

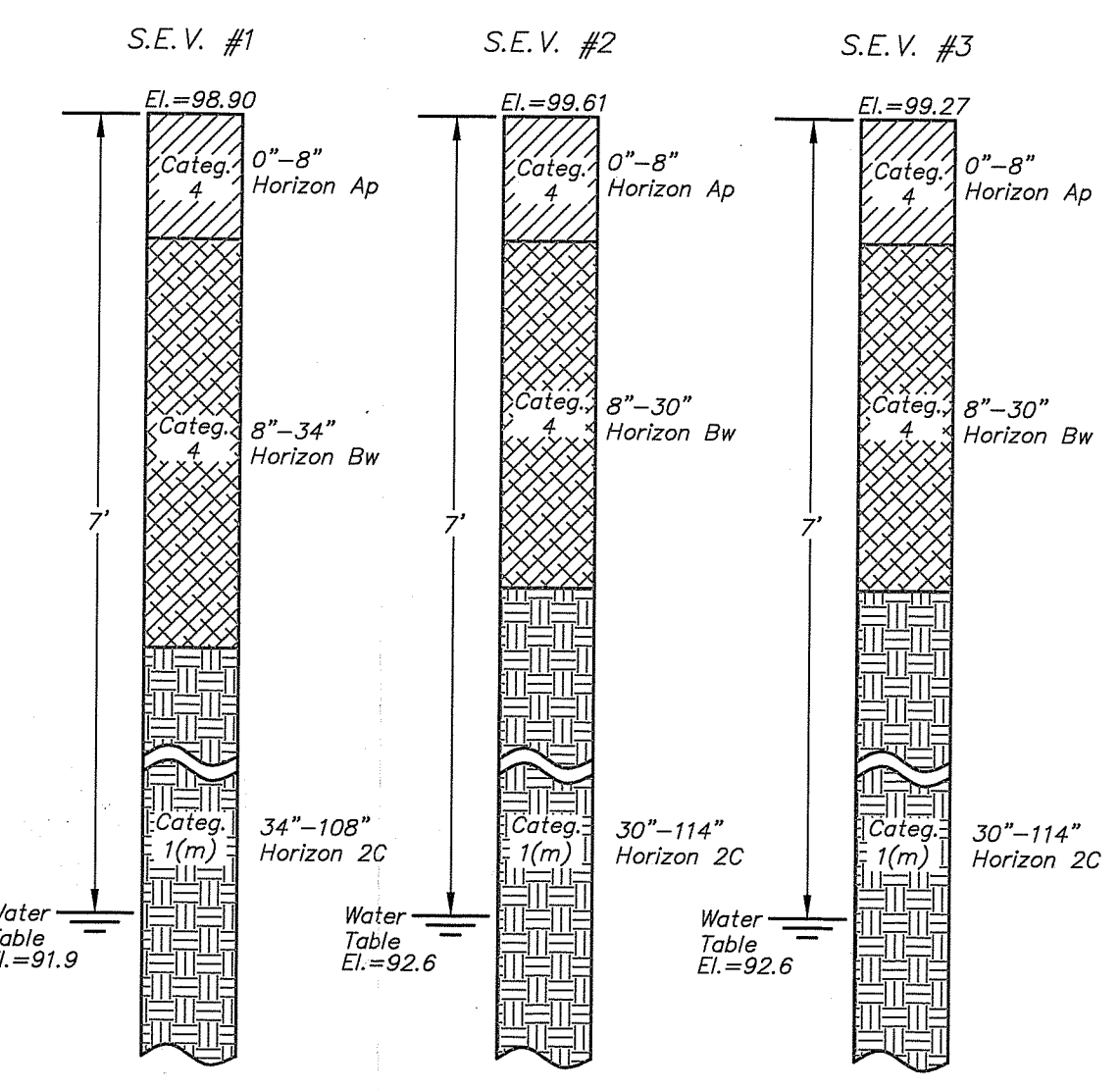
LOCUS
Not to Scale

References:

- Final Submission Phase Two Cranin Residential Compound in the Town of South Kingstown Assessor's Map 32, Lot no. 14 for Jerome and Claire Cranin 137 Moorefield Rd. Box 207, Kingston, R.I. 02881 Scale: 1"=100' Date: 3/25/1990 by Environmental Consultants, Inc. on file in the Town of South Kingstown Land Records Plat Book 21, Page 71.
- Administrative Subdivision in the Town of South Kingstown, Rhode Island Lot 13 of Assessor's Map 32 Owned by Elmer Knowles 540 Rose Hill Road South Kingstown, RI, Lot 27 of Assessor's Map 24 Owned by Wanda Knowles Rose Hill Road South Kingstown, RI, Lot 119 of Assessor's Map 33 Owned by Matthew Knowles 450 Rose Hill Road South Kingstown, RI, Lot 43 of Assessor's Map 32 Owned by Paul & Rebecca DeLuzia Rose Hill Road South Kingstown, RI Prepared by Steven M. Pinch, Dated September, 2014, Svc: 1"=200' on file in the Town of South Kingstown Land Records C2014-32.
- Northup Minor Subdivision Plan AP 32 Lot 15 Louis C. El Ux Rachel E. Northup 112 Omer Dr., Wakefield, R.I. 02879 By Sheldon Survey Rev. 5-10-04 Scale: 1"=30' on file in the Town of South Kingstown Land Records C2004-41.
- Easement Survey Plan A.P.32, Lot 14, 182 Omer Drive South Kingstown, Rhode Island Prepared for: Stesha Campbell Prepared by: Atlas Land Surveying, LLC November 13, 2019, Scale: As Noted on file in Town of South Kingstown Land Records L.E.R. 1751, Pg.411.

Notes:

- The underground utilities shown have been located from field survey information and existing drawings. The Surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The Surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The Surveyor has not physically located the underground utilities. (Please contact DIGSAFE prior to construction @ 1-888-344-7233.)
- Project site is located within Zone X (Areas determined to be outside the 0.2% annual chance floodplain) as shown on F.E.M.A. Flood Insurance rate map # 44099C0185J for the Town of South Kingstown, Rhode Island, Washington County, having an effective date of April 3, 2020.
- Site does not fall within a C.R.M.C. Special Area Management Plan (S.A.M.P.)
- Site is not within a Natural Heritage Area as defined by RIDEM.
- Site is not within the Town of South Kingstown Groundwater Protection Overlay District.
- Site is not within an RIDEM Critical Resource Area.
- Site is not within an RIDEM Drinking Water Watershed.
- Site is not on the National Register of Historic Places.

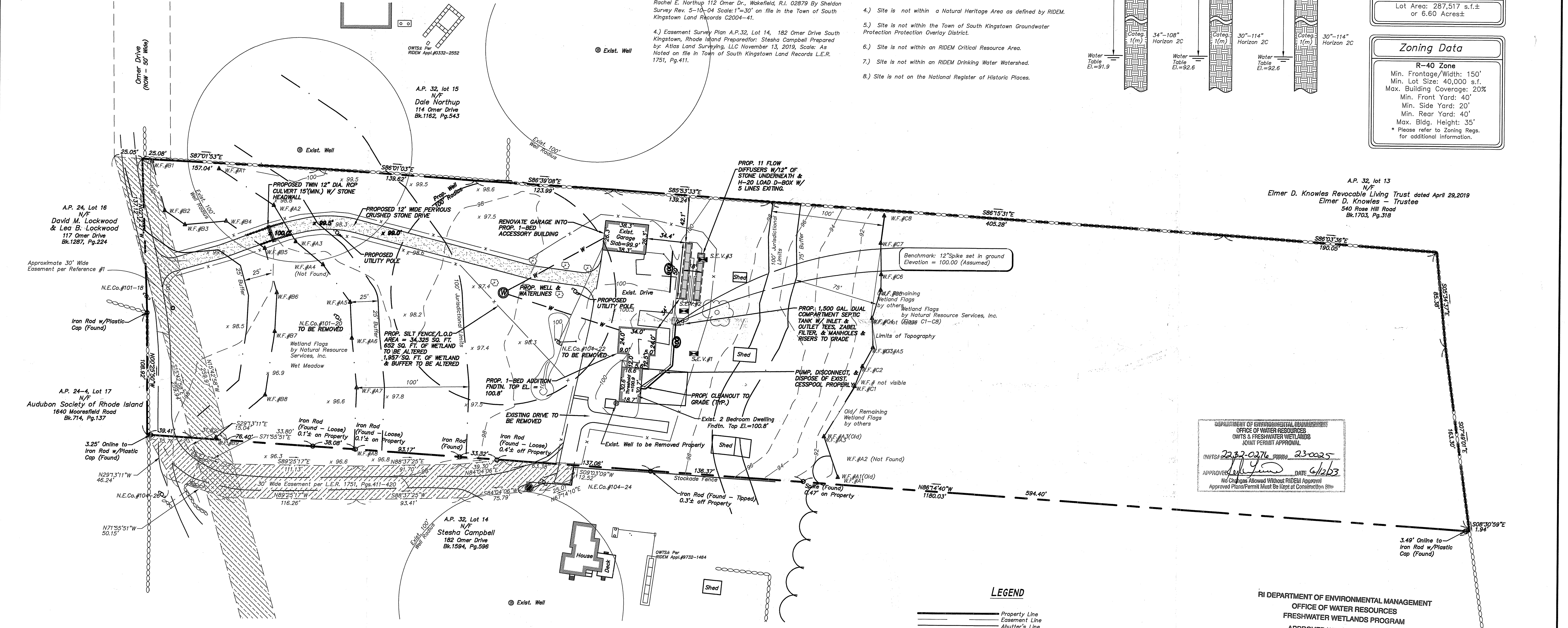


Street Index
Omer Drive

Owner
James M. Cook, III & Rebekah Cook
180 Omer Drive
Wakefield, RI 02879

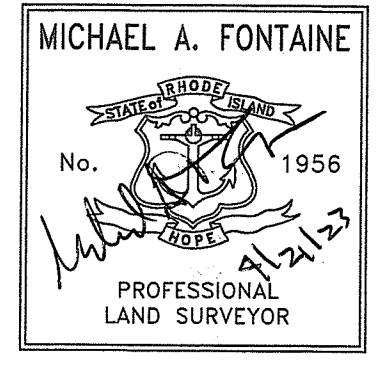
Parcel Data
Deed Book 1751, Page 433
Lot Area: 287,517 s.f.±
or 6.60 Acres±

Zoning Data
R-40 Zone
Min. Frontage/Width: 150'
Min. Lot Size: 40,000 s.f.
Max. Building Coverage: 20%
Min. Front Yard: 40'
Min. Side Yard: 40'
Min. Rear Yard: 35'
Max. Bldg. Height: 35'
* Please refer to Zoning Regs. for additional information.

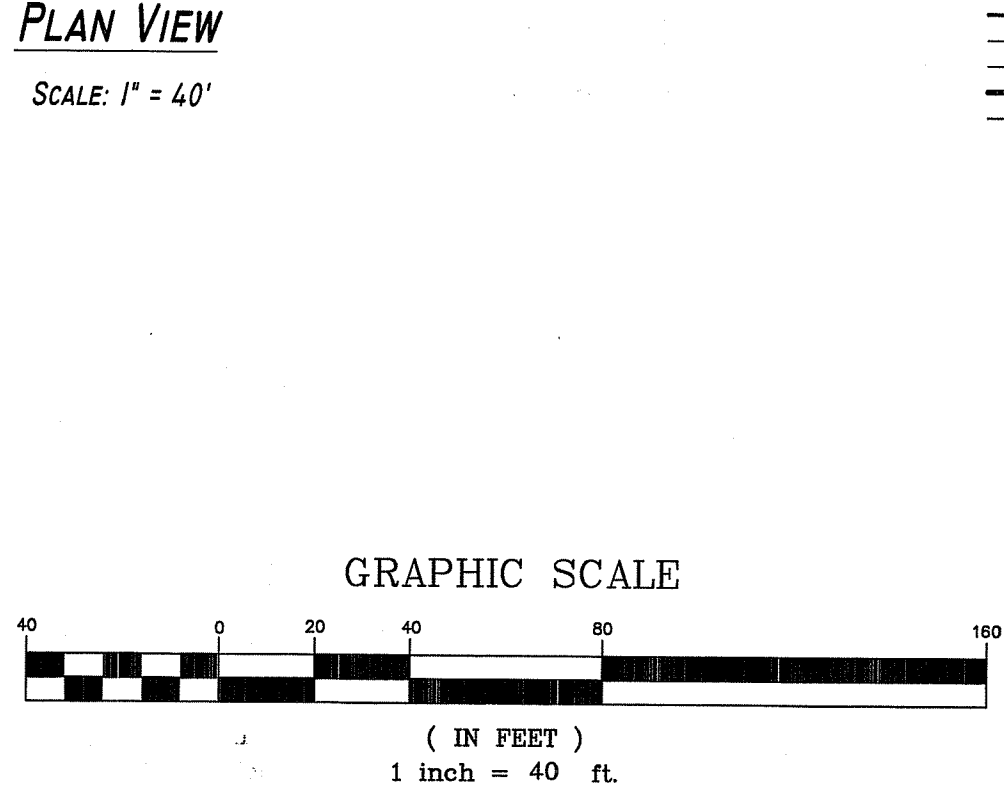


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL
OWTS# 22-0276-0000 23-0025
APPROVED: [Signature] DATE: 6/12/23
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

Certification:
This survey has been conducted and the plan has been prepared pursuant to 435-RICR-00-00-1.9 of the Rules and Regulations adopted by the Rhode Island State Board of Registration for Professional Land Surveyors on April 28, 2018, as follows:
Survey Type:
Comprehensive Boundary Survey - Class III
Data Accumulation Survey - Planimetric - Class III
Topographic Survey - Class T-2
The purpose for the conduct of the survey and for the preparation of the plan is as follows:
To perform a Comprehensive Boundary Survey along with inclusion of Planimetric and Topographic Features for the purpose of preparing a Proposed Driveway & OWTS Plan.
By: [Signature] Date: 6/12/23
Michael A. Fontaine, PLS - License No. LS-1956 - C.O.A. No. LS-A553



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site



No.	Revision:	By:	Date:
1	Rev. Bottom of Stone & Wall Radius per RIDEM	MAF	4/17/23



Michael A. Fontaine, PLS
593 Green Hill Beach Road
South Kingstown, RI 02879
ghb593@verizon.net
(401)793-6777

Scale:	Date:
1"=40'	10-27-22
Drawn By:	KRC
Checked By:	MAF
Job #	22-007
Map #	22-007
Sheet:	1 of 2

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: JUN 12 2023 FILE #: 23-0025
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
[Signature]

New OWTS Design Plan
A.P. 32, Lot 16
180 Omer Drive
South Kingstown, Rhode Island
Prepared For: James & Rebekah Cook

Environmental Management
MAY - 1 2023
Office of Water Resources

Construction Specifications:

General Notes:

- 1.) All design, construction, and maintenance to be in conformance with November 25, 2018 "Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems, State of R.I., Department of Environmental Management".
- 2.) Proposed top of foundation elevation is directly related to installation and functioning of disposal system and should not be changed without first consulting designer.
- 3.) Accurate location of property lines should be established prior to installation of system.
- 4.) All piping must be Sch 40 PVC unless otherwise noted.
- 5.) No subsurface drainage may be located within 25' of proposed system.
- 6.) All watercourse or wetland areas within 200' of proposed system unless shown on plan.
- 7.) Clear all trees and stumps within 10' of proposed system.
- 8.) There are no existing or proposed drains within 25' of proposed system unless shown on plan. See details and plan view for stormwater management proposed.
- 9.) There is no public sewer line within 200' of property line unless shown on plan.
- 10.) There is no drinking water line within 25' of proposed system unless shown on plan.

Septic Tank:

- 1.) The building sewer from foundation to septic tank shall be laid straight if possible, otherwise shall have no horizontal bends greater than 45° or changes in direction greater than 90°.
- 2.) Septic tank shall be according to all dimensions and specifications shown in details.
- 3.) Maintain invert elevation for 10' minimum around septic tank.
- 4.) Building sewer shall be 4" schedule 40 PVC or equal.

Water Supply:

- 1.) There are no existing or proposed drinking water wells within 200' of system unless shown on plan.
- 2.) There are no existing or proposed wells within 150' of the proposed OWTS.
- 3.) All properties, shown on this plan, are serviced by private wells. Those wells are shown. The applicant proposes a new well that will be installed in accordance with RIDOH rules & regulations governing well installation. The existing well shall be removed in accordance with RIDOH rules & regulations governing well removal.

Distribution Box:

- 1.) Distribution Box shall have a top load carrying capacity of 300 lbs/sf, with inlet tee or baffle and bottom area of 3 sq. ft. minimum.
- 2.) Distribution pipes for minimum 2' from distribution box to first section in laterals shall be level, unperforated, and have watertight joints.

Construction Notes:

- 1.) Applicant is required to notify designer of intention to start construction at least ten (10) days prior to start of site work.
- 2.) The installer shall provide the following -24 hour notice of start of construction. -inspection of bottom of bed or cover requiring R.I.D.E.M. review is to be called into designer before noon on the day prior to the required inspection. -All R.I.D.E.M. inspection sheets are to be faxed to designer office within 24 hours of R.I.D.E.M. inspection.
- 3.) Site layout and required inspections to be made by designer for the following work items. -Foundation and O.W.T.S. location and elevation. -inspection of O.W.T.S. bottom of leach area. -inspection of O.W.T.S. components & fill perimeter. -Final cover and well/water service location inspection.
- 4.) The applicant shall be responsible for reviewing any proposed changes to the installation with the designer prior to completing work. Any changes in the design during installation will be the responsibility of the applicant and may include any of the following. -New application for redesign of O.W.T.S. -As-built location plans. -Communication and coordination with R.I.D.E.M. staff. -Reinstallation of system to meet R.I.D.E.M. criteria.
- 5.) The installer/applicant shall provide the designer with materials sheets for all construction materials prior to designer issuing Certificate of Construction.
- 6.) The applicant shall furnish the original (pink copy) to the installer prior to start of construction. Application to remain on site during construction and to be returned to owner following installation.
- 7.) Contractor to maintain $EL=97.00'$ for a minimum of 10' from all sides of OWTS. At 10', 4:1 slopes are allowed to tie into existing surface grades. Remove all vegetation within 10' of the proposed OWTS. If unsuitable material is encountered in/around OWTS, contractor will remove all unsuitable material & replace w/ bank run septic gravel. Contractor will strip OWTS area down to $EL=95.00'$ minimum.

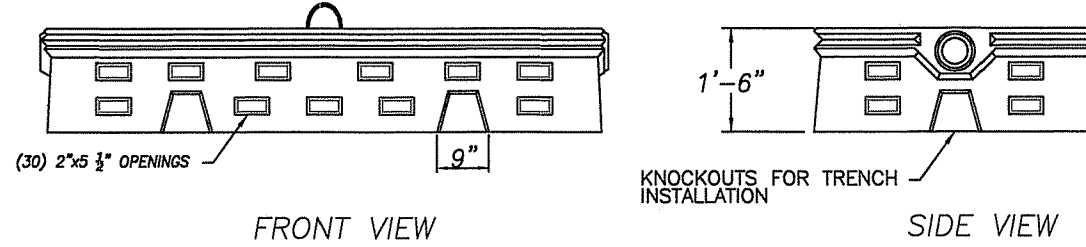
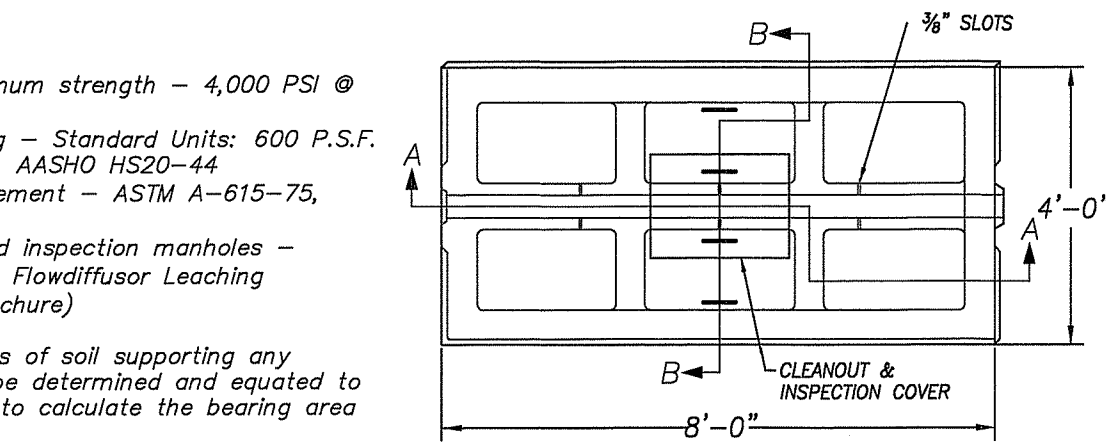
General Owner Notes:

- 1.) Food/garbage grinders inside dwelling and disposal of greases, oils and/or fats are prohibited.
- 2.) Vehicle parking or traffic over the OWTS components is prohibited.
- 3.) Backwash water from a water treatment system was not taken into consideration with the design of this OWTS. Water treatment system discharge to the OWTS is prohibited.
- 4.) The septic tank shall be pumped at no less than 2 year intervals (unless deemed otherwise by certified OWTS inspector).

- 1.) Concrete minimum strength - 4,000 PSI @ 28 days.
- 2.) Design Loading - Standard Units: 600 P.S.F. Optional Units: AASHO HS20-44
- 3.) Steel Reinforcement - ASTM A-615-75, Grade 60.
- 4.) Vent holes and inspection manholes - optional (see Flowdiffuser Leaching Chamber Brochure)

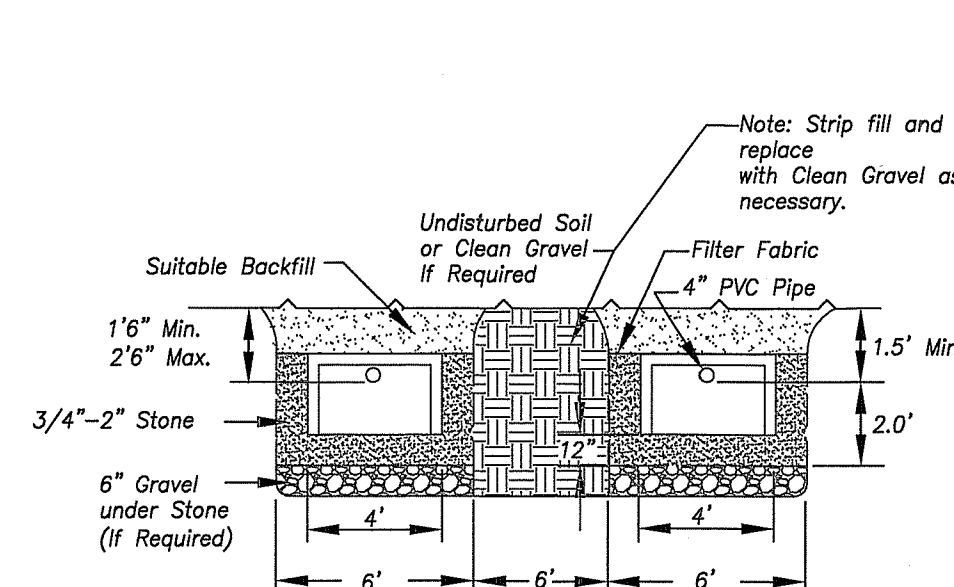
The bearing powers of soil supporting any structure should be determined and equated to the applied loads to calculate the bearing area required.

Bearing Area per Chamber: 4.18 S.F.



TYPICAL FLOW DIFFUSER

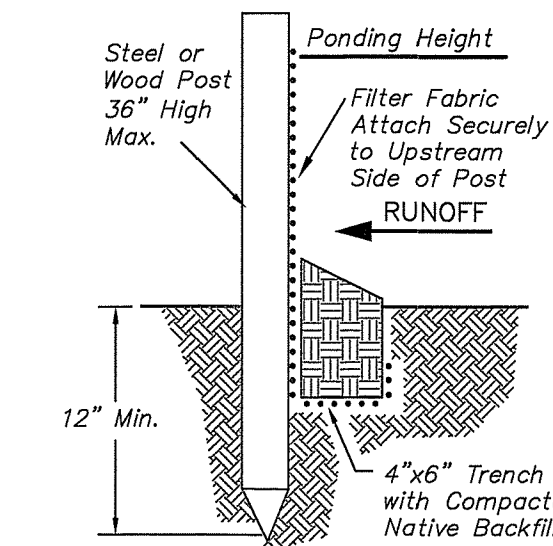
N.T.S.



- 1.) Top of stone to match top of chamber.
- 2.) Interconnect ends of chambers when installed in trench configuration.
- 3.) Vehicle parking or traffic prohibited.
- 4.) Provide access manholes @ 50' intervals.
- 5.) Provide chambers with inlets @ 25' intervals.
- 6.) Chambers to be perforated precast concrete, laid dry with open joints.
- 7.) Install concrete access manhole and cover to within one foot of finish grade.

TYPICAL FLOW DIFFUSER TRENCH CROSS SECTION DETAIL

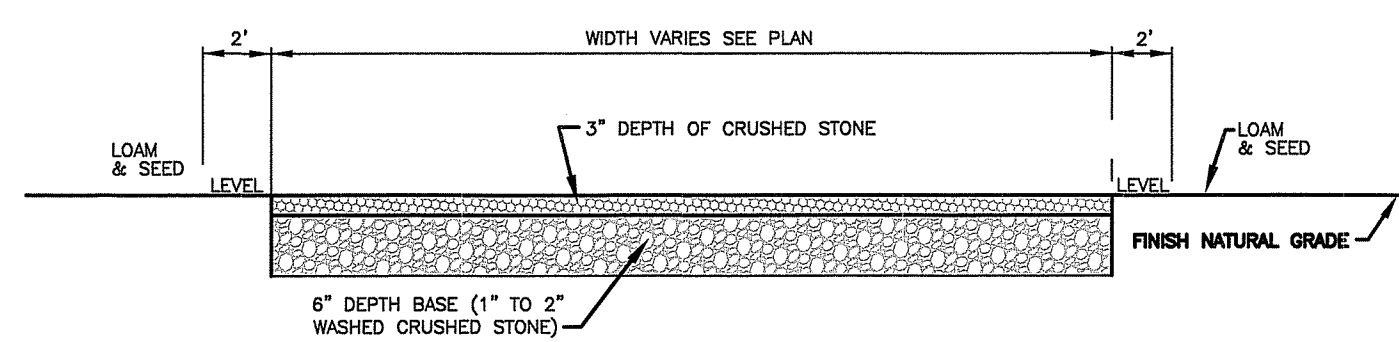
N.T.S.



- 1.) Inspect and repair fence after each storm event and remove sediment when necessary.
- 2.) Removed sediment shall be deposited to an area that will not contribute sediment off-site and can be permanently stabilized.
- 3.) Silt fence shall be placed on slope contours to maximize ponding efficiency.

SILT FENCE DETAIL

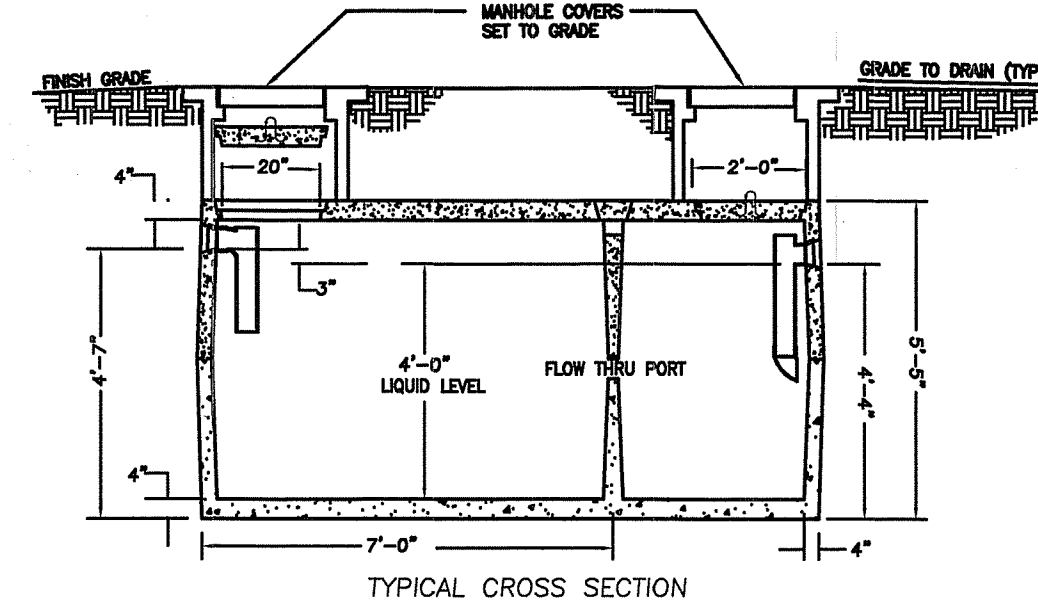
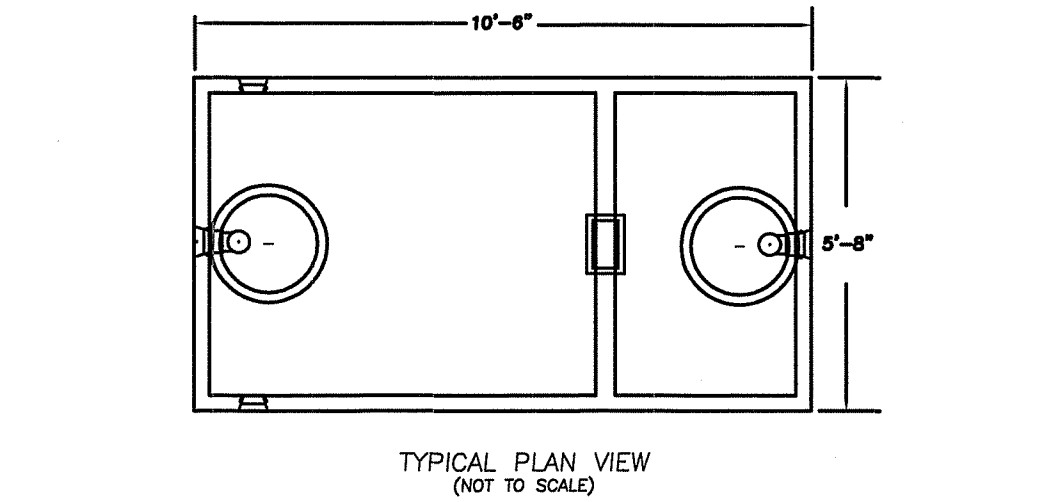
N.T.S.



- 1.) ALL LOAM, SUBSOIL, FILL, TREE ROOTS ETC. BENEATH PROPOSED DRIVEWAY SHALL BE REMOVED & DISPOSED AND REPLACED WITH ROAD GRAVEL.
- 2.) ALL MATERIALS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY.
- 3.) EXISTING PAVEMENT EDGES SHALL BE SAW CUT (IF APPLICABLE).
- 4.) THE SURFACE COARSE SIZE OF BUSHY/STONE CAN VARY TO CUSTOMER PREFERENCE, BUT THE SURFACE SHALL REMAIN HIGHLY PERVIOUS AND ALL STONE SHALL BE CRUSHED, WASHED AND VERY ANGULAR. STONE SHALL BE OF VARYING SIZES SO STONE DOES NOT "ROLL".

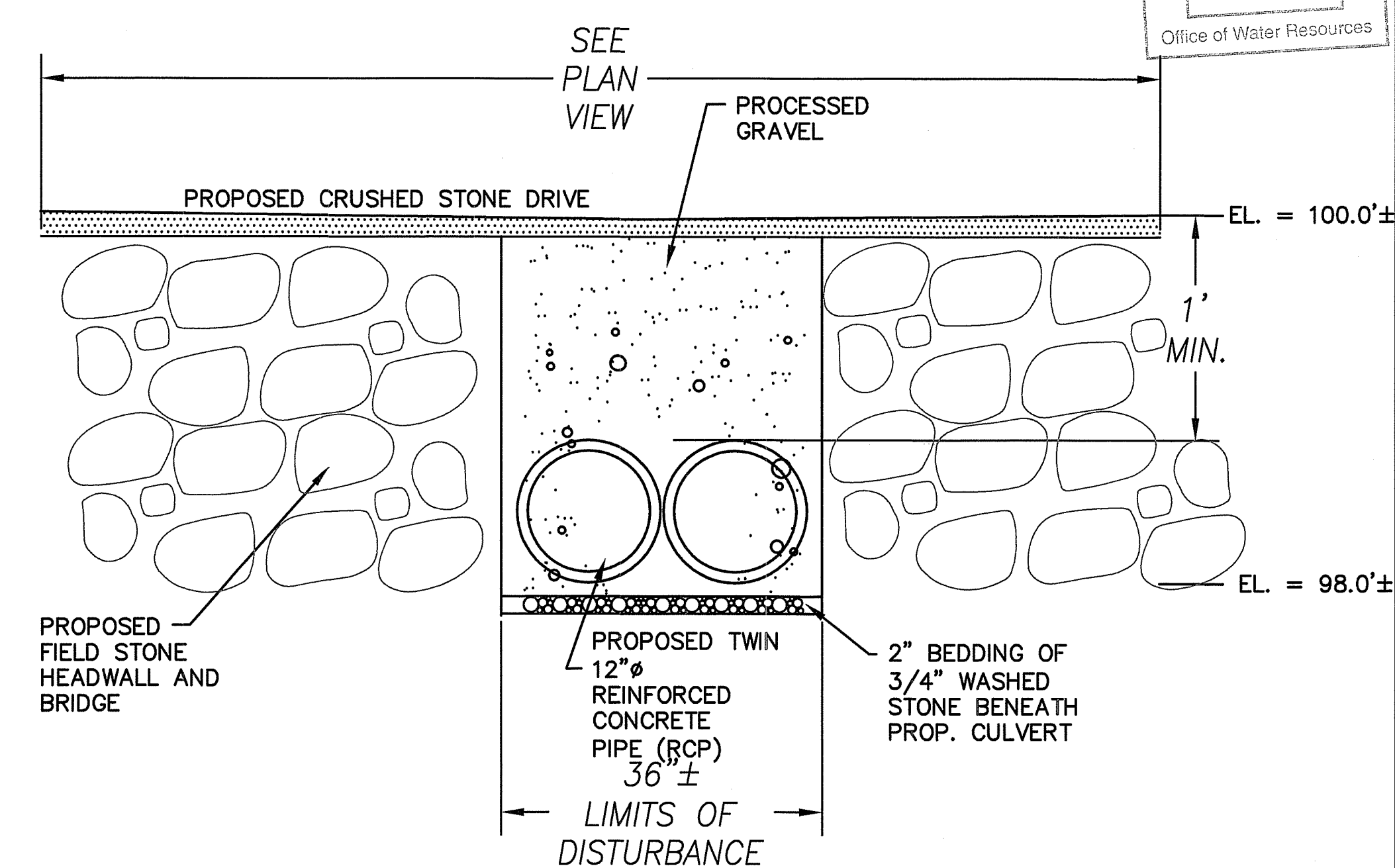
TYPICAL PERVIOUS DRIVEWAY SECTION

NOT TO SCALE



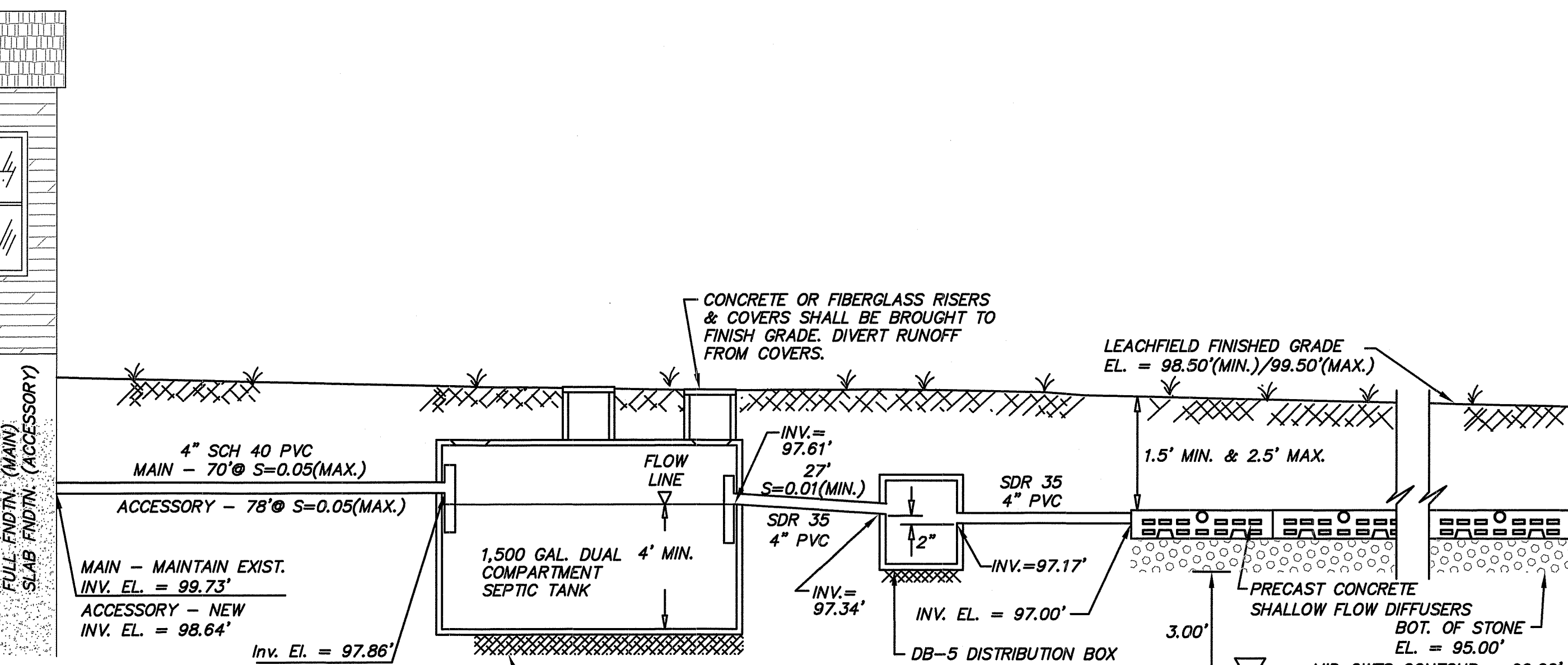
TYPICAL DUAL COMPARTMENT 1,500 GAL. SEPTIC TANK

NOT TO SCALE



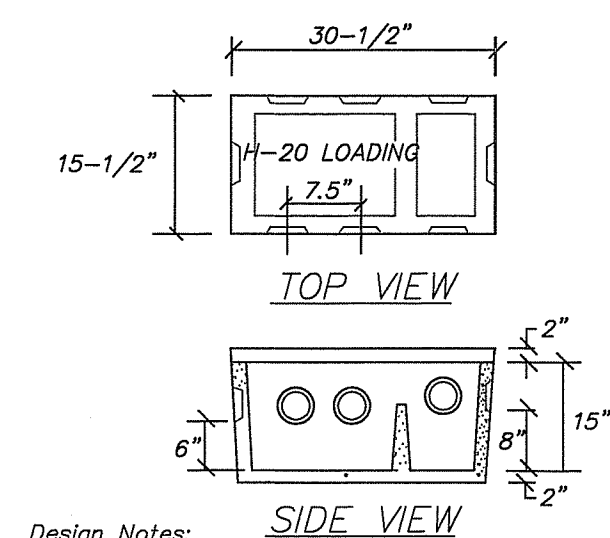
WETLAND DRIVEWAY CROSSING & CULVERT PROFILE

NOT TO SCALE



TYPICAL PROFILE OF OWTS

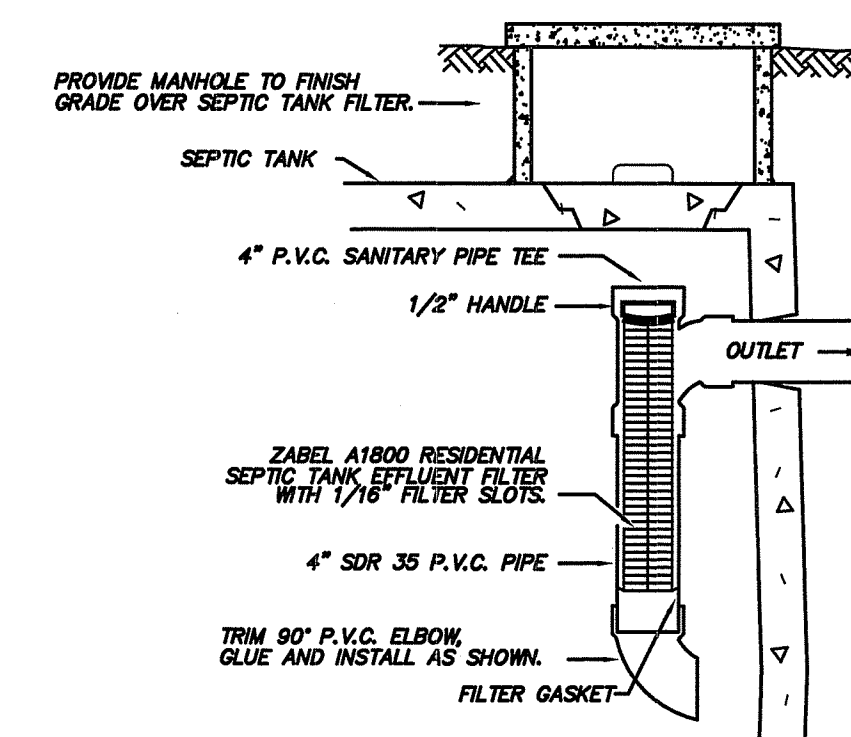
NOT TO SCALE



- Design Notes:
- 1.) Five outlets and three inlets
 - 2.) All inlets and outlets have state-approved seals that accept 4" S-40, 4" SDR-35, 3" & 2" pipe.
 - 3.) Type II Cement ASTM C-150-B1
 - 4.) Concrete strength 5000 PSI min. 28 days.

8 Hole "D" Box With Baffle

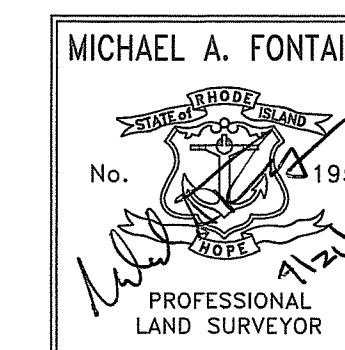
DBS-3



ZABEL SEPTIC TANK FILTER

CROSS SECTION

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
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Field Sizing

4 Bedrooms x 115 gal/day = 460 gal/day
Category 1m & 4 soils (0.61 Gal/s.f./day)
460/0.61 = 754.09 s.f. Required
Four (4) End Units @ 78 s.f.=312 s.f.
Seven (7) Interior Units @ 64 s.f.=448 s.f.
Total = 760 s.f.

Ground EL. at Center of Field = 99.0
Depth of Water Table = - 7.0
Water Table Elevation = 92.0
+ 3.0
Minimum Bottom of Stone Elevation = 95.0
Design Bottom of Stone = 95.0

New OWTS Design Plan
A.P. 32, Lot 16
180 Omer Drive
South Kingstown, Rhode Island

Prepared For: James & Rebekah Cook

No.	Revision:	By:	Date:
1	Rev. Bottom of Stone & Well Radius's per RIDEM	MAF	4/17/23



Michael A. Fontaine, PLS
593 Green Hill Beach Road
South Kingstown, RI 02879
ghb593@verizon.net
(401)793-6777

Scale: 1"=40'	Date: 10-27-22
Drawn By: KRC	
Checked By: MAF	
Job #: 22-007	
Map #: 22-007	Sheet: 2 of 2

