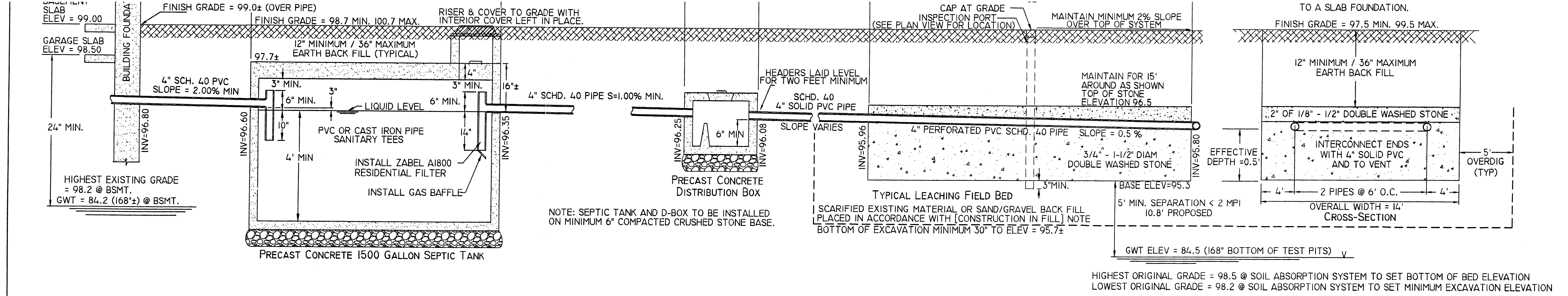
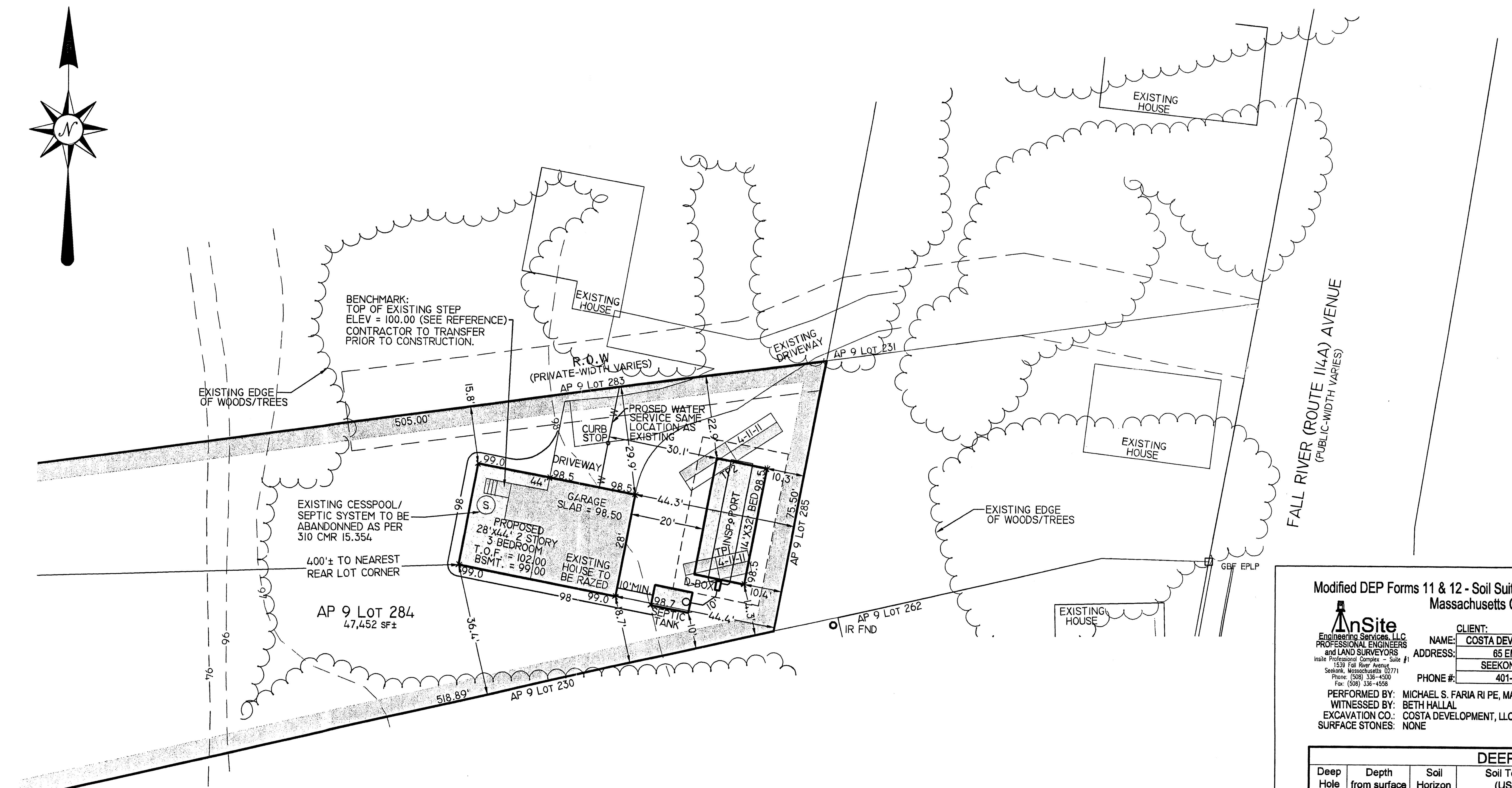




Legend

SOIL TEST PITS BY MICHAEL S. FARIA	TP1 4-11-11
ORIGINAL CONTOUR	— — 98 — —
PROPOSED CONTOUR	—— 102 ——
PROPOSED SPOT ELEVATION	× 99.0

GRAPHIC SCALE

1 INCH = 20 FEET

Modified DEP Forms 11 & 12 - Soil Suitability Assessment & Percolation Test for On-Site Sewage Disposal

Massachusetts City or Town: SEEKONK, MA

InSite Engineering Services, LLC
PROFESSIONAL ENGINEERS and LAND SURVEYORS
Insite Professional Complex - Suite #1, 1539 Fall River Avenue, Seekonk, Massachusetts 02771, Phone: (508) 336-4500, Fax: (508) 336-4558

CLIENT:		DATE:		SITE: INSITE JOB# 11-009	
NAME:	COSTA DEVELOPMENT, LLC		4-11-2011	STREET:	599 FALL RIVER AVENUE
ADDRESS:	65 EMILY WAY			TOWN:	SEEKONK, MA 02771
	SEEKONK, MA 02771	WEATHER:		MAP/PLOT:	A.P. 9 / LOT 284
PHONE #:	401-641-9000		55°± F CLOUDY	REPAIR: X	NEW:

PERFORMED BY: MICHAEL S. FARIA RI PE, MA SE708
WITNESSED BY: BETH HALLAL
EXCAVATION CO.: COSTA DEVELOPMENT, LLC
SURFACE STONES: NONE
VEGETATION: LAWN
LAND USE: RESIDENTIAL
DEPTH TO BEDROCK: NONE OBSERVED
SLOPE: 0-2% ±
SITE SKETCH: (SEE SEPTIC SYSTEM DESIGN PLAN)

DEEP OBSERVATION HOLE LOG

Deep Hole #	Depth from surface (inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (munsell)	Soil Mottling (inches) Concentration Color Abundance/size/contrast	Other (Structure, Stones, Consistency, % Gravel)
TP1 4-11-11	0-12	A	SANDY LOAM	10YR3/2	-	FRIABLE
	12-24	B	LOAMY SAND	10YR5/8	-	FRIABLE
	24-168	C	FINE MEDIUM COARSE SAND	2.5Y7/1,2&3	-	FRIABLE-LOOSE, STRATIFIED, BANDS OF GRAVEL
TP2 4-11-11	0-12	A	SANDY LOAM	10YR3/2	-	FRIABLE
	12-24	B	LOAMY SAND	10YR5/8	-	FRIABLE
	24-168	C	FINE MEDIUM COARSE SAND	2.5Y7/1,2&3	-	FRIABLE-LOOSE, STRATIFIED, BANDS OF GRAVEL

DISTANCES FROM:(ft.) APPROXIMATE (VERIFY) Hole #	TP1	TP2
Open Water Body	>200	>200
Possible Wet Area	>100	>100
Drinking Water Well	>100	>100
Drainageway	>50	>50
Property Line	>10	>10
Other (specify)		
DEPTH TO GROUND WATER: (in.)		
Standing Water in the Hole	-	-
Weeping from Pit Face	-	-
Est. High Ground Water	>168	>168
ASSESSMENT OF DEEP HOLE:		
SUITABLE	X	X
UNSUITABLE		

MOTTLING: NONE

Abundance	Size	Contrast
f: few	1: fine	f: faint
c: common	2: medium	d: distinct
m: many	3: coarse	p: prominent

PERCOLATION TEST

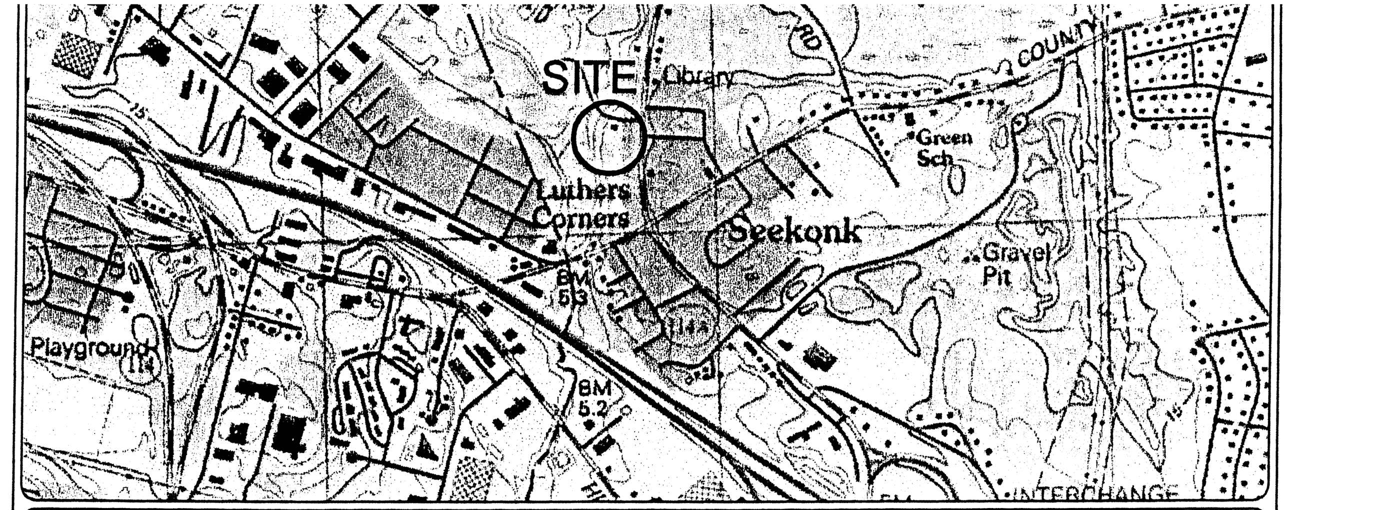
Hole #	TP1
Depth of Perc (inches)	60
Start Pre-Soak	10:24
Time at 12"	10:37 FINISH
Time at 9"	24 gal
Time at 6"	< 15 min
Time (9"-6") (Min)	-
Rate (Min/Inch)	<2

ADDITIONAL TESTING NEEDED: NO
COMMENTS:

(DEP CERTIFIED SOIL EVALUATOR) PRINTED: MICHAEL S. FARIA RI PE, MA SE708 SIGNED: ____

I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE AND EXPERIENCE DESCRIBED IN 310 CMR 15.017.
I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THIS SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE TO 310 CMR 15.017.

Page ___ of ___



Notes & Specifications

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF 310 CMR 15 (TITLE V) OF THE COMMONWEALTH OF MASSACHUSETTS AND THOSE OF THE TOWN BOARD OF HEALTH.

THE REQUIRED INSPECTION SCHEDULE DURING THE PROCESS OF CONSTRUCTION SHALL BE ARRANGED BY THE CONTRACTOR WITH THE BOARD OF HEALTH & DESIGN ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

1500 GALLON SEPTIC TANK AND DISTRIBUTION BOX SHALL BE STANDARD DUTY DESIGN AS MANUFACTURED BY ROTONDO & SONS, INC. OR APPROVED EQUAL.

ALL PIPING SHALL BE 4" DIA. SCHD. 40 NSF PVC, WITH ALL JOINTS SEALED WATERTIGHT.

ALL STONE SHALL BE DOUBLE WASHED AND FREE OF IRONS, CLAY OR FINES AND SHALL BE SATISFACTORY TO THE TOWN BOARD OF HEALTH.

THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL OR OTHER HIGH WATER USE UNITS.

THE PROPOSED SEPTIC SYSTEM IS NOT LOCATED WITHIN THE CONE OF INFLUENCE OF ANY MUNICIPAL WELL NOR ARE THERE ANY PRIVATE WELLS LOCATED WITHIN 100 FEET (RADIAL) OF THE PROPOSED SYSTEM.

EXCAVATE ALL TOP, SUB AND ANY OTHER SOILS ENCOUNTERED DOWN TO THE BOTTOM OF EXCAVATION (SEE CROSS SECTION) FOR A HORIZONTAL DISTANCE OF 5' ON ALL SIDES OF THE PROPOSED SYSTEM. BACK FILL TO TOP OF STONE ELEVATION WITH SELECT ON SITE OR IMPORTED SOIL MATERIAL CONSISTING OF CLEAN GRANULAR SAND, FREE OF ORGANIC MATTER OR OTHER DELETERIOUS SUBSTANCES AND MEETING THE SIEVE SIZE REQUIREMENTS OF 310 CMR 15.255(3) & (5) [CONSTRUCTION IN FILL].

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON AN ASSIGNED DATUM.

CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO THE CONTINUATION OF CONSTRUCTION.

WATER TABLE FLUCTUATES ANNUALLY, NO WARRANTEE OF A DRY BASEMENT IS EXPRESSED OR IMPLIED.

THE PROPOSED WORK DOES NOT LIE IN A CRITICAL FLOOD HAZARD ZONE.

THE LOT DOES NOT LIE IN AN OVERLAY DISTRICT FOR GROUNDWATER AQUIFER PROTECTION.

MAINTAIN 15' MINIMUM FROM THE WATER SERVICE TO ALL SEPTIC SYSTEM COMPONENTS AND RESERVE AREAS.

HOUSE DIMENSIONS, ELEVATION AND LOCATION ARE APPROXIMATE AND SUBJECT TO CHANGE, CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.

THE LOT LIES IN A R-3 ZONING DISTRICT.
FRONT YARD SETBACK: 50'
SIDE YARD SETBACK: 35' + 5'/STORY = 40' (2 STORY)
REAR YARD SETBACK: 70'

I CERTIFY THAT THE PROPOSED WATER SERVICE SHOWN ON THIS PLAN IS IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE SEEKONK WATER DISTRICT. THE CONTRACTOR IS TO COORDINATE THE WATER SERVICE TIE IN WITH THE WATER AUTHORITY AND INSTALL THE WATER SERVICE WITH MAGNETIC MARKING TAPE ABOVE THE ENTIRE LENGTH OF THE WATER SERVICE.

REFERENCE PROPOSED SEWAGE DISPOSAL SYSTEM 599 FALL RIVER AVE. - SEEKONK, MA, BY DROWN ENVIRONMENTAL SVCS. DATED 7-28-06, REVISED 6-22-09.

EXISTING CONDITIONS COMPILED FROM ON THE GROUND SURVEY, THE ABOVE REFERENCE AND AERIAL PHOTOGRAPHY.

Design Calculations

AVERAGE DAILY SEWAGE FLOW (GALLONS PER DAY)
PROPOSED 3 BEDROOM DWELLING @ 110 GPD PER BEDROOM = 330 GPD

SEPTIC TANK SIZING (GALLONS)
200% AVERAGE DAILY FLOW = 2 (330) = 660 GALLONS
3 BEDROOM HOME REQUIRES 1500 GALLON TANK (MINIMUM).

DESIGN SOIL TYPE AND PERCOLATION RATE
SOIL CLASS I (SAND)
PERC RATE IN TP1 4-11-11 WAS < 2 MPI
LEACHING AREA FOR 5 MPI REQUIRED

REQUIRED MINIMUM LEACHING AREA
REQUIRED AREA = 330 GPD / 0.74 GPD / SF = 446 SF MINIMUM
LEACHING FIELD BED AREA: 14' X 32' = 448 SF

APPROVED
B Hallal 5/26/11

Revision Date	Revision
May 17, 2011	ADDED PROPOSED WATER SERVICE BASED ON TOWN FIELD CARD.
May 10, 2011	ADDED REVISION INFORMATION TO CLARIFY SITE DEVELOPMENT.
May 3, 2011	MOVED THE PROPOSED SEPTIC SYSTEM FROM THE REAR YARD TO THE FRONT YARD
	SEE REFERENCE FOR THE ORIGINAL PLAN DATED 7-28-06 AND PREVIOUSLY REVISED
	6-22-09 BY KARL DROWN.

Septic System Design Repair Plan
RDA

"Fall River Avenue"
599 Fall River Avenue, Seekonk, Massachusetts 02771
~~Assessors Map 9, Lot 284~~

Prepared for: Costa Development
65 Emily Way, Seekonk, Massachusetts 02771

Job #	Scale:	Designed By:	Date:
11-009	1" = 20'	MSF	May 3, 2011

Revised: May 17, 2011

COMMONWEALTH OF MASSACHUSETTS — PAUL D. CARLSON — CIVIL — NO. 40998 — REGISTERED PROFESSIONAL ENGINEER

Professional Seal

InSite Engineering Services, LLC
PROFESSIONAL ENGINEERS AND LAND SURVEYORS
InSite Professional Complex, Suite 1
1539 Fall River Avenue
Seekonk, MA 02771
Phone: (508) 336-4500
Fax: (508) 336-4558

Sheet 1 of 1

Received MAY 25 2011 Seekonk BOH