAIN ST	F3.A-53	BARRIE JEFFREY STUART		439 MAIN STREET	ACTON	MA 01720
445 MAIN ST	F3.A-54	CALVERT JEFFREY M	KONDRACKI LYNNE M	445 MAIN ST	ACTON	MA 01720
455 MAIN ST	F3.A-56	JUDD MARK	JUDD THERESA	455 MAIN ST	ACTON	MA 01720
13 WOOD LN	F3.A-56-1	PARADISO EDITH-MARIE		13 WOOD LN	ACTON	MA 01720
19 WOOD LN	F3.A-56-2	HUA WEI	YU LIHUA	19 WOOD LN	ACTON	MA 01720
11 WOOD LN	F3.A-57	GODLEY NIGEL	GODLEY VERA M	10 WOOD LN	ACTON	MA 01720
433 MAIN ST	F3.A-67	WHITE JOHN B	REGAN MARY BETH	433 MAIN ST	ACTON	MA 01720
25 WOOD LN	F3.A-79	WALKER JR CARLTON J + WALKER JR REVOC	CARTON J WALKER JR REVOC	25 WOOD LN	ACTON	MA 01720
33 WOOD LN	F3.A-84	HOLMES EDWARD I	CATHERINE M DELANEY	33 WOOD LANE	ACTON	MA 01720
47 WOOD LN	F4.-28	TOWN OF ACTON		472 MAIN STREET	ACTON	MA 01720

Abutters and owners of land directly opposite on any public or private street or way and abutters to the abutters within three hundred feet of the property line all as they appear on the most recent applicable tax list.

**HEARING NOTICES FOR ALL SPECIAL PERMITS MUST BE SENT TO THE PLANNING BOARD, TOWN HALL IN THE FOLLOWING TOWNS:**

Boxborough, MA 01729	Maynard, MA 01754	Concord, MA 01742	Littleton, MA 01460
Carlisle, MA 01741	Stow, MA 01775	Westford, MA 01886	Sudbury, MA 01776

Daryl Powell  
 Property Lister  
 Acton Assessors Office  
 12/7/2010

**NOTIFICATION TO ABUTTERS  
UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT  
AND THE TOWN OF ACTON WETLANDS BYLAW**

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 and the Town of Acton Bylaws, you are hereby notified of the following:

The Applicant: Forrest Bean

Address 451 Main Street Phone 978-844-0852

has filed a Request for Determination of Applicability with the Acton Conservation Commission seeking permission to remove, fill, dredge or alter an Area Subject to Protection under the Wetlands Protection Act.

Applicant's Representative: Acton Survey & Engineering, Inc.

Address 97 Great Road, Suite 6 Phone 978-263-3666

The address of the property where the activity is proposed 451 Main Street

Town Atlas Plate/Map F3A Parcel/Lot 55

Project Description Installation of a new septic system

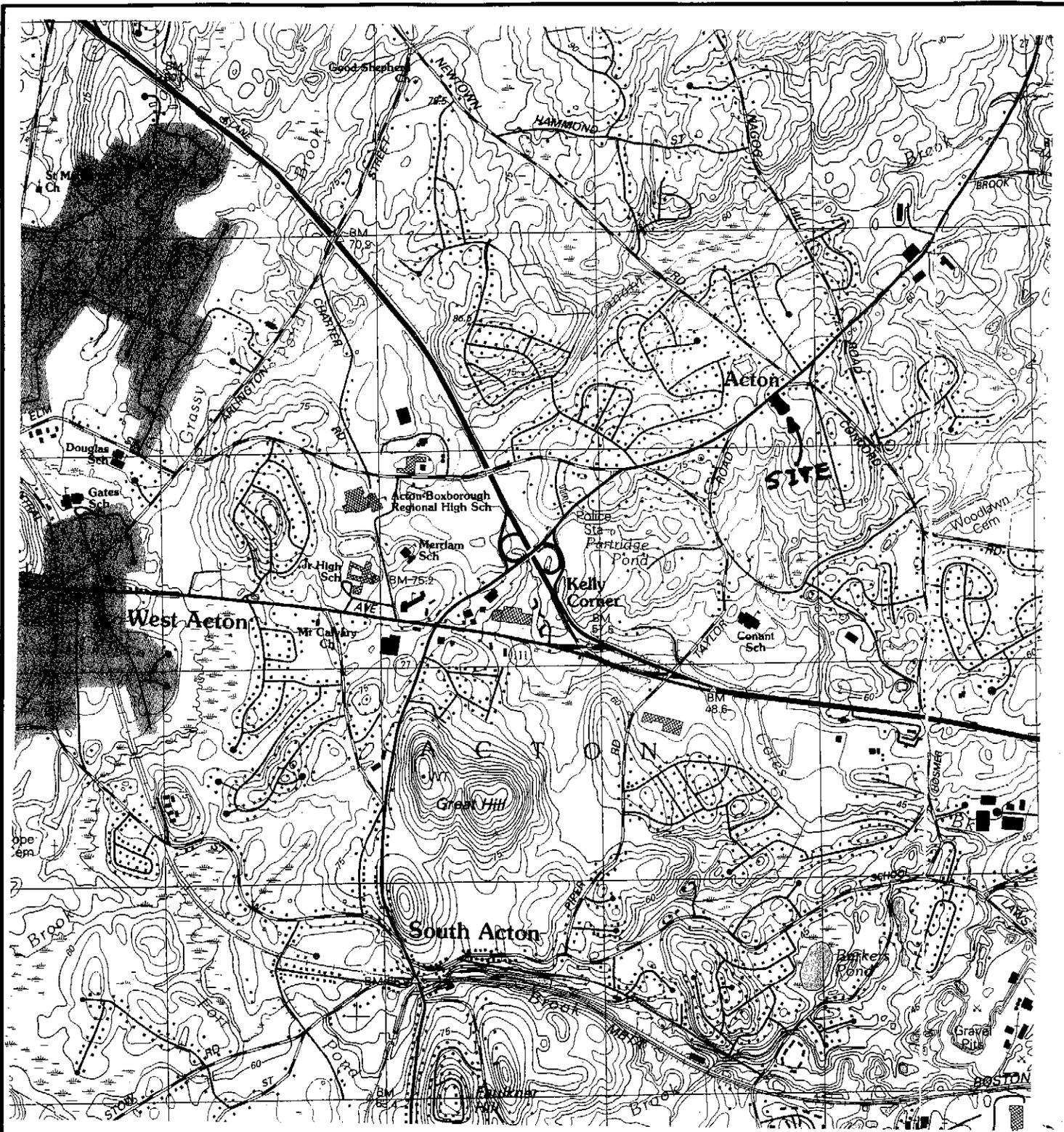
Copies of the Notice of Intent may be examined at the Conservation Office, Acton Town Hall, 472 Main Street, Acton between the hours of 9:00 A.M. and 4:30 P.M. Monday through Friday. For more information please call the Conservation Office at 978-264-9631.

A Public Hearing will be held at the Acton Town Hall, 472 Main Street, on Wednesday,  
January 5, 2011 at 7:15 PM  
(date)

The notice of the public hearing will be published at least five (5) days in advance in the Acton edition of the *Beacon* newspaper or *Metrowest Daily News*.

NOTE: You may also contact your local conservation commission or the nearest Department of Environmental Protection Regional Office\* for the information about this application or, the Wetlands Protection Act. Acton is in the Central Region. To contact DEP, call:

**\*DEP Central Region: 508-792-7650  
627 Main Street, Worcester MA 01608**



# USGS MAP

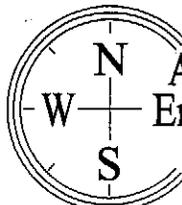
451 MAIN STREET  
ACTON, MA 01720

PREPARED FOR:  
**FORREST BEAN**

SCALE: 1:25000      DECEMBER 7, 2010

1987 MAYNARD QUADRANGLE

 Approximate Site Boundary



**Acton Survey &  
Engineering, Inc.**

Since 1967

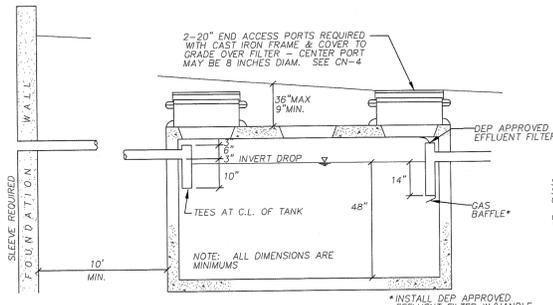
97 GREAT ROAD  
P.O. BOX 666  
ACTON, MA 01720  
PH. (978) 263-3666  
FAX (978) 635-0218

**GENERAL NOTES:**

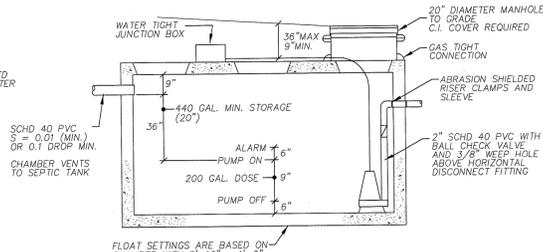
1. PLAN WAS PREPARED FOR NAMED CLIENT TO SHOW THE DESIGN OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM IN ACCORDANCE WITH TITLE 5 AND ANY MORE RESTRICTIVE REGULATIONS OF THE BOARD OF HEALTH.
2. DESIGN IS BASED UPON A TOPOGRAPHIC PLAN SHOWING THE VISUALLY APPARENT FEATURES OF THE SITE IN THE ENVIRONS OF THE SYSTEM AND THE SUBSURFACE EXPLORATIONS LISTED ON THIS PLAN.
3. PROPERTY LINES ARE BASED ON THE PLAN REFERENCED AND SHALL BE CONFIRMED AS BEING MOST RECENT PRIOR TO CONSTRUCTION.
4. PRIOR TO CONSTRUCTION, CONTRACTOR/OWNER SHALL REVIEW CURRENT ZONING, WETLANDS, AND ALL OTHER REGULATIONS THAT MAY AFFECT THIS PLAN.
5. THE BUILDINGS, DRIVEWAY, AND SEPTIC TANK CONFIGURATION MAY BE ALTERED WITH THE APPROVAL OF THE ENGINEER AND THE BOARD OF HEALTH.
6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY PLAN DEFICIENCIES PRIOR TO INITIATION OF CONSTRUCTION AND ALL DEFICIENCIES FOUND DURING CONSTRUCTION SHALL BE REPORTED ON THE DAY DISCOVERED.
7. ALL KNOWN DRINKING WATER WELLS WITHIN 200 FEET OF THE SEWAGE DISPOSAL SYSTEM, AND ALL KNOWN SEWAGE DISPOSAL SYSTEMS WITHIN 200 FEET OF THE WELL, ARE SHOWN OR INDICATED.
8. THE SEWAGE DISPOSAL SYSTEM SHALL BE OFFSET A MINIMUM OF 10 FEET FROM ANY DRAIN OR PROPERTY LINE, 50 FEET FROM ANY SURFACE WATERS OR WETLANDS, 100 FEET FROM DRINKING WATER WELLS, OR AS OTHERWISE REQUIRED BY STATE AND LOCAL REGULATIONS.
9. ANY ALTERATIONS WITHIN 100' OF WETLANDS REQUIRE A FILING WITH THE CONSERVATION COMMISSION.

**CONSTRUCTION NOTES:**

1. CONTRACTOR SHALL CALL DIG SAFE (1-888-322-4844) PRIOR TO CONSTRUCTION.
2. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THESE PLANS, TITLE 5, BOARD OF HEALTH REGULATIONS, AND ALL OTHER APPLICABLE REGULATIONS UNLESS SPECIFIED OTHERWISE IN WRITING.
3. STRUCTURES, PIPE, STONE AND FILL SHALL BE INSTALLED ON SUITABLE BEARING MATERIALS, FREE OF ORGANIC MATTER.
4. ALL STRUCTURES SHALL BE OF AN APPROVED DESIGN, SET LEVEL ON 6 INCHES OF CRUSHED STONE, AND BE MADE WATERTIGHT. SEPTIC TANK TEES SHALL BE OF LENGTH REQUIRED BY TITLE 5 (THOSE SHOWN ARE FOR FOUR FOOT LIQUID DEPTH). WATERTIGHT RISERS ARE REQUIRED ON ALL TANK ACCESS PORTS WHEN COVER EXCEEDS 9".
5. ALL GRAVITY PIPING SHALL BE 4" AND LAID TRUE TO LINE AND GRADE WITH SECURE WATERTIGHT JOINTS AND BE BEDDED AND BACKFILLED AS REQUIRED BY MANUFACTURER.
  - A. THE BUILDING SEWER SHALL BE SCHEDULE 40 PVC, CAST OR DUCTILE IRON, OR AN APPROVED EQUAL.
  - B. SOLID AND PERFORATED PIPES UNDER PAVEMENT SHALL BE SCHEDULE 40 PVC, OR THE APPROVED EQUIVALENT.
  - C. DISTRIBUTION LINES SHALL BE SCHEDULE 40 PVC/ABS, SDR 35 PVC, OR HDPE-ASTM D 3034.
6. GRAVITY LINES SHALL HAVE THE FOLLOWING MINIMUM SLOPES:
  - A. BUILDING TO SEPTIC TANK: 0.02 FT/FT.
  - B. SEPTIC TANK TO DISTRIBUTION BOX: 0.01 FT/FT.
  - C. DISTRIBUTION BOX TO LINES: 0.005 FT/FT.
7. DISTRIBUTION BOX OUTLETS SHALL BE LEVEL FOR THE FIRST TWO FEET AND AN INLET TEE CUT OFF ONE INCH ABOVE OUTLETS SHALL BE INSTALLED IF INLET PIPE EXCEEDS 0.08 FT/FT OR IF PIPE IS FORCE MAIN.
8. D-BOX SHALL BE EXTENDED BETWEEN 6 AND 9 INCHES OF FINAL GRADE WITH A PRECAST CONCRETE RISER FURNISHED BY D-BOX MANUFACTURER, FUDGE 9" WIDE MORTAR RING 3 INCHES ABOVE AND BELOW JOINT.
9. ALL LARGE BOULDERS, ROOTS AND OTHER UNSUITABLE MATERIALS ENCOUNTERED IN EXCAVATIONS SHALL BE REMOVED.
10. ALL SURFACES SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF FILL OR STONE, TO ENHANCE INFILTRATIVE CAPABILITIES.
11. WHEN GRAVEL FILL IS REQUIRED, ALL ORGANIC MATERIALS SHALL BE REMOVED AND FILL CONFORMING TO REQUIREMENTS OF 310CMR 15.255 SHALL BE PLACED IN A MANNER TO INSURE SUPPORT AND PERCOLATION.
12. DOUBLE WASHED STONE SHALL BE DURABLE AND FREE FROM IRON, FINES AND DUST.
13. ALL BACKFILL SHALL BE CLEAN EARTHEN MATERIALS FREE OF LARGE STONES AND FROZEN MATERIALS. BACKFILL SHALL BE PLACED TO SUPPORT THE SYSTEM, INSURE PROPER RUNOFF AND BE STABILIZED TO PREVENT EROSION.
14. COVER OVER STRUCTURES AND LEACHING WORKS SHALL BE A MINIMUM OF 9 INCHES AND A MAXIMUM OF 36 INCHES.
15. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE, OR APPROVED EQUAL.
16. SEPTIC TANK EFFLUENT TEE SHALL HAVE A DEP EFFLUENT FILTER WITH HANDLE EXTENDING TO WITHIN 3" OF C.I. FRAME AND COVER EXTENDED TO GRADE OVER OUTLET.
17. THE EXISTING SEPTIC TANK SHALL BE PUMPED, CRUSHED, AND BACKFILLED ACCORDING TO 310 CMR 15.354.
18. SEPTIC SYSTEM COMPONENTS TO BE STAKED BY PROFESSIONAL LAND SURVEYOR PRIOR TO CONSTRUCTION.



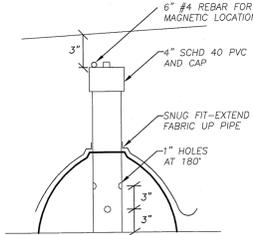
1500 GALLON SEPTIC TANK



1000 GALLON PUMP CHAMBER

NOTE: STRUCTURES SHALL BE FOR HS-20 LOADING

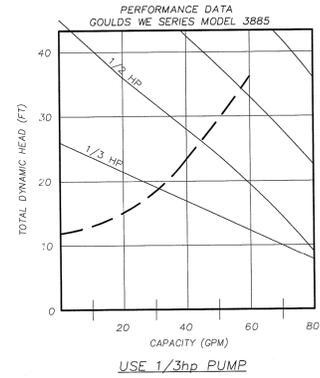
PROFILE  
N.T.S.



ALTERNATE OBSERVATION PORT  
N.T.S.

**RESIDENTIAL PUMP CHAMBERS**

1. STRUCTURES, PUMPS, AND CONTROLS SHALL CONFORM TO THE REQUIREMENTS OF TITLE 5 AND ALL APPLICABLE CODES.
2. CHAMBER SHALL BE WATERTIGHT, VENTED, AND ALL OPENINGS SHALL BE A MINIMUM OF 2 FEET ABOVE THE MAXIMUM GROUNDWATER ELEVATION.
3. THE CAST IRON ACCESS MANHOLE SHALL BE OF SUITABLE SIZE TO ALLOW PUMP REMOVAL, BE CHILD PROOF, AND EXTEND 1" ABOVE FINISHED GRADE.
4. THE PUMP SHALL BE CAPABLE OF PASSING 1/2" DISSIPABLE SOLID, AND BE MADE FOR PUMPING RAW SEWAGE UNDER THE CONDITIONS SHOWN.
5. THE DISCHARGE SHALL BE A MINIMUM OF 25 GPM AGAINST A TDH OF 15 FT.
6. THE MOTOR SHALL HAVE A MINIMUM HP OF 1/3 AND BE SUITABLE FOR THE CURRENT AVAILABLE, AS DETERMINED BY THE CONTRACTOR.
7. THE CHAMBER SHALL BE OF SIZE THAT WILL ALLOW A TOTAL DISCHARGE DOSE OF 200 GAL AND STORE 440 GAL ABOVE THE PUMP ON FLOAT.
8. CONTROLS SHALL BE MERCURY SWITCH FLOATS INSTALLED TO BE VISIBLE FROM THE MANHOLE AND SET TO OPERATE AS SHOWN.
9. ALARM AND CONTROLS SHALL BE LOCATED WITHIN HOUSE AND NO SPLICES OF JUNCTION BOXES SHALL BE INSTALLED WITHIN CHAMBER.
10. MANUFACTURER'S LITERATURE SHALL BE STAPLED NEXT TO CONTROLS. ALARM SHALL BE ON SEPARATE CIRCUITS.
11. THE CHECK VALVE SHALL BE BALL TYPE.
12. ALL PIPING SHALL BE SECURED AND SHIELDED FROM ABRASION.
13. FORCE MAIN SHALL SLOPE CONTINUALLY UPWARD, (UNLESS SHOWN OTHERWISE) BE PROTECTED FROM FROST AND FREEZE BY COVER, INSULATION, OR A WEEP HOLE PLACED ABOVE THE CHECK VALVE.
14. FORCE MAIN SHALL BE 2" IPS HD POLYETHYLENE.
15. SEPTIC TANK OUTLET TEE SHALL HAVE A DEP APPROVED FILTER WITH HANDLE EXTENDED TO 3" BELOW C.I. COVER.



**SOIL TESTS**

SOIL EVALUATOR:  
MARK T. DONOHUE

BOARD OF HEALTH AGENT:  
JUSTIN SNAIR

PERCOLATION RATES: 30 MIN/IN  
DETERMINED BY LABORATORY ANALYSIS  
PER POLICY # BRP/DWM/PeP-P00-4  
(UNCOMPACTED CLASS 2 SOIL)

OBSERVATION HOLE DATA

DEEP HOLE #	Horizon	Texture	Color	Soil Motting
1010-1	Ap	SL	10YR3/2	-
1010-2	Bw	SL	10YR5/4	-
1010-3	C1	SL	5Y6/1	REDOX @ 18" 7.5YR5/8 5Y4/2

DEPTH TO:  
Bedrock: >99"  
Standing Water: 96"  
Weeping Side: NONE  
Seasonal High Ground Water: 18" (100.4)

DEEP HOLE #	Horizon	Texture	Color	Soil Motting
1010-1	Ap	SL	10YR3/2	-
1010-2	Bw	SL	10YR5/4	-
1010-3	C1	SL	5Y6/1	REDOX @ 15" 7.5YR5/8

DEPTH TO:  
Bedrock: >108"  
Standing Water: 106"  
Weeping Side: NONE  
Seasonal High Ground Water: 15" (101.0)

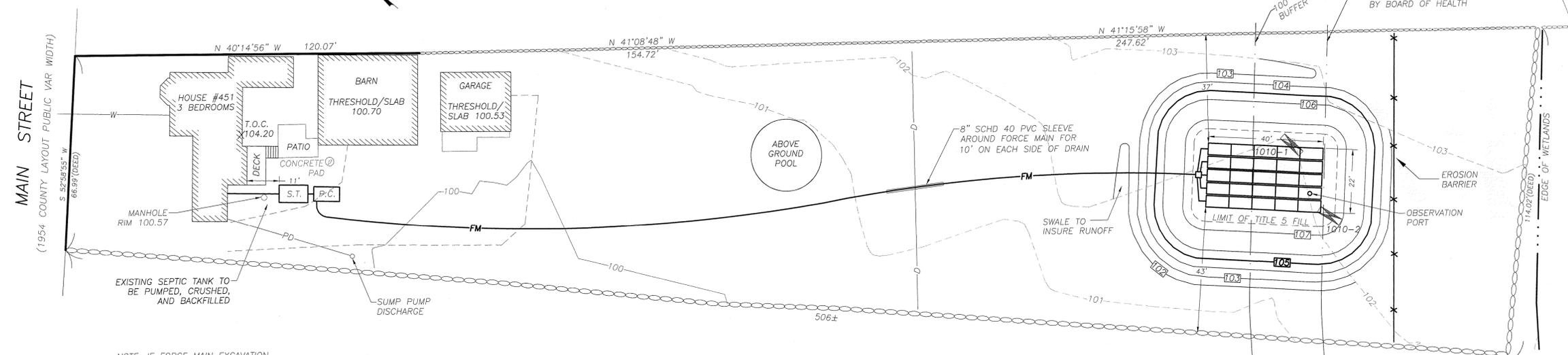
NOTE: CONTRACTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS AND DEP APPROVALS  
CULTEC CONTACTOR C-4 HD (HEAVY DUTY) BED CROSS SECTION  
N.T.S.

**DESIGN ELEVATIONS**

TOP OF FOUNDATIONS	104.20
<b>INVERTS</b>	
AT FOUNDATION	98.80
AT SEPTIC TANK INLET	98.40
AT SEPTIC TANK OUTLET	98.15
AT PUMP CHAMBER	97.90
AT PUMP CHAMBER OUTLET	97.90
PUMP SUMP	93.9
AT D-BOX INLET	105.80
AT D-BOX OUTLET	105.63
INVERT AT CHAMBERS	105.50
TOP OF CHAMBERS/BREAKOUT	105.26
BOTTOM OF CHAMBERS	105.25

**DESIGN CRITERIA**

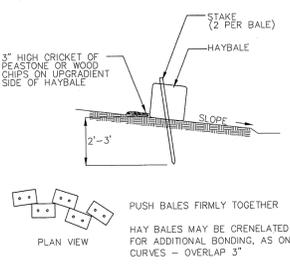
1. SYSTEM IS DESIGNED TO ACCOMMODATE SANITARY SEWAGE ASSOCIATED WITH DOMESTIC USAGE CONSISTING OF PUTRESCIBLE WASTE AND FOR THE FLOWS CALCULATED.
2. SYSTEM IS NOT DESIGNED FOR THE USE OF A GARBAGE GRINDER OR FOR WATER SOFTENER BACKWATER DISCHARGE.
3. FLOWS: 3 BEDROOMS @ 110 GPD = 330 GPD
4. SEPTIC TANK: 2 x FLOW REQUIRED, 1500 GALLON SINGLE COMPARTMENT TANK - MINIMUM SIZE
5. LEACHING AREA:
  - A. PERCOLATION RATE USED: 30 MIN/IN
  - B. SOIL CLASS: 2
  - C. APPLICATION RATE: 0.33 GPD/SF
  - D. AREA REQUIRED: 330 GPD / 0.33 = 1000 SF (800 SF MINIMUM IN ACTION)
6. AREAS PROVIDED:
  1. 25 CHAMBERS = 5 x 5 x 8 LF = 200 LF
  2. EFFECTIVE AREA PER SF = 6.7 SF
  3. EFFECTIVE AREA = 1340 SF
  4. CAPACITY PROVIDED: 1340 x 0.33 SF = 442 GPD
7. MINIMUM GROUNDWATER OFFSET PROVIDED: 4'
8. SITE IS NOT NITROGEN SENSITIVE.
9. SITE IN GROUNDWATER PROTECTION DISTRICT ZONE 4
10. ADDITIONAL SOIL TESTING WILL BE REQUIRED IF SYSTEM IS TO SERVE 4 BEDROOMS. PERMIT IS LIMITED TO 330 GPD / 3 BEDROOMS. ADDITIONAL SOIL TESTING AND DELINEATION OF A RESERVE AREA WILL BE REQUIRED IF SYSTEM IS TO SERVE 4 BEDROOMS
11. UPGRADE VARIANCE REQUIRED BY DEP POLICY # BRP/DWM/PeP-P00-4
12. ACTION BOARD OF HEALTH REGULATION 11-6.1.1 ALLOWS SAS <2000 GPD TO BE OFFSET 75' FROM WETLANDS.



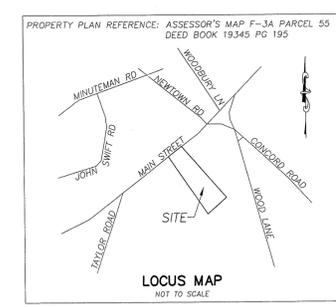
**LEGEND**

S.T.	SEPTIC TANK
D-BOX	DISTRIBUTION BOX
○	OBSERVATION HOLE (TEST PIT)
○	PERCOLATION TEST
190+5	SPOT ELEVATIONS
---	EXISTING 5' CONTOURS
---	EXISTING 1' CONTOURS
---	PROPOSED CONTOURS
---	PRESSURED WATER LINE

- NOTES:**
1. FENCES SHALL BE LOCATED AT LIMIT OF WORK, OR AS SHOWN ON PLANS.
  2. PENETRATE OR "NUC" GROUND WITH BOTTOM FOR ENTIRE LENGTH.
  3. DO NOT INSTALL IN A MANNER WHICH WILL CONCENTRATE RUNOFF.
  4. BACK FENCE WITH STAKED HAYBALES IN HIGH RISK AREAS.
  5. MAINTAIN AND REMOVE FENCE AS REQUIRED.
  6. REMOVE PRODUCTS OF EROSION FREQUENTLY.



**EROSION CONTROL BARRIER**  
(TWO ALTERNATIVES)  
N.T.S.



No.	DATE	DESCRIPTION
1	11/24/10	BOARD OF HEALTH COMMENTS

**REVISIONS**

**PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR**

451 MAIN STREET  
ACTON, MASSACHUSETTS  
PREPARED FOR:  
FOREST BEAN  
451 MAIN STREET  
ACTON, MA 01720  
SCALE: 1"=20'  
DATE: NOVEMBER 4, 2010

Acton Survey & Engineering, Inc.  
Since 1967  
97 GREAT ROAD  
P.O. BOX 666  
ACTON, MA 01720  
PH. (978) 263-3666  
FAX (978) 635-0218