

NORBERT A. THERIEN
No. 1739
PROFESSIONAL
LAND SURVEYOR

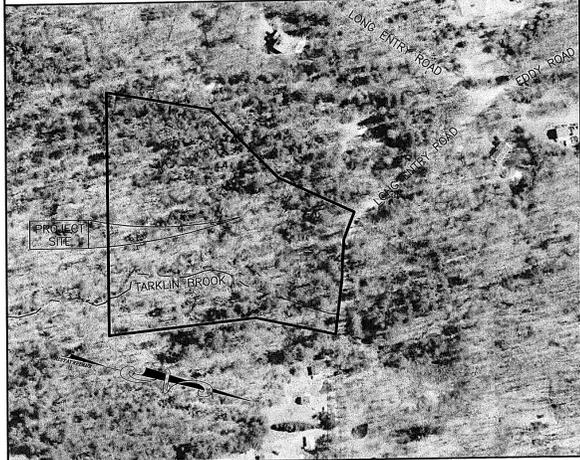
NATIONAL
Surveyors-Developers
Inc.
42 Hamlet Ave., Woonsocket, R.I.
(401) 769-7779

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY: CLASS I & III

PURPOSE OF SURVEY: PROPERTY LINE AND TOPOGRAPHY

BY: *Norbert A. Therien*
NORBERT A. THERIEN P.L.S.



LOCUS MAP
NOT TO SCALE

LEGEND

- SUBJECT PROPERTY LINE
- ABUTTER LINE
- STONEWALL
- IRON PIN
- BOUND
- DRILL HOLE
- UTILITY POLE
- EX. CONTOUR
- WETLAND EDGE
- SOIL EVALUATION HOLE
- ⊙ EXISTING WELL
- SILT SOCK
- LIMIT OF DISTURBANCE
- PRO. CONTOUR
- APPROX. ELEV.
- EX. ELEV.
- MAX. MIN.
- PRO. PROPOSED
- REQ'D
- T.O.F.

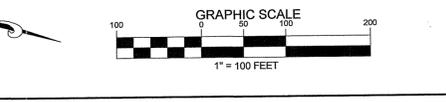
ASSESSORS PLAT 16 LOT 141
N/F
DAHLQUIST FAMILY TRUST
DEED BOOK 608 PAGE 32
ORIG. AREA BEING:
496,767
11.4042 ACRES
NEW AREA:
1,068,840 SQ. FT.
24,5326 ACRES

ASSESSORS PLAT 16 LOT 150
N/F
PETER F. & CHRISTINE D. MATHIEU
DEED BOOK 196 PAGE 546
ORIG. AREA BEING:
435,800 SQ. FT.
10.0046 ACRES
NEW AREA:
310,205 SQ. FT.
7.1213 ACRES

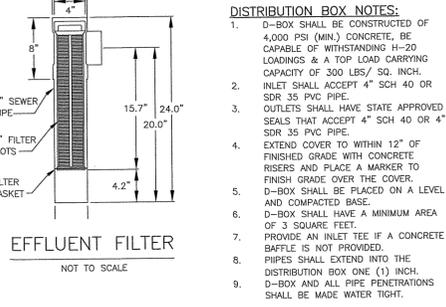
PORTION A.P. 16 LOT 150
PARCEL "A"
TO BE JOINED WITH LOT 9
AREA BEING:
125,595 SQ. FT.
2.8833 ACRES

ASSESSORS PLAT 16 LOT 9
N/F
PETER F. MATHIEU
DEED BOOK 630 PAGE 321
ORIG. AREA BEING:
832,777 SQ. FT.
19.1179 ACRES
NEW AREA:
386,499 SQ. FT.
8.8728 ACRES
125,595 PORT. LOT 150
280,904 BALANCE LOT 9
386,499 SQ. FT.

100' SCALE PLAN
SCALE: 1"=100'

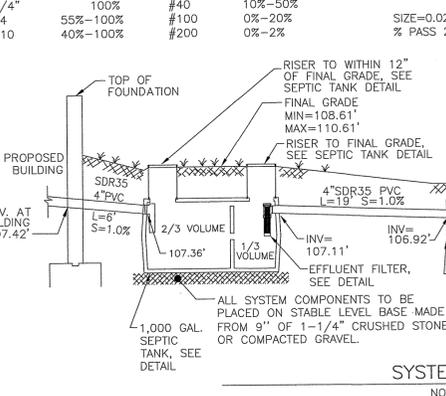


100' SCALE PLAN
SCALE: 1"=100'



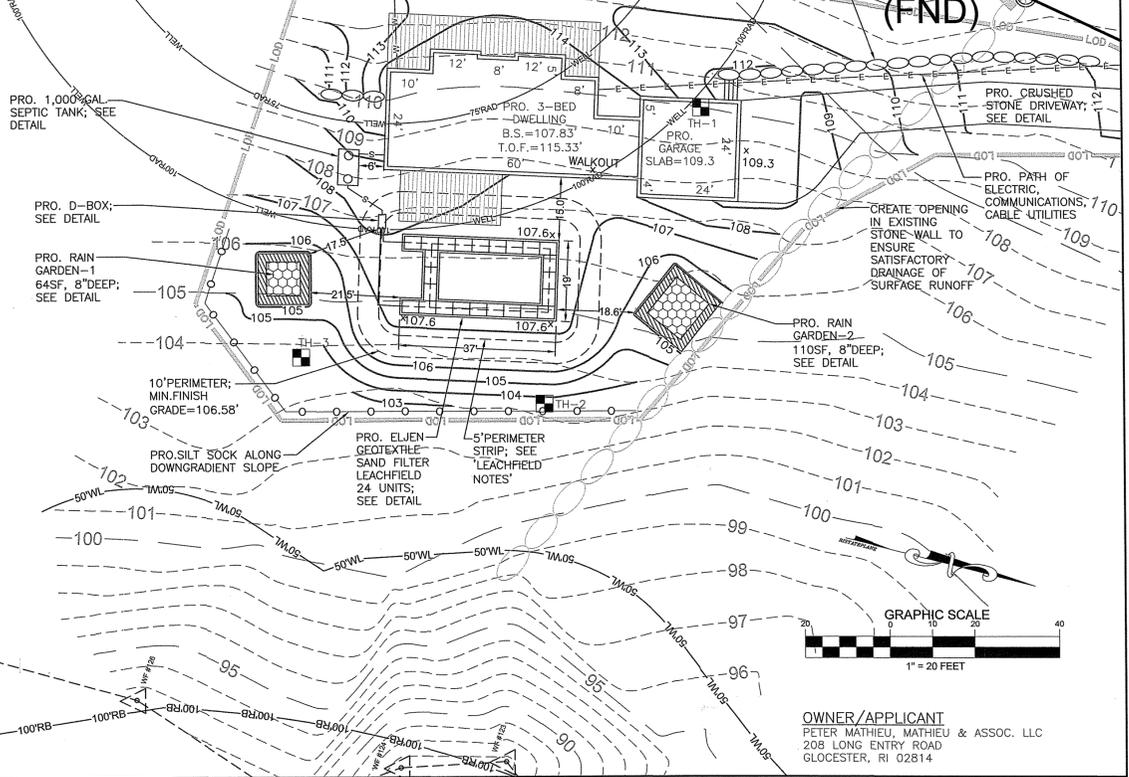
EFFLUENT FILTER
NOT TO SCALE

DISTRIBUTION BOX
NOT TO SCALE



SYSTEM PROFILE
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
LIMIT PERMIT APPROVAL
OWTS# 2113-0195 DATE 2-2-2005
APPROVED: *[Signature]* DATE 2/2/02
No Charges Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site



OWTS DESIGN DATA

3 BEDROOM DWELLING
115 GAL/BR/DAY = 345 GAL/DAY
0.52 GAL/SF/DAY = 664 SF REQUIRED
ELGEN GSF
24 UNITS PROVIDED = 672 SF
TOTAL AREA OF SYSTEM = 672 SF > 664 SF REQUIRED

TH-1		SOIL	
HORIZON	DEPTH	TEXTURE	CATEGORY
Oe	2-0"	FSL	4
Ap	0-9"	FSL	4
Bw	9-20"	FSL	4
Cb	20-33"	FSL	7
C	33-108"	ST/LS	6M

E.S.H.G.W.T. = 60"
DESIGN LOADING RATE = 0.52 GAL/SF/DAY

TH-2		SOIL	
HORIZON	DEPTH	TEXTURE	CATEGORY
Oe	2-0"	FSL	4
Ap	0-7"	FSL	4
Bw	7-18"	CB,FSL	4
Cb	18-24"	CB,SL	6M
C1	24-40"	ST,S	1M
C2	40-84"	ST,FS	1M

E.S.H.G.W.T. = 36"
DESIGN LOADING RATE = 0.61 GAL/SF/DAY

TH-3		SOIL	
HORIZON	DEPTH	TEXTURE	CATEGORY
Oe	1-0"	FSL	4
Ap	0-7"	FSL	4
Bw	7-22"	FSL	4
C1	22-40"	G,S	7
C2	40-102"	G,S	6M

E.S.H.G.W.T. = 72"
DESIGN LOADING RATE = 0.52 GAL/SF/DAY

OWNER'S NOTES:

- FOOD/GARBAGE GRINDERS ARE PROHIBITED FROM BEING CONNECTED TO THE SEPTIC SYSTEM.
- VEHICLE PARKING OR TRAFFIC OVER THE SEPTIC TANK IS PROHIBITED.
- BACKFLOW WATER FROM WATER TREATMENT SYSTEMS (IF INSTALLED) SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM. SEPTIC TANKS SHALL BE PUMPED OUT EVERY 24 MONTHS AND EFFLUENT FILTERS WASHED ANNUALLY UNLESS MORE FREQUENT MAINTENANCE IS DETERMINED TO BE REQUIRED BY OPERATION AND MAINTENANCE PROGRAMS OF THE OWTS SYSTEM.
- ONLY WASTEWATER AS DEFINED IN THE RIDEM OWTS REGULATIONS IS ALLOWED TO BE DISCHARGED INTO THE SEPTIC SYSTEM. ABSOLUTELY NO CHEMICALS, OILS, FATS, GREASE, OR PAINTS ARE ALLOWED. THIS IS NOT A GARBAGE DISPOSAL SYSTEM.
- BATHUBS GREATER THAN 100 GALLONS ARE NOT ALLOWED IN THE HOUSE.
- NO TREES OR LARGE SHRUBS SHALL BE PLANTED WITHIN 10 FEET OF THE LEACHFIELD.
- NO SUBSURFACE DRAINS OR SUBIRRIGATORS SHALL BE INSTALLED WITHIN 50 FEET OF THE OWTS UNLESS IN ACCORDANCE WITH OWTS REGULATIONS.
- THE DESIGN INTENT IS TO MEET THE STATE STANDARDS. THE SYSTEM OPERATION IS DEPENDENT ON PROPER USAGE, AND ITS OPERATION IS NOT GUARANTEED BY THIS PLAN.

CONTRACTOR'S NOTES - CONSTRUCTION:

- NOTIFY ENGINEER 5 DAYS PRIOR TO START OF CONSTRUCTION.
- ENGINEER TO APPROVE BOTTOM OF LEACHFIELD BED PRIOR TO PLACEMENT OF GRAVEL.
- SCAFFRY LEACHFIELD BOTTOM IMMEDIATELY PRIOR TO PLACEMENT OF GRAVEL, NOT THE DAY BEFORE.
- ENGINEER TO INSPECT SEPTIC TANK PRIOR TO BACKFILLING. CONTRACTOR SHALL PROVIDE VACUUM TEST REPORT FROM TANK MANUFACTURER.
- ENGINEER TO INSPECT COMPLETED SYSTEM PRIOR TO BACKFILLING. FINE GRADE LEACHFIELD AND SEPTIC TANK AREA SO RUNOFF DOES NOT FLOW INTO AREA FROM UPLAND AREAS DURING & AFTER CONSTRUCTION.
- ALL CONCRETE RISER SECTIONS SHALL BE MORTAR/SEALANT WATER TIGHT TO TANK.
- CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES BETWEEN FIELD AND DESIGN DATA SHOWN HEREON TO BE REPORTED TO THE ENGINEER.
- ANY DAMAGE OR DISTURBANCE OF LAND DUE TO CONSTRUCTION ACTIVITIES TO ADJUTING PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR.

GENERAL NOTES:

- THIS PLAN WAS PREPARED FOR RIDEM APPLICATION PERMIT ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER. THIS IS NOT THE BUILDING PERMIT PLAN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST REVISION, AS REGULATED THROUGH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (THESE ARE REFERRED TO AS THE "RULES").
- THE PROPOSED ACTIVITIES (ARE) OR (ARE NOT) UNDER THE RHODE ISLAND COASTAL RESOURCE MANAGEMENT COUNCIL'S JURISDICTION.
- PUBLIC SEWERS (ARE) OR (ARE NOT) LOCATED WITHIN 200 FEET OF THE PROPERTY LINE.
- DRINKING WATER LINES (ARE) OR (ARE NOT) LOCATED WITHIN 50 FEET OF THE PROPOSED OWTS. ALL DRINKING WATER LINES WITHIN 50 FEET OF THE PROPOSED OWTS HAVE BEEN SHOWN, IF PRESENT.
- WATER SUPPLY IS BY (PUBLIC WATER SYSTEM) OR (PRIVATE WELL).
- THERE (ARE) OR (ARE NOT) EXISTING AND PROPOSED PRIVATE DRINKING WATER WELLS LOCATED WITHIN THE SPECIFIED SETBACK DETAILED IN TABLE 22.5 OF THE "RULES" + 100 FEET. IF WELLS (ARE PRESENT), THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE) OR (ARE NOT) EXISTING AND PROPOSED WELLS SERVING NON-POTABLE USES WITHIN 100' OF THE OWTS. IF WELLS (ARE PRESENT), THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE) OR (ARE NOT) EXISTING AND PROPOSED PUBLIC DRINKING WATER SUPPLY WELLS WITHIN 50 FEET OF THE PROPOSED OWTS. IF WELLS (ARE PRESENT), THEY HAVE BEEN SHOWN ON THE PLAN, THE TYPE OF PUBLIC WELL, IF PRESENT, IS NOTED NEXT TO THE WELL.
- THERE (ARE) OR (ARE NOT) WATERCOURSES AND/OR WETLANDS WITHIN 200 FEET OF THE PROPOSED OWTS. IF PRESENT, THE LOCATIONS ARE SHOWN ON THE PLAN.
- THERE (ARE) OR (ARE NOT) STORM AND SUBSURFACE DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. SAID DRAINS (DO) OR (DO NOT) DISCHARGE DIRECTLY OR INDIRECTLY INTO A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 39 OF THE "RULES".
- THE PROPOSED OWTS (IS) OR (IS NOT) LOCATED WITHIN THE WATERSHED OF A PUBLIC WATER SUPPLY.
- THE PROPOSED OWTS (IS) OR (IS NOT) LOCATED WITHIN A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES". THE DISTANCE TO THE NEAREST CRITICAL RESOURCE OF CONCERN IS FEET.
- THERE (ARE) OR (ARE NOT) EXISTING OWTS WITHIN 200 FEET OF ANY PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- EXISTING OWTS WITH A DESIGN FLOW GREATER THAN 1,000 GAL/DAY (ARE) OR (ARE NOT) LOCATED WITHIN 400 FEET OF THE PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- THE PROPOSED WELL, IF APPLICABLE, (DOES) OR (DOES NOT) REQUIRE A VARIANCE FROM RIDEM'S RULES AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS.
- THIS APPLICATION (IS) OR (IS NOT) PART OF A SUBDIVISION OF FIVE (5) LOTS OR LESS WITH EXISTING ROAD FRONTAGE.
- THE SUBJECT PROPERTY (IS) OR (IS NOT) SERVED WITH AN OWTS & PRIVATE WELL. THE NITROGEN LOADING RATE SHALL NOT EXCEED 345 GAL/DAY PER 20,000 SQUARE FEET OF PROPERTY WHEN SERVED WITH AN OWTS & PRIVATE WELL.
- THE CONTRACTOR SHALL STAKE AND FLAG TO PROTECT THE LEACHFIELD FROM VEHICLE TRAFFIC AND EXCESSIVE WEIGHT LOADS BEFORE AND DURING CONSTRUCTION OF THE OWTS AND THE STRUCTURE. FLAGGING SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES AT THE SITE ARE COMPLETE.

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1.	1-20-22	DEM COMMENTS	DKM

REGISTRATION:

DAVID KENNETH MANONI
REGISTERED PROFESSIONAL ENGINEER (Civil)

GROUND BREAKING
DESIGNS, LLC
CIVIL ENGINEERING SOLUTIONS

100 HIGHLAND AVE., SOUTH KINGSTOWN, RI 02879 ☎ PHONE: (401) 622-2832

RI DEM APPLICATION PLAN

LONG ENTRY ROAD

PROPOSED OWTS DESIGN PLAN

A.P. 16 LOT 9 & 150

GLOUCESTER, RHODE ISLAND 02814

SCALE: AS SHOWN DATE: 12/01/21 SHEET 1 of 2

Environmental Management
JAN 21 2022
Office of Water Resources

JOB NO.: 21-10

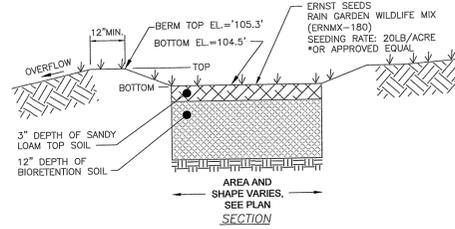
STORMWATER CALCULATIONS

PROPOSED RAIN GARDEN-1 SIZING:

IMPERVIOUS AREA: SOUTH HALF OF HOUSE ROOF = 760 SF
 8"DEEP RAIN GARDEN, SANDY SOILS: 64 SF SURFACE AREA REQUIRED
 PROPOSED 8'X8'WX8" DEEP RAIN GARDEN

PROPOSED RAIN GARDEN-2 SIZING:

IMPERVIOUS AREA: NORTH HALF OF HOUSE ROOF + GARAGE ROOF = 1,330 SF
 8"DEEP RAIN GARDEN, SANDY SOILS: 107 SF SURFACE AREA REQUIRED
 PROPOSED 11'X10'WX8" DEEP RAIN GARDEN



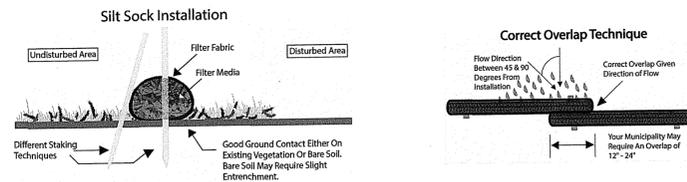
RAIN GARDEN MAINTENANCE:

- SEDIMENT SHALL BE REMOVED FROM THE RAIN GARDEN BED WHEN THE ACCUMULATION EXCEEDS 1".
- WHEN THE FILTERING CAPACITY OF THE FILTER DIMINISHES SUBSTANTIALLY, THE TOP FEW INCHES OF MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL.
- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, THE RAIN GARDEN SHALL BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0" TO ENSURE THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, INSPECTIONS SHALL BE CONDUCTED ON AN ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO 2.7" OF RAINFALL IN A 24-HOUR PERIOD.
- PRUNING OR REPLACEMENT OF WOODY VEGETATION SHALL OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.
- FERTILIZER OR PESTICIDES SHALL NOT BE APPLIED TO PLANTS WITHIN RAIN GARDENS.
- 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.

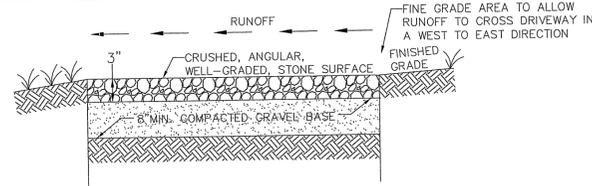
NOTES:

- DO NOT COMPACT SOILS IN RAIN GARDEN AREA. TILL BOTTOM OF RAIN GARDEN PRIOR TO PLACEMENT OF SANDY LOAM TOPSOIL AND BIORETENTION SOIL TO PROMOTE GOOD INFILTRATION RATES.
- FINE GRADE RAIN GARDEN SO IT HOLDS REQUIRED DEPTH OF RUNOFF PRIOR TO OVERFLOWING.
- DIRECT IMPERVIOUS AREAS (TO THE MAXIMUM EXTENT POSSIBLE) TO FLOW INTO RAIN GARDEN.
- BIORETENTION SOIL MIX (BY VOLUME):
 SAND 85 TO 88%
 SILT 0 TO 12%
 CLAY 0 TO 2%
 ORGANIC MATTER 3 TO 5%
 THE BIORETENTION SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OTHER WOODY MATERIAL OVER 1" IN DIAMETER, OR BRUSH/SEEDS FROM NOXIOUS WEEDS. PLACEMENT OF THE SOIL SHOULD BE IN LIFTS OF 6 INCHES, LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET).
 SURFACE OF RAIN GARDEN SHALL NOT BE MULCH OR ANY OTHER SURFACE PRONE TO FLOATING AWAY.

RAIN GARDEN DETAIL



SILT SOCK DETAIL
NOT TO SCALE

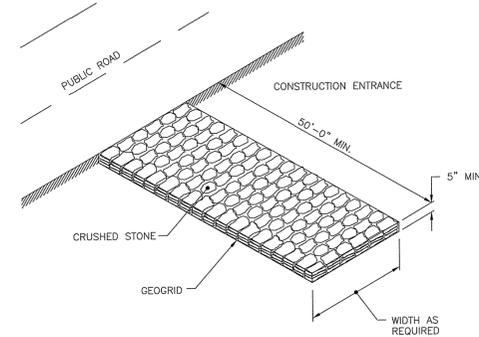


DRIVEWAY MAINTENANCE NOTES:

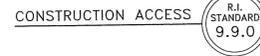
- THE SURFACE OF THE DRIVEWAY SHALL BE MONITORED AFTER STORMS TO ENSURE IT DRAINS PROPERLY. THE SURFACE SHALL BE INSPECTED ANNUALLY FOR DETERIORATION AND REPAIRED AS NEEDED.
- USE OF SAND AND SALT ON DRIVEWAY SHALL BE MINIMIZED.
- DRIVEWAY SHALL NOT BE REPAVED OR RESEALED WITH IMPERMEABLE PRODUCTS.
- PEASTONE/CRUSHED STONE SHALL BE REPLACED OR RE-GRADING PERFORMED AS NECESSARY TO MAINTAIN THE MINIMUM DEPTH OF STONE AND A LEVEL BOTTOM SURFACE.

PROPOSED DRIVEWAY SECTION DETAIL

NOT TO SCALE



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



RI DEM APPLICATION PLAN
LONG ENTRY ROAD

DETAIL SHEET

A.P. 16 LOT 9 & 150
GLOCESTER, RHODE ISLAND 02814
SCALE: AS SHOWN DATE: 12/01/21 SHEET 2 of 2

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1.	1-20-22	DEM COMMENTS	DKM

REGISTRATION:



GROUND BREAKING
DESIGNS, LLC
CIVIL ENGINEERING SOLUTIONS
90 HIGHLAND AVE., SOUTH KINGSTOWN, RI 02879 ☎ PHONE: (401) 622-2992

OWNER/APPLICANT
PETER MATHIEU, MATHIEU & ASSOC. LLC
208 LONG ENTRY ROAD
GLOCESTER, RI 02814