

GENERAL CONSTRUCTION NOTES

- PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL SURVEY AND FIELD MARK THE WESTERN AND SOUTHERN PROPERTY BOUNDARIES. THE SURVEY SHALL BE CONDUCTED BY A MASSACHUSETTS REGISTERED LAND SURVEYOR. ANY NECESSARY ADJUSTMENT TO SOIL ABSORPTION SYSTEM LAYOUT SHALL BE COORDINATED WITH PARE ENGINEERING CORPORATION, AND ANY NECESSARY ENCROACHMENT INTO THE BUILDING AND/OR PROPERTY BOUNDARY 10-FEET SETBACKS SHALL BE IN ACCORDANCE WITH THE TOWN LOCAL UPGRADE APPROVAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND LOCATING ALL EXISTING SUBSURFACE UTILITIES PRIOR TO THE START OF CONSTRUCTION. EXISTING SUBSURFACE UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND BASED UPON AVAILABLE PLANS AND INFORMATION PROVIDED TO PARE.
- ALL DESIGN, CONSTRUCTION, AND MAINTENANCE REQUIREMENTS TO BE IN CONFORMANCE WITH 310 CMR 15.000: THE STATE ENVIRONMENTAL CODE, TITLE 5: STANDARD REQUIREMENTS FOR THE SITING, CONSTRUCTION, INSPECTION, UPGRADE AND EXPANSION OF ON-SITE SUBSURFACE SEWAGE DISPOSAL SYSTEM (SSDS) AND FOR THE TRANSPORT AND DISPOSAL OF SEPTAGE, AS AMENDED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MEANS AND METHODS TO CONSTRUCT ALL EXCAVATIONS FOR THIS PROJECT IN ACCORDANCE WITH APPLICABLE OSHA SAFETY REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTRICTING ACCESS TO THE PROJECT SITE BY UNAUTHORIZED PERSONS, AND FOR ALL HEALTH AND SAFETY ASPECTS ASSOCIATED WITH THIS PROJECT.
- PRIOR TO START OF CONSTRUCTION, ALL NECESSARY EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTAINED AS INDICATED ON THESE PLANS.
- CLEAR ALL TREES AND STUMPS WITHIN 10 FEET OF THE SYSTEM. NO STRUCTURES SHALL BE CONSTRUCTED, OR TREES PLANTED, WITHIN 10 FEET OF ALL SYSTEM COMPONENTS.
- NO EXISTING OR PROPOSED SUBSURFACE DRAINAGE IDENTIFIED WITHIN 10 FEET OF THE SSDS.
- NO EXISTING OR PROPOSED WATER SUPPLY LINE (PRESSURE) IDENTIFIED WITHIN 10 FEET OF THE SSDS.
- NO WELLS IDENTIFIED WITHIN 100 FEET OF SOIL ABSORPTION SYSTEM OR 50 FEET OF SEPTIC TANK AND PUMP CHAMBER. NO TRIBUTARIES TO SURFACE WATER SUPPLIES WERE IDENTIFIED WITHIN 200 FEET OF SSDS. NO SURFACE WATER SUPPLY WAS IDENTIFIED WITHIN 400 FEET OF THE SSDS.
- SITE IS LOCATED WITHIN THE 100 FT. WETLAND BUFFER ZONE AND 200 FT. RIVERFRONT ASSOCIATED WITH RUNNINS RIVER (REFER TO NOTICE OF INTENT SUBMITTED TO SEEKONK CONSERVATION COMMISSION AND MASS. DEPARTMENT OF ENVIRONMENTAL PROTECTION)
- FINISHED GRADE SHALL DIVERT SURFACE WATER AWAY FROM ALL SSDS COMPONENTS AND MAINTAIN PRE-EXISTING SURFACE RUNOFF PATTERNS.
- MINOR AMOUNTS OF SOIL CONTAMINATED WITH SEWAGE MAY BE ENCOUNTERED DURING INSTALLATION OF PUMP CHAMBER AND/OR TRENCHING FOR GRAVITY SEWER PIPING. IF ENCOUNTERED, SOIL CONTAMINATED WITH SEWAGE SHALL BE BURIED WITHIN THE LIMITS OF THE WORK UNDER A MINIMUM 12 INCHES OF CLEAN MATERIAL.
- HEAVY MACHINERY AND VEHICULAR TRAFFIC SHALL NOT BE PERMITTED TO PASS OVER THE SOIL ABSORPTION SYSTEM AREA OR OTHER SSDS COMPONENTS.
- CONTRACTOR SHALL STAGE CONSTRUCTION SUCH THAT NO INTERRUPTION IN WASTEWATER FLOWS WILL RESULT FROM CONSTRUCTION OF THE REPLACEMENT SSDS.
- ALL EQUIPMENT AND MATERIAL SHOP DRAWINGS AND MANUFACTURERS' DATA SHALL REQUIRE THE REVIEW OF PARE ENGINEERING PRIOR TO FABRICATION AND INSTALLATION. PARE ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY WORK THAT SHOP DRAWING AND/OR CONSTRUCTION MATERIALS HAVE NOT BEEN SUBMITTED FOR REVIEW.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ALL DISTURBED AREAS ASSOCIATED WITH INSTALLATION OF THE SSDS.
- EROSION AND SEDIMENTATION CONTROLS SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- ANY ERRORS, OMISSIONS OR CHANGES IN CONDITIONS AT THE PROJECT SITE SHALL BE BROUGHT TO THE ATTENTION OF PARE ENGINEERING PRIOR TO PERFORMANCE OF RELATED WORK.
- UPON COMPLETION OF WORK ASSOCIATED WITH THE SSDS THE CONTRACTOR SHALL CONDUCT A "CLEAR WATER TEST" ON THE PUMP SYSTEM IN THE PRESENCE OF THE ENGINEER TO INSURE PROPER HYDRAULIC OPERATION. THE "CLEAR WATER TEST" SHALL MEET THE APPROVAL OF THE ENGINEER PRIOR TO PLACING THE SSDS IN OPERATION.
- CONSTRUCTION OF SSDS SHALL BE CONDUCTED DURING DRY SEASON (JULY 1 - SEPT 30) UNLESS OTHERWISE APPROVED BY PARE ENGINEERING.
- CONTRACTOR SHALL TAKE PROPER PROVISIONS FOR EXCAVATION DEWATERING, AS REQUIRED. DISCHARGE WATER FROM EXCAVATION DEWATERING SHALL BE INFILTRATED THROUGH A SEDIMENTATION BASIN(S) AND/OR FILTERED THROUGH HAYBALES, WITHIN THE PROJECT LIMIT OF DISTURBANCE.

LOCAL UPGRADE APPROVAL REQUEST

THE FOLLOWING LOCAL UPGRADE APPROVALS FROM 310 CMR 15.000: THE STATE ENVIRONMENTAL CODE, TITLE 5 ARE REQUESTED FOR THIS PROJECT:

- 310 CMR 15.223(1)(g) - SEPTIC TANK SERVICING A SINGLE FAMILY DWELLING UNIT WITH THE EFFECTIVE LIQUID CAPACITY, AS MEASURED BELOW THE OUTLET INVERT ELEVATION, OF LESS THAN 1,500 GALLONS.

THE DESIGN FLOW OF THE RESIDENCE IS 330 GPD. THE EXISTING SSDS IS EQUIPPED WITH A 1,000 GALLON SEPTIC TANK. THE EXISTING TANK MEETS THE MINIMUM EFFECTIVE LIQUID CAPACITY OF 200% OF THE DESIGN FLOW AND THE MINIMUM HYDRAULIC DETENTION TIME OF 48 HOURS PER TITLE 5, SECTION 310 CMR 15.223(1)(g). THE DWELLING IS NOT AND SHALL NOT IN THE FUTURE BE EQUIPPED WITH A GARBAGE GRINDER, PER SECTION 310 CMR 15.223(1)(g). THE TANK SHALL BE SUBJECT TO EVALUATION AND RETROFITS PRIOR TO PLACEMENT INTO SERVICES AS PART OF THE SSDS REPAIR (SEE PLAN SHEET C-2).

- 310 CMR 15.211 - SOIL ABSORPTION SYSTEM PROPERTY LINE AND SLAB FOUNDATION 10 FEET MINIMUM SETBACKS.

A CONDITIONAL LOCAL UPGRADE APPROVAL IS REQUESTED PENDING THE SURVEYED LOCATIONS OF THE WEST AND SOUTH PROPERTY LINES. ADJUSTMENT TO THE SOIL ABSORPTION SYSTEM LAYOUT SHALL BE MADE, IF NECESSARY, AND SHALL NOT RESULT IN SETBACK DISTANCES FROM THESE FEATURES OF LESS THAN 5 FEET WITHOUT TOWN APPROVAL. SUPPLEMENTAL MITIGATION IS PROVIDED WITH AN IMPERVIOUS BARRIER PER MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MADEP) MARCH 1, 2002 POLICY NO. BRP/DWM/WP&P/G02-1 "GUIDELINES FOR DESIGN AND INSTALLATION OF IMPERVIOUS BARRIERS AND SLOPE STABILIZATION FOR TITLE 5 SYSTEMS (SEE PLAN SHEET C-2).

DESIGN INFORMATION FOR REPAIR SUBSURFACE SEWAGE DISPOSAL SYSTEM:

- DESIGN DATA: MINIMUM REQUIRED FLOW DESIGN FOR 3 BEDROOM DWELLING UNIT
- DESIGN FLOW: 110 GAL/BDRM/DAY x 3 BDRMS = 330 GPD
- SEPTIC TANK: 1,000 GALLON - EXISTING (REQUESTED LOCAL UPGRADE APPROVAL FROM 310 CMR: 15.223(1)(g))
- PERCOLATION RATE: PERCOLATION RATE OF 2 MPI
- GROUNDWATER: DESIGN SEASONAL HIGH GROUNDWATER ELEVATION IS 94.8'
- EFFLUENT LOADING RATE: 0.74 GPD/SQ. FT
- REQUIRED AREA: 330 GPD / (0.74 GPD/SF) = 446 SQ. FT REQUIRED (DESIGN BASIS ASSUMES NO CURRENT OR FUTURE USE OF A GARBAGE GRINDER)
- LEACHING AREA: 12 FEET x 38 FEET = 456 SQ. FT. PROVIDED (REFER TO SYSTEM SIZING CALCULATIONS PROVIDED WITH PERMIT APPLICATION FOR DETAILS)

NOTE:

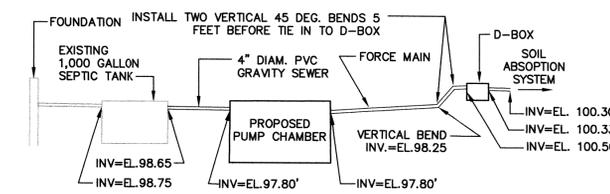
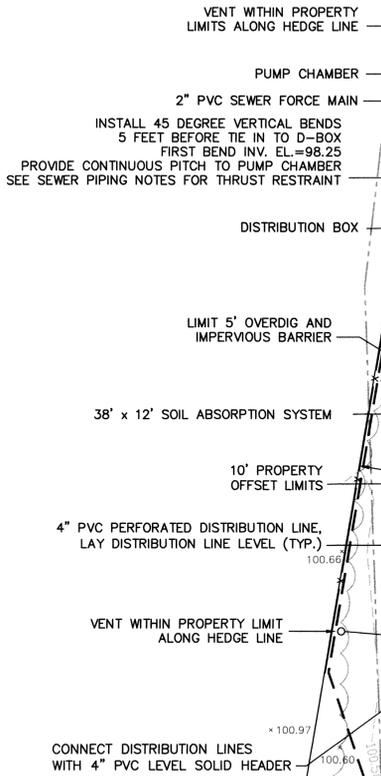
- ACCORDING TO OWNER, HOUSE IS NOT EQUIPPED WITH GARBAGE GRINDER UNIT. THEREFORE DESIGN DOES NOT ACCOUNT FOR USE OF GARBAGE GRINDER, AND SUCH EQUIPMENT SHALL NEVER BE USED WITH SYSTEM.
- ALL SITE ELEVATIONS ARE RELATIVE TO BENCHMARK POINTS WHICH WERE SET TO AN ARBITRARY DATUM DURING A SITE SURVEY BY PARE ENGINEERING ON 2/18/05.

PLAN NOTES

THIS PLAN WAS DEVELOPED FROM THE FOLLOWING SOURCES:

- PLAT AND LOT MAPS PROVIDED BY SEEKONK TOWN HALL ASSESSOR'S OFFICE
- WATER UTILITY LOCATIONS PLAN PROVIDED BY SEEKONK TOWN HALL PUBLIC WORKS DEPARTMENT
- DRAINAGE UTILITY LOCATIONS APPROXIMATED BY PARE ENGINEERING FROM FIELD OBSERVATION ON 3/11/2005.
- SSDS DESIGN PLAN PREPARED BY ROBERY HAWLEY, AUGUST 1982 AND REVISED AUGUST 13, 1984.
- STADIA SURVEY CONDUCTED BY PARE ENGINEERING ON 2/18/2005 FOR EXISTING SSDS COMPONENTS, SITE TOPOGRAPHY AND OTHER SELECTED FEATURES.
- LINE-OF-SIGHT AND TAPE MEASUREMENTS TAKEN BY PARE ENGINEERING ON 2/18/2005 FOR EXISTING ONSITE FEATURES AND LOCATIONS OF OFFSITE FEATURES.

THIS INFORMATION SHOULD BE CONSIDERED ACCURATE TO THE DEGREE IMPLIED BY THE METHODS USED.



SUBSURFACE SEWAGE DISPOSAL SYSTEM
NOT TO SCALE

TEST PIT #101

DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	SOIL COLOR (MUNSELL)
0 - 6	A	F. SANDY LOAM	10 YR 3/2
6 - 36	FILL	SANDY LOAM	2.5 YR 5/4
36 - 48	AB	SANDY LOAM	10 YR 3/2
48 - 96	C	MEDIUM SAND	2.5 Y 5/3

GROUNDWATER SEEPAGE OBSERVED AT 60"

TEST PIT #102

DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	SOIL COLOR (MUNSELL)
0 - 6	A	F. SANDY LOAM	7.5 YR 3/1
6 - 41	FILL	SANDY LOAM	2.5 YR 5/6
41 - 53	AB	F. SANDY LOAM	7.5 Y 3/1
53 - 72	C	MEDIUM SAND	2.5 Y 5/2

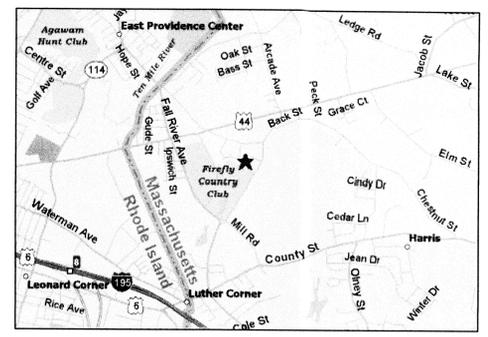
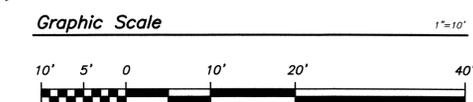
GROUNDWATER SEEPAGE OBSERVED AT 66"

SOIL EVALUATOR: DAVID POTTER (PARE ENGINEERING)
WITNESS (TP-101 ONLY): HAROLD CHENEVERT, JR. (BOARD OF HEALTH)

* PER BOARD OF HEALTH AGENT, HAROLD CHENEVERT, JR., 2 MPI PERCOLATION RATE TO BE USED FOR C LAYER, BASED ON PERCOLATION TEST CONDUCTED ON OCTOBER 25, 2004 BY KARL DROWN, R.S. AND WITNESSED BY HAROLD CHENEVERT, JR. (REFER TO PERCOLATION TEST LOG ATTACHED WITH LOCAL UPGRADE APPROVAL REQUEST LETTER TO SEEKONK BOARD OF HEALTH).

* DEPTH TO SEASONAL HIGH WATER IS BASED ON OBSERVED GROUNDWATER SEEPAGE, WHICH IS CONSISTENT WITH SEASONAL HIGH WATER TABLE DETERMINATION BY KARL DROWN IN OCTOBER 2004 AND 2 WET SEASON GROUNDWATER LEVEL MEASUREMENTS TAKEN BY PARE IN MARCH 2005.

* TEST PIT #102 CHARACTERISTICS AND GROUNDWATER TABLE USED FOR DESIGN AS IT IS WITHIN THE PROPOSED SOIL ABSORPTION SYSTEM LIMITS.



LOCUS

LEGEND

- TP-101 PARE TEST HOLE LOCATION (EXCAVATED 2/18/05)
- APPROXIMATE LOCATION OF TEST HOLE PERFORMED BY OTI LOGGED BY KARL DROWN, 10-25-04
- WETLAND DELINEATION BY PARE ON FEBRUARY 17, 2005
- 100 FT. WETLAND BUFFER ZONE LINE
- EXISTING TREE LINE
- EXISTING TREE
- SILT FENCE
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- EXISTING DRAIN
- EXISTING SEWER
- EXISTING WATER
- PROPOSED SEWER
- LIMIT OF DISTURBANCE (L.O.D.)
- HAYBALES

SCHEDULE OF ELEVATIONS

FINISHED FLOOR ELEVATION	100.33
EXISTING SEPTIC TANK - INLET	98.75 +/-
EXISTING SEPTIC TANK - OUTLET	98.65 +/-
PROPOSED SEPTIC TANK OUTLET	98.50
PUMP CHAMBER - INLET	97.80
PUMP CHAMBER - OUTLET	97.80
DISTRIBUTION BOX INLET	100.50
DISTRIBUTION BOX OUTLET	100.33
INVERT DISTRIBUTION LINES	100.3
BOTTOM OF SYSTEM	99.80
GROUNDWATER	94.80
IMPERVIOUS FINISHED GRADE	(SEE NOTE)
	VARIES

NOTE: NO IMPERVIOUS SURFACE IDENTIFIED 96 INCHES BELOW GRADE AT TEST PIT 101 AND 72 INCHES BELOW GRADE AT TEST PIT 102. CONTRACTOR SHALL EXCAVATE A TEST HOLE WITHIN THE LIMITS OF THE SOIL ABSORPTION SYSTEM TO CONFIRM THAT THE C LAYER HAS A MINIMUM THICKNESS OF 4 FEET.

REVISIONS: _____ APPROVED: _____

PARE ENGINEERING CORPORATION
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02885
401-334-4100

PARE

SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR

DESIGNED BY:	CHECKED BY:	DATE:	DATE:
IAL	SJS	APRIL 2005	APRIL 2005
IAL	SJS	APRIL 2005	APRIL 2005

MASSACHUSETTS

126 BROOK HILL DRIVE
A.P. 15, LOT 41
(REVISED LOT 228)

SITE PLAN
SCALE: 1" = 10'

PROJ. NO. 05012.00
DWG. NO. 69-570
C-1
Sheet 1 of 2