NOTES:

1. ALL OTHER DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS WHETHER NOTED HEREON, OR NOT, SHALL BE IN CONFORMANCE WITH RULES & REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, DATED: JUNE 2016.
2. A 1000 GALLON TWO COMPARTMENT SEPTIC TANK IS REQUIRED, AND A CONCRETE DISTRIBUTION BOX IS REQUIRED AND MUST BE CAPABLE OF WITHSTANDING H-20 WHEEL-LOADS.
3. ALL SEWER PIPES A GRAVITY AND SHALL BE 4" DIAMETER, SCH 40 FROM HOUSE TO TANK AND TANK TO D-BOX ALL OTHER PIPING SHALL BE SDR35 UNLESS NOTED OTHERWISE.
4. THE SEPTIC TANK SHALL HAVE TWO WATER TIGHT MANHOLES BROUGHT TO GRADE.
5. A SEPTIC EFFLUENT FILTER IS REQUIRED AND SHALL BE PLACED IN THE SEPTIC TANK OUTLET TEE.
6.. PROPOSED LEACHFIELD SYSTEM IS DESIGNED USING ELJEN INDRAINS, THERE ARE 22 UNITS ALL UNITS SHALL HAVE 6" OF CONCRETE SAND AROUND ALL SIDES AND 6" UNDER ALL UNITS THE LEACHFIELD AREA SHALL BE STRIPPED OF TOPSOIL AND SANDY LOAM LAYER TO A DEPTH OF 26-30" AND BACKFILL WITH GRAVEL THAT MEETS THE REQUIREMENTS OF RULE 32.12
7. THE OWNER SHALL BE AWARE THAT SEPTIC SYSTEMS REQUIRE MAINTENANCE AND IT IS RECOMMENDED THAT A SYSTEM INSPECTION BE PERFORMED AT LEAST EVERY THREE YEARS TO ASSESS THE OPERATION AND INTEGRITY OF THE SYSTEM AND TO DETERMINE A SEPTIC PUMPING SCHEDULE.
8. THE SEPTIC TANK EFFLUENT FILTER SHOULD BE CLEANED ANNULLY BY THE HOME OWNER OR A SEPTIC INSPECTOR CONTRACTOR.
9. THE PROPOSED STRUCTURE AS SHOWN IS A THREE BEDROOM DWELLING WITH A FULL FOUNDATION
10. DEM REQUIRES CLEARING OF ALL TREES AND STUMPS WITHIN 10' OF SYSTEM.
11. THERE SHALL BE NO SUBSURFACE, FOUNDATION OR STORM DRAINS WITHIN 25' OF THE SYSTEM. BUILDING SEWER BETWEEN THE FOUNDATION AND TANK MUST BE SLEEVED ACROSS THE FOUNDATION DRAIN.
12. UNLESS SHOWN THERE ARE NO KNOWN DRAINS WITHIN 200' OF THE PROPOSED LEACH FIELD.
13. PROPOSED WELL AREA AS SHOWN IS AT LEAST 50' OFF THE EDGE OF PAVEMENT. PROPOSED SERVICE LINE MUST MAINTAIN A MINIMUM OF 25' FROM PROPOSED SYSTEM.
14. THERE ARE NO EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 200' OF THE PROPOSED O.W.T.S. EXCEPT AS SHOWN ON THIS SITE PLAN.
15. THERE ARE NO KNOWN PUBLIC DRINKING WELLS WITHIN 500' OF PROPOSED ISDS.
16. THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE ISDS APPLICATION LABELED--IMPORTANT AND NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
17. THE CONTRACTOR MUST NOTIFY LICENSED DESIGNER 48 HOURS PRIOR TO START OF CONSTRUCTION WITH VALID INSTALLERS LICENSE NUMBER. DESIGNER MUST NOTIFY DEM 24 HOURS PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH SD 27.00 (g).
18. IF CONTRACTOR ENCOUNTERS UNANTICIPATED CONDITIONS DURING CONSTRUCTION WHICH INDICATED THAT THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, INSTALLER SHALL STOP CONSTRUCTION AND NOTIFY THE LICENSED DESIGNER RESPONSIBLE FOR WITNESSING AND INSPECTING THE INSTALLATION IN ACCORDANCE WITH SD 27.00 (c).
19. THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, KEEP RECORDS, AND PREPARE THE CERTIFICATE OF COMPLETION.
20. THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OF OMISSION OF A USER OF AN OWTS, INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE ISDS.
21. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
22. CONTRACTOR TO NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
23. THE CONTRACTOR SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLAN ON-SITE AT ALL TIMES.
24. LOT AREA : 33.79 AC.
25. PROPERTY LINE DATA WAS OBTAINED FROM A PLAN ENTITLED " MINOR SUBDIVISION PLAN FOR ANN DAHLQUIST" PREPARED BY DARVEAU ASSOCIATES DATED OCTOBER 29, 2009. TOPOGRAPHY BASED UPON A LIMITED GROUND SURVEY PERFORMED ON AUGUST 2016.
26. WETLANDS DETERMINED BY NATURAL RESOURCE SERVICES INC.
27. SYSTEM ELEVATION OF 102' MUST BE MAINTAINED FOR 10' AROUND THE SEPTIC SYSTEM.

SYSTEM DESIGN

SOIL CATEGORY 6
LOADING RATE per Table 32.2.2. =.61 gals/sqft/day
DWELLING HAS 3 BEDROOMS
115 x 3 BEDROOMS = 345 Sq.Ft.
345 /.61 = 566 Sq. Ft.
DESIGN USING ELJEN INDRAINS
566 / 7 (indrain credit) = 81 linear feet
81/ 4 (length of units) = 20.25 units
SYSTEM NEEDS A MINIMUM OF 21 ELJEN UNITS
SYSTEM DESIGNED WITH 22 ELJEN UNITS,
HAVING A TOTAL OF 616 SQUARE FEET

SCHEDULE OF INVERTS

INVERT No.	LOCATION OF INVERT	INVERT ELEV.
1	BUILDING SEWER	103.50'
2	SEPTIC TANK INLET	103.00'
3	SEPTIC TANK OUTLET	102.75'
4	DISTRIBUTION BOX – INLET	102.25'
5	DISTRIBUTION BOX – OUTLET	102,10'
6	END LATERAL	102.00'

SOIL DATA
Test Hole "16-01"

Grade @ T.H. = 101'

0" – 6" – (A) – 10YR 3/6 FINE SANDY LOAM (granular, very friable)
6" – 20" (BW1) – 10YR 4/6, FINE SANDY LOAM (subangular blocky, very friable)
20" – 32" (BW2) – 10YR 5/6, FINE SANDY LOAM (subangular blocky, friable)
32" – 42" – (BC) – 2.5 "Y 5/4 GRAVELLY SANDY LOAM (subangular blocky, friable)
42" – 120" – (C) – 2.5 "Y 5/3 GRAVELLY SANDY LOAM COBBLES (massive, friable)

SOIL DATA
Test Hole "16-02"

Grade @ T.H. = 101'

0" – 4" – (AB) – 10YR 3/6 FINE SANDY LOAM (granular, very friable)
4" – 20" (BW1) – 10YR 4/6, FINE SANDY LOAM (subangular blocky, very friable)
20" – 28" (BW2) – 2.5YR 5/6, GRAVELLY FINE SANDY LOAM (subangular blocky, friable)
28" – 36" – (BC) – 2.5 "Y 5/4 GRAVELLY SANDY LOAM (subangular blocky, friable)
36" – 120" – (C) – 2.5 "Y 5/3 GRAVELLY SANDY LOAM COBBLES (massive, friable)

SOIL DATA
Test Hole "16-03"

Grade @ T.H. = 98'

0" – 4" – (AB) – 10YR 3/6 FINE SANDY LOAM (granular, very friable)
4" – 30" (BW1) – 10YR 4/6, FINE SANDY LOAM (subangular blocky, very friable)
30" – 42" (BW2) – 10YR 3/6, FINE SANDY LOAM (subangular blocky, friable)
42" – 50" – (BC) – 2.5 "Y 5/4 GRAVELLY SANDY LOAM (subangular blocky, friable)
50" – 84" – (C) – 2.5 "Y 5/3 GRAVELLY SANDY LOAM COBBLES (massive, friable)

May 14, 2016 By: Susan Capasso Lic.# D4028 Appl.# 1613-0445
ESTIMATED SEASONAL HIGH WATER TABLE 36" FROM ORGINAL GRADE

LEGEND

103' PROPOSED CONTOUR
100' EXISTING CONTOUR
PROPERTY LINE
TEST HOLE "A"
WELL
PROPOSED SILT FENCE – LIMIT OF DISTURBANCE
STONE WALL
EXIST TREE
CLEARING LIMITS – TREE LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL
OWTS# 1613-0445 FWW# 17-023
APPROVED [signature] DATE 7-3-17
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

Environmental Management
JUN 01 2017
Office of Water Resources

Environmental Management
JUN - 1 2017
Resources

Designers Lic. D2104

MICHAEL C. GRAY
No. 7457
REGISTERED PROFESSIONAL ENGINEER
[signature] 5-20-17

SCALE: AS SHOWN

TITLE: *PROPOSED SITE PLAN*

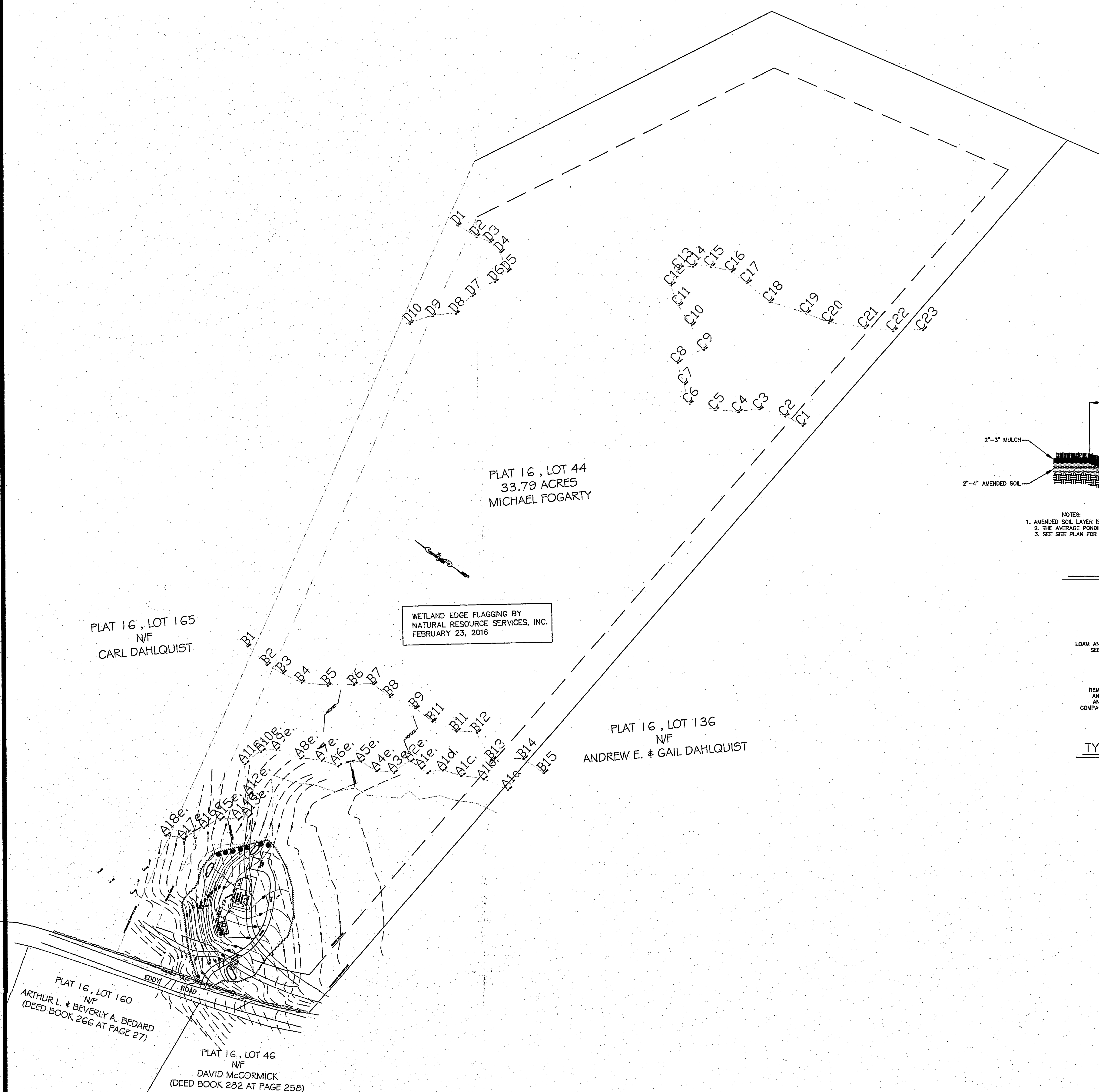
PROJECT: *MICHAEL FOGARTY*
A.P. 16, LOT 44
EDDY ROAD
GLOCESTER, R.I.

MICHAEL C. GRAY, PE
146 DOUGLAS HOOK ROAD
CHEPACHET, RI 02814

PROJ. NO: 17-1
DATE: 2-17-17

1/2

RECEIVED
JUN 01 2017



LOT PLAN

SCALE 1"=120'

GRAPHIC SCALE

0 60 120 240 480

(IN FEET)
1 inch = 120ft.

STORMWATER MANAGEMENT PLAN:

1. THE RUN-OFF FROM THE PROPOSED 12-FOOT GRAVEL DRIVEWAY IS TO BE SHEET (UNCONCENTRATED) FLOW TO PROPOSED VEGETATIVE SWALE #4.
2. THE PROPOSED DWELLING ROOF RUN-OFF IS TO BE DIRECTED TO VEGETATIVE SWALE #1.
3. THE PROPOSED PARKING AREA RUN-OFF SHALL BE DIRECTED TO VEGETATIVE SWALE #2. THE DRIVEWAY AREA SHALL BE SHEET FLOW TO PROPOSED VEGETATIVE SWALE #3.
4. REQUIRED SETBACKS FOR VEGETATIVE SWALES:
   PRIVATE DRINKING WATER WELLS = 50 FEET
   ONSITE WASTEWATER TREATMENT SYSTEMS = 15 FEET
   BUILDING STRUCTURES = 10 FEET
5. ANY CHANGES TO THE PROPOSED DWELLINGS AND DRIVEWAY ARE TO REQUIRE A NEW STORMWATER MANAGEMENT PLAN.

MAINTENANCE PLAN FOR THE VEGETATIVE SWALES:

1. THE OWNER IS RESPONSIBLE TO INSURE THAT THE STORMWATER MEASURES ON SITE ARE MAINTAINED PROPERLY AND FUNCTIONING AS DESIGNED.
2. THE STORMWATER MEASURES ON-SITE ARE TO BE INSPECTED ON AN ANNUAL BASIS OR AFTER ALL LARGE STORM EVENTS AND REPAIRED AS NEEDED.
3. THE INSPECTION OF THE STORMWATER MEASURES WILL INCLUDE:
   * BUILDING GUTTERS AND DOWN SPOUTS
   * ERODED SLOPES AND BOTTOMS
   * ACCUMULATED SEDIMENT
   * ANY OTHER ITEMS THAT DO NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY.
4. THE STORMWATER MEASURES ARE TO BE REPAIRED IF THE FOLLOWING IS ENCOUNTERED DURING THE INSPECTION PROCESS:
   * CLOGGED GUTTERS AND/OR DOWN SPOUTS ARE TO BE CLEANED.
   * IF THE SURFACE OF THE SWALE BECOMES CLOGGED TO THE PINT THAT STANDING WATER IS OBSERVED ON THE SURFACE 48 HOURS AFTER PRECIPITATION EVENTS, THE BOTTOM SHALL BE ROTO-TILLED OR CULTIVATED TO BREAK UP ANY HARD-PACKED SEDIMENT, AND THEN RESEEDED.
   * ALL OTHER ISSUES THAT WILL NOT ALLOW THE STORMWATER SYSTEMS TO OPERATE PROPERLY ARE TO BE REPAIRED AS NEEDED.
5. GENERAL MAINTENANCE
   * VEGETATIVE SWALES SHALL BE MOWED AS REQUIRED TO MAINTAIN MINIMUM GRASS HEIGHTS IN THE 4-6 INCH RANGE.
   * EVERY FIVE YEARS, THE CHANNEL BOTTOM OF DRY SWALES SHOULD BE SCRAPED TO REMOVE SEDIMENT AND TO RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE, AND SHOULD BE SEEDED TO RESTORE GROUND COVER, WHERE NECESSARY.

SEDIMENTATION AND EROSION CONTROL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION & EROSION CONTROL.
2. EMBANKMENT SLOPES & ALL DISTURBED AREAS ARE TO RECEIVE A LAYER OF TOPSOIL (LOAM) AND SEED.
3. IMMEDIATELY UPON COMPLETION OF THE CLEARING AND GRUBBING AND PRIOR TO ANY ROUGH GRADING, A TEMPORARY SILT FENCE OR HAY BALES SHALL BE PLACED AT THE LIMIT OF PERMANENT DISTURBANCE PER PLAN.
4. ALL EROSION & SEDIMENTATION CONTROL SHALL BE PERIODICALLY MAINTAINED DURING BUILDING CONSTRUCTION BY THE CONTRACTOR.

EROSION & SOIL STABILIZATION PROGRAM:

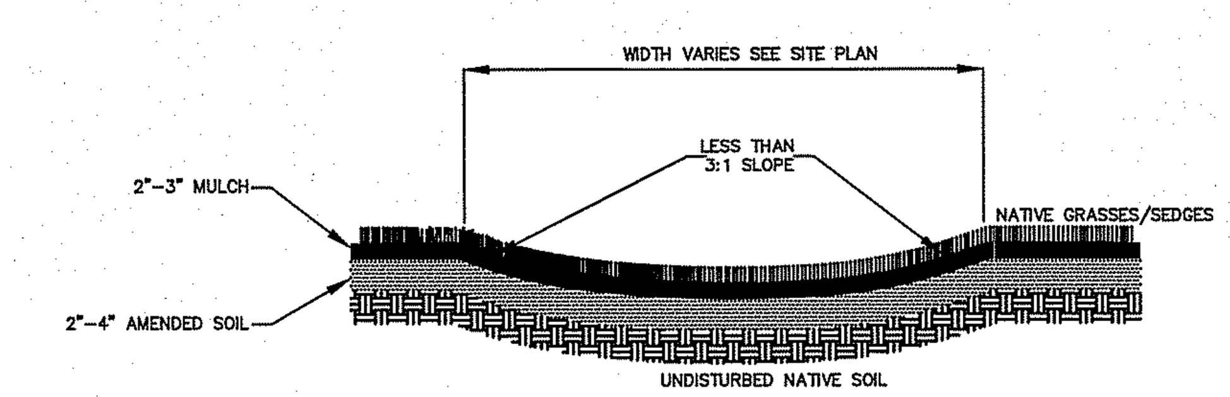
1. TEMPORARY TREATMENTS SHALL CONSIST OF A SILT FENCE, HAY BALES OR PROTECTIVE COVERS SUCH AS FABRIC MATS.
2. THE SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED COVER IS ESTABLISHED.
3. NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 - OCT. 15.
4. ALL FILL, IF REQUIRED, SHALL BE CLEAN AND THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH RIDPW STANDARD SPECIFICATION SECTION 202.

SEDIMENTATION CONTROL PROGRAM:

1. A TEMPORARY SILT FENCE, HAY BALES OR PROTECTIVE COVER SHALL BE INSTALLED PRIOR TO CONSTRUCTION & SHALL BE MAINTAINED ON A REGULAR BASIS. IN ADDITION TO THE LINE OF THE SILT FENCE AT THE LIMIT OF PERMANENT DISTURBANCE, TEMPORARY BARRIERS SHALL BE CONSTRUCTED AT THE TOE OF THE DISTURBED (CUT OR FILL) SLOPES UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED.
2. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE FLOW DURING STORMS AND PERIODS OF RAINFALL.
3. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
4. BANKS AND SLOPES NOT RECEIVING RIP RAP PROTECTION SHALL BE SEEDED AND PROTECTED WITH A FIBER MULCH.

SLOPE STABILIZATION AND VEGETATION:

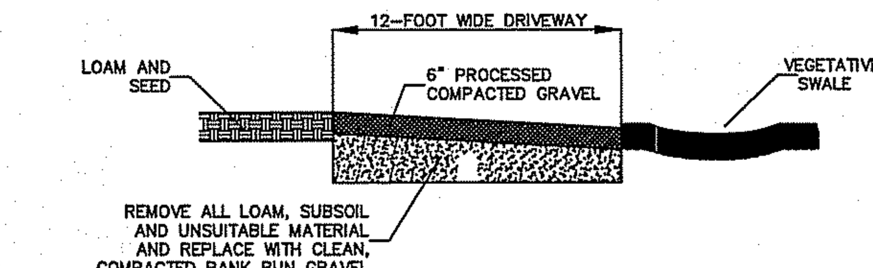
1. THE SILT FENCE OR HAY BALES SHALL BE PLACED AT THE TOE OF ALL DISTURBED SLOPES. THIS SHALL BE MAINTAINED AS A SEDIMENT BARRIER UNTIL THE SLOPES ARE STABILIZED WITH GRASS.
2. THE DISTURBED SLOPES (CUT OR FILL) SHALL BE IMMEDIATELY MULCHED AS AN EROSION PROTECTION MEASURE.
3. MAINTAIN MULCH UNTIL THE SLOPES ARE STABILIZED WITH A SATISFACTORY GROWTH OF GRASS.
4. VEGETATION REMOVED MAY BE SHREDDED AND CHIPPED ON SITE FOR USE AS MULCH, OR IT MAY BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
5. THE RESEEDING OF THE DISTURBED SLOPES SHALL BE CONDUCTED WITH SEED MATERIALS SELECTED FOR PRODUCTION OF A QUICK COVER AND HARDY STAND. PARTICULARLY A CONSERVATION GRASS SEED OR COMPARABLE. THE SEEDING SHALL BE IN ACCORDANCE WITH COMMON NURSERY PRACTICE IN THE RHODE ISLAND AREA.
6. PROVIDED THAT THE PROVISIONS OF THE SEDIMENTATION & EROSION CONTROL PLAN ARE IMPLEMENTED, THERE WILL BE NO ADVERSE ENVIRONMENTAL EFFECTS FROM THE PROPOSED CONSTRUCTION.



NOTES:
1. AMENDED SOIL LAYER IS A 50/50 MIXTURE OF EXCAVATED NATIVE SOILS AND MATURE ORGANIC COMPOST
2. THE AVERAGE PONDING DEPTH SHALL BE NO MORE THAN 8 INCHES DEEP.
3. SEE SITE PLAN FOR DIMENSIONS OF EACH VEGETATIVE SWALE (#1- #3)

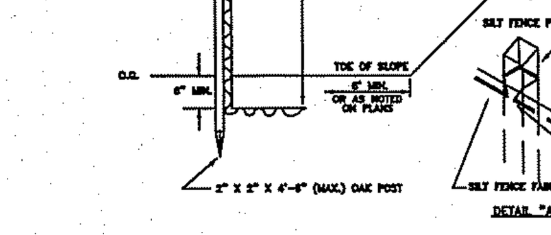
VEGETATIVE SWALE
TYPICAL CROSS SECTION

NOT TO SCALE



TYPICAL DRIVEWAY CROSS-SECTION

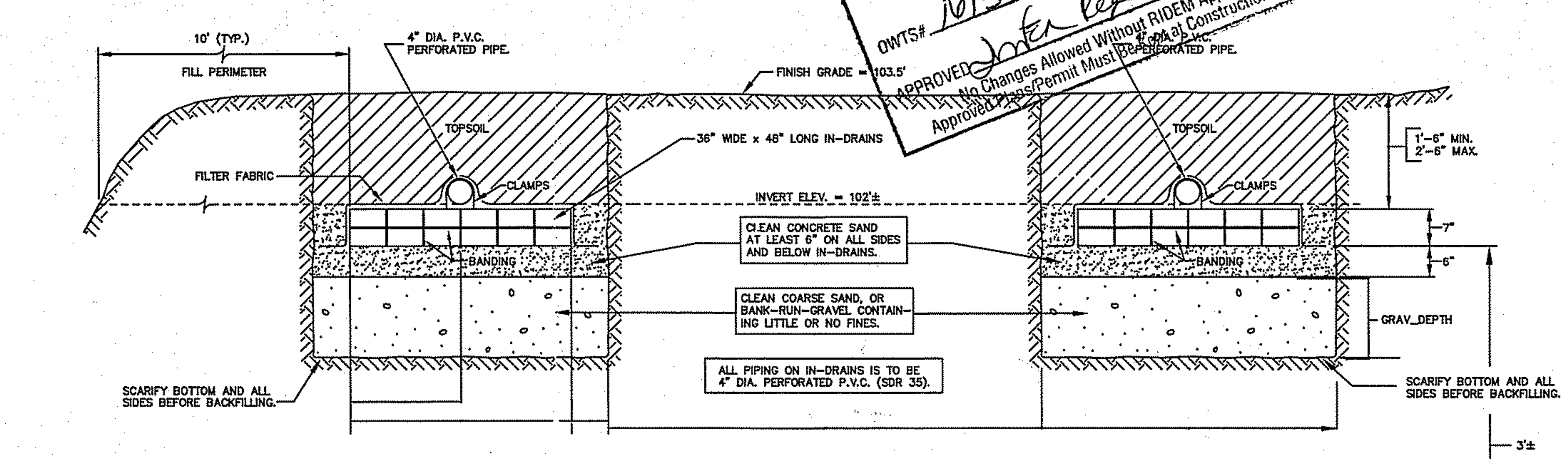
NOT TO SCALE



SILT FENCE DETAIL

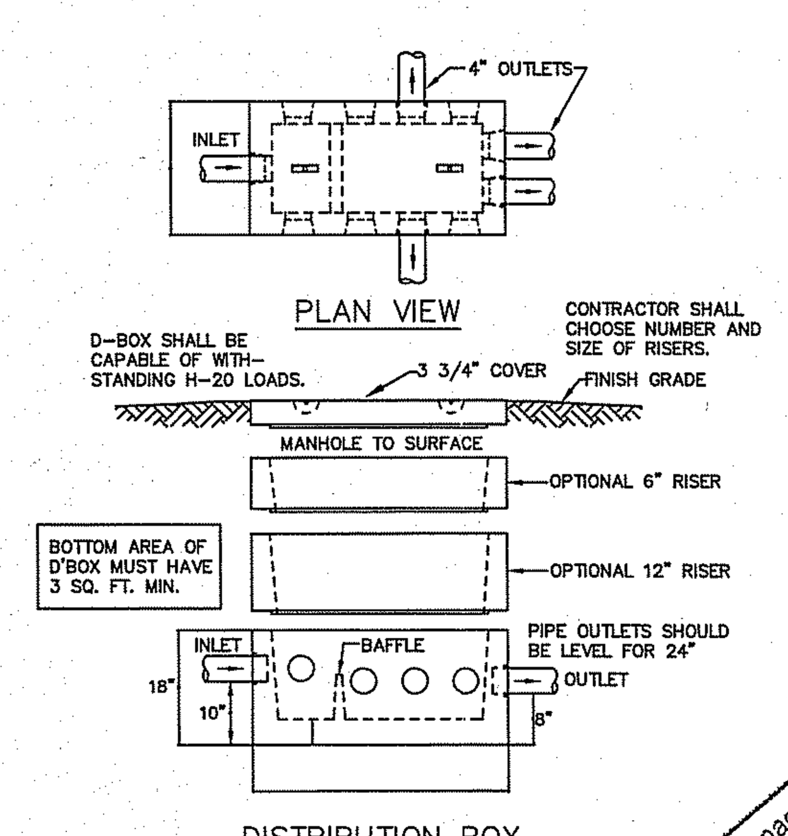
NOT TO SCALE

SOIL EROSION CONTROL MEASURES:
1. THE PROPOSED SILT FENCE IS TO BE INSTALLED BEFORE THE START OF ANY CONSTRUCTION AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE REVEGETATED.
2. THE SILT FENCE IS TO BE INSPECTED ONCE A MONTH OR AFTER ALL STORM EVENTS AND REPAIRED AS NEEDED.



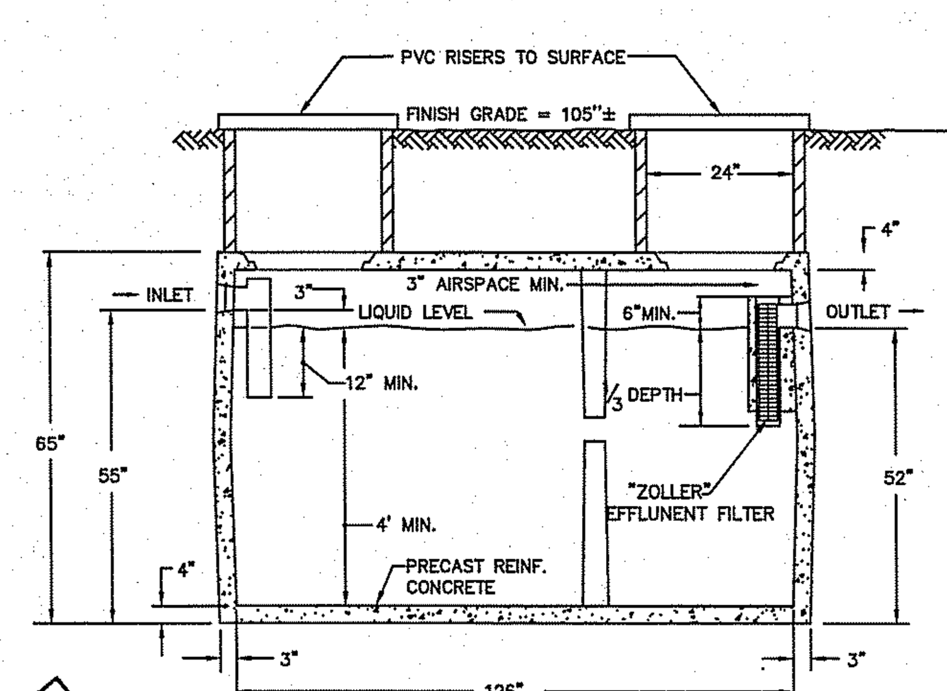
TYPICAL IN-DRAIN® CROSS-SECTION

NO SCALE
SEE MAIN PLAN FOR LOCATION AND NUMBER OF TRENCH LINES.



DISTRIBUTION BOX

NO SCALE
SEE MAIN PLAN AND NOTES FOR NUMBER OF OUTLETS.
D-BOX SPECIFICATION TAKEN FROM JOLLEY PRECAST, INC. DANIELSON, CONNECTICUT. 1-800-582-4638 OR APPROVED EQUAL



1,000 GALLON
TWO COMPARTMENT SEPTIC TANK
CROSS SECTION

NO SCALE

TANK SPECIFICATION TAKEN FROM JOLLEY PRECAST, INC. DANIELSON, CONNECTICUT. 1 800-582-4638 OR APPROVED EQUAL

Designers Lic. D2104

MICHAEL C. GRAY No. 7457 REGISTERED PROFESSIONAL ENGINEER	TITLE: *PROPOSED SITE PLAN*	PROJ. NO: 17-1
5-20-17	PROJECT: *MICHAEL FOGARTY* *A.P. 16, LOT 44* *EDDY ROAD* *GLOCESTER, R.I.*	DATE: 2-17-17
SCALE: AS SHOWN	MICHAEL C. GRAY, PE *146 DOUGLAS HOOK ROAD* *CHEPACHET, RI 02814*	2/2