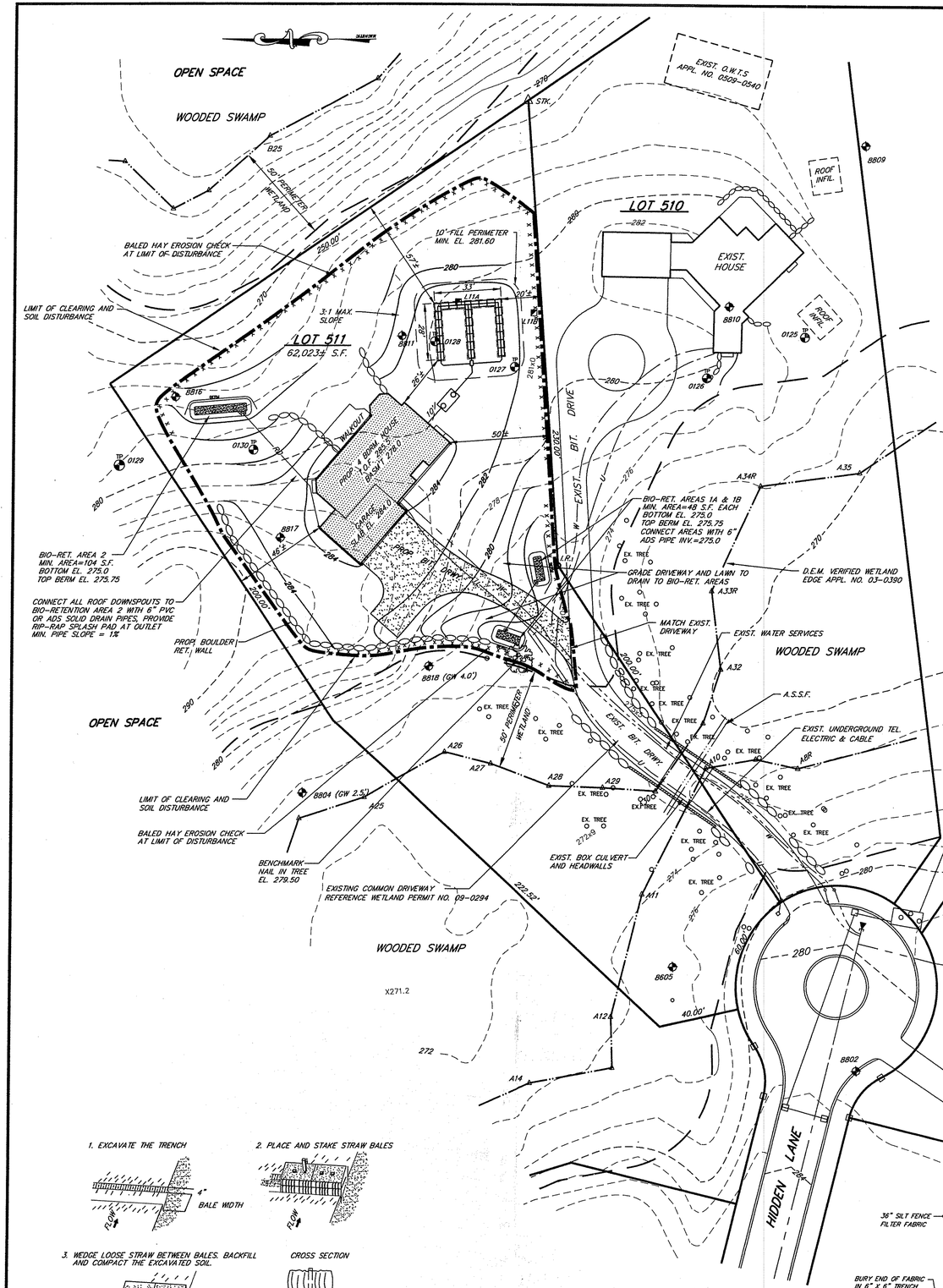
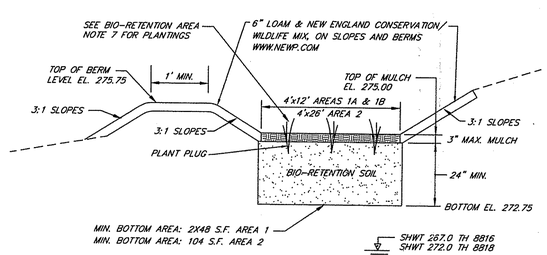


BIO-RETENTION AREA NOTES

1. BIO-RETENTION AREA TO BE PROTECTED PRIOR TO & DURING CONSTRUCTION TO PREVENT COMPACTION OF BOTTOM AREA.
2. ONLY LIGHT EARTH MOVING EQUIPMENT SHALL BE UTILIZED IN THESE AREAS.
3. SLOPES SHALL BE 3:1 (TYP.) 2:1 (MAX.).
4. BIO-RETENTION AREAS SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO OTHER CONSTRUCTION.
5. ALL LOAM & SUBSOIL SHALL BE STRIPPED AND THE AREA EXCAVATED TO DESIGN BOTTOM GRADE. BIO-RETENTION SOIL SHALL BE PLACED TO A DEPTH OF 24" MIN.
6. BIO-RETENTION AREA MULCH SHALL BE SHREDDED HARDWOOD MULCH.
7. THE BOTTOM OF THE BIO-RETENTION AREA SHALL BE PLANTED WITH AN EQUAL MIXTURE OF: BLUEFLAG IRIS, WOOL GRASS AND PICKERELWEED PLUGS AT 18" ON CENTER SPACING. PLANTINGS SHALL COMPLY WITH APPENDIX B.9.3 OF THE R.I. STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL (DEC. 2010.)
8. BIO-RETENTION AREA PLANTINGS SHALL BE INSTALLED BY A LANDSCAPE CONTRACTOR. SURVIVAL SHALL BE GUARANTEED FOR ONE YEAR.
9. BIO-RETENTION SOIL SHALL HAVE A LOAMY SAND TO SANDY LOAM TEXTURE AND CONFORM TO THE FOLLOWING GRADATION:

SAND	85 – 88%
SILT	8 – 12%
CLAY	0 – 2%
ORGANIC MATTER	3 – 5%



BIO-RETENTION AREA CROSS-SECTION

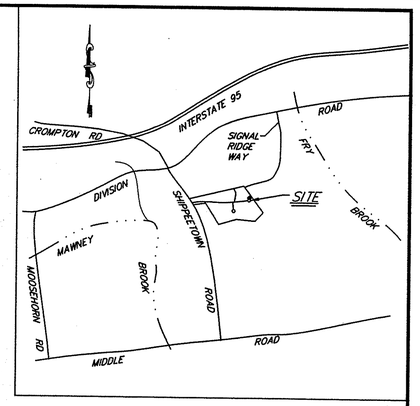
NOT TO SCALE

BIO-RETENTION AREAS 1A & 1B

275.0 48 S.F.
275.75 134 S.F.

BIO-RETENTION AREA 2

275.0 104 S.F.
275.75 253 S.F.



LOCUS MAP

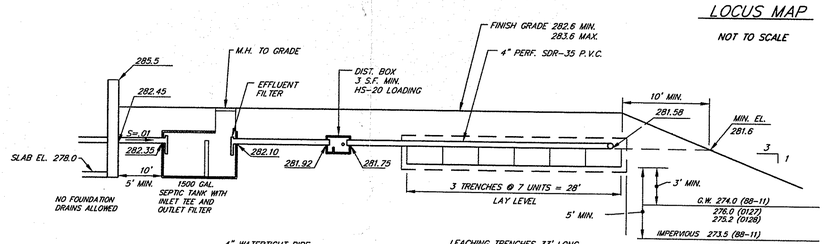
NOT TO SCALE

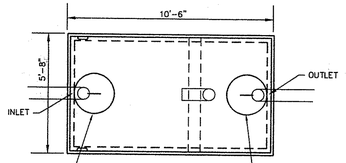
SOIL LOADING RATES

SOIL CAT.	LOADING RATE
3	.70 GAL/SF
4	.61 GAL/SF
2	.61 GAL/SF

DESIGN LOADING = .61 GAL/SF

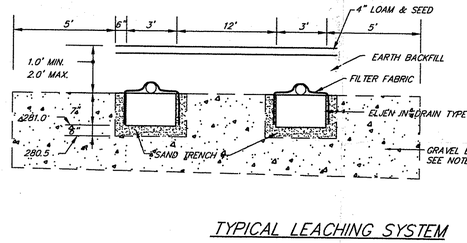
DESIGN FLOW = 4 BEDROOM X 115 GAL./DAY/BDRM = 460 G.P.D.
REQUIRED LEACHFIELD AREA = 460 GAL. ÷ .61 GAL/SF = 884.6 S.F.
884.6 SF ÷ 28 SF /ELGEN = 27 ELGENS REQUIRED (MIN.)
27 ELGENS PROVIDED





PRECAST SEPTIC TANK 1500 GALLONS

NOT TO SCALE



TYPICAL LEACHING SYSTEM

NOT TO SCALE

ZABEL A1800 FILTER

NOT TO SCALE

PRECAST DISTRIBUTION BOX

O.W.T.S. NOTES:

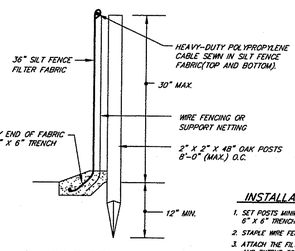
1. IN-DRAIN UNITS ARE 4' LONG, 3' WIDE AND 7" HIGH, 27 REQ'D.
2. SAND FOR TRENCHES SHALL BE CONCRETE SAND CONFORMING SAND CONFORMING TO ASTM C-33.
3. ENDS OF TRENCHES SHALL BE CONNECTED WITH 3 IN-DRAIN UNITS.
4. LAY IN-DRAIN UNITS LEVEL WITH TOP 2" BELOW DISTRIBUTION BOX OUTLET INVERT.
5. CLEAR AND REMOVE ALL BRUSH & TREES 10' AROUND SYSTEM.
6. STRIP ALL TOPSOIL (A HORIZON) WITHIN AND 5' AROUND THE LEACHING TRENCHES. BACKFILL WITH CLEAN, COARSE GRAVEL TO EL. 282.1.
7. THE BOTTOM OF EXCAVATION SHALL BE LEVEL AND SCARIFIED.
8. NO EXISTING OR PROPOSED WELLS, WATERCOURSES OR DRAINS WITHIN 200' OF SYSTEM NOR PUBLIC WELLS WITHIN 500' OF SYSTEM, EXCEPT AS NOTED.
9. NO SEWAGE SYSTEM WITHIN 100' OF WELL, EXCEPT AS SHOWN.
10. MIN. DISTANCE FROM LEACHING AREA TO SUBSURFACE DRAIN FOUNDATION DRAIN, & WATER SUPPLY LINE = 25' (EXIST. OR PROP.)
11. ALL WORK SHALL CONFORM TO THE R.I.D.E.M. RULES & REGULATIONS.
12. DESIGNER SUPERVISION REQUIRED FOR O.W.T.S. INSTALLATION INSPECTION. S.F.M. ENGINEERING ASSOC. MUST BE NOTIFIED AT LEAST TWO BUSINESS DAYS PRIOR TO THE ANTICIPATED START OF THE O.W.T.S. CONSTRUCTION TO SCHEDULE INSPECTIONS.

GENERAL NOTES

1. PROPERTY LINE AND TOPOGRAPHIC INFORMATION FROM PLANS BY SCITUATE SURVEYS, INC.
2. REFERENCE SUBDIVISION SUITABILITY S09-128 AND PREVIOUS OWTS APPL. NO. 0509-0541.
3. EXISTING DRIVE, CULVERT AND UNDERGROUND UTILITIES WERE INSTALLED UNDER DEM WETLAND PERMIT 03-0390.
4. SITE IS WITHIN FLOOD HAZARD ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) PER FEMA FLOOD INSURANCE RATE MAP #44003C0119G DATED DECEMBER 3, 2010
5. HAYBALE OR SILT FENCE EROSION CHECKS SHALL BE INSTALLED AT ALL DOWNGRADIENT LIMITS OF DISTURBANCE PRIOR TO ANY CONSTRUCTION.
6. NO WORK OR DISTURBANCE IS ALLOWED WITHIN JURISDICTIONAL WETLANDS EXCEPT AS SPECIFICALLY SHOWN.

STAKED BALED HAY EROSION CHECK DETAIL

NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

INSTALLATION NOTES

1. SET POSTS MINIMUM DEPTH 12" AND EXCAVATE 6" X 6" TRENCH UPSLOPE ALONG LINE OF POSTS.
2. STAPLE WIRE FENCING TO THE POSTS.
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND TO TRENCH.
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.
5. BARRIER HEIGHT NOT TO EXCEED 30". LOCATE 6 FEET FROM TOE OF SLOPE, OVERLAP FILTER FABRIC 6" AT POSTS. POST SPACING MAXIMUM 8 FEET.

LEGEND

120	EXIST. CONTOUR
120	PROP. CONTOUR
	PROP. LIMIT OF DISTURBANCE
x x x x x	BALED HAY EROSION CHECK
W	WATER LINE
U	UNDERGROUND UTILITIES
	EXIST. CURB LINE
D	DRAIN LINE
TP	G.W. TEST HOLE
L1A	LEDGE TEST HOLE
EX. TREE	EXIST. TREE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL

OWTS: 0509-0541 PWW#: 15-0032

APPROVED Jennifer Lapa DATE: 4.10.15

No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

SCOTT F. MOOREHEAD
No. 4298
REGISTERED PROFESSIONAL ENGINEER

SFM

S.F.M. ENGINEERING ASSOCIATES
410 TIOGUE AVENUE
COVENTRY, R.I. 02816
(401)826-3736

DATE	REVISION
DWN. BY: LBC	DWG. NO. SFM497-L11

PROPOSED O.W.T.S. & SITE PLAN

80 HIDDEN LANE

A.P. 12E LOT 511
EAST GREENWICH, RHODE ISLAND

PREPARED FOR:
LEVESQUE CONSTRUCTION INC.
379 TOWER HILL ROAD
NORTH KINGSTOWN, RHODE ISLAND

DATE: JAN. 10, 2015 | SCALE: 1"= 30' | SHEET 1 OF 1