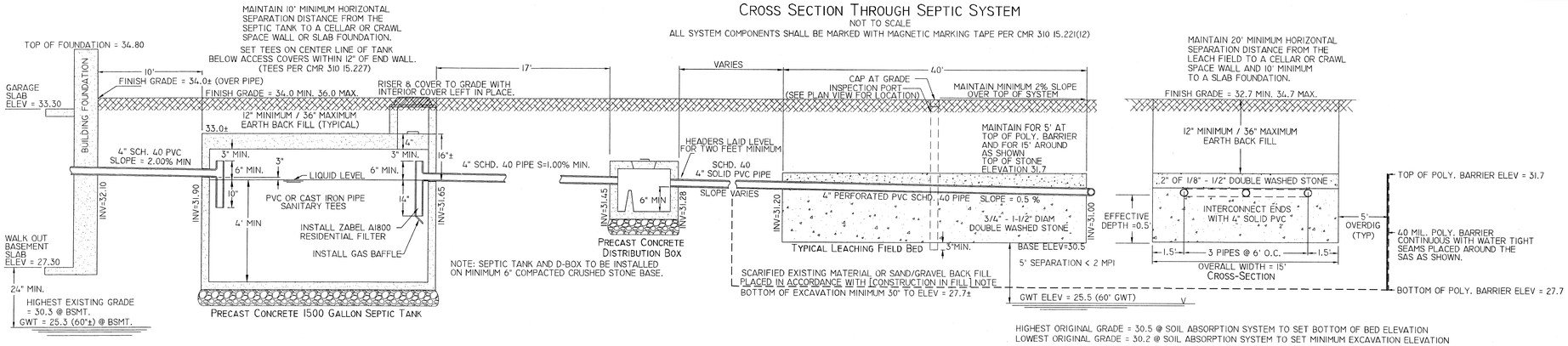
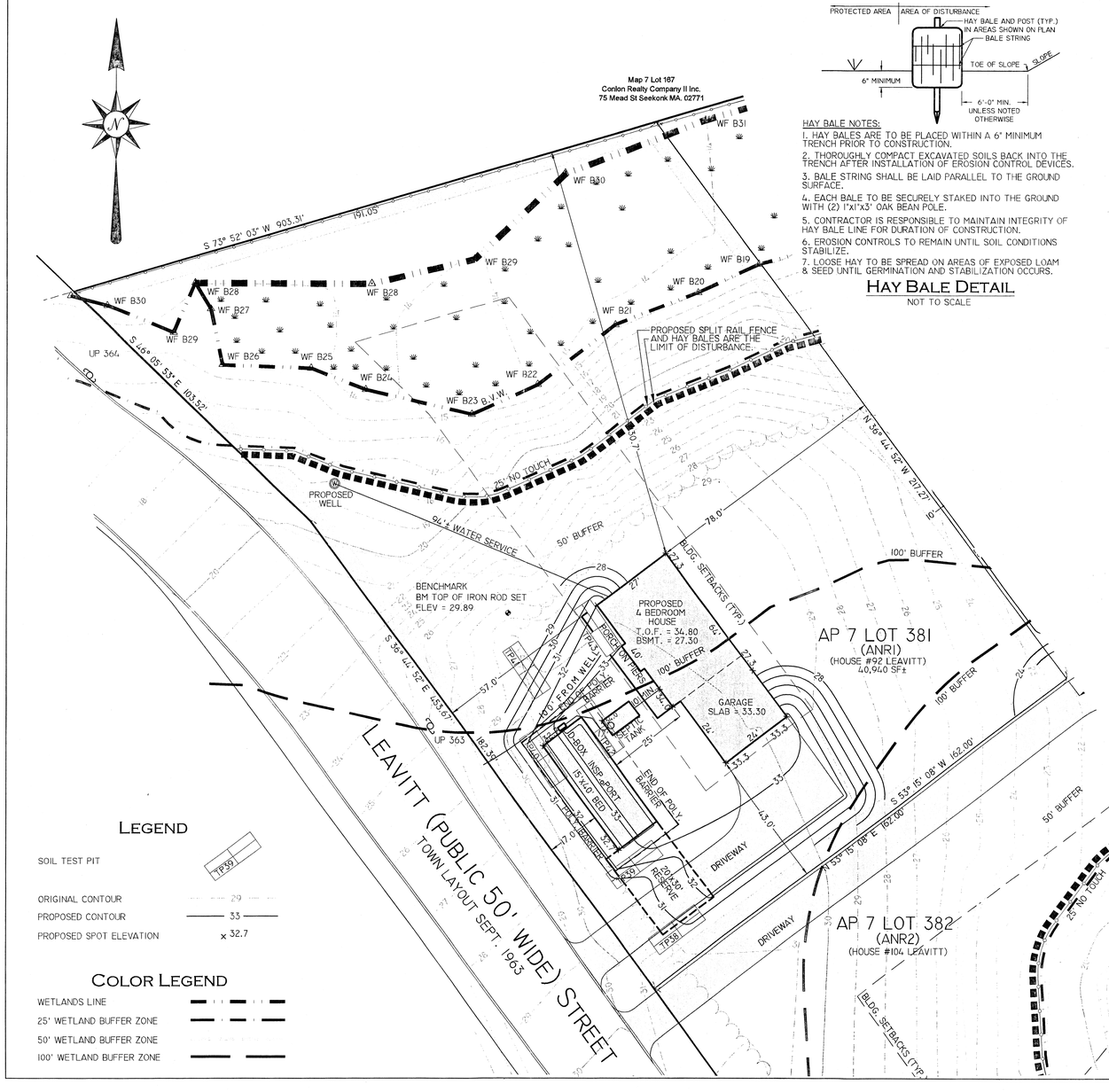
CROSS SECTION THROUGH SEPTIC SYSTEM

NOT TO SCALE

ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE PER CMR 310 15.221(12)





LEGEND

SOIL TEST PIT (TP39)

ORIGINAL CONTOUR 29

PROPOSED CONTOUR 33

PROPOSED SPOT ELEVATION x 32.7

COLOR LEGEND

WETLANDS LINE

25' WETLAND BUFFER ZONE

50' WETLAND BUFFER ZONE

100' WETLAND BUFFER ZONE

HAY BALE NOTES:

1. HAY BALES ARE TO BE PLACED WITHIN A 6" MINIMUM TRENCH PRIOR TO CONSTRUCTION.
2. THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO THE TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICES.
3. BALE STRING SHALL BE LAID PARALLEL TO THE GROUND SURFACE.
4. EACH BALE TO BE SECURELY STAKED INTO THE GROUND WITH (2) 1"x1"x3' OAK BEAN POLE.
5. CONTRACTOR IS RESPONSIBLE TO MAINTAIN INTEGRITY OF HAY BALE LINE FOR DURATION OF CONSTRUCTION.
6. EROSION CONTROLS TO REMAIN UNTIL SOIL CONDITIONS STABILIZE.
7. LOOSE HAY TO BE SPREAD ON AREAS OF EXPOSED LOAM & SEED UNTIL GERMINATION AND STABILIZATION OCCURS.

HAY BALE DETAIL

NOT TO SCALE

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 Ave.
Seekonk, Massachusetts 02771
Phone: (508) 336-4500
Fax: (508) 336-4558

CLIENT: NAME: STEVEN NAJAS; ADDRESS: 111 MILES AVENUE, EAST PROVIDENCE, RI 02914; PHONE #: 1-401-641-1241
DATE: 4-29-2010; WEATHER: 60°± F SUNNY
SITE: INSITE JOB# 09-117; STREET: 167 SCHOOL STREET; TOWN: SEEKONK, MA 02771; MAP/PLOT: A.P. 7 / LOT 40; REPAIR: ; NEW: [X]
PERFORMED BY: MICHAEL S. FARIA RI PE, MA SE708
WITNESSED BY: BETH HALLAL
EXCAVATION CO.: STEVEN BABIT
SURFACE STONES: NONE
VEGETATION: FARM
LAND USE: RESIDENTIAL
DEPTH TO BEDROCK: NONE OBSERVED
SLOPE: 0-2% ±
SITE SKETCH: (SEE SEPTIC 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/sharp/distinct/contrast	Other (Structure, Stones, Consistency, % Gravel)
TP40	0-8	Ap	SANDY LOAM	10YR3/1		FRIABLE
	8-22	B	LOAMY SAND	10YR5/8		FRIABLE
	22-78	C1	MEDIUM COARSE SAND	2.5Y6&7/2	78" 7.5YR5/8	LOOSE, STRATIFIED
	78-120	C2	VERY FINE SAND	2.5Y7/1		FRIABLE
TP41	0-8	Ap	SANDY LOAM	10YR3/1		FRIABLE
	8-18	B	LOAMY SAND	10YR5/8		FRIABLE
	18-84	C1	MEDIUM COARSE SAND	2.5Y6&7/2	66" 7.5YR5/8	LOOSE, STRATIFIED
	84-120	C2	VERY FINE SAND	2.5Y7/1		FRIABLE
TP42	0-10	Ap	SANDY LOAM	10YR3/1		FRIABLE
	10-16	B	LOAMY SAND	10YR5/8		FRIABLE
	16-78	C1	MEDIUM COARSE SAND	2.5Y6&7/2	72" 7.5YR5/8	LOOSE, STRATIFIED
	78-120	C2	VERY FINE SAND	2.5Y7/1		FRIABLE
TP43	0-6	Ap	SANDY LOAM	10YR3/1		FRIABLE
	6-16	B	LOAMY SAND	10YR5/8		FRIABLE
	16-78	C1	MEDIUM COARSE SAND	2.5Y6&7/2	60" 7.5YR5/8	LOOSE, STRATIFIED
	78-120	C2	VERY FINE SAND	2.5Y7/1		FRIABLE
TP38	0-8	Ap	SANDY LOAM	10YR3/1		FRIABLE
	8-16	B	LOAMY SAND	10YR5/8		FRIABLE
	16-120	C	MEDIUM COARSE SAND	2.5Y6&7/2	66" 7.5YR5/8	LOOSE, STRATIFIED
TP39	0-8	Ap	SANDY LOAM	10YR3/1		FRIABLE
	8-16	B	LOAMY SAND	10YR5/8		FRIABLE
	16-84	C1	MEDIUM COARSE SAND	2.5Y6&7/2	60" 7.5YR5/8	LOOSE, STRATIFIED
	84-120	C2	VERY FINE SAND	2.5Y7/1		FRIABLE

DISTANCES FROM (ft.) Hole #

APPROXIMATE (VERIFY)	TP40	TP41	TP42	TP43	TP38	TP39
Open Water Body	>200	>200	>200	>200	>200	>200
Possible Wet Area	>100	>100	>100	>100	>100	>100
Drinking Water Well	>100	>100	>100	>100	>100	>100
Drainageway	>50	>50	>50	>50	>50	>50
Property Line	>10	>10	>10	>10	>10	>10
Other (specify)						

DEPTH TO GROUND WATER: (in.)

Standing Water in the Hole	-	-	-	-	-	-
Weeping from Pit Face	-	-	-	-	-	-
Est. High Ground Water	78	66	72	60	66	60

ASSESSMENT OF DEEP HOLE:

SUITABLE	X	X	X	X	X	X
UNSUITABLE						

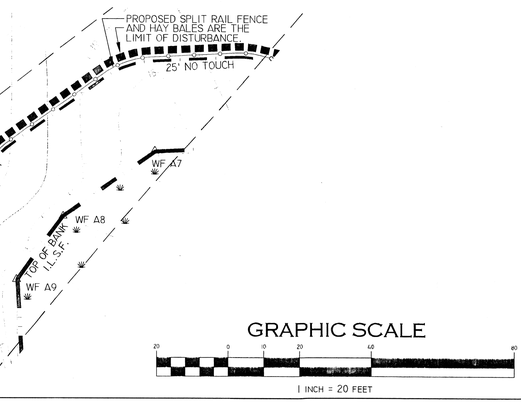
MOTTLING:
Abundance: f: few; c: common; m: many
Size: 1: fine; 2: medium; 3: coarse
Contrast: f: faint; d: distinct; p: prominent

PERCOLATION TEST

Hole #	TP40	TP43	TP39
Depth of Perc (inches)	36	36	36
Start/Pre-Soak	9:56	10:37	10:34
Time at 12"			
Time at 9"	24 GAL	24 GAL	24 GAL
Time at 6"	<15M	<15M	<15M
Time (9"-6") (Min)			
Rate (Min/Inch)	< 2	< 2	< 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 ___

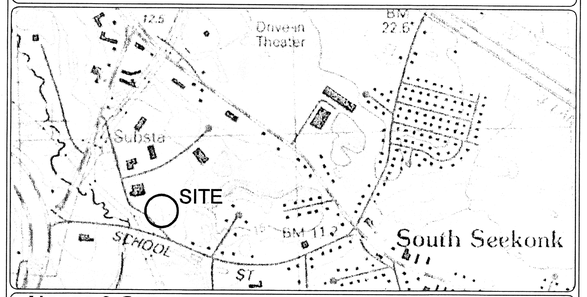


GRAPHIC SCALE

20 0 10 20 40 60

1 INCH = 20 FEET

LOCATION (NOT TO SCALE) MAP



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.

SEPTIC TANK AND DISTRIBUTION BOX SHALL BE STANDARD DUTY (H-10) OR HEAVY DUTY (H-20) IF LOCATED UNDER A DRIVEWAY.

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 BASED ON NAVD 88 DATUM (REFERENCE BENCHMARK PID 8489 DISK M6BU).

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.

SITE SHOWN IS NOT LOCATED IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PANEL 25005C0212F DATED JULY 7, 2009.

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. NO WATER SERVICE TIE IN TO TOWN WATER IS PROPOSED AT THIS TIME. THE HOUSE WILL BE SERVICED BY A PROPOSED WELL AS SHOWN.

WETLANDS DELINEATION BY ECOSYSTEM SOLUTIONS INC.

OWNERS: NAJAS REALTY LLC, 111 MILES AVENUE, EAST PROVIDENCE R.I. 02916

TITLE REFERENCE: DEED BOOK 18852 PAGE 79

THE SPLIT RAIL FENCE WILL SERVE AS THE LIMIT OF LAWN AND FUTURE YARD ACTIVITIES AND SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION.

THE 25-FOOT BUFFER ZONE DELINEATES THE LIMITS OF DISTURBANCE AND ALL FUTURE ACTIVITIES.

THE 50-FOOT WETLAND BUFFER DELINEATES THE LIMITS OF ALL STRUCTURES AS STATED WITHIN THE TOWN OF SEEKONK CONSERVATION COMMISSION REGULATIONS AMENDED MARCH, 2003.

DESIGN CALCULATIONS

AVERAGE DAILY SEWAGE FLOW (GALLONS PER DAY)

PROPOSED 4 BEDROOM DWELLING @ 110 GPD PER BEDROOM = 440 GPD

SEPTIC TANK SIZING (GALLONS)

200% AVERAGE DAILY FLOW = 2 (440) = 880 GALLONS
4 BEDROOM HOME REQUIRES 1500 GALLON TANK (MINIMUM).

DESIGN SOIL TYPE AND PERCOLATION RATE

SOIL CLASS I (SAND)
PERC RATE IN TP40, TP43 AND TP39 WERE < 2 MPI
LEACHING AREA FOR 5 MPI REQUIRED

REQUIRED MINIMUM LEACHING AREA

REQUIRED AREA = 440 GPD / 0.74 GPD / SF = 595 SF MINIMUM
LEACHING FIELD BED AREA: 15' x 40' = 600 SF
RESERVE AREA: 20' x 30' = 600 SF

69-726

SEPTIC SYSTEM DESIGN AND NOI PLAN

PROFESSIONAL SEAL

"LEAVITT STREET"

#92 LEAVITT STREET, SEEKONK, MASSACHUSETTS 02769
ASSESSORS MAP 7, LOT 381, (ANR-1)

PREPARED FOR: STEVE NAJAS (PETRA BUILDING CORP.)
#111 MILES AVENUE, EAST PROVIDENCE, RI 02914

JOB #	SCALE:	DESIGNED BY:	DATE:
09-117-ANR1	1" = 20'	MSF	FEBRUARY 17, 2012

REVISED:

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