New Center for Emergency Services
Phase 1 - Excavation

25 Rocky Hollow Road
North Stonington, CT 06359

Drawing List

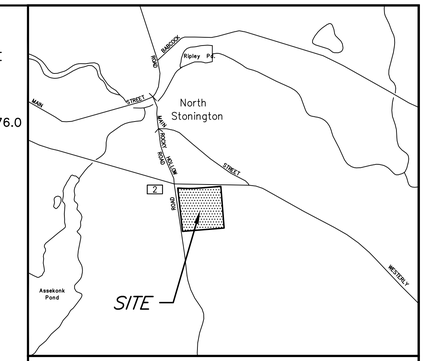
Cover Sheet
C1 - Demolition Plan/Phase 1 Excavation Plan
C2 - Erosion Control Details

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340
Tel. 203 230 9007 Fax. 203 230 8247
silverpetrucelli.com

August 20, 2014

ISSUED FOR BID: September 29, 2014



LOCATION MAP SCALE: 1" = 1000'

SYMBOL	DESCRIPTION	CROSS SECTION
N	NATIVE MATERIAL	
G_1 G_2 G_3 G_4	GRASS*	Line, fertilizer and grass seed* (see specs & Sheet C2); 4" Min., topsoil (no stones larger than 3"); Subgrade (common backfill)
G_R	GRAVEL	12" Processed aggregate, bank run gravel or reclaimed misc. aggregate (compacted); Subgrade (common backfill)

* G_1 = Upland Mix, G_2 = Wetland Mix, G_3 = General Turf Mix, G_4 = Annual Rye Mix

SURFACE CODE LEGEND
N.T.S.

DETENTION POND EMBANKMENT CONSTRUCTION NOTES AND SPECIFICATIONS:

1. Remove topsoil & subsoil materials from under the embankment area to minimum depth of two (2) feet.
2. Embankment shall be constructed of earth and shall be constructed by depositing successive layers of fill for the full width of the embankment. The depth of each layer before compaction shall not exceed twelve (12) inches and shall be compacted to 90% of maximum dry density.
3. Embankment to be benched into adjacent slopes on each lift.
4. The embankment shall be crowned or pitched to provide drainage at the close of each day's operation.
5. The fill material for the embankment shall be taken from approved borrow areas. It shall be clean mineral soil, free of roots, woody vegetation, stumps, sod, oversized stones, rocks, or other organic or unsuitable material. The material selected shall have enough strength for the embankment to remain stable and be tight enough, when properly compacted, to prevent excessive seepage of water through the dam. Fill containing particles ranging from, small gravel or course sand to fine sand and clay in desired proportions is appropriate. Embankment material should contain at least 15% passing the #200 sieve. No stones larger then 6 inches shall be allowed within the compacted embankment. Within two feet of any structure, the maximum size shall be 3 inches. Construction shall not take place during cold periods where temperatures are consistently lower than 40 degrees Fahrenheit. The soil intended for the embankment shall be laboratory tested with a written report by a Professional Engineer licensed to practice in Connecticut, experienced in the field of soils. The report shall carry the Engineer's findings and suggested design parameters if at variance with those proposed in the design.
6. Compaction: Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain the proper amount of moisture to ensure that 90%–95% Standard Proctor Compaction will be achieved. Fill material will be placed in 12–inch max. continuous layers over the entire length of the fill. Compaction shall be obtained by using a compactor. Special care shall be taken in compacting around the anti–seep collars, conduits and structures to avoid damage and achieve desired compaction.
7. The contractor shall provide for a minimum of six (6) compaction tests in each embankment fill lift, of each detention pond, at locations specified by the Engineer. Said tests shall be performed by State of Connecticut certified testing laboratory and approved by the Design Engineer.
8. The Design Engineer shall observe the embankment construction and approve the material, embankment formation, compaction and testing of same.
9. Vegetative Soil Cover: Permanent vegetation cover to be established on all exposed embankment areas within ten (10) days of final grading. A topsoil layer of four (4) inches shall be installed prior to seeding. All debris and surface stones two (2) inches or larger in any dimension shall be removed. Hydroseed all exposed areas. Install erosion control blankets to provide temporary surface protection for newly seeded areas.

NOTES:

1. Base survey information has been provided by Archer Surveying LLC, 468 Allen Hill Road, Brooklyn, CT, (860) 779–2240. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20–300b–20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996.

   This Survey conforms to a Class "A–2" Horizontal Accuracy and "T–2" Vertical Accuracy. Survey Type: Existing Conditions Survey, Boundary Determination: Resurvey, Intent: Depicting Existing Conditions with respect to Property Line. Topographic information obtained by actual field measurements, Datum Assumed.
2. MAP REFERENCES:
   a. Map entitled "Existing Conditions Survey Prepared for Town of North Stonington, Route 2/ Rocky Hill Road, North Stonington, Connecticut," Scale: 1"=40', Dated: May 2014, Revised: June 2014, by Archer Surveying LLC, 468 Allen Hill Road, Brooklyn, CT, (860) 779–2240.
3. Parcel is known as Lot 6364 on Town of North Stonington Assessor's Map No. 109, and is located within Zone R–40.
4. Total Area = 348,306± S.F. – 8.00± Ac.
5. This lot does not include land areas within the Federal Emergency Management Agency's 100–year flood hazard area.
6. All underground utilities, structures and facility locations shown and depicted hereon must be considered approximate in nature. Additionally, other such underground utilities are NOT shown, the existence and location of which are unknown. Contact "CALL BEFORE YOU DIG" (1–800–922–4455) at least 72 hours in advance of construction, and have all utilities marked on the ground.
7. Owner & Applicant: Town of North Stonington, 40 Main Street, North Stonington, CT 06359
8. No wetlands exist on this site per letter dated July 29, 2014 from Joseph Thoroux, Certified Soil Scientist, P.O. Box 32 Voluntown, CT 06384.
9. The Contractor is responsible for all site safety & security within the Contract Limit Line and shall take adequate precautions (i.e. signage, barriers & fencing) to secure the site and protect the general public.

LEGEND

C.H.D.	Conn. Hwy. Dept. Monument
Mon.	Monument
	Iron Pin to be Set
	Concrete Monument to be Set
I. Pipe	Iron Pipe
I.P.	Iron Pin
D.H.	Drill Hole
	Pile of Stones
F.P.	Fence Post
Fnd.	Found
n/f	Now or Formerly
	Property Line
℄	Centerline
	Ledge or Boulders
	Earth or gravel fill
200.0 ×	Existing Spot Elevation
200.0 × I.E.	Proposed Spot Elevation / Invert Elevation of Pipe
W.G.	Water gate valve
G.G.	Gas gate valve
W	Water main
G	Gas main
WS	Water service lateral
SS	Sanitary sewer lateral
	Proposed bituminous apron
	Proposed construction entrance
	Flush conditions at doorway
	Stone Wall
	Barbed Wire Fence
	Fence
	Utility Pole
U.I.	United Illuminating Co. Pole
C.L.&P.	Conn. Light & Power Co. Pole
SNET	Southern New England Telephone
	Manhole
	Catch Basin
	Evergreen Tree
	Deciduous Tree
	Swampy or Wetlands
	Watercourse
90	Existing Contours
90	Proposed Contours
R.C.P.	Reinforced Concrete Pipe
H.D.P.P.	High Density Polyethylene Pipe
Perc.#	Percolation Test Location
TP#	Deep Test Pit Location
	Stone Retaining Wall
	Soil Type Boundary
	Proposed Lot Construction Filter Barrier
WL100	Wetland Flag Number
	Proposed storm water catch basin
	Proposed storm water sewer
	P.B.C. (Proposed bituminous curb)
	P.C.C. (Proposed concrete curb)

See Sheet C2 for Erosion Control Notes, Details and Proposed Sequence.

TEMPORARY SEDIMENT TRAP SCHEDULE

TST #	CONTRIBUTING AREA (Ac.)	REQUIRED VOL. 134 c.y./Ac. (c.f.)	VOL. PROVIDED (c.f.)	BOTTOM (Elev./Dim's)	WATER SURFACE (Elev./Dim's)	TOP BERM ELEV.
Perimeter	2.93	10,611	19,625	194.0/25x786	195.0/29x790	196.0

GRAPHIC SCALE: 40 0 40 80

REVISIONS		
NO.	DESCRIPTION	DATE

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DEMOLITION PLAN/ PHASE 1 EXCAVATION PLAN

TOWN OF NORTH STONINGTON
CENTER FOR EMERGENCY SERVICES
#25 ROCKY HOLLOW ROAD
NORTH STONINGTON, CONNECTICUT

Job No. 14–01
Scale: 1"=40'
Date: 8/20/14
Designed: D.W.S.
Drawn: K.D.K.
Sheet: C1

EROSION CONTROL NOTES:

1. Land disturbance shall be kept to the minimum necessary for construction operations.
2. All soil erosion and sediment control measures must be constructed in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control by the Connecticut Council on Soil and Water Conservation in cooperation with the Connecticut Department of Environmental Protection.
3. Erosion and sediment control measures shall be installed as depicted on this plan, and maintained in an effective condition throughout the construction period. Additional measures shall be installed as necessary and required.
4. All disturbed areas shall be permanently stabilized as soon as practicable.
5. Mr. Mark Perkins, Building Committee Chairman, 40 Main Street N. Stonington, CT 06359 860-625-1630, and the Site Contractor (to be determined) are assigned the responsibility for implementing the control measures of this plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of this plan, and notifying the Planning and Zoning Commission of the transfer of this responsibility, and for conveying a copy of this plan if title to the property is transferred.

GENERAL CONSTRUCTION SEQUENCE – PHASE 1:

The anticipated time of completion for all aspects of the Phase 1 construction is six months (6) months from the initial start date.

The general sequence of work will be as follows:

1. Flag clearing limits, Notify "Call Before You Dig" (1-800-922-4455) and hold pre-construction meeting prior to any onsite activity. (Estimated Time: 5 days)
2. Install construction entrance (Estimated Time: 1 day)
3. Clear trees from proposed development area and legally dispose of all grubbed materials. (Estimated Time: 5 days)
4. Install perimeter silt fence and temporary diversion berm as shown on plans and as directed by the "Engineer". Maintain all erosion and sediment control measures in an effective condition throughout the construction phase. (Estimated Time: 3 days)
5. Excavate perimeter TEMPORARY SEDIMENT TRAP (TST) and Install temporary outlets. (Estimated Time: 10 days)
6. Grub stumps from proposed development area and legally dispose of all grubbed materials. (Estimated Time: 5 days)
7. Strip and stockpile topsoil. Install silt fence around perimeter of stockpile areas and temporarily seed. (Estimated Time: 5 days)
8. Remove, salvage and stockpile stone walls. (Estimated Time: 5 days)
9. Commence general excavation working from west to east. Install temporary berms and ditches as required to direct runoff to perimeter TST. (Estimated Time: 60 days)
10. Construct Detention Pond embankment and maintenance driveway. Install Detention pond outlet structure, HDPP and storm drainage outlet. (Estimated Time: 15 days)
11. Complete excavation to indicated grades. Install topsoil, grass seed and mulch. Stabilize all cut and fill slopes as soon as practical after formation. (Estimated Time: 4 weeks)

GENERAL CONSTRUCTION SEQUENCE – PHASE 2:

The anticipated time of completion for all aspects of construction is twelve (12) months from the initial start date.

The general sequence of work will be as follows and work may occur in more than one phase at any given time.

1. Notify "Call Before You Dig" (1-800-922-4455) and hold pre-construction meeting prior to any onsite activity. (Estimated Time: 3 days)
2. Install construction entrances and additional erosion control measures as indicated. Maintain all erosion and sediment control measures in an effective condition throughout the construction phase. (Estimated Time: 1 day)
3. Excavate for TST #1 & #2, Install temporary berms and ditches to direct runoff to TST. (Estimated Time: 3 days)
4. Strip and stockpile topsoil. Install silt fence around perimeter of stockpile areas and temporarily seed. (Estimated Time: 1 day)
5. Excavate for building footings and foundations, install footings and foundations and backfill. (Estimated Time: 30 days)
6. Begin building construction. (Estimated Time: 52 weeks)
7. Install on-site utilities (water, sewer, elec./tele/CATV & gas) (Estimated Time: 3 weeks)
8. Install new storm drainage and Storm Water Management Systems (SWMS). (Estimated Time: 4 weeks)
9. Install concrete curbing and sidewalks. (Estimated Time: 2 weeks)
10. Complete "boxing out" of parking lot and driveway areas, form shoulders and prepare subgrade for gravel base. (Estimated Time: 2 weeks)
11. Remove temporary sediment traps. (Estimated Time: 1 week)
12. Install gravel and processed aggregate roadway base courses. (Estimated Time: 10 days)
13. Install bituminous concrete pavement. (Estimated Time: 1 week)
14. Install parking and traffic markings and signage. (Estimated Time: 1 week)
15. Install landscape plantings and complete loaming and seeding of grass areas and all remaining disturbed areas as soon as practical. (Estimated Time: 10 days)

TEMPORARY SEDIMENT TRAP

CONSTRUCTION NOTES:

1. Excavate as needed to attain the necessary storage requirements.

MAINTENANCE NOTES:

1. Inspect the temporary sediment trap at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater.
2. Check the outlet to ensure that it is structurally sound and has not been damaged by erosion or construction equipment.
3. Check for sediment accumulation and filtration performance.
4. When sediments have accumulated to one half the minimum required volume of the wet storage, dewater the trap as needed, remove sediments and restore the trap to its original dimensions. Dispose of the sediment removed from the basin in a suitable area and in such a manner that it will not erode and cause sedimentation problems.
5. The temporary sediment trap may be removed after the contributing drainage area is stabilized.

WETLAND SEED MIX:

SPECIES: FOX SEDGE, (CAREX VULPINOIDEA), LURID SEDGE, (CAREX LURIDA), BLUNT BROOM SEDGE, (CAREX SCOPARIA), SENSITIVE FERN, (ONOCLEA SENSIBILIS), BLUE VERVAIN, (VERBENA HASTATA), HOP SEDGE, (CAREX LUPULINA), GREEN BULRUSH, (SCIRPUS ATROVIRENS), NODDING BUR MARIGOLD, (BIDENS CER-NUA), BRISTLY SEDGE, (CAREX COMOSA), FRINGED SEDGE, (CAREX CRINITA), AMERICAN MANNAGRASS, (GLYCERIA GRANDIS), WOOL GRASS, (SCIRPUS CYPERINUS), SOFT RUSH, (JUNCUS EFFUSUS), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), BONESET, (EUPATORIUM PERFOLIATUM), MUD PLANTAIN, (ALISMA SUBCORDATUM), NEW ENGLAND ASTER, (ASTER NOVAE-ANGLIAE), RATTLESNAKE GRASS, (GLYCERIA CANADENSIS), PURPLESTEM ASTER (ASTER PUNICEUS), SOFT STEM BULRUSH, (SCIRPUS VALIDUS), BLUEFLAG (IRIS VERSICOLOR), SWAMP MILKWEED, (ASCLEPIAS INCARNATA), MONKEY FLOWER, (MIMULUS RINGENS). THE FUNCTIONALITY OF EACH MIX WILL REMAIN UNCHANGED, ALTHOUGH MIX COMPOSITION MAY VARY DURING THE YEAR.

APPLICATION RATE: 1 POUND / 2,500 SQUARE FEET

UPLAND SEED MIX:

GRASSES

VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), CREEPING RED FESCUE (FESTUCA RUBRA), BIG BLUESTEM (ANDROPOGON GERARDII), INDIAN GRASS (SORGHASTRUM NUTANS), SWITCH GRASS (PANICUM VIRGATUM)

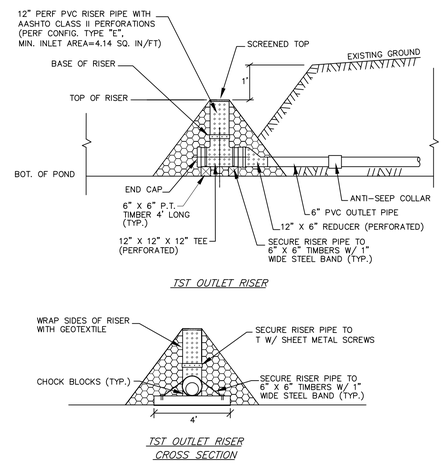
WILDFLOWERS

PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), GOLDEN ALEXANDERS (ZIZIA AUREA), SMOOTH BLUE ASTER (ASTER LAEVIS), BUSH CLOVER (LESPEDEZA CAPITATA), PURPLE JOE PYE WEED (EUPATORIUM PURPUREUM), WILD BERGAMOT (MONARDA FISTULOSA), GREEN HEADED CONEFLOWER (RUDBECKIA LACINIATA), GRASS LEAVED GOLDENROD (EUTHAMIA GRAMINIFOLIA), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), EARLY GOLDENROD (SOLIDAGO JUNCEA)

SHRUBS

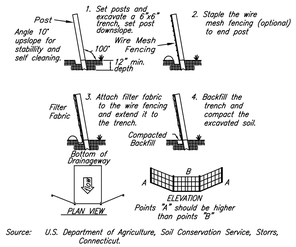
RED-OSIERDOGWOOD (CORNUS SERICEA), STAGHORN SUMAC (RHUS TYPHINA), WITCH HAZEL (HAMAMELIS VIRGINIANA), BLACK CHERRY (PRUNUS SEROTINA)

APPLIATION RATE: 1 POUND / 1,250 SQUARE FEET



4 TEMPORARY SEDIMENT TRAP OUTLET RISER

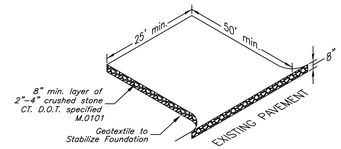
N.T.S.



Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut.

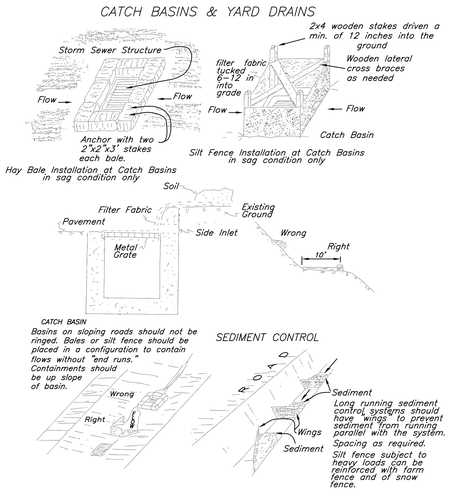
1 PLACEMENT AND CONSTRUCTION OF A SYNTHETIC FILTER BARRIER

N.T.S.



2 CONSTRUCTION ENTRANCE ANTI - TRACKING PAD

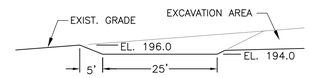
N.T.S.



Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, CT.

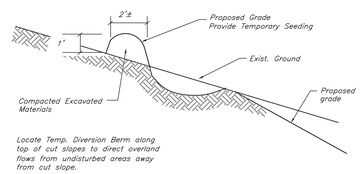
3 PLACEMENT OF CONTROL MEASURES AT CATCH BASINS & YARD DRAINS

N.T.S.



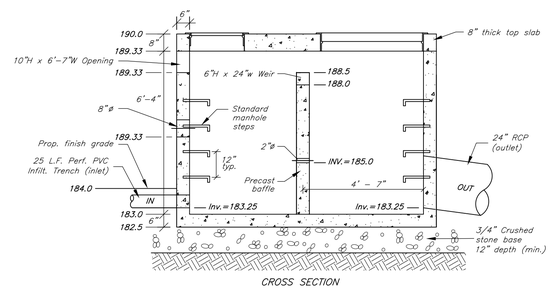
5 PERIMETER TEMPORARY SEDIMENT TRAP SECTION

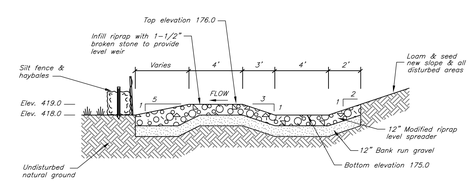
N.T.S.



6 TEMPORARY DIVERSION BERM

NOT TO SCALE





7 TYPICAL SECTION THRU LEVEL SPREADER

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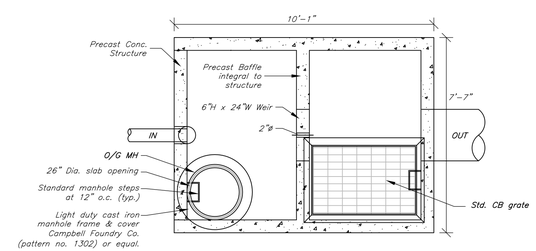

8 OUTLET CONTROL STRUCTURE #3 DETAIL

N.T.S.

SOIL TESTING RESULTS:

TESTING PERFORMED BY THE OFFICE OF DONALD W. SMITH, JR., P.E. CONSULTING ENGINEER, DEEP TEST PITS OBSERVED BY WAYNE GREEN R.S. OF THE NORTH STONINGTON HEALTH DEPT.

TP #1 (6/4/14)

0"-8" TOPSOIL
8"-36" ORN-BRN SANDY LOAM
36"-50" ORG. MOTTLED SANDY LOAM
50"-115" GREY COMPACT SANDY HARD PAN

NO LEDGE / NO WATER / MOTTLING @ 36"

TP #2 (6/4/14)

0"-8" TOPSOIL
8"-40" ORN-BRN SANDY LOAM
40"-120" GREY COMPACT SANDY HARD PAN (SIEVE SAMPLE #1 @ 60")

NO LEDGE / NO WATER / MOTTLING @ 40"

TP #3 (6/4/14)

0"-8" TOPSOIL
8"-52" ORN-BRN SANDY LOAM
52"-125" GREY F-C SAND & F GRAVEL, COMPACT

NO LEDGE / NO WATER / NO MOTTLING

TP #4 (6/4/14)

0"-10" TOPSOIL
10"-38" ORN-BRN SANDY LOAM
38"-144" GREY COMPACT SAND & F GRAVEL (SIEVE SAMPLE #3 @ 72")

NO LEDGE / NO WATER / NO MOTTLING

TP #5 (6/4/14)

0"-8" TOPSOIL
8"-42" ORN-BRN SANDY LOAM
42"-110" GREY COMPACT SAND & F GRAVEL

NO LEDGE / NO WATER / NO MOTTLING

TP #6 (6/4/14)

0"-8" TOPSOIL
8"-28" ORN-BRN SANDY LOAM
28"-110" GREY COMPACT SAND & F GRAVEL

NO LEDGE / NO WATER / NO MOTTLING

TP #7 (6/4/14)

0"-10" TOPSOIL
10"-55" ORN-BRN SANDY LOAM
55"-125" GREY COMPACT SAND & F GRAVEL

NO LEDGE / NO WATER / MOTTLING @ 55"

TP #8 (6/4/14)

0"-8" TOPSOIL
8"-30" ORN-BRN SANDY LOAM
30"-48" GREY COMPACT SAND & F GRAVEL - STOPPED EXCAVATION @ 48" NOT REFUSAL

NO LEDGE / NO WATER / NO MOTTLING

TP #9 (6/4/14)

0"-8" TOPSOIL
8"-30" ORN-BRN SANDY LOAM
30"-144" TAN & GREY COMPACT SAND & F GRVL (SIEVE SAMPLE #2 @ 96")

NO LEDGE / NO WATER / NO MOTTLING

MODIFIED RIPRAP:

ROCK SIZE	% OF WEIGHT (MASS)
LESS THAN 10"	100%
6" to 10"	20 - 50%
4" to 6"	30 - 60%
2" to 4"	30 - 40%
1" to 2"	10 - 20%
LESS THAN 2"	0 - 10%

REVISIONS		
NO.	DESCRIPTION	DATE

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EROSION CONTROL DETAILS

TOWN OF NORTH STONINGTON
CENTER FOR EMERGENCY SERVICES

#25 ROCKY HOLLOW ROAD

NORTH STONINGTON, CONNECTICUT

Job No. 14-01
Scale: As Noted
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