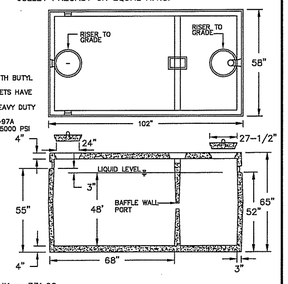
Precast Treatment Tank
1000 Gallon 2 Compartment (5.1 Tons)

JOLLEY PRECAST OR EQUAL N.T.S.



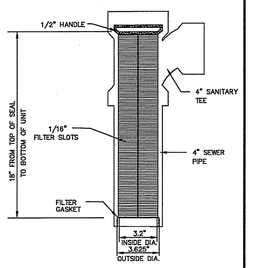
Design Notes:

1. ALL JOINTS SEALED WITH BUTYL RUBBER SEALANT
2. ALL INLETS AND OUTLETS HAVE STATE APPROVED SEALS
3. AVAILABLE WITH 8" HEAVY DUTY TOP
4. MEETS ASTM C-1227-97A
5. CONCRETE STRENGTH 5000 PSI MIN. 28 DAYS
6. DOT SPECIFICATIONS

GWT = 331.00
BOTTOM OF TANK = 331.08
BUOYANT EFFECT = NONE
THE BUOYANT FORCE IS NEGATED BY TANK & SOIL WEIGHTS

Residential SepticTank Effluent Filter

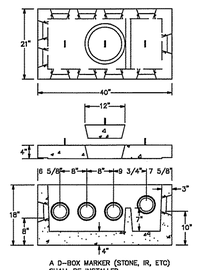
ZABEL ENVIRONMENTAL A1800 OR EQUAL N.T.S



Note:
TO BE INSTALLED AT THE OUTLET TEE. WITH A MANHOLE SET TO FINISH GRADE FOR ACCESS.

Precast Distribution Box DB-11

JOLLEY PRE-CAST OR EQUAL N.T.S.



A D-BOX MARKER (STONE, IR, ETC) SHALL BE INSTALLED

Design Notes:

1. CONCRETE MIN. STRENGTH – 5,000 P.S.I. @ 28 DAYS
2. STEEL REINFORCEMENT–ASTM A-615 GRADE 60, 1" MIN.COVER

Design Calculations

1. DESIGN FLOW = 3 BEDROOMS (BR) HOME X 115 GAL/BR = 345 GALLONS/DAY
2. DESIGN LOADING RATE = 0.61 GAL/SF/DAY
   DESIGN GWT = 2.0'
   DESIGN DEPTH TO IMPERVIOUS = 8.0'
3. MINIMUM LEACHING AREA= 345 GAL/DAY ÷ 0.61 GAL/SF/DAY = 565.6 S.F.
4. ELJEN IN DRAINS = 28 S.F./1L x 3'W UNIT (7.0 S.F./L.F.) 565.6 S.F. ÷ 28 S.F./UNIT = 21 UNITS
   ELJEN UNITS PROVIDED = 24
5. LEACHING AREA = 2 LINES 36 & 36 L.F. LONG
   2 INTERCONNECTIONS @ 12 L.F. EA.
6. LEACHING AREA PROVIDED= 672 S.F.

Soil Testing

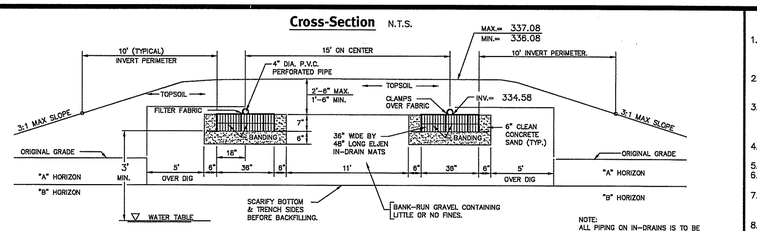
R.I.D.E.M. DIVISION OF OWTS APPROVAL

1. SITE SUITABILITY NO. NA DATE: NA
2. SITE TESTING DATE OF EXCAVATION 10/08/15

SEV 2

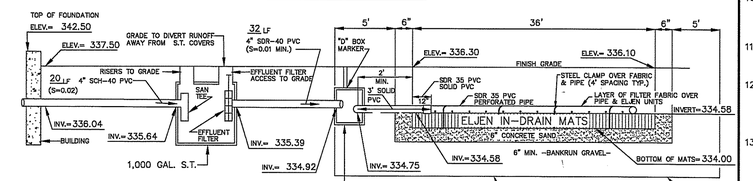
SOIL STRATA:	SOIL CATEGORY:
A 0–8" 10YR 3/3 cbstfss 1–sbk fri	4
Bw1 6–24" 10YR 5/6 stsl 1–sbk fri	3
C 24"–8.0' 2.5Y 5/4 7.5YR 5/6 cbsl 0–m fri	6

Cross-Section N.T.S.



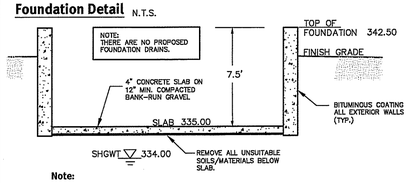
NOTE:
ALL PIPING ON IN-DRAINS IS TO BE 4" DIA. PERFORATED SDR 35 PVC

Treatment System Profile N.T.S.



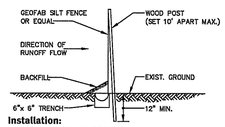
WATER TABLE ELEVATION @ OR BELOW 331.00, IMPERVOUS LAYER ELEVATION @ OR BELOW 325.00

Foundation Detail N.T.S.



Note:
CONTRACTOR TO CONTACT DESIGN ENGINEER TO VERIFY FOUNDATION SOIL EXCAVATION PRIOR TO FORMING.

Silt Fence N.T.S.



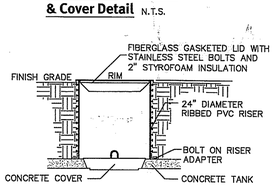
Installation:

1. DIG TRENCH 6" DEEP.
2. SET FENCE POST 10' APART MAX. AT SLIGHT ANGLE TOWARD RUNOFF DIRECTION.
3. ATTACH GEOFAB TO POST.
4. LOWER 6" OF GEOFAB IN TRENCH CURLED TOWARD RUNOFF DIRECTION & BACKFILL.
5. FENCE TO BE INSTALLED AS INDICATED ON THE SITE PLAN OR AS DIRECTED BY THE ENGINEER.

Legend

LE #TH LEDGE	LEDGE TESTING
SCW #SEV SWT LEDGE	SOIL EVALUATION
+312	PROPOSED SPOT GRADE
+45.3	EXISTING SPOT GRADE
98	EXISTING CONTOUR
92	PROPOSED CONTOUR
W	WATER SERVICE LINE
	DRAINAGE LINE
	BENCHMARK
	WELL

Treatment Tank Riser & Cover Detail N.T.S.



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

OWTS# 9830/1100 FWW# 160090

APPROVED Jennifer Rutledge DATE 5/12/16

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

General Notes

1. DIPRETE ENGINEERING CERTIFIES TO THE SOIL CONDITIONS AND LOADING RATE ONLY IN AREA TESTED. INSTALLER TO NOTIFY DESIGNER IF SOIL CONDITIONS ARE FOUND DIFFERENT THAN STATED ON OWTS APPLICATION.
2. THE BOUNDARY LINES DEPICTED HEREON ARE APPROXIMATE ONLY UNLESS OTHERWISE NOTED. THIS PLAN DOES NOT REPRESENT A BOUNDARY OPINION.
3. TOPOGRAPHY OBTAINED FROM REAL TIME KINEMATIC G.P.S. OBSERVATIONS. ELEVATIONS IN U.S. SURVEY FEET ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88').
4. NO DRAINS OR WATERLINES TO BE INSTALLED WITHIN 25' OF LEACHING AREA.
5. NO GARBAGE GRINDERS SHALL BE INSTALLED.
6. THERE ARE NO KNOWN EXISTING OR PROPOSED WELLS WITHIN 200' OF THE PROPOSED OWTS.
7. THERE ARE NO KNOWN EXISTING OR PROPOSED DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS OTHER THAN SHOWN.
8. THERE ARE NO EXISTING OR PROPOSED OWTS WITHIN 100' OF A PROPOSED OR EXISTING WELL.
9. THERE ARE NO PROPOSED OR EXISTING PUBLIC WELLS WITHIN 500' OF THE PROPOSED OWTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE. THE PLAN SHOWS GENERAL GRADING ONLY AND ADDITIONAL DETAIL MAY BE REQUIRED.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.
12. THE FINAL LANDSCAPING, SOIL STABILIZATION AND EROSION CONTROL IS TO BE COMPLETED BY THE OWNER PER THE APPROVED PLAN. ALTERATIONS TO THIS DESIGN ARE TO BE IDENTIFIED BY THE HOMEOWNER IN WRITING TO THE DESIGN ENGINEER FOR APPROVAL AND POSSIBLE RESUBMISSION TO THE RIDEM.
13. THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
14. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS BY OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. NO ONE SHOULD RELY ON THE UTILITY LOCATIONS SHOWN FOR CONSTRUCTION AND DIG SAFE MUST BE NOTIFIED PRIOR TO ANY WORK.
15. THIS SITE IS REVIEWED UNDER RIDEM WETLANDS APPLICATION # PENDING , DATED
16. THIS PARCEL IS LOCATED IN ZONES X & A AS PER (F.E.M.A.) COMMUNITY PANEL NO.44007C0385G DATED MARCH 2009, TOWN OF SCITUATE.
17. ALL OWTS SHOULD BE MAINTAINED BY THE HOMEOWNER ON AN ANNUAL BASIS OR MORE FREQUENTLY AS REQUIRED BY LOCAL REGULATIONS.
18. DESIGNER REQUIRES A MINIMUM OF THREE (3) INSPECTIONS: BOTTOM INSPECTION, COVER INSPECTION, & FINAL INSPECTION

Construction Notes

1. CONSTRUCTION SHALL CONFORM TO THE RHODE ISLAND SPECIFICATIONS SET FORTH IN THE "DEPARTMENT OF ENVIRONMENTAL MANAGEMENT – RULES AND REGULATIONS" ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION & CONSTRUCTION OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST EDITION.
2. THE FILL AROUND THE SYSTEM SHALL BE COARSE SAND, OR BANK RUN GRAVEL.
3. INSTALLER TO REMOVE ALL TREES AND SHRUBS FROM LEACHING AREA, AND 10' ON ALL SIDES.
4. BUILDING SEWER PIPE TO BE MINIMUM 4" SCH 40 PVC. ALL OWTS PIPING TO BE MINIMUM 4" SDR 35.
5. TREATMENT TANK RISERS TO BE AT FINISH GRADE
6. INSTALLER TO MAINTAIN OWTS INVERT EL. 334.58 FOR 10' FILL PERIMETER.
7. MAXIMUM 3:1 SLOPE FOR 25' FROM LEACHFIELD.
8. BENCH MARK = NAIL SET IN E.O.P ELEV.= 336.15
9. ALL STAGES OF THE OWTS INSTALLATION MUST BE SUPERVISED BY THE DESIGN ENGINEER.
10. DIG SAFE IS REQUIRED TO BE NOTIFIED PRIOR TO START OF ANY CONSTRUCTION.

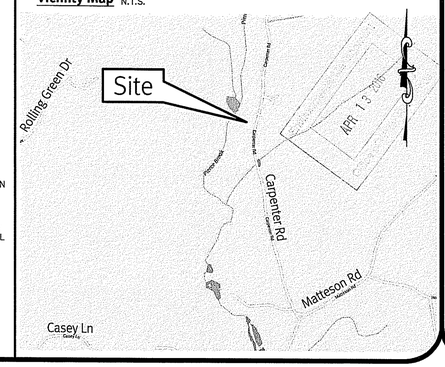
Sequence of Construction

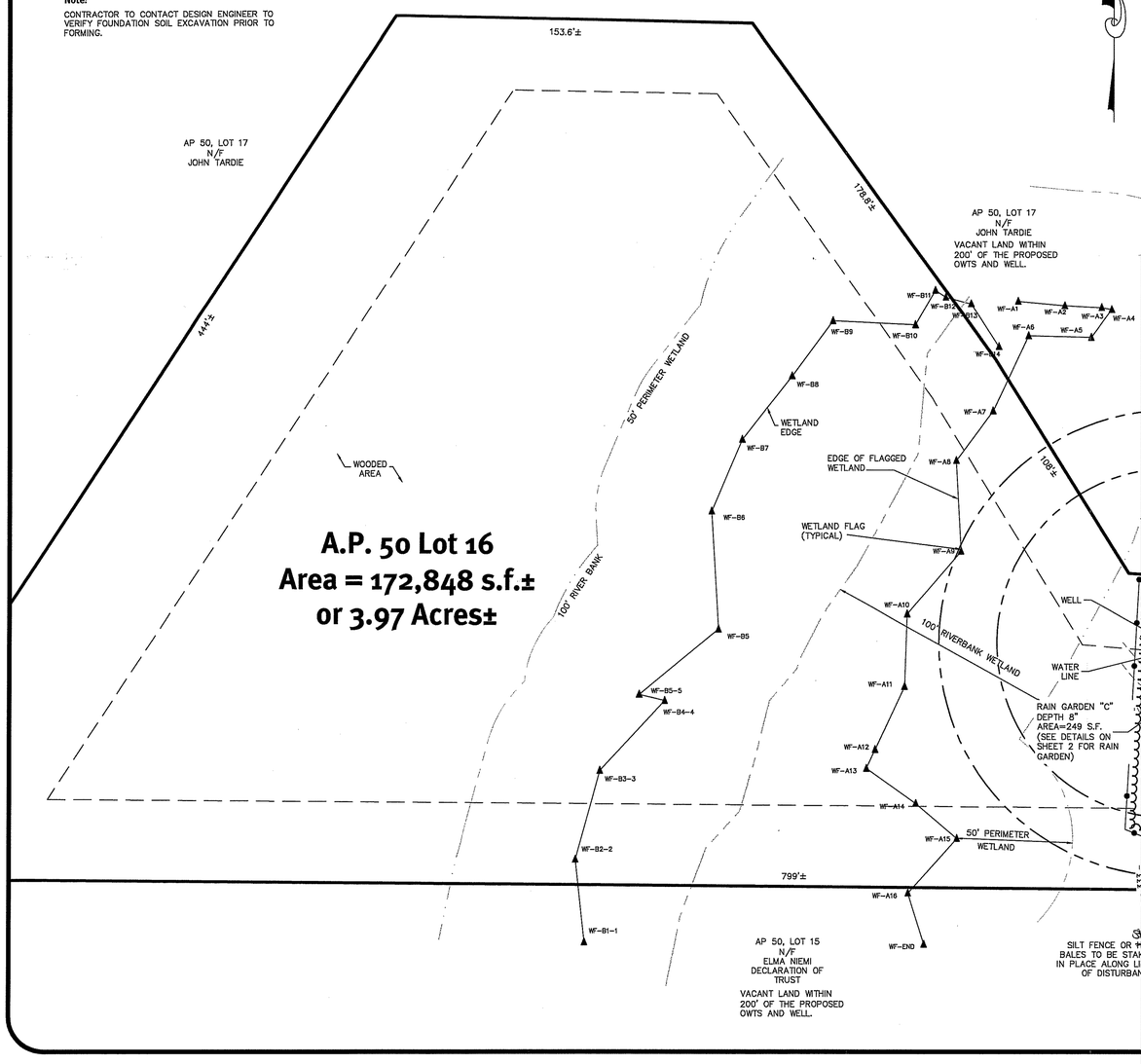
1. CONTRACTOR TO OBTAIN ALL REQUIRED FEDERAL, STATE AND MUNICIPAL PERMITS, AND TO NOTIFY "DIG SAFE" PRIOR TO CONSTRUCTION.
2. SET EROSION CONTROL AT LIMIT OF WORK. MAINTAIN CONTINUOUS FENCE LINE DURING CONSTRUCTION AND REPAIR AS NEEDED.
3. CONTACT DESIGNER 24 HR. PRIOR TO OWTS CONSTRUCTION
4. BEGIN OWTS BOTTOM EXCAVATION
5. CONTACT DESIGNER 24 HR. PRIOR TO OWTS BOTTOM EXCAVATION COMPLETION FOR INSPECTION
6. BEGIN OWTS CONSTRUCTION.
7. CONTACT DESIGNER 24 HR. PRIOR TO OWTS COMPLETION FOR INSPECTION
8.
9. COVER OWTS COMPONENTS AND COMPLETE FINISH GRADING
10. CONTACT DESIGNER 24 HR. PRIOR TO OWTS FINAL GRADING FOR INSPECTION
11. COMPLETE SOIL STABILIZATION BY LOAM AND SEEDING DISTURBED AREAS.

Minimum Lot Requirements

MIN. LOT AREA	NA SQ.FT.
FRONTAGE	NA FT.
FRONT YARD	50 FT.
SIDE YARD	35 FT.
REAR YARD	60 FT.
CORNER SIDE YARD	NA FT.

Vicinity Map N.T.S.





Sleeve Note:

DOUBLE SLEEVE BUILDING SEWER OR SEPTIC TANK EFFLUENT PIPE WHEN WITHIN 25' OF THE PROPOSED ROOF LEADER. THE PIPE SHALL BE SEAMLESS OR SCH-40 PVC OR EQUIVALENT, WITH WATER TIGHT JOINTS AND SHALL HAVE A WATER TIGHT SEAL THAT IS FASTENED TO THE PIPES WITH A STAINLESS STEEL RETRACABLE CLAMP.

Rain Garden Note:

RAIN GARDENS SHOWN TO BE A MINIMUM OF 15' FROM OWTS AND ALL COMPONENTS.

Scale: 1"=30'
0 15' 30' 60'

DiPrete Engineering
Engineers • Planners • Surveyors
Two Stafford Court Cranston, RI 02920
Tel 401-943-1000 fax 401-464-6066 www.DiPrete-Eng.com

JASON P. CLOUGH No. 9410 REGISTERED PROFESSIONAL ENGINEER CIVIL

No.	Date	Description	By:
0	04/26/16	OWTS & Wetlands Submission	E.H.J.
			Design By: E.H.J.
			Drawn By: E.H.J.

Onsite Wastewater Treatment System
Carpenter Road
A.P. 50, Lot 16
Scituate, Rhode Island
Applicant
Gerald A. Donahue
288 Beach Drive N.E., Apt. A, St. Petersberg, FL 33701
e-mail: Donahuegs@hotmail.com

ESTABLISHMENT OF VEGETATIVE COVER

1. SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.

2. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED OR PROTECTED.

3. THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, M.20.

4. THE TEMPORARY SEEDING DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
ANNUAL RYEGRASS	40
PERENNIAL RYEGRASS	60

5. THE NEW ENGLAND EROSION CONTROL/RESTORATION SEED MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
UPLAND BENTGRASS	1.0
CREEPING BENTGRASS	1.0
BIG BLUESTEM	8.0
NEW ENGLAND ASTER	1.0
FOX SEDGE	8.0
VIRGINIA WILD RYE	28.0
BONESET	1.0
GRASS LEAVED GOLDENROD	1.0
CREEPING RED FESCUE	24.0
SOFT RUSH	0.5
SENSITIVE FERN	1.0
SWITCH GRASS	8.0
LITTLE BLUESTEM	15.0
GREEN BULLRUSH	1.0
WOOL GRASS	0.5
BLUE VERVAIN	1.0

6. THE GENERAL PURPOSE SEED MIX SHALL BE COMPRISED URI #2 OF THE FOLLOWING:

TYPE	% BY WEIGHT
CREEPING RED FESCUE	40
IMPROVED PERENNIAL RYE GRASS	20
IMPROVED KENTUCKY BLUEGRASS	30
KENTUCKY BLUEGRASS	10

EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. SEEDING SCHEDULE SHOULD CONFORM WITH RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, L.02.03.1 SEEDING DATES. PERMANENT SEEDING SHALL BE DURING THE APRIL 1 TO MAY 31 OR AUGUST 15 TO OCTOBER 15. TEMPORARY SEEDING MAY BE DONE ANYTIME BETWEEN MARCH 15 AND NOVEMBER 15 WITH THE APPROVAL OF THE ENGINEER OF RECORD. FERTILIZE AS REQUIRED BY SOIL TESTING TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS AND BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUMS FOR EACH VARIETY.

7. TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING. TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING. SIDE SLOPES OF BASINS SHALL BE TREATED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKETS SUCH AS S150 OR APPROVED EQUAL. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.

8. ALL HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.

9. ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION PART 200.

10. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED.

11. ALL AREAS PROPOSED TO BE VEGETATED THAT ARE DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STANDARD IS MAINTAINED. WELL ESTABLISHED VEGETATION SHALL BE MAINTAINED. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEEDED BY THE CONTRACTOR. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.

12. MAXIMUM PERMANENT GRADED SLOPE WITHIN THE SITE IS TO BE 3:1 UNLESS NOTED OTHERWISE.

13. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.

14. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE, REVISED 2014, AS A GUIDE.

MAINTENANCE: SHORT TERM / LONG TERM

1. THE STONE STABILIZATION PADS AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ON THE PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.

2. ALL HAY BALES/SILT FENCE, TEMPORARY TREATMENTS (HAY, STRAW, ETC.), AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. HAY BALES/SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETERIORATION. A STORM EVENT SHALL BE DEFINED AS 0.25 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE HAY BALES/SILT FENCE SHALL BE REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY BALES/SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE HAY BALES/SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. FOLLOWING CONFIRMATION FROM THE OWNER AND OR THE PROJECT ENGINEER THAT AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER HAS BEEN ESTABLISHED THE HAY BALES/SILT FENCE SHALL BE REMOVED.

3. THE CONTRACTOR SHALL MAINTAIN ALL TOPSOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER. HAY BALES OR SILT FENCE SHALL BE STAKED AROUND THE STOCKPILES.

4. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR FOLLOWING FINAL GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL CHECK ALL SEEDED AREAS REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.

5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE DRAINAGE BMPS DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE DRAINAGE BMPS SHALL BE INSPECTED/MAINTAINED AS DETAILED BELOW.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON SITE DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION FOR A MAXIMUM OF ONE YEAR, OR UNTIL ACCEPTANCE BY THE ENGINEER AND THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER.

7. A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE OWNER AND THE RESPONSIBLE AUTHORITY TO ENSURE THE FOLLOWING MAINTENANCE SCHEDULES ARE FOLLOWED.

8. DURING THE FIRST SIX (6) MONTHS OF OPERATIONS, INSPECTIONS SHALL BE ACCOMPLISHED IN EACH DRAINAGE BMP AFTER EVERY RAINFALL EVENT, TO CHECK FOR CLOGGING OR, CONVERSELY, TOO RAPID A STORMWATER RELEASE. FOLLOWING THE SIX (6) MONTHS, INSPECTIONS SHALL BE CONDUCTED, AT A MINIMUM, ANNUALLY.

9. IF STANDING WATER IS OBSERVED WITHIN THE DRAINAGE BMPS FOR MORE THAN THREE (3) DAYS AFTER A RAINFALL, THEN FAILURE OF THE SYSTEM MAY HAVE OCCURRED AND SHALL BE ADDRESSED THROUGH REPAIR OR REPLACEMENT.

10. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE MAINTENANCE PROGRAM DURING THE CONSTRUCTION PHASE AND FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION. THE SUPERINTENDENT SHALL SEE THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

11. AFTER ACCEPTANCE OF THE SITE BY THE OWNER, THE OWNER SHALL HAVE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE STORMWATER MANAGEMENT PLAN.

12. THE RESPONSIBLE PARTY FOR THE STORMWATER MANAGEMENT PROGRAM IS THE OWNER OF THE SITE. THE FUNDING FOR THE STORMWATER MANAGEMENT PROGRAM IS BY THE OWNER. IF THE PROPERTY IS SOLD, THE RESPONSIBILITY OF THE STORMWATER MANAGEMENT PROGRAM WILL BE TRANSFERRED TO THE NEW OWNER.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL BE FOLLOWED FOR RAIN GARDENS:

1. RAIN GARDENS SHALL BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE RAIN GARDEN SHALL BE MONITORED AND MAINTAINED TO ASSURE PROPER FUNCTIONING, PLANT GROWTH AND SURVIVAL. PLANTS SHALL BE REPLACED ON AN AS-NEEDED BASIS DURING THE GROWING SEASON.

2. SILT/SEDIMENT SHALL BE REMOVED FROM THE RAIN GARDEN WHEN THE ACCUMULATION EXCEEDS ONE INCH, OR WHEN WATER PONDS ON THE SURFACE OF THE RAIN GARDEN FOR MORE THAN 48 HOURS. THE TOP FEW INCHES OF MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH SOIL MIXTURE AND MULCH.

3. PRUNING OR REPLACEMENT OF WOODY VEGETATION SHALL OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.

4. SOIL EROSION GULLIES SHALL BE REPAIRED WHEN THEY OCCUR.

5. FERTILIZER OR PESTICIDES SHALL NOT BE APPLIED TO PLANTS WITHIN RAIN GARDENS.

6. PERENNIAL PLANTS AND GROUND COVERS SHALL BE REPLACED AS NECESSARY TO MAINTAIN AN ADEQUATE VEGETATED GROUND COVER. ANNUAL PLANTS MAY ALSO BE USED TO MAINTAIN GROUND COVER.

STRUCTURAL MEASURES

1. RUNOFF WATER QUALITY IS IMPROVED UTILIZING RAIN GARDENS. CONSTRUCTION OF THE BMPS SHALL BE SUPERVISED BY THE PROJECT ENGINEER.

2. A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT OF WAY.

3. HAY BALES OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATION.

4. TEMPORARY BERMS AND / OR SWALES SHALL BE USED DURING CONSTRUCTION TO DIRECT SURFACE TO TEMPORARY SEDIMENTATION BASINS TO CAPTURE AND TREAT THE MAXIMUM AMOUNT OF STORM WATER.

5. THE RAIN GARDENS AREAS ARE NOT TO BE USED AS SEDIMENTATION BASINS DURING CONSTRUCTION AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES (I.E. HEAVY MACHINERY) TO PREVENT COMPACTION. THE CONTRACTOR SHALL CONSTRUCT ANY SEDIMENTATION BASINS WHICH ARE REQUIRED TO MEET ALL GUIDELINES IN THE RHODE ISLAND SOIL EROSION SEDIMENT CONTROL HANDBOOK.

6. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURE IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

7. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDS SOIL CONSERVATION SERVICE, REVISED 2014, AS A GUIDE.

NON-STRUCTURAL MEASURES

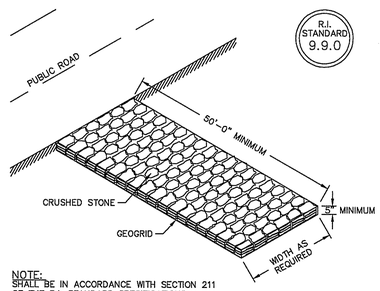
1. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO THE ACCESS ROAD, UTILITY EASEMENTS AND AREAS TO BE GRADED.

2. TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. A SEDIMENT BARRIER SHALL SURROUND ALL TOPSOIL STOCKPILES.

3. ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND TOWN REGULATIONS. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF DAILY TO AVOID EXPOSURE TO PRECIPITATION.

4. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.

5. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE, REVISED 2014, AS A GUIDE.



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

Construction Access
NOT TO SCALE

SEQUENCE OF CONSTRUCTION OF CONSTRUCTION AND STAGING OF LAND DISTURBING ACTIVITIES

1. CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL (SE & SC) ONSITE. SEQUENCE OF CONSTRUCTION PROVIDED MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM OWNER OR THEIR REPRESENTATIVE.
2. CONSTRUCTION TO BEGIN IN THE SUMMER 2016 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
3. SURVEY AND STAKE THE DRAINAGE BMPS (RAIN GARDENS AND/OR OTHER DRAINAGE FEATURES), DRAIN LINES, AND LIMIT OF SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE.
4. PLACE SEDIMENTATION BARRIERS (HAY BALES OR SILT FENCE) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS. PLACE BARRIERS AROUND RAIN GARDENS. NO CONSTRUCTION TRAFFIC IS PERMITTED IN THESE AREAS.
6. INSTALL TEMPORARY SEDIMENTATION CONTROL MEASURES AND DEVICES AS WARRANTED. ALL TEMPORARY CONTROL DEVICES SHALL BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK.
7. BEGIN DEMOLITION AND CLEARING AND GRUBBING IN AREA OF THE BUILDING, DRAINAGE BMPS, AND OTHER AREAS AS INDICATED ON THE PLANS. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS AND COVERED OR TEMPORARILY SEEDED.
10. BEGIN CONSTRUCTION OF THE BUILDING FOUNDATION AND STRUCTURE.
11. BEGIN CONSTRUCTION OF DRAINAGE BMP'S.
12. ONCE THE SITE IS STABILIZED THE DRAINAGE BMPS AND DRAINAGE NETWORK MAY BE BROUGHT ONLINE WITH THE APPROVAL OF THE DESIGN ENGINEER.
13. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.

SIZING NOTE:
1. RAIN GARDENS SIZED USING TABLE 7 & 8 OF THE STATE OF RHODE ISLAND STORMWATER MANAGEMENT GUIDANCE FOR INDIVIDUAL SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT

SIZING DATA

SOIL CONDITIONS – SANDY SOILS
RAIN GARDEN DEPTH – 8" DEPTH

RAIN GARDEN A SIZING CALCULATION (DRIVEWAY):
IMPERVIOUS AREA = 2,826 SF

190 S.F. (RAIN GARDEN SURFACE AREA) / 1,000 S.F. (IMPERVIOUS SURFACE AREA) = 190 S.F. / 1,000 S.F. X S.F. / 2,826 S.F. = 537 S.F. RAIN GARDEN REQUIRED

RAIN GARDEN AREA PROVIDED = 558 SF

RAIN GARDEN B SIZING CALCULATION (GARAGE ROOF):
IMPERVIOUS AREA = 576 SF

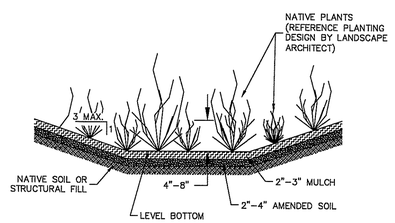
190 S.F. (RAIN GARDEN SURFACE AREA) / 1,000 S.F. (IMPERVIOUS SURFACE AREA) = 190 S.F. / 1,000 S.F. X S.F. / 576 S.F. = 110 S.F. RAIN GARDEN REQUIRED

RAIN GARDEN AREA PROVIDED = 111 SF

RAIN GARDEN C SIZING CALCULATION (HOUSE-ROOF):
IMPERVIOUS AREA = 1,248 SF

190 S.F. (RAIN GARDEN SURFACE AREA) / 1,000 S.F. (IMPERVIOUS SURFACE AREA) = 190 S.F. / 1,000 S.F. X S.F. / 1,248 S.F. = 238 S.F. RAIN GARDEN REQUIRED

RAIN GARDEN PROVIDED = 249 SF



RAIN GARDEN CROSS SECTION
NOT TO SCALE

DiPrete Engineering
Engineers • Planners • Surveyors
Two Stafford Court Cranston, RI 02920
Tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com

JASON P. CLOUGH
No. 9016
REGISTERED PROFESSIONAL ENGINEER
CIVIL
04/10/16

No.	Date	Description	By:
0	04/06/16	CRMC & Wetland Submission	E.H.J.

Drawn By: E.H.J. | Design By: E.H.J.

APR 13 2016

Detail Sheet
Carpenter Road
A.P. 50, Lot 16
Scituate, Rhode Island
Applicant
Gerald A. Donahue
288 Beach Drive N.E., Apt. A, St. Petersberg, FL 33701
e-mail: Donahue3932@hotmail.com

SHEET 2 OF 2

DE:Job No.:3321-001