

LOCAL UPGRADE APPROVAL REQUESTS (310 CMR 15.405):

The diagram illustrates a siltation control fence system. A central rectangular structure is shown with a cross-hatched pattern, representing the fence body. Above this structure, a horizontal line is labeled "SILTATION CONTROL FENCE". To the left of the fence, a vertical line is labeled "GRADE". To the right, a vertical line is also labeled "GRADE". A diagonal line to the right of the fence is labeled "WETLAND OR SENSITIVE PROPERTIES". Below the fence structure, a horizontal line is labeled "BOTTOM OF FENCE MATERIAL TO BE BURIED TO A 6\" MIN DEPTH". A vertical line on the left side of the fence is labeled "CONTINUOUS DOUBLE STAKED HAY BALE". A vertical line on the right side of the fence is labeled "6\" MIN".

TBM EL. = 196.97, CUT  
SPIKE FND IN UP #4 5/18

\* MINIMUM OF TWO HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA  
PARENT MATERIAL (GEOLOGIC): GLACIAL TILL DEPTH TO BEDROCK: NONE @ 64"  
DEPTH TO GROUNDWATER: STANDING WATER IN HOLE N.O. WEEPING FROM PIT FACE: N.O.  
ESTIMATED SEASONAL HIGH GROUND WATER: 36"

\* MINIMUM OF TWO HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA  
 PARENT MATERIAL (GEOLOGIC) GLACIAL TILL DEPTH TO BEDROCK: NONE @ B4  
 DEPTH TO GROUNDWATER: STANDING WATER IN HOLES N.O. SEEPING FROM PIT FACE N.O.  
 ESTIMATED SUBSARONAL HIGH GROUND WATER: 35'

NOTE: THE EXISTING DWELLING WILL BE  
RAZED AND REPLACED IN THE ORIGINAL FOOTPRINT.

EXISTING TIMBER  
RETAINING WALL TO  
REMOVED AND REPLACED

PLAN  
SCALE: 1"=20'

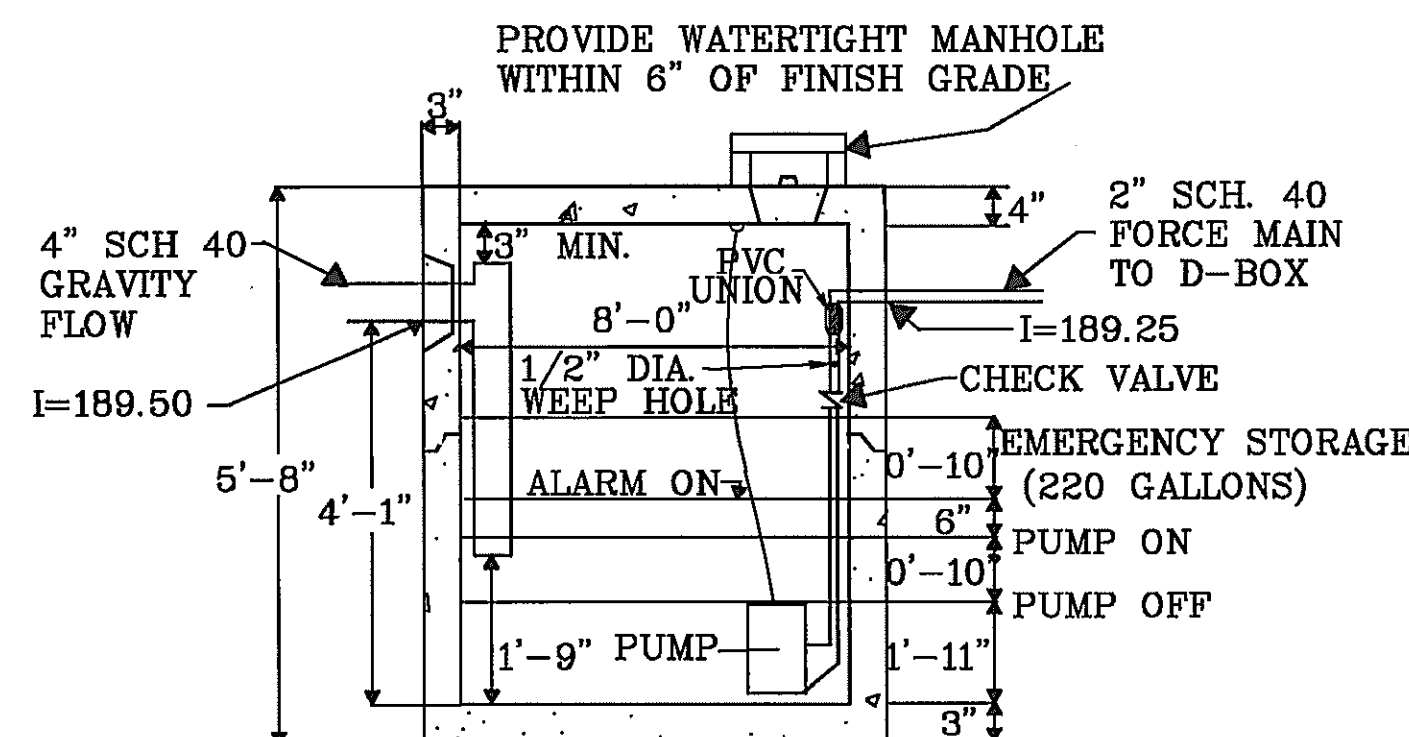
NOTE A: ALL TOPSOIL, SUBSOIL, AND DELETERIOUS MATERIAL IF ANY, MUST BE EXCAVATED AND REMOVED BELOW THE LEACHING AREA AND TO A DISTANCE OF 5 FEET FROM ALL SIDES OF THE LEACHING AREA. EXCAVATE DOWN TO INCHES ABOVE SURFACE OF THE NATURAL PERMEABLE SOIL BACKFILL AS REQUIRED WITH A CLEAN GRAVEL OR SAND FILL MATERIAL, FREE FROM FINES, CLAY, ORGANIC MATERIAL, AND LARGE BOULDERS, HAVING A PERCOLATION RATE IN ITS ORIGINAL LOCATION AND AFTER PLACEMENT OF TWO MINUTES PER INCH OR FASTER. CONSTRUCT LEACHING BED IN THIS MATERIAL. SEE 310 CMR 15.255(3) FOR MATERIAL SPECIFICATION.

I CERTIFY THAT ON JUNE 1995 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 J. F. [Signature] DATE 8/30/18

### PUMP SYSTEM NOTES

- 1.) SPECIFICATION FOR SIMPLEX INJECTOR PUMP:  
GOULD SUBMERSIBLE PUMP MODEL 3887, SERIES NO. WSO512BF, 230 VOLT, 6.5 AMPS, SINGLE PHASE, 1/2 HP OR APPROVED EQUAL.
- 2.) FOUR (4) FEET OF MINIMUM COVER MUST BE MAINTAINED OVER THE ENTIRE LENGTH OF THE 2" FORCE MAIN. THE FORCE MAIN WILL BE INSULATED TO PREVENT FREEZING IN AREAS WHERE THE COVER REQUIREMENT CANNOT BE MET.
- 3.) THE ALARM SHALL BE ON A SEPARATE CIRCUIT AND BE IN A "NOTICABLE AREA" AS AGREED UPON WITH THE BOARD OF HEALTH. ALARM SHALL BE BOTH AUDIBLE AND VISUAL. APPLICABLE CODES.
- 4.) PUMP AND CONTROL FLOATS SHALL BE READILY VISIBLE AND REMOVABLE. CONTROLS SHALL BE SELF CONTAINED, MERCURY SWITCH FLOATS. NO SPLICES ON ANY WIRES SHALL BE ALLOWED WITHIN THE PUMP CHAMBER. ALL ELECTRICAL WORK SHALL CONFORM WITH
- 5.) CONTRACTOR SHALL ASCERTAIN POWER IS AVAILABLE PRIOR TO ORDERING PUMP AND ACCESSORIES. THE CONTRACTOR WILL OBTAIN AN ELECTRICAL PERMIT FROM THE TOWN OF HOLDEN CODE DEPARTMENT.



PLACE ON 6" LEVEL AND  
STABLE GRAVEL BASE  
*PUMP CHAMBER DETAIL*

*NO SCALE*  
PUMP CHAMBER: CHASE PRECAST PRODUCT NO.  
ST1000A (INSIDE DIM. 8' X 4.5') OR APPROVED  
EQUAL BY DESIGN ENGINEER

FINISH GRADE

40 MIL  
POLYETHYLENE  
LINER

EL. = 204.84 (MIN)

TOP OF MEMBRANE

5'

1' MIN.

NATURALLY OCCURRING  
PERVIOUS MATERIAL

EL. = VARIES \*

BOTTOM OF MEMBR.

\*MEMBRANE MUST EXTEND AT LEAST ONE FOOT INTO THE NATURALLY OCCURRING PERVIOUS MATERIAL, IT ALSO MUST BE EQUAL TO OR BELOW THE ELEVATION OF THE GROUND SURFACE TEN FEET ADJACENT TO THE BARRIER.

*TYPICAL IMPERVIOUS MEMBRANE DETAIL*

NO SCALE

2"- 1/8" TO 1/2"  
DOUBLE WASHED  
STONE

3/4" TO 1-1/2"  
DOUBLE WASHED  
CRUSHED STONE  
FREE OF IRONS,  
FINES, AND DUST  
IN PLACE.

The diagram shows a cross-section of a trench. At the top, it indicates "FINISH GRADE MIN. SLOPE - 2%". Below the surface, there is a layer labeled "12\" MIN. BACKFILL". A central vertical pipe is shown with a label pointing to it: "4\" dia. P.V.C. (PERF.)". To the right of the pipe, a note states: "PROVIDE ONE 4\" PERFORATED PVC RISER WITH SCREW TYPE CAP AS AN INSPECTION PORT. BRING TO WITHIN 3\" OF GRADE". The bottom of the trench contains three circular structures representing manholes or access points. Horizontal dimensions are given as 1.5' between the first two circles, 6' between the second and third, and 1.5' from the third circle to the right edge. A vertical dimension of 6\" is shown for the depth of the trench below the bottom layer. The total width at the base is labeled as 15'-0\".

**OWNERS OF RECORD**



**REFERENCE : MARY MOORE**

OWNERS OF RECORD:  
TERENCE & MARY O'COIN  
DEED BK. 55139 PG. 340  
ASSESSOR'S MAP 28A PARCEL F3  
LEO & CAROL JONCAS  
DEED BK. 18311 PG. 245  
ASSESSOR'S MAP 28A PARCEL B8

GENERAL NOTES

- 1.) A PROPERTY LINE SURVEY WAS PERFORMED AT THIS TIME BY FINLAY ENGINEERING SERVICES.
- 2.) ALL CONSTRUCTION TO CONFORM TO TITLE 5 OF THE MASSACHUSETTS STATE ENVIRONMENTAL CODE AND THE BOARD OF HEALTH REQUIREMENTS FOR THE TOWN OF LEICESTER, MASSACHUSETTS.
- 3.) TIGHT JOINT PIPING TO CONSIST OF POLYVINYL CHLORIDE PIPE (P.V.C.) , SCHEDULE 40 , UNLESS OTHERWISE NOTED.
- 4.) HEAVY MACHINERY NOT PERMITTED TO PASS OVER PIPE LEACHING AREA.
- 5.) UNDERGROUND UTILITY INFORMATION IS PLOTTED FROM VISIBLE FIELD LOCATIONS AND AVAILABLE RECORDS. THE LOCATIONS ARE APPROXIMATE ONLY AND VERIFICATION MUST BE MADE IN THE FIELD.
- 6.) NO GARBAGE DISPOSAL IS ALLOWED WITH THIS DESIGN.
- 7.) THERE ARE NO STREAMS OR WETLANDS LOCATED WITHIN 100 FEET OF THIS SYSTEM. THERE ARE NO CATCH BASINS LOCATED WITHIN 50 FEET OF THIS SYSTEM.
- 8.) NO FOOTING DRAINS OR DRY WELLS ARE TO BE LOCATED WITHIN 20 FEET OF THE LEACHING SYSTEM OR THE EXPANSION AREA OR WITHIN 10 FEET OF THE SEPTIC TANK.
- 9.) THIS PLAN IS FOR THE DESIGN AND CONSTRUCTION OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM ONLY .
- 10.) NO CHANGE SHALL BE MADE TO THIS PLAN WITHOUT THE APPROVAL OF THE DESIGN ENGINEER AND THE BOARD OF HEALTH.
- 11.) A COPY OF THIS PLAN MUST BE FURNISHED TO THE CONTRACTOR CONSTRUCTING THE SYSTEM AND A COPY MUST BE KEPT ONSITE DURING CONSTRUCTION .
- 12.) ELEVATION DATUM IS ASSUMED .
- 13.) FOR PROPER PERFORMANCE SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE A YEAR AND WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS 1/3 THE LIQUID DEPTH OF THE TANK THE TANK SHOULD BE PUMPED (USUALLY TWO YEARS).
- 14.) MAGNETIC TAPE SHALL BE INSTALLED ON ALL SYSTEM COMPONENTS.
- 15.) THERE ARE NO KNOWN PRIVATE WATER SUPPLY WELLS WITHIN 150 FEET OF THE PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM. THERE ARE NO KNOWN SURFACE WATER SUPPLIES OR GRAVEL PACKED PUBLIC WATER SUPPLY WELLS WITHIN 400 FEET OF THE PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM. THERE ARE NO KNOWN TUBULAR PUBLIC WATER SUPPLY WELLS WITHIN 250 FEET OF THE PROPOSED SUBSURFACE SEWAGE SYSTEM.
- 16.) THE WETLANDS WERE FLAGGED BY ECOTEC INC.
- 17.) THE EXISTING CESSPOOL WILL BE ABANDONED IN ACCORDANCE WITH TITLE 5: THE STATE ENVIRONMENTAL CODE.

**LEGEND**

- |  |  |
|--|--|
| — — — 100 — — —  | INDICATES EXISTING CONTOUR             |
| — — — (100) — — —  | INDICATES PROPOSED CONTOUR             |
|  T.P. 1 | INDICATES TEST PIT LOCATION AND NUMBER |
|  P-1    | INDICATES PERC TEST LOCATION & NUMBER  |

PERCOLATION TEST DATA

PERC: 1  
DEPTH: 28"  
RATE: 13 M.P.I.  
DATE: 07/18/2018  
TEST PERFORMED BY : JOHN E. FINLAY II, P.E.  
TEST WITNESSED BY: MS. JULIE VANARSDALEN, T/O LEICESTER B.O.H.  
SOIL EVALUATION BY: JOHN E. FINLAY II, P.E.

DESIGN DATA

- 1.) ESTIMATED HYDRAULIC LOADING :  
2 BEDROOMS AT 110 GALLONS/DAY/BEDROOM = 220 GALS./DAY
- 2.) SEPTIC TANK SIZE: 1500 GALLONS
- 3.) LEACHING AREA BASED ON A PERCOLATION RATE OF 15 M.P.I.  
TOTAL SIDEWALL AREA: 0 S.F AT 0.56 GALS./S.F. = 0 G.P.D.  
TOTAL BOTTOM AREA: 405 S.F. AT 0.56 GALS./S.F. = 226 G.P.D.  
MAXIMUM ALLOWABLE LOADING UNDER TITLE 5 = 226 G.P.D.  
ACTUAL HYDRAULIC LOADING = 220 GALS/DAY

## REPLACEMENT

DATE	ISSUE	REVISION	DESCRIPTION	APP.
<p align="center"><b>PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM</b></p> <p align="center">PREPARED FOR</p> <p align="center"><b>TERRY &amp; MARY O'COIN</b></p> <p align="center"><b>6 LAKE SHORE DRIVE</b></p> <p align="center"><b>LEICESTER, MASSACHUSETTS</b></p>				
<p><i><b>FINLAY ENGINEERING SERVICES</b></i></p> <p align="center">625 CHANDLER STREET WORCESTER, MASSACHUSETTS</p>			<p>DES. JEF DWN. STF CHK. JEF</p> <p>SCALE 1"=20' DATE: 08/30/18</p>	<p>PLAN NUMBER</p> <p align="center">180018</p>
			SHEET	1 OF 1