

SEPTIC TANK NOTES:
 ALL SEPTIC TANKS SHALL COMPLY WITH RULE 26 OF THE RIDEM ESTABLISHING MINIMUM STANDARDS RELATIVE TO LOCATION DESIGN CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, DATED JULY 26, 2014.

DISTRIBUTION BOX NOTE:
 ALL DISTRIBUTION BOXES SHALL COMPLY WITH RULE 26 OF THE RIDEM ESTABLISHING MINIMUM STANDARDS RELATIVE TO LOCATION DESIGN CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, DATED JULY 26, 2014.

- CLASS II DESIGNER REQUIREMENTS**
- THE APPLICANT IS REQUIRED TO NOTIFY THIS DESIGNER OF INTENTION TO START CONSTRUCTION OR GRADING OF THIS SITE 10 DAYS PRIOR TO START OF SITE WORK. THE CONTRACTORS TELEPHONE & INSTALLER NUMBER SHALL BE FURNISHED TO THIS DESIGNER FOR COORDINATION OF PROPOSED WORK. THE FOLLOWING MINIMUM REQUIRED ITEMS ARE AS FOLLOWS:
 - 24 HOUR NOTICE OF START OF CONSTRUCTION.
 - NOTICE FOR INSPECTION OF OWTS BOTTOM LEACHING AREA PRIOR TO 12 NOON THE DAY BEFORE DESIRED DESIGNER/DEM INSPECTION.
 - NOTICE FOR INSPECTION OF COMPONENTS & PERIMETER GRADING PRIOR TO 12 NOON THE DAY BEFORE DESIRED DESIGNER/DEM INSPECTION.
 - ALL DEM INSPECTION SHEETS ARE TO BE FAXED TO THIS DESIGNER WITHIN 24 HOURS OF RECEIPT.
 - SITE LAYOUT AND REQUIRED INSPECTIONS TO BE MADE BY THIS DESIGNER FOR THE FOLLOWING WORK ITEMS:
 - FOUNDATION & OWTS LOCATION AND ELEVATION.
 - INSPECTION OF OWTS BOTTOM LEACHING AREA.
 - INSPECTION OF OWTS COMPONENTS & FILL PERIMETERS.
 - FINAL COVER & WELL LOCATION INSPECTION.
 - THE APPLICANT SHALL BE RESPONSIBLE FOR ANY CHANGES IN THE SHOWN DESIGN AND INCLUDE ANY OF THE FOLLOWING:
 - NEW APPLICATIONS AS REQUIRED BY DEM GUIDELINES.
 - AS-BUILT LOCATIONS AND REQUIRED PLANS.
 - COMMUNICATIONS OR COORDINATION WITH DEM STAFF.
 - CHANGES IN INSTALLATION NOT MEETING DEM REQUIRED GUIDELINES.
 - THE APPLICANT SHALL PROVIDE DESIGNER WITH MATERIALS RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION.
 - THE OWNER SHALL FURNISH ORIGINAL APPLICATION (PINK COPY) AND ACCOMPANYING PLAN APPROVAL TO INSTALLER PRIOR TO START OF CONSTRUCTION. SAID INFORMATION SHALL REMAIN ON SITE DURING ENTIRE CONSTRUCTION PERIOD AND RETURNED TO THE OWNER UPON COMPLETION OF OWTS INSTALLATION.
 - OWNER / APPLICANT'S SIGNING OF APPLICATION SHALL BE CONSIDERED PERMISSION TO INSPECT THE ABOVE SITE AT ANY TIME AFTER START OF CONSTRUCTION BEGINS TO ENSURE PROPER INSTALLATION PROCEDURES & FUNCTIONING OF OWTS SYSTEM.
 - THE ABOVE INFORMATION ARE MINIMUM REQUIREMENTS AND SHALL BE REVISED AS THE DESIGNER DEEMS NECESSARY FOR PROPER FUNCTIONING OF THE SHOWN OWTS DESIGN.

OWTS NOTES & CONDITIONS:

PUBLIC WATER SERVICE AREA; NO WELL REQUIRED.

THERE ARE NO PROPOSED OR EXISTING SEPTIC SYSTEMS WITHIN 200' OF PROPOSED WELL, EXCEPT AS SHOWN.

THERE ARE NO PROPOSED OR EXISTING WELLS, FOR HUMAN CONSUMPTION, WITHIN 200 FEET OF PROPOSED SEPTIC SYSTEM UNLESS SHOWN HEREON.

THERE ARE NO EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500 FEET OF THIS PROPOSED SEPTIC SYSTEM.

ALL PROPOSED AND EXISTING DRAINS WITHIN 200 FEET OF PROPOSED TRENCHES ARE SHOWN.

THERE ARE NO EXISTING OR PROPOSED DRAINS WITHIN 25 FEET OF PROPOSED TRENCHES.

ALL PIPING TO BE SCHEDULED 35, UNLESS OTHERWISE NOTED.

1250 GALLON SEPTIC TANK MANHOLES (2) PLACED TO GRADE. ALL SEPTIC TANKS SHALL BE CERTIFIED WATER TIGHT BY MANUFACTURER.

DISTRIBUTION BOX H-20 WHEEL LOADING, ACCESS COVER TO GRADE.

REFER TO PROFILE AND TYPICALS FOR ADDITIONAL DATA.

THIS DESIGNER IN NO WAY GUARANTEES SOIL CONDITIONS BEYOND THE LOCATION OF SHOWN TESTING. ANY SOIL CHANGES, FILL, LEDGE OR DISCREPANCIES IN REPORTED DATA SHALL BE FORWARDED TO THIS DESIGNER AND THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT 1205 DIVISION, IN WRITING, PRIOR TO COMMENCING CONSTRUCTION OF THE SHOWN SYSTEM.

THE INSTALLER SHALL NOTIFY DESIGNER OF RECORD TO (TEN) DAYS PRIOR TO INSTALLATION OF THIS SYSTEM IF ITEM E. OF ISDS APPLICATION IS CIRCLED. HE SHALL NOTIFY DESIGNER 24 HOURS PRIOR TO REQUIRED INDIVIDUAL INSPECTIONS.

THE INSTALLER SHALL REMIT ALL DEM ISDS INSPECTOR REQUESTS (INSPECTION REPORTS) TO DESIGNER OF RECORD WITHIN 24 HOURS OF RECEIPT. HE SHALL NOT COVER SYSTEM UNTIL AN AGENT OF DESIGNER HAS GIVEN COVER ORDER.

THE OWNER SHALL BE RESPONSIBLE FOR PAYMENT OF ALL INSPECTIONS, AS-BUILT WORK AND AS-BUILT SUBMISSIONS.

DISCHARGE OF ANY SOLID OR LIQUID MATERIAL INCLUDING: BACKWASH FROM WATER SOFTENERS, PURIFIERS, FILTERING SYSTEMS, CHEMICAL DISCHARGES OR ANY OTHER CAUSTIC SUBSTANCE OR LIQUID DISCHARGE NOT MEETING THE DEFINITION OF "WASTEWATER" AS DEFINED IN SECTION 7 OF RULES ESTABLISHED BY MINIMUM STANDARDS RELATIVE TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, REVISED JANUARY 1, 2008, IS STRICTLY PROHIBITED.

RAINGARDEN & VEGETATED SWALE DRAINAGE NOTES:
 REFER TO STORMWATER MANAGEMENT INFORMATION & PLAN FOR SIZES AND DEPTHS OF RAINGARDENS & VEGETATED SWALES GRADE TO DRAIN FROM ROOF LEADERS TO RAINGARDENS. S=0.01'/FT. MIN. (0.2' APPROX.)

RECORD LOT 2
 AREA OF PROPOSED DRIVE=4,109 S.F.
 PROVIDE 2 x 96 S.F. VEGETATED SWALES (2'X48'X8"DEEP),
 192 S.F. VEGETATED SWALE (2'X96'X8"DEEP),
 288 S.F. RAIN GARDEN (5'X58'X8"DEEP) TO TREAT
 4,200 S.F. OF DRIVEWAY IMPERVIOUS DRIVEWAY TO BE GRADED TOWARDS VEGETATED SWALES & RAIN GARDEN

AREA OF PROPOSED HOUSE=1800 S.F.
 PROVIDE 2 x 144 S.F. (5'X29'X8"DEEP) TO TREAT
 1800 S.F. OF RESIDENCE IMPERVIOUS CUTTERS TO DRAIN TO RAIN GARDEN

GENERAL NOTE:
 THESE PLANS MAY NOT BE MODIFIED FROM THEIR ORIGINAL FORMAT. THESE PLANS MAY NOT BE DISSEMINATED FOR ANY PURPOSE WITHOUT THE CONSENT OF ALPHA ASSOCIATES, LTD. BY ACCEPTING THESE PLANS, THE PROPERTY OWNER / CONTRACTOR AGREES TO ALL ABOVE TERMS.

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- IN-DRAIN NOTES**
- ALL BRUSH AND TREES TO BE REMOVED MINIMUM 10 DISTANT FROM LEACHING AREA.
 - STRIP INDIVIDUAL TRENCHES TO EL. 74.00 AND PLACE A (6) INCH GRAVEL BASE MEETING THE REQUIREMENTS OF RULE 32.12 TO EL. 74.50.
 - PLACE A 6" MINIMUM LEVEL RAKED CONCRETE SAND BED OVER APPROVED GRAVEL BACKFILL TO ELEVATION 75.00.
 - PLACE IN-DRAINS, STRIPE SIDE UP, END TO END ON THE LEVEL RAKED SAND BED.
 - PLACE 4" PERFORATED PIPE OVER STRIPE ON IN-DRAINS. CONNECT MID-POINTS ON ROWS 40' OR LONGER.
 - SECURE PIPE WITH ONE ELJEN CLAMP PER IN-DRAIN. FORCE CLAMP THROUGH IN-DRAIN AND INTO THE SAND BED.
 - INSTALL ELJEN COVER FABRIC (FILTER FABRIC) OVER ROWS OF IN-DRAINS. DRAPE FABRIC STRAIGHT DOWN OVER PIPE AND SIDES OF IN-DRAINS. SECURE WITH HAND SHOVELLED SAND. DO NOT BLOCK HOLES IN PERFORATED PIPE.
 - PLACE CONCRETE SAND BETWEEN ROWS AND A MINIMUM OF 6 INCHES AROUND THE SIDES OF THE IN-DRAINS.
 - BACKFILL WITH CLEAN MATERIAL DEVOID OF LARGE ROCKS TO A MINIMUM OF 1.5' AND MAXIMUM OF 3.5' ABOVE INVERT.
 - MAINTAIN INVERT ELEVATION 10 FEET DISTANT TO LEACHING AREA IN ALL DIRECTIONS TO EL. 75.58 MINIMUM UNLESS NOTED.
 - INSTALL ZABEL A1800 RESIDENTIAL SEPTIC TANK EFFLUENT FILTER (OR EQUAL) INSIDE SEPTIC TANK OUTLET TEE.

CONSTRUCTION NOTES:
 ALL CONSTRUCTION TO BE IN ACCORDANCE WITH RIDEM RULES AND REGULATIONS OF JANUARY 1, 2008, AS AMENDED.
 HEAVY EQUIPMENT SHALL NOT PASS OVER OWTS AREA. PAVEMENT, PARKING AND VEHICULAR TRAFFIC ARE PROHIBITED OVER OWTS UNLESS SPECIFIED BY DESIGN.
 NO TRACKED VEHICLES ALLOWED OVER SYSTEM AREA.

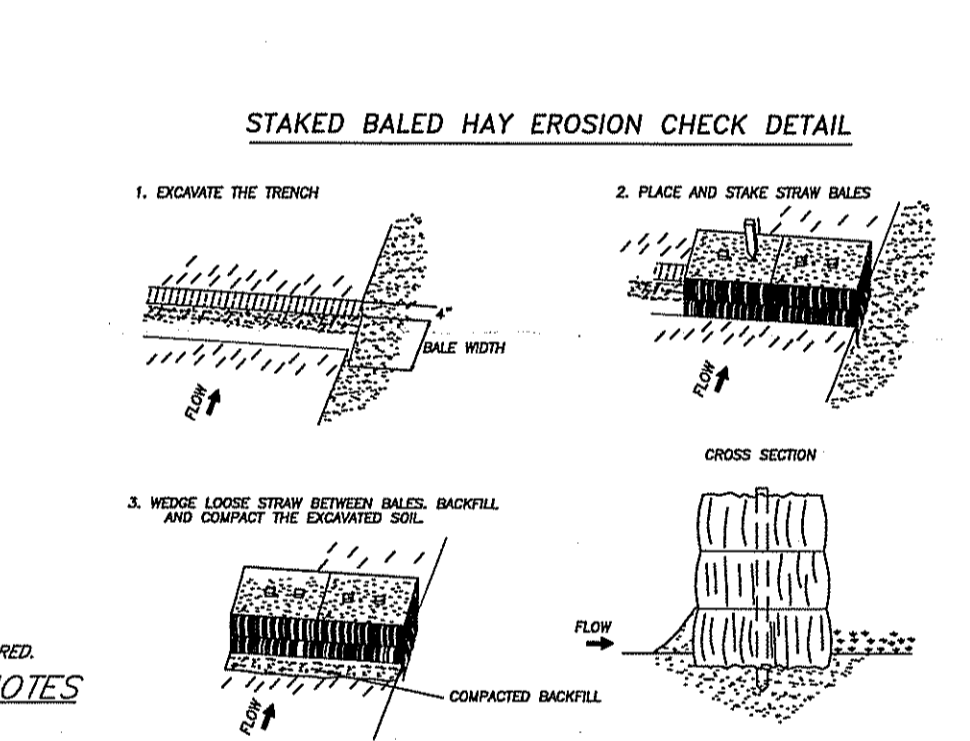
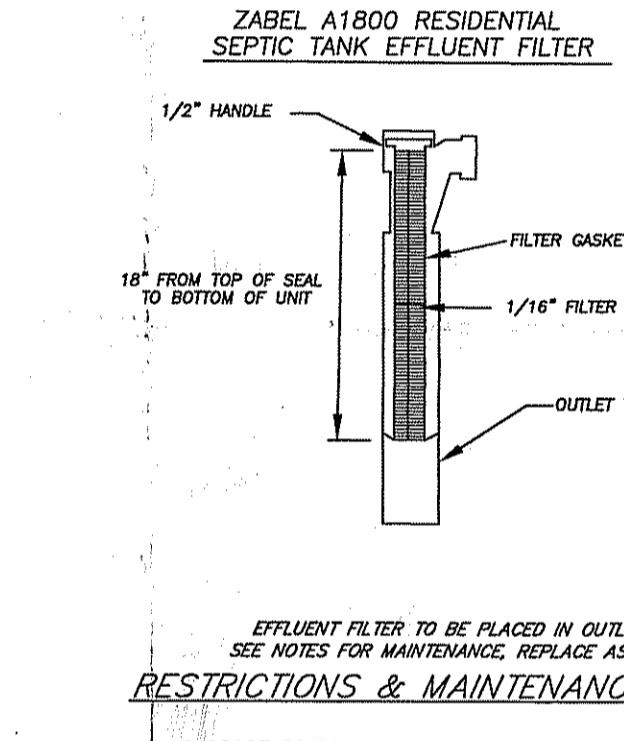
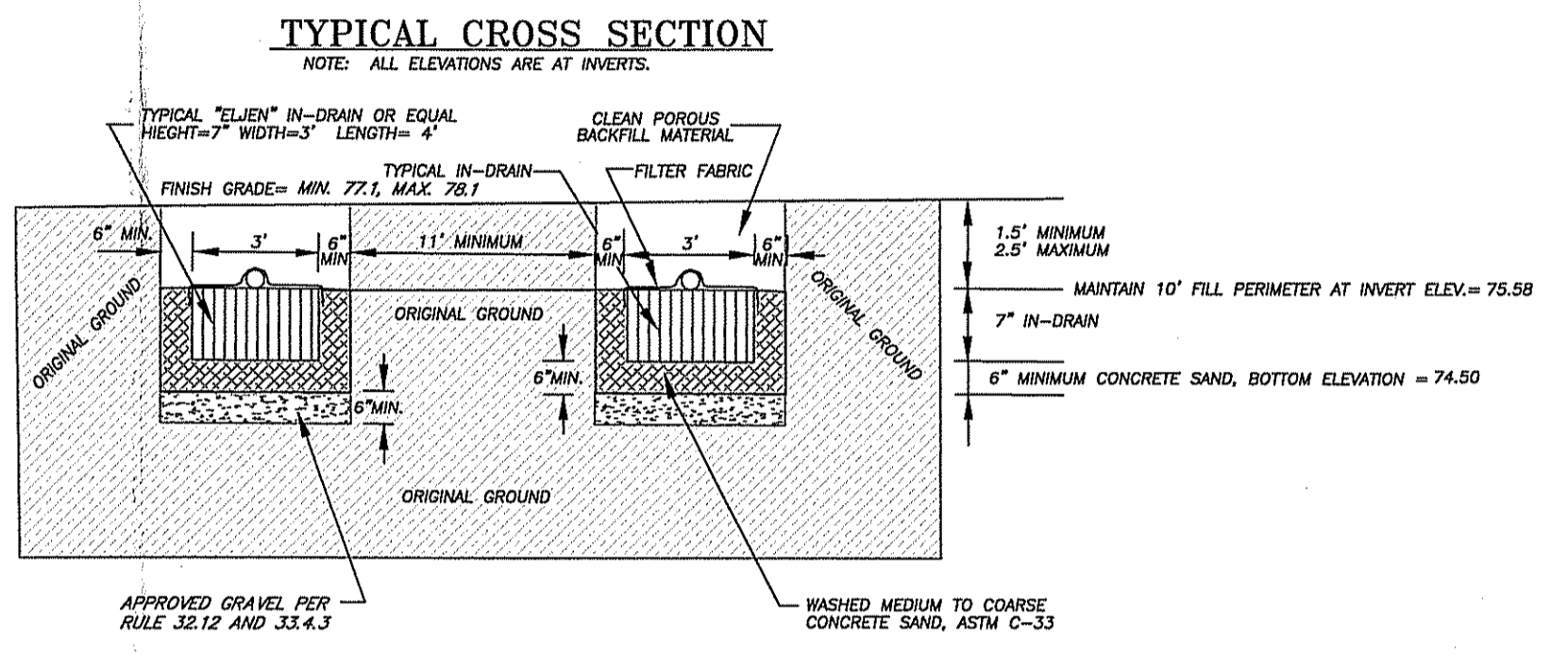
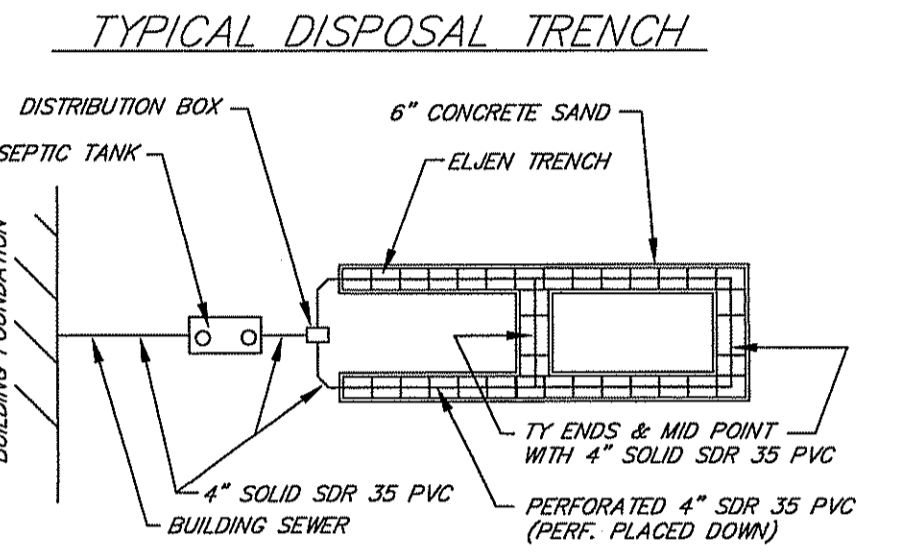
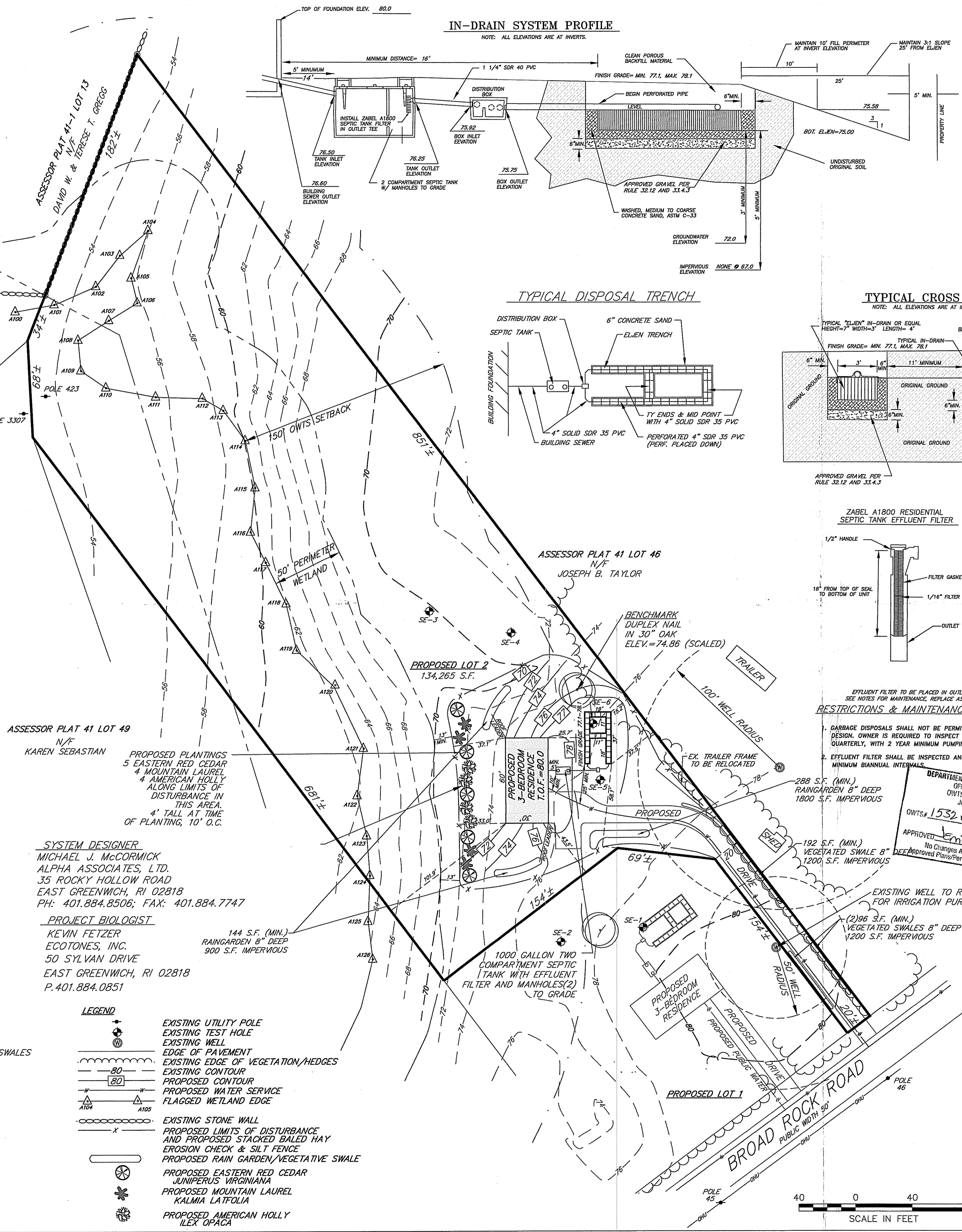
SEPTIC SYSTEM NOTE:
 2 COMPARTMENT SEPTIC SYSTEM TO BE PLACED ON STABLE LEVEL BASE WITH INLET & OUTLET TEES WITH MANHOLES PLACED TO GRADE.

WELL TO SEPTIC TANK MINIMUM SEPARATION (NA) FEET
 WATERLINE TO SEPTIC TANK MINIMUM SEPARATION 25 FEET.

DISTRIBUTION BOX NOTES:
 H-20 WHEEL LOADING DISTRIBUTION BOX WITH BAFFLE TO BE PLACED ON STABLE LEVEL BASE WITH ACCESS COVER TO GRADE.
 3 S.F. MINIMUM BOTTOM AREA REQUIRED.

WELL TO DISTRIBUTION BOX MIN. SEPARATION (NA) FEET
 WATERLINE TO DISTRIBUTION BOX, MIN. SEPARATION 25 FEET.
 PIPING TO BE SOLID 4" SDR 35 PVC 2' MINIMUM TO OWTS.

LEACHFIELD AREA CALCULATIONS:
 TOTAL # OF BEDROOMS = 3
 TOTAL GAL./BEDROOM = 345 TOTAL GAL./DAY
 SOIL CATEGORY 5 = LOADING RATE = 0.92
 345 / 0.92 = 664 S.F. REQUIRED
 TOTAL L.F. OF IN-DRAIN = 96 X 7 S.F./FT. = 672 S.F.



RESTRICTIONS & MAINTENANCE NOTES

- GARBAGE DISPOSALS SHALL NOT BE PERMITTED BY THIS DESIGN. OWNER IS REQUIRED TO INSPECT SEPTIC SYSTEM QUARTERLY, WITH 2 YEAR MINIMUM PUMPING INTERVAL.
- EFFLUENT FILTER SHALL BE INSPECTED AND CLEANED AT MINIMUM BIENNIAL INTERVALS.

EFFLUENT FILTER TO BE PLACED IN OUTLET TEE. SEE NOTES FOR MAINTENANCE, REPLACE AS REQUIRED.

NO CHANGES ALLOWED WITHOUT RIDEM APPROVAL. SEE APPROVED PLANS PERMIT MUST BE HAD AT CONSTRUCTION SITE.

APPROVED: *Janet R. Ryan* DATE 12/14/15
 FWW 15-0194

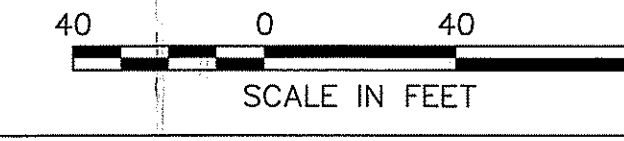
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 OWTS & FRESHWATER WETLANDS
 JOINT PERMIT APPROVAL
 No. 1972
 PROFESSIONAL LAND SURVEYOR
 D-2100

THIS SURVEY AND PLAN CONFORM TO A CLASS III STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

SYSTEM DESIGNER
 MICHAEL J. MCCORMICK
 ALPHA ASSOCIATES, LTD.
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PROJECT BIOLOGIST
 KEVIN FETZER
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 50 SYLVAN DRIVE
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- LEGEND**
- EXISTING UTILITY POLE
 - EXISTING TEST HOLE
 - EXISTING WELL
 - EDGE OF PAVEMENT
 - EXISTING EDGE OF VEGETATION/HEDGES
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED WATER SERVICE
 - FLAGGED WETLAND EDGE
 - EXISTING STONE WALL
 - PROPOSED LIMITS OF DISTURBANCE AND PROPOSED STAKED BALED HAY EROSION CHECK & SILT FENCE
 - PROPOSED RAIN GARDEN/VEGETATED SWALE
 - PROPOSED EASTERN RED CEDAR JUNIPERUS VIRGINIANA
 - PROPOSED MOUNTAIN LAUREL KALMIA LATIFOLIA
 - PROPOSED AMERICAN HOLLY ILEX OPACA



By: *Michael J. McCormick*
 MICHAEL J. MCCORMICK PLS 1972

**THE CAMMANS PLAT
 RECORD LOT 2
 PROPOSED OWTS PLAN
 OWTS 1532-0742, FWW 15-0194
 BROAD ROCK ROAD
 ASSESSORS PLAT 41, LOT 47
 SOUTH KINGSTOWN, RHODE ISLAND**

PREPARED FOR: JEFF CAMMANS
 PREPARED BY: ALPHA ASSOCIATES, LTD.
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SCALE: 1"=40' AUGUST, 2015 SHEET 1 OF 1
 10-22-15 REVISED PLANTINGS
 11-23-15-LOD-TANK INVERTS