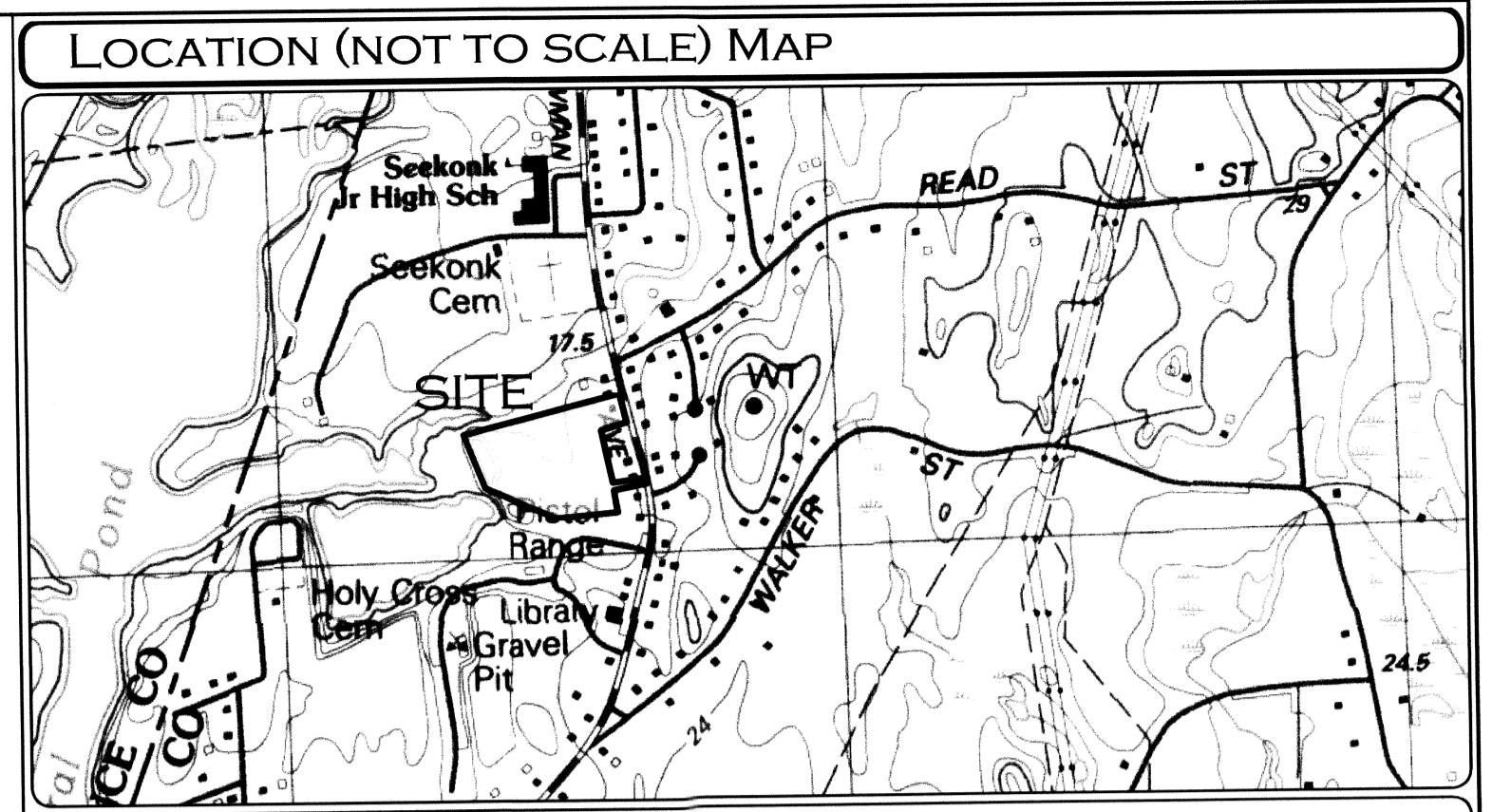


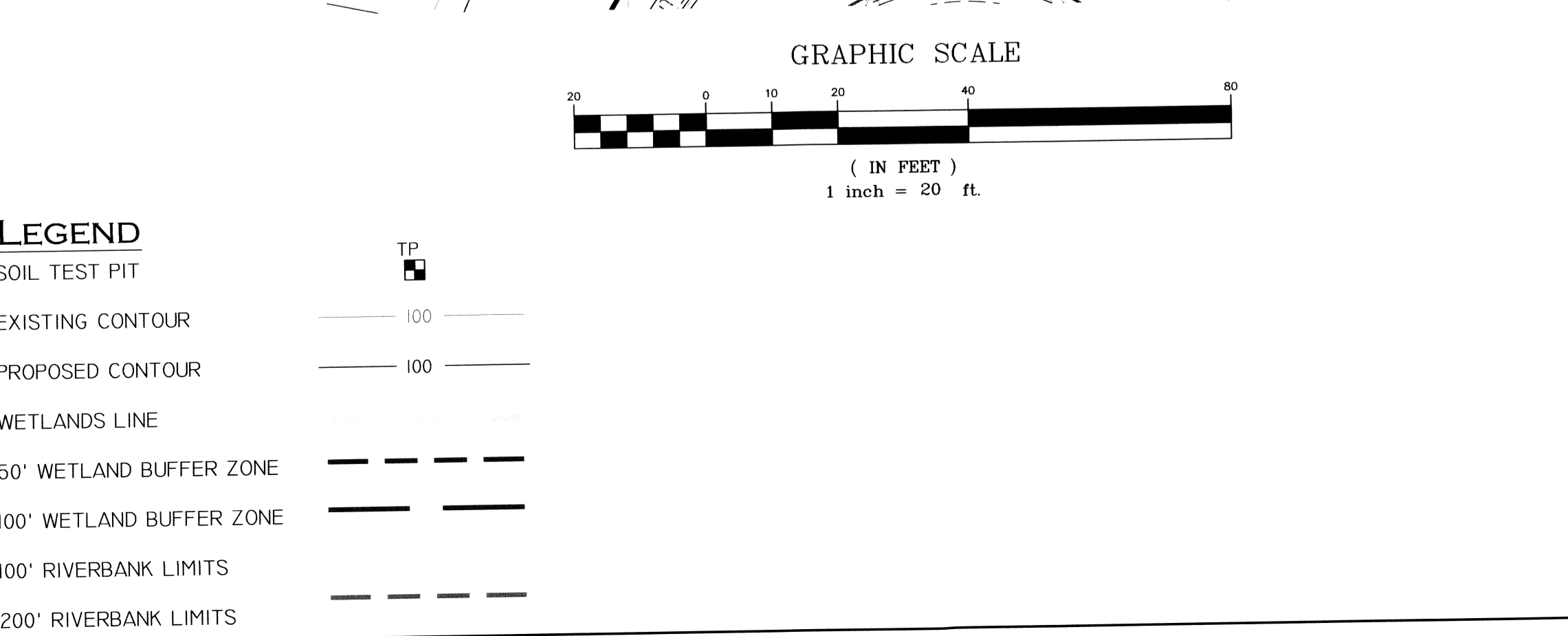
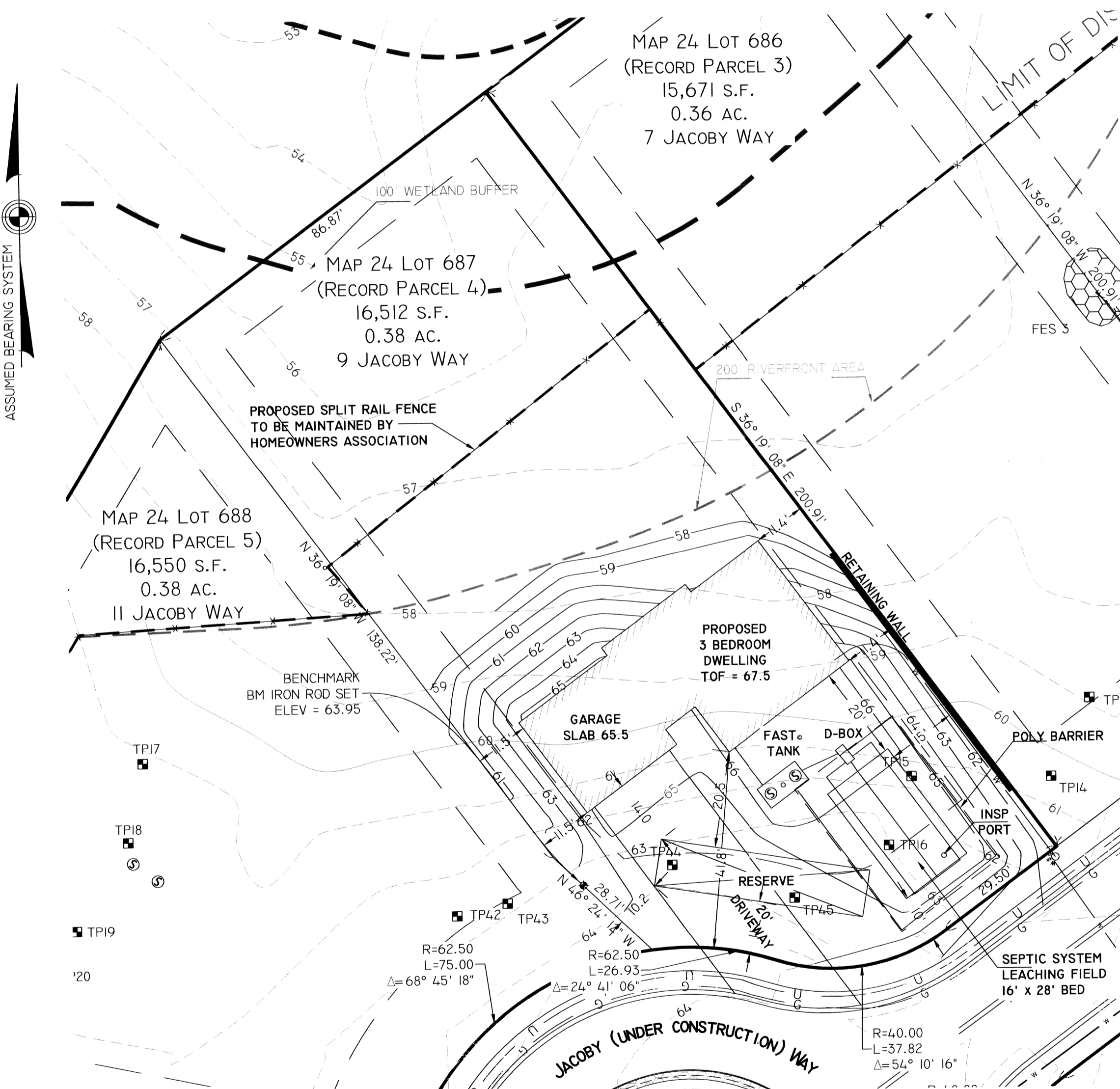
ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED. PER CMR 310.15.22(K)(2)

TP 15 ELEV. 61.5 - MOTTLES @ 60" = 56.5
TP 16 ELEV. 63.0 - MOTTLES @ 60" = 58.0



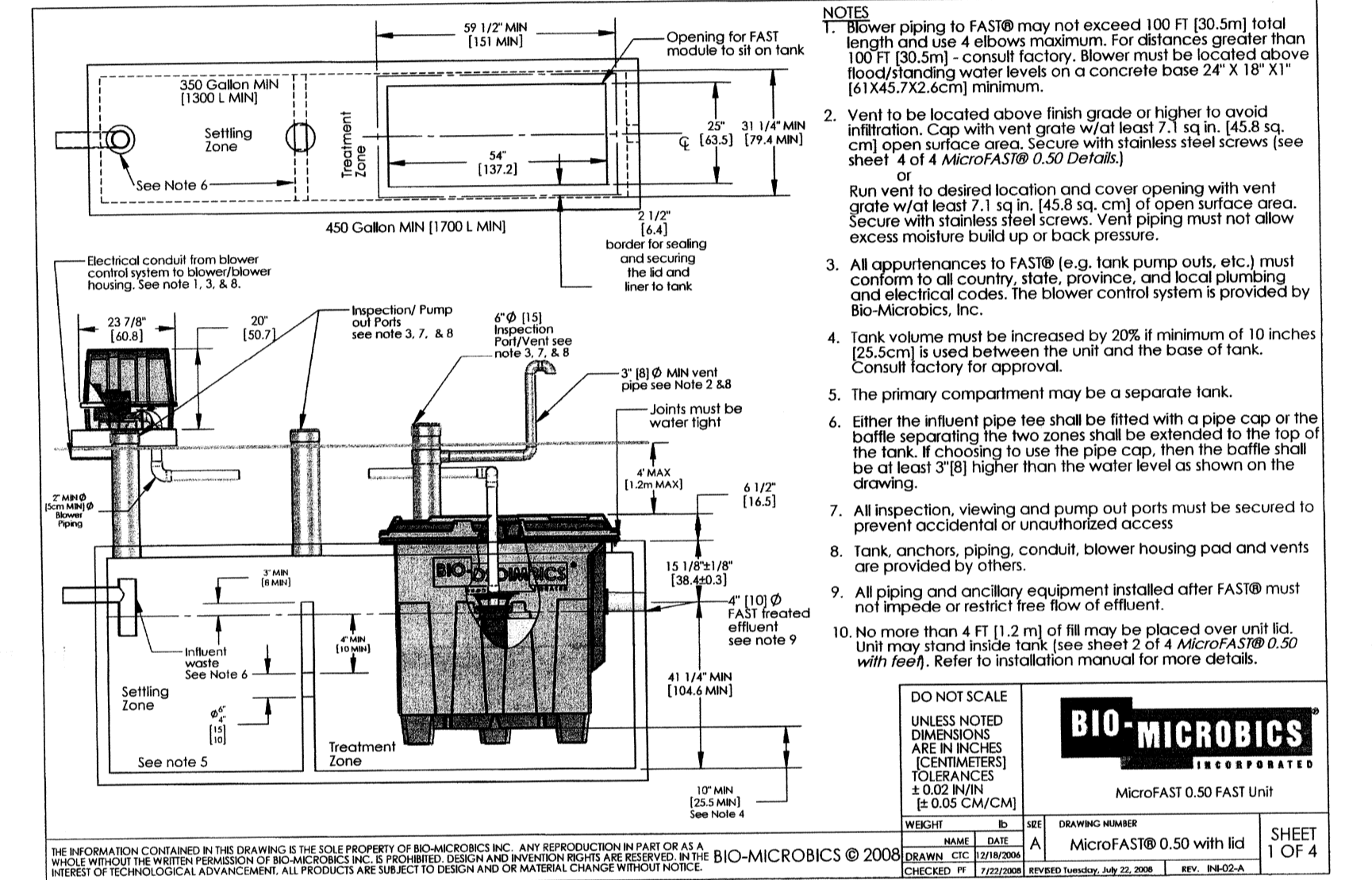
NOTES & SPECIFICATIONS:

- 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 OF SEEKONK BOARD OF HEALTH.
- THE REQUIRED INSPECTION SCHEDULE DURING THE PROCESS OF CONSTRUCTION SHALL BE ARRANGED BY THE CONTRACTOR WITH THE BOARD OF HEALTH AND DESIGN ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 1500 GALLON SEPTIC TANK SHALL BE A FAST TANK (SEE DETAIL) AND 5 OUTLET DISTRIBUTION BOX SHALL BE STANDARD DUTY DESIGN AS MANUFACTURED BY A. 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 OF SEEKONK 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 (RADIALLY) OF THE PROPOSED SYSTEM.
- EXCAVATE ALL TOP SUB AND ANY OTHER SOILS ENCOUNTERED DOWN INTO THE "C" SAND LAYER ELEV 56.0 (48" MINIMUM) FOR A HORIZONTAL DISTANCE OF 5' ON ALL SIDES OF THE PROPOSED SYSTEM. BACKFILL TO ELEVATION = 63.9 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].
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO THE CONTINUATION OF CONSTRUCTION
- WATER TABLE FLUCTUATES ANNUALLY, NO WARRANTY OF A DRY BASEMENT IS EXPRESSED OR IMPLIED.
- THE LOT DOES NOT LIE IN A FLOOD HAZARD ZONE.
- ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON NGVD 1929 DATUM.
- PARCEL SHOWN IS LOCATED IN TOWN OF SEEKONK AQUIFER PROTECTION DISTRICT.
- UTILITIES SHOWN ARE AS-BUILT UNLESS OTHERWISE NOTED.
- THE LOT LIES IN A R-4 ZONING DISTRICT AND IS IN A CLUSTER DEVELOPMENT.
FRONT YARD SETBACK = 20'
SIDE YARD SETBACK = 10'
REAR YARD SETBACK = 10'
- I CERTIFY THAT THE PROPOSED WATER SERVICE SHOWN ON THIS PLAN IS IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE SEEKONK WATER DISTRICT.
- WETLAND DELINEATION BY ECOSYSTEM SOLUTIONS INC.
- OWNERS: NAJAS REALTY LLC, 111 MILES AVENUE, EAST PROVIDENCE R.I. 02916
- TITLE REFERENCE: DEED BOOK 19914, PAGE 40 (1-30-2012)
- PARCEL IS SUBJECT TO A "NITRATE LOADING ANALYSIS" APPROVED BY THE SEEKONK BOARD OF HEALTH ON NOVEMBER 14, 2012 AND REVISED ON FEBRUARY 14, 2013 AND FILED WITH THE COMMONWEALTH OF MASSACHUSETTS TRANSMITTAL #X251611 CURRENTLY PENDING APPROVAL.



SIZE	A	B	C	VI	H	LI	WI	L2	W2
0.5	500 (GAL)	1000 (GAL)	24"	3"	50"	60"	30"	26"	15.5'

A = SETTLING ZONE (LIQUID CAPACITY)
B = FLUENT CHAMBER (LIQUID CAPACITY)
C = INFLUENT APERTURE HEIGHT
VI = VENT SIZE (MINIMUM)
H = FAST HEIGHT
LI = FAST LENGTH (TOTAL)
WI = FAST WIDTH (TOTAL)
L2 = FAST LENGTH FROM BACK TO AIR LIFT
W2 = FAST WIDTH TO AIR LIFT



FAST SYSTEM DETAIL (FOLLOW MANUFACTURER SPECIFICATIONS)

Modified DEP Forms 11 & 12 - Soil Suitability Assessment & Percolation Test for On-Site Sewage Disposal
Massachusetts City or Town: SEEKONK, MA

CLIENT: STEVEN NAJAS DATE: 4-12-2012 STREET: 524 NEWMAN AVENUE
TOWN: SEEKONK, MA 02771
ADDRESS: 111 MILES AVENUE
EAST PROVIDENCE, RI 02914 WEATHER: MAP/LOT: A.P. 24 LOT 73 & 394
PHONE #: 401-641-1241 55°F RAIN REPAIR: NEW [X]

PERFORMED BY: MICHAEL S. FARIA R.I.P.E. MA 58708 VEGETATION: WOODS SITE SKETCH: (SEE SUBDIVISION PLAN)
WITNESSED BY: BETH HALLAL LAND USE: RESIDENTIAL (SEE SUBDIVISION PLAN)
EXCAVATION CO.: BABIT DEPTH TO BEDROCK: NONE OBSERVED
SURFACE STONES: NONE SLOPE: 0.2%±

Modified DEP Forms 11 & 12 - Soil Suitability Assessment & Percolation Test for On-Site Sewage Disposal
Massachusetts City or Town: SEEKONK, MA

CLIENT: STEVEN NAJAS DATE: 5-1-2012 STREET: 524 NEWMAN AVENUE
TOWN: SEEKONK, MA 02771
ADDRESS: 111 MILES AVENUE
EAST PROVIDENCE, RI 02914 WEATHER: MAP/LOT: A.P. 24 LOT 73 & 394
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SURFACE STONES: NONE SLOPE: 0.2%±

TP#	Depth	Soil	Percolation	Notes
TP18	0-8	Ap	LOAMY SAND	10YR5/2
	8-16	Bw	LOAMY SAND	10YR5/8
	16-132	C	SAND, GRAVEL & COBBLES	2.5YR6/7/2
TP18	0-8	Ap	LOAMY SAND	10YR5/2
	8-16	Bw	LOAMY SAND	10YR5/8
	16-132	C	SAND, GRAVEL & COBBLES	8P 7.5YR5/8

DISTANCES FROM (ft.) Hole # TP13 TP43 TP44 TP45
APPROXIMATE (VERIFY) Open Water Body >200 >200 >200 >200
Possible Wet Area >100 >100 >100 >100
Drinking Water Well >100 >100 >100 >100
Property Line >10 >10 >10 >10
Other (specify) _____

DEPTH TO GROUND WATER: (in.)
Standing Water in the Hole - - - - -
Weeping from Pit Face - - - - -
Est. High Ground Water 60 60 60 60

ASSESSMENT OF DEEP HOLE:
SUITABLE X X X X X
UNSUITABLE

TP#	Depth	Soil	Percolation	Notes
TP44	0-8	Ap	LOAMY SAND	10YR5/2
	8-16	Bw	LOAMY SAND	10YR5/8
	16-120	C	SAND, GRAVEL & COBBLES	7.5YR6/7/2
TP45	0-8	Ap	LOAMY SAND	10YR5/2
	8-16	Bw	LOAMY SAND	10YR5/8
	16-120	C	SAND, GRAVEL & COBBLES	7.5YR6/7/2

DISTANCES FROM (ft.) Hole # TP42 TP43 TP44 TP45
APPROXIMATE (VERIFY) Open Water Body >200 >200 >200 >200
Possible Wet Area >100 >100 >100 >100
Drinking Water Well >100 >100 >100 >100
Property Line >10 >10 >10 >10
Other (specify) _____

DEPTH TO GROUND WATER: (in.)
Standing Water in the Hole - - - - -
Weeping from Pit Face - - - - -
Est. High Ground Water 60 60 60 60

ASSESSMENT OF DEEP HOLE:
SUITABLE X X X X X
UNSUITABLE

DEP CERTIFIED SOIL EVALUATION PRINTED: MICHAEL S. FARIA R.I.P.E. MA 58708, 5/10/12
(CERTIFY THAT I AM QUALIFIED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME OR UNDER MY SUPERVISION AND THAT THE RESULTS OF THIS SOIL EVALUATION PRINT ARE ACCURATE AND IN ACCORDANCE TO DEP CMR 6.00)

SOIL EVALUATION & PERC RESULTS

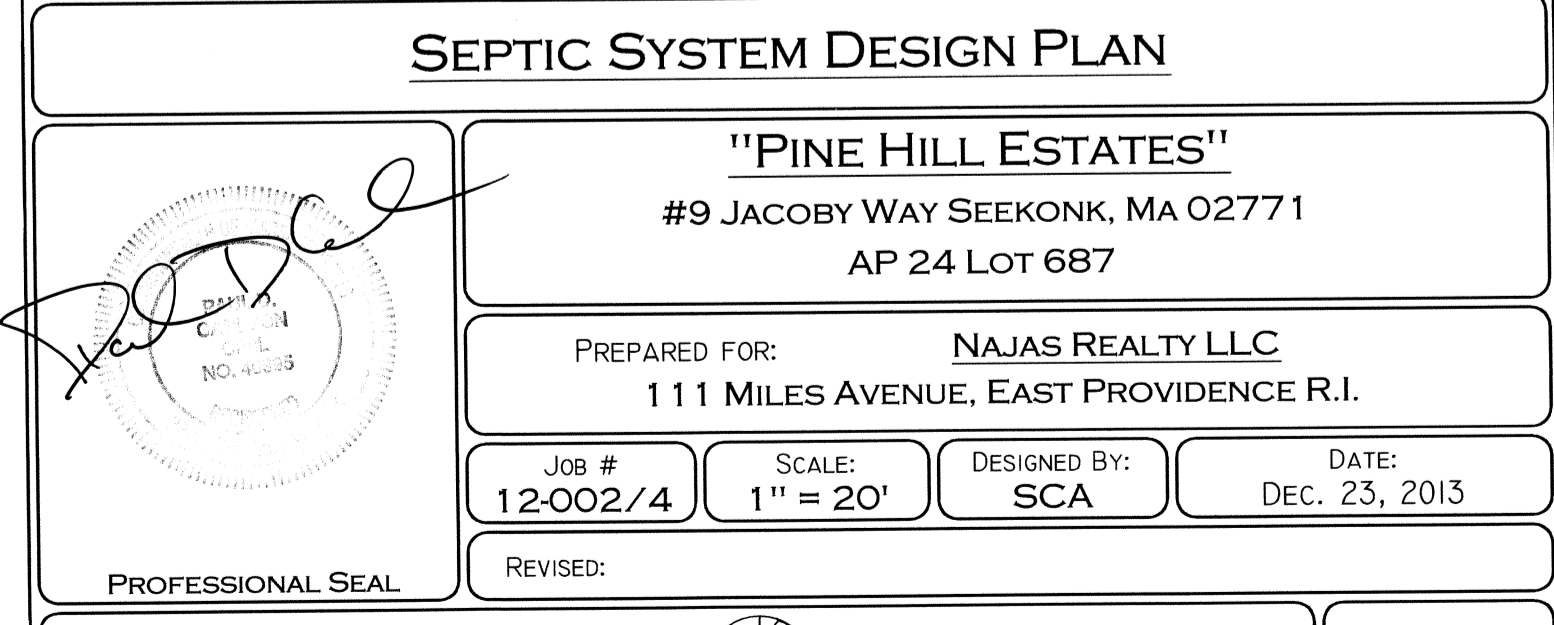
DESIGN CALCULATIONS

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).

LEACHING AREA CALCULATION
SOIL CLASS I (SANDY LOAM) PERK RATE IN ALL TP'S WAS LESS THAN 2 MPI DESIGN FOR 5 MPI PER TITLE V.

REQUIRED MINIMUM LEACHING AREA:
ADF = 330 GPD / 0.74 GPD / SF = 446 SF MINIMUM
TRY: LEACHING FIELD 16' WIDE AND 28' LONG
16' x 28' = 448 SF DESIGN TOTAL
DESIGN - 448 SF > REQUIRED - 446 SF OK
(RESERVE AREA = 10' x 45' = 450 S.F.)



"PINE HILL ESTATES"
#9 JACOBY WAY SEEKONK, MA 02771
AP 24 LOT 687

PREPARED FOR: NAJAS REALTY LLC
111 MILES AVENUE, EAST PROVIDENCE R.I.

JOB # 12-002/4 SCALE: 1" = 20' DESIGNED BY: SCA DATE: DEC. 23, 2013

REVISOR: _____

PROFESSIONAL SEAL: [Signature]

INSITE Engineering Services, LLC
1539 Fall River Avenue Seekonk, MA 02771
Phone: (508) 338-4500 Fax: (508) 338-4558
Web Address: InsiteEngineers.com

SHEET 1 OF 1