THIS DRAWING SET HAS NOT BEEN RELEASED FOR CONSTRUCTION

RUNCY / PASTERNACK RESIDENCE

12 Mathes Cove Road
Durham, New Hampshire

Assessor's Parcel 12 - 9-12

ISSUED FOR PERMITTING

Plan Issue Date:

August 30, 2021

Owner / Applicant:

Paul J. Runcy Rev. Trust
Paul J. Runcy, Trustee
2 Meader lane
Durham, NH 03824

Civil Engineer:

ALTUS ENGINEERING, INC.

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

Septic Designer:

horizons Engineering

5 Railroad St., P.O. Box 359
Newmarket, NH 03857
Phone: (603) 659-4979, Fax: (603) 659-4627
E-mail: HJS@MJS-ENGINEERING.COM

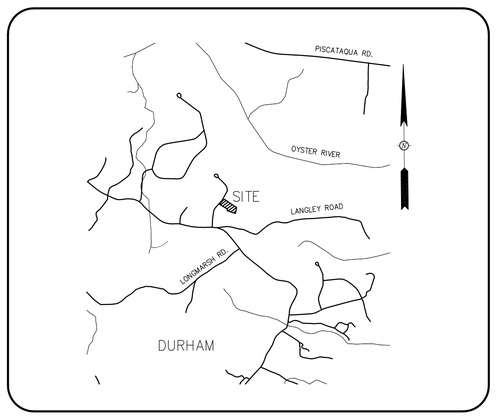
Surveyor:

DOUCET SURVEY LLC

Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

Wetland Scientist:

GZA GeoEnvironmental, Inc.
5 Commerce Park
North Bedford, NH 03110
Tel. (603) 232-8739

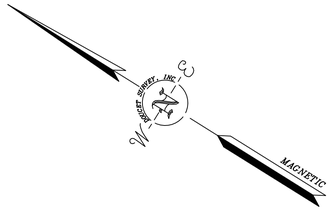


LOCUS NOT TO SCALE

Sheet Index

Title	*Sheet No.:*	*Rev.*	*Date*
Topographic Plan	1 of 1	0	03/09/17
Site and Stormwater Management Plan	C-1	0	08/30/21
Detail Sheet	C-2	0	08/30/21

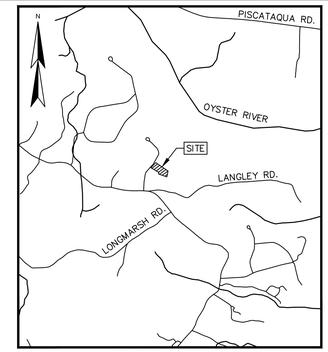
P5183



NOTES:

1. REFERENCE: TAX MAP 12, LOT 9–12
2. FIELD SURVEY PERFORMED BY E.J.S. & S.J.H. DURING FEBRUARY, 2017 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
3. HORIZONTAL DATUM BASED ON ASSUMED COORDINATES AND MAGNETIC BEARING.
4. VERTICAL DATUM IS BASED ON ASSUMED ELEVATION.
5. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 2' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY, INC. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
6. BOUNDARY INFORMATION AND WETLANDS AS SHOWN HEREON ARE BASED ON REFERENCE PLAN. NO NEW BOUNDARY SURVEY OR WETLAND DELINEATION HAVE BEEN PERFORMED FOR THE PURPOSE OF THIS PLAN.

REFERENCE PLAN:
"PLAN OF LAND FOR TIM McNAMARA, TAX MAP 12, LOT 9–12, MATHES COVE ROAD, DURHAM, NEW HAMPSHIRE" BY DOUCET SURVEY, INC. DATED OCT. 28, 2008.



LOCATION MAP (n.t.s.)

LEGEND

	PROPERTY LINE
	STONE WALL
OHW	OVERHEAD WIRES
D	DRAIN LINE
100	MAJOR CONTOUR LINE
98	MINOR CONTOUR LINE
	TREE LINE
	UTILITY POLE
	IRON PIPE/ROD FOUND
W	WELL
TB	TELEPHONE BOX
U	UTILITY BOX
	WETLAND AREA
	CONIFEROUS TREE
	DECIDUOUS TREE
	LEDGE OUTCROP
S.S.F.	STEEL STAKE FOUND
EP	EDGE OF PAVEMENT

30 0 30 60
SCALE: 1 INCH = 30 FT.

TOPOGRAPHIC PLAN
FOR
MJS ENGINEERING PC
OF
12 MATHES COVE ROAD
DURHAM, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	W.D.C.	DATE:	MARCH 9, 2017
CHECKED BY:	J.F.K.	DRAWING NO.:	4828A 03-10-17
JOB NO.:	4828	SHEET	1 OF 1

DOUCET SURVEY INC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

FILE NAME: Y:\PROJECTS\4828 CSD\SMALLD DATA\DATA\03-10-17\4828A 03-10-17.dwg LAYOUT NAME: D5 22x34 TOPO PLAN (1) PLOTTED: Friday, March 10, 2017 - 11:56am

SITE NOTES

1. DESIGN INTENT – THIS PLAN SET IS INTENDED TO DEPICT A SITE PLAN FOR A PROPOSED SINGLE FAMILY RESIDENCE.
2. PROPERTY REFERENCE: MAP 12 LOT 9–12
3. APPROXIMATE LOT AREA: ±81,250 S.F. (±1.87 AC.)
3. ZONE: RC (RESIDENCE COASTAL)
4. DIMENSIONAL REQUIREMENTS:
   - MIN. LOT AREA: 150,000 S.F.
   - MIN. ROAD FRONTAGE: 300'
   - MIN. FRONT SETBACK: 30'
   - MIN. SIDE SETBACK: 50'
   - MIN. REAR SETBACK: 50'
   - MAX. BUILDING HEIGHT: 30' (35' w/PB APPROVAL)
   - WETLAND BUFFER: 100'
   - WETLAND SETBACK (SEPTIC): 125'
   - MAX. IMPERVIOUS COVERAGE: 20% (9.5% PROVIDED/7,710 S.F.)
5. JURISDICTIONAL WETLANDS SHOWN WERE DERIVED FROM PLAN REFERENCE #1 (CONFIRMED BY JAMIE LONG, GZA GEOENVIRONMENTAL, INC. IN APRIL 2017).
6. SITE TO BE SERVED BY ON–SITE PRIVATE WELL AND SEPTIC SYSTEM, NHDES APPROVAL #ECA2018020509, DATED FEBRUARY 5, 2018 (PERMIT REQUIES AMENDMENT).
7. EXISTING CONDITIONS INFORMATION SHOWN WAS DERIVED FROM PLAN REFERENCE #1.
8. ALL STORMWATER INFRASTRUCTURE SHALL BE MAINTAINED BY THE PROPERTY OWNER AS SPECIFIED IN THE APPROVED PLANS.
9. THE USE OF SODIUM–CHLORIDE–BASED MATERIALS/SALT FOR WINTER MAINTENANCE SHALL BE THE MINIMUM NECESSARY FOR DRIVEWAY AND PARKING SAFETY.
10. PREVIOUSLY APPROVED NHDES WETLAND PERMIT #2017–01807, DATED JANUARY 26, 2018, PERMITTED 4,445 S.F. OF WETLANDS FILL (PERMIT EXPIRES JANUARY 16, 2023); CURRENTLY PROPOSING ONLY 3,300 S.F.
11. FOR MORE INFORMATION ABOUT THIS SITE PLAN, OR TO SEE THE COMPLETE PLAN SET, CONTACT THE TOWN OF DURHAM PLANNING DEPARTMENT, 8 NEWMARKET ROAD, DURHAM, NH 03824, (603) 868–8064.
12. PROPOSED WETLAND IMPACT: 3,300 SF
13. PROPOSED 100' WETLAND BUFFER IMPACT: 11,025 SF

PLAN REFERENCE:

1. "SITE PLAN PREPARED FOR ERIC AND AMBER SIRLES, TAX MAP 12, LOT 9–12, 12 MATHES COVE ROAD, DURHAM, NH" DATED 5/24/17, BY MJS ENGINEERING, P.C.

ZONING SECTION 175–62 AND 175–29.B
- SPECIAL EXCEPTION REQUIRED TO ALLOW A SEPTIC SYSTEM 100 FEET FROM WETLANDS WHERE 125 FEET IS REQUIRED.

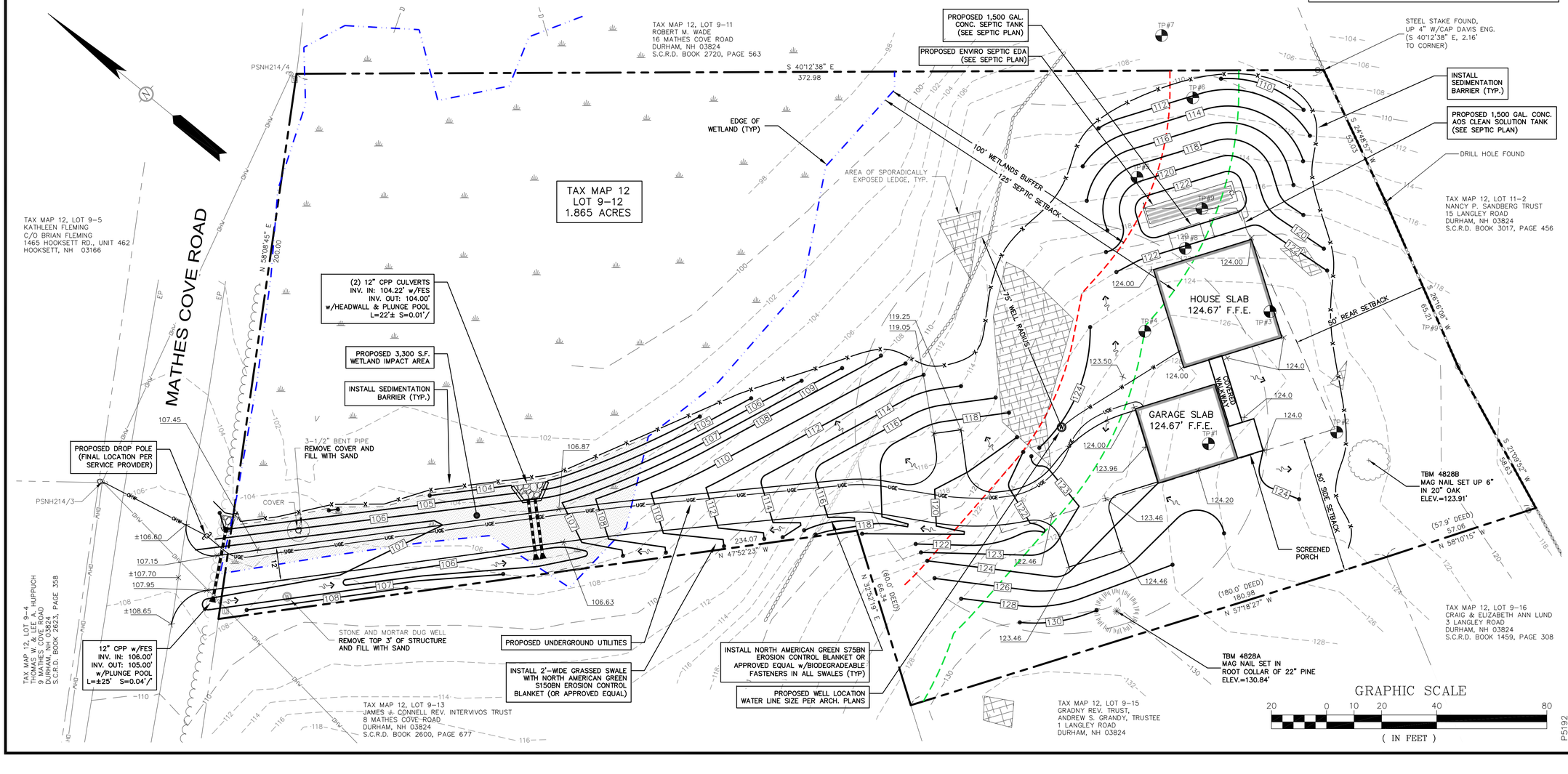
ZONING SECTION 175–56.H
- SPECIAL EXCEPTION REQUIRED TO ALLOW SEPTIC SYSTEM IN THE 50' SIDE STRUCTURE SETBACK.

ZONING SECTION 175–61
- CONDITIONAL USE PERMIT REQUIRED TO ALLOW CONSTRUCTION OF A DRIVEWAY AND UTILITIES IN THE 100 FEET WETLANDS CONSERVATION OVERLAY DISTRICT.

GRADING AND DRAINAGE NOTES

1. DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
2. CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
3. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF DURHAM AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
4. ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
5. UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBM) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
6. IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
7. IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
8. PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.

FINAL APPROVAL BY DURHAM PLANNING BOARD.
CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
CERTIFIED _____
DATE _____



ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
8/30/21

NOT FOR CONSTRUCTION

ISSUED FOR: PERMITTING

ISSUE DATE: SEPTEMBER 1, 2021

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	PERMITTING	EBS	09/01/21

DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5192–SITE.dwg

SCALE:
22" x 34" – 1" = 20'
11" x 17" – 1" = 40'

OWNER/APPLICANT:

PAUL J. RUNCY
REVOCABLE TRUST
PAUL J. RUNCY, TRUSTEE

2 MEADER LANE
DURHAM, NH 03824

PROJECT:

RUNCY / PASTERNACK RESIDENCE

TAX MAP 12 LOT 9–12

12 MATHES COVE ROAD
DURHAM, NH

TITLE:

SITE AND STORMWATER MANAGEMENT PLAN

SHEET NUMBER:

C-1

SEDIMENT AND EROSION CONTROL NOTES

PROJECT NAME AND LOCATION

RUNCY/PATERNACK RESIDENCE
12 MATHES COVE ROAD
DURHAM, NEW HAMPSHIRE
TAX MAP 12 LOT 9–12

LATITUDE: 43° 07' 12" N
LONGITUDE: 70° 53' 02" W

OWNER/APPLICANT:

PAUL J. RUNCY REV. TRUST
2 MEADER LANE
DURHAM, NH 03824

DESCRIPTION

The project consists of the construction of a single family residence & associated site improvements.

DISTURBED AREA

The total area to be disturbed for the development is approximately ±28,500 S.F. (±0.65 acres). USEPA NPDES Phase II compliance not required.

PROJECT PHASING

The proposed building, driveway and associated improvements will be completed in one phase.

NAME OF RECEIVING WATER

The site drains over land to an unnamed wetland and eventually to the Oyster River.

SEQUENCE OF MAJOR ACTIVITIES

1. Install temporary erosion control measures including perimeter controls as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
2. Remove vegetation from work limits. Strip loam and stockpile.
3. Rough grade site including placement of borrow materials.
4. Construct drainage structures and pavement base course materials.
5. Construct building and associated improvements.
6. Install septic system.
7. Install base course paving.
8. Loam (6" min) and seed all disturbed areas not paved or otherwise stabilized.
9. When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 – 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, perimeter controls shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area and permanent measures are established, perimeter controls shall be removed.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through appropriate perimeter controls. All storm drain inlets shall be provided with inlet protection measures.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

These are general inspection and maintenance practices that shall be used to implement the plan:

1. The smallest practical portion of the site shall be denuded at one time.
2. All control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater.
3. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
4. Built–up sediment shall be removed from perimeter barriers when it has reached one–third the height of the barrier or when "bulges" occur.
5. All diversion dikes shall be inspected and any breaches promptly repaired.
6. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
7. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans.
8. An area shall be considered stable if one of the following has occurred:
   a. Base coarse gravels have been installed in areas to be paved;
   b. A minimum of 85% vegetated growth as been established;
   c. A minimum of 3 inches of non–erosive material such as stone of riprap has been installed; – or –
   d. Erosion control blankets have been properly installed.
9. The length of time of exposure of area disturbed during construction shall not exceed 45 days.

B. MULCHING

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

1. Timing – In order for mulch to be effective, it must be in place prior to major storm events. There are two (2) types of standards which shall be used to assure this:
   a. Apply mulch prior to any storm event. This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.
   b. Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.
2. Guidelines for Winter Mulch Application –

Type	Rate per 1,000 s.f.	Use and Comments
Hay or Straw	70 to 90 lbs.	Must be dry and free from mold. May be used with plantings.
Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrub plantings.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CONTINUED)

Jute and Fibrous Matting (Erosion Blanket	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1–1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	* The organic matter content is between 80 and 100%, dry weight basis. * Particle size by weight is 100% passing a 6"screen and a minimum of 70 %, maximum of 85%, passing a 0.75" screen. *The organic portion needs to be fibrous and elongated. *Large portions of silts, clays or fine sands are not acceptable in the mix. * Soluble salts content is less than 4.0 mmhos/cm. *The pH should fall between 5.0 and 8.0.

3. Maintenance – All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

C. PERMANENT SEEDING –

1. Bedding – stones larger than $1\frac{1}{2}$", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.
2. Fertilizer – lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and organic fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:

   Agricultural Limestone @ 100 lbs. per 1,000 s.f.
   10–20–20 organic fertilizer @ 12 lbs. per 1,000 s.f.

3. Seed Mixture (recommended):

Type	Lbs. / Acre	Lbs. / 1,000 sf
Tall Fescue	24	0.55
Creeping Red Fescue	24	0.55
Total	48	1.10

Seed Mixture (For slope embankments):
Grass Seed: Provide fresh, clean, new–crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Provide seed mixture composed of grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified:

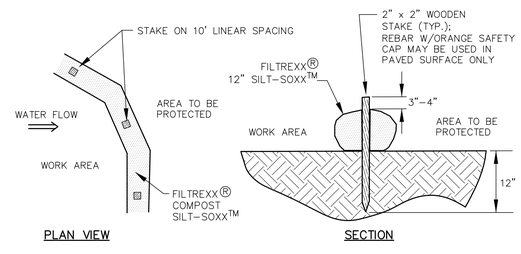
Type	Min. Purity (%)	Min. Germination (%)	Kg./Hectare (Lbs/Acre)
Creeping Red Fescue (c)	96	85	45 (40)
Perennial Rye Grass (a)	98	90	35 (30)
Redtop	95	80	5 (5)
Alsike Clover	97	90(e)	5 (5)
		Total	90 (80)

   a. Ryegrass shall be a certified fine–textured variety such as Pennfine, Fiesta, Yorktown, Diplomat, or equal.
   b. Fescue varieties shall include – Creeping Red and/or Hard Reliant, Scaldis, Koket, or Jamestown.

4. Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

WINTER CONSTRUCTION NOTES

1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events;
2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
3. After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.

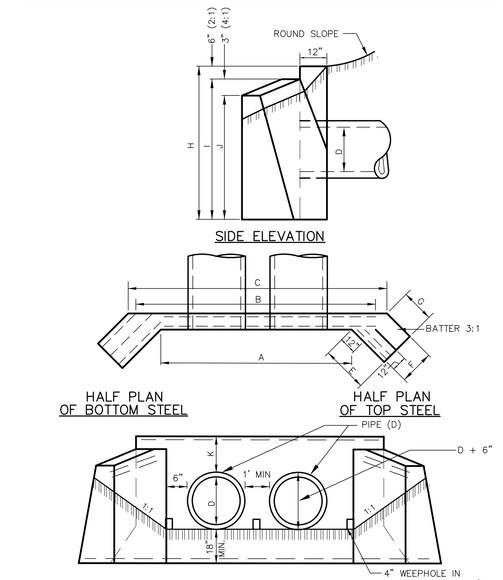


PLAN VIEW SECTION

NOTES:
1. SILTSOXX MAY BY USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
4. ALL SEDIMENT TRAPPED BY SILTSOXX SHALL BE DISPOSED OF PROPERLY.

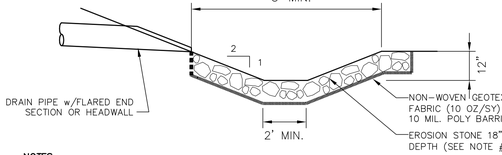
TUBULAR SEDIMENT BARRIER NOT TO SCALE

DIMENSIONS										
A	B	C	D	E	F	G	H	I	J	K
5'–0"	6'–5"	7'–0"	12"	3'–0"	1'–11"	2'–3"	4'–0"	3'–6"	3'–3"	1'–0"



NOTE: MORTAR RUBBLE MASONRY PERMITTED IN LIEU OF CONCRETE.

CONCRETE HEADWALL w/ WINGWALLS NOT TO SCALE

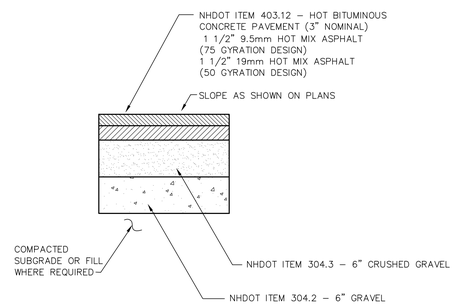


NOTES
1. CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
2. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO ACCOUNT FOR THE DEPTH OF RIPRAP.
3. EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION:

SIZE	PERCENT PASSING BY WEIGHT
18"	100
12"	90–100
4"	0–15

4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18".
5. THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

PLUNGE POOL NOT TO SCALE

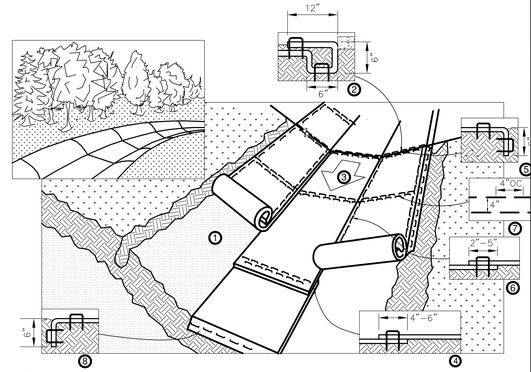


PAVEMENT CROSS SECTION NOT TO SCALE

FINAL APPROVAL BY DURHAM PLANNING BOARD.
CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
CERTIFIED _____
DATE _____

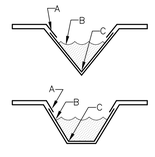
LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- WETLAND/SHORELAND SETBACK
- VGC SGC — EXISTING PAVEMENT/CURB
- VGC SGC — PROP. PAVEMENT/VERTICAL OR SLOPED GRANITE CURB
- 60 — EXISTING CONTOUR
- 60 — PROPOSED CONTOUR/INTERMEDIATE CONTOUR
- x 100.00 / x 104.00T 100.00B — PROPOSED SPOT GRADE/TOP & BOTTOM OF WALL OR CURB
- OHW UGU — EXIST. OVERHEAD/UNDERGROUND UTILITIES/POLE
- D D — EXISTING DRAINAGE/CB/DMH
- W — PROPOSED DOMESTIC WATER SERVICE LINE/WELL
- UGE — PROPOSED UNDERGROUND ELECTRIC/PHONE/TV
- PROPOSED DRAINAGE (HARD PIPE)/FES
- CPP FES HDWL — CORRUGATED PLASTIC PIPE/FLARED END SECTION/HEADWALL
- SILTFENCE/SEDIMENT BARRIER/CONST. FENCE
- EXISTING TREE/DRIP LINE
- PROPOSED RIPRAP



NOTES

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"–6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"–5" (DEPENDING ON BLANKET TYPE) AND STAPLED. TO INSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



CRITICAL POINTS:

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTES:

* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

EROSION CONTROL BLANKET - SWALE NOT TO SCALE

P5192

ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
8/30/21

NOT FOR CONSTRUCTION

ISSUED FOR: PERMITTING

ISSUE DATE: SEPTEMBER 1, 2021

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	PERMITTING	EBS	09/01/21

DRAWN BY: RLH
APPROVED BY: EBS
DRAWING FILE: 5192–SITE.dwg

SCALE: NOT TO SCALE

OWNER/APPLICANT:

PAUL J. RUNCY
REVOCABLE TRUST
PAUL J. RUNCY, TRUSTEE

2 MEADER LANE
DURHAM, NH 03824

PROJECT:

RUNCY / PASTERNACK RESIDENCE

TAX MAP 12 LOT 9–12

12 MATHES COVE ROAD
DURHAM, NH

TITLE:

DETAILS

SHEET NUMBER:

C-2