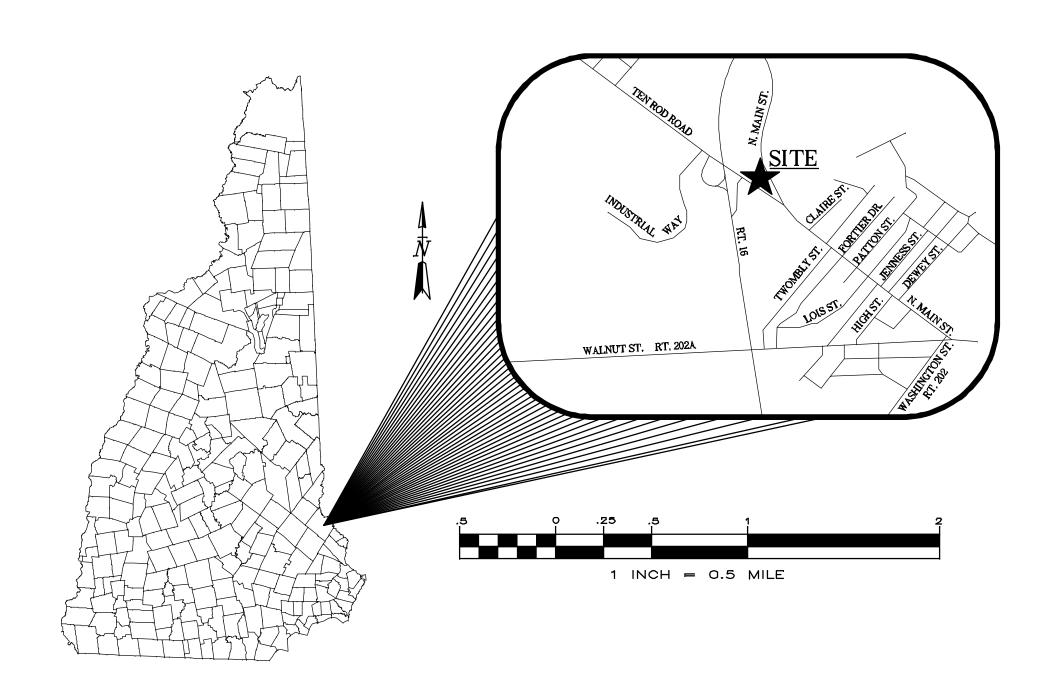
SITE PLAN NH ROUTE 11/TEN ROD ROAD ROCHESTER, N.H. FOR ROCHESTERDOM, LLC

NOVEMBER 2011



GRADING, EROSION CONTROL & 1" = 20' & UTILITIES PLAN 3 TO C-4 EROSION CONTROL DETAILS DRAINAGE STRUCTURE DETAILS AS SHOWN	S-1 C-1	EXISTING FEATURES PLAN SITE PLAN	1" = 20' $1" = 20'$
DRAINAGE STRUCTURE DETAILS AS SHOWN	C-2	-	
	C-3 TO C-4	EROSION CONTROL DETAILS	AS SHOWN
6 CONSTRUCTION DETAILS AS SHOWE	C -5	DRAINAGE STRUCTURE DETAILS	AS SHOWN
	C-6	CONSTRUCTION DETAILS	AS SHOWN
SITE LIGHTING PHOTOMETRIC PLAN 1" = 20'	C-7	SITE LIGHTING PHOTOMETRIC PLAN	1" = 20'
1 LANDSCAPE PLAN 1" = 20'	L-1	LANDSCAPE PLAN	1" = 20'

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY____

CIVIL ENGINEERS

NORWAY PLAINS ASSOCIATES, INC. 2 CONTINENTAL BOULEVARD ROCHESTER, NEW HAMPSHIRE 03867 (603) 335-3948

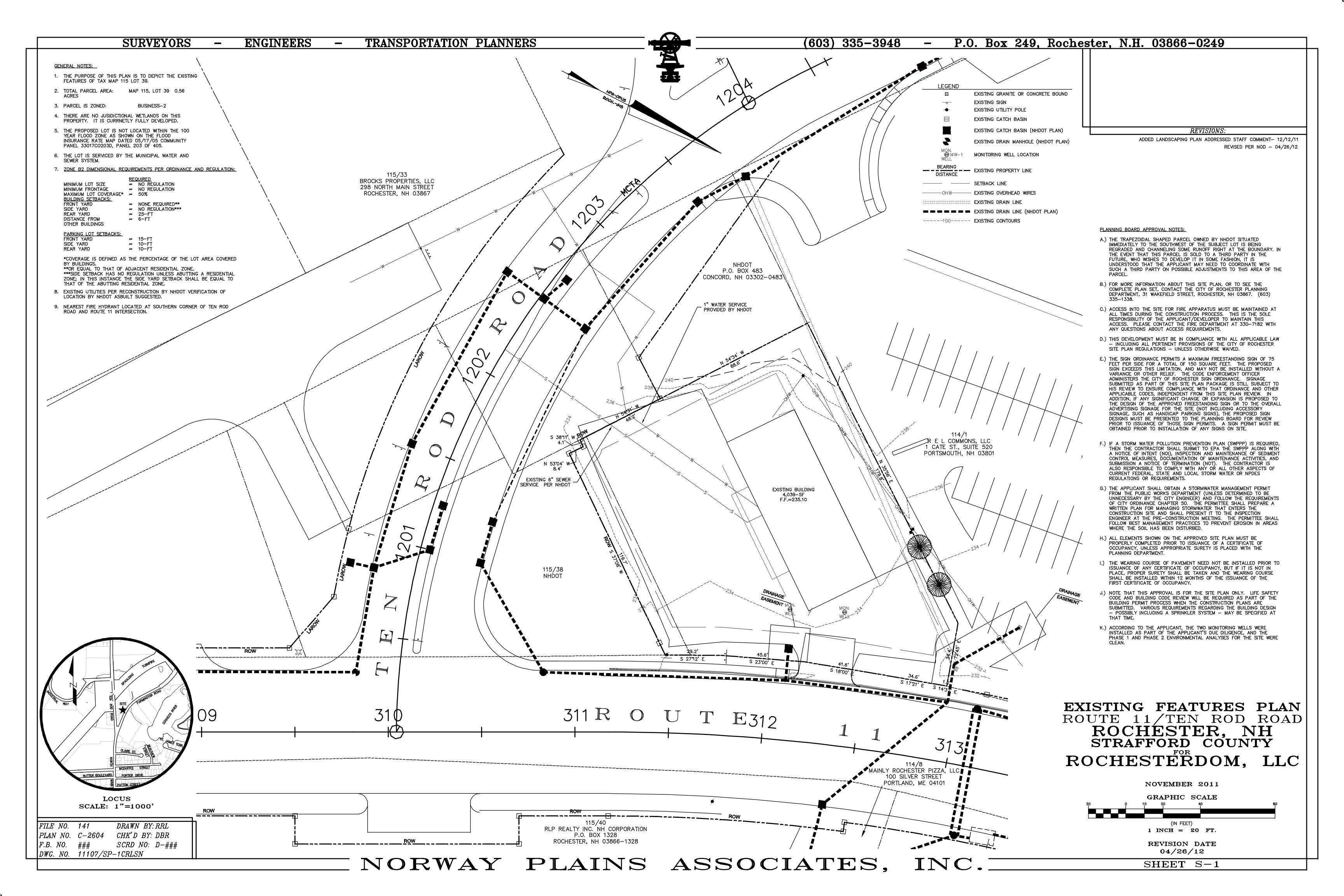
APPLICANT

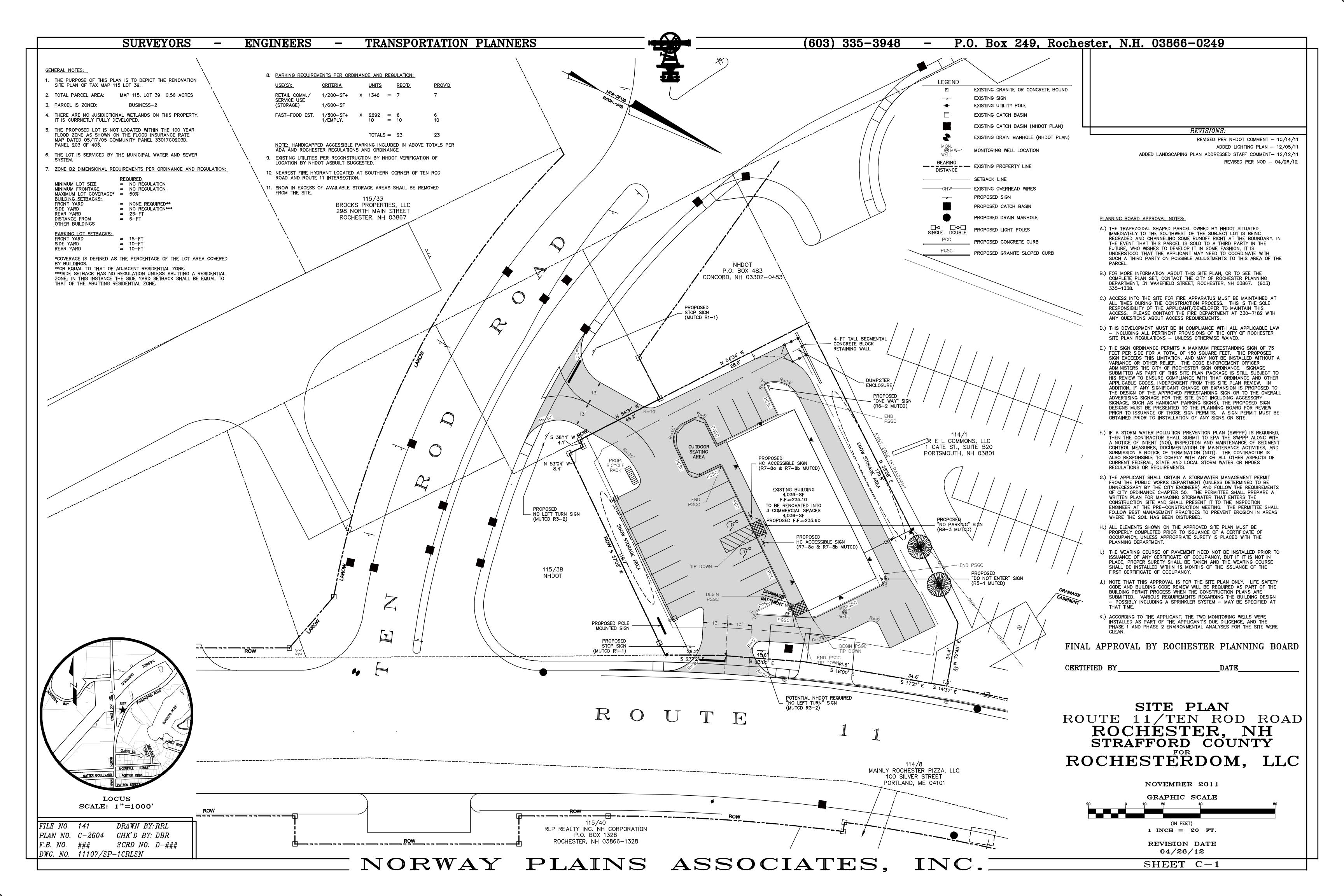
ROCHESTERDOM, LLC C/O DAVID JENKS 100 CONIFER DRIVE, SUITE 402 DANVERS, MA 01923 (978)777 - 8044

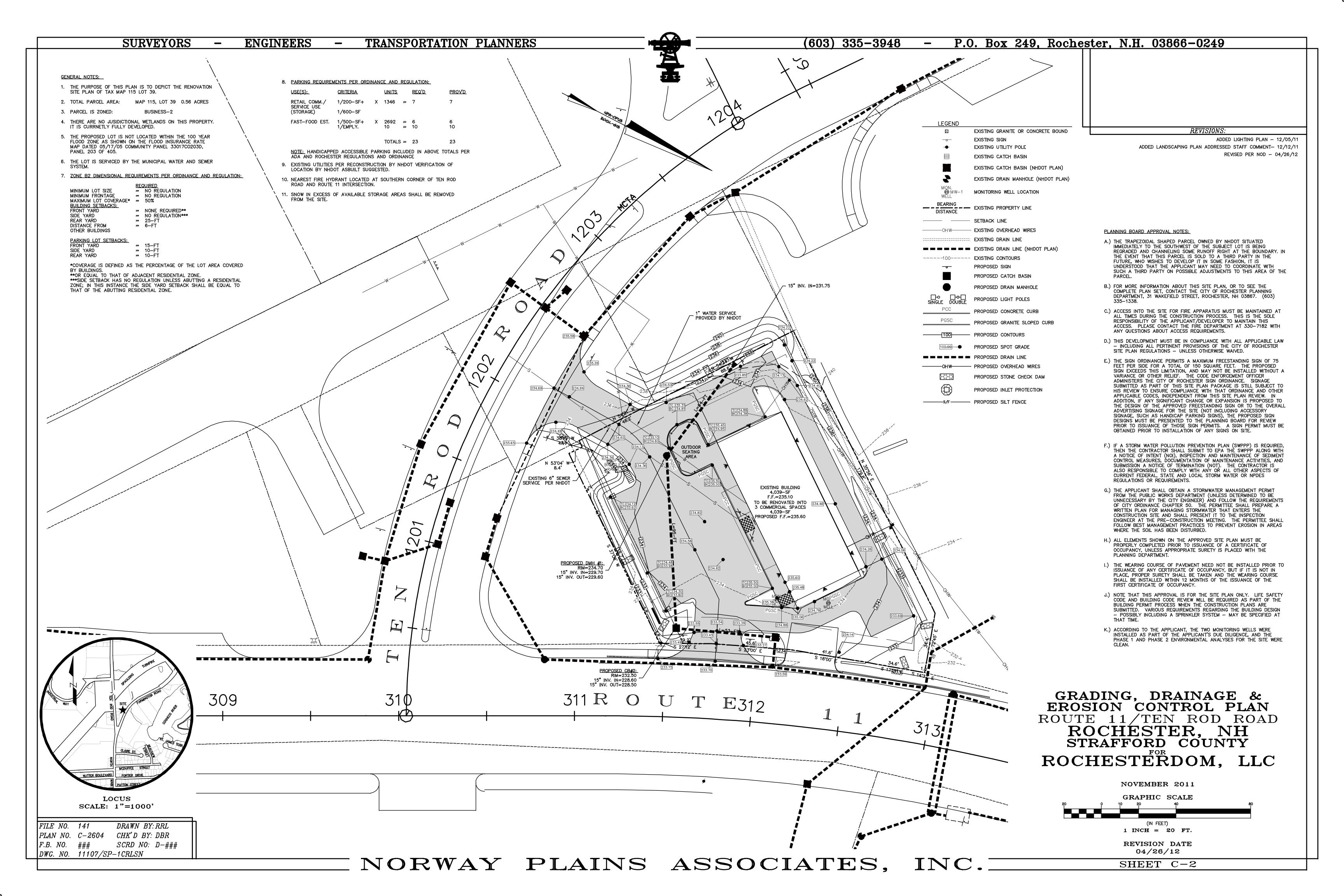
PROPERTY OWNER

MELODY VIEL 633 FIRST CROWN POINT ROAD STRAFFORD, NH 03884 (603) 332-1921

PLAN NO. C-2604 CHK'D BY: RRL F.B. NO. ### SCRD NO: D-### DWG. NO. 11107/SP-1CRLSN







WINTER STABILIZATION &

CONSTRUCTION PRACTICES:

MAINTENANCE MEASURES SHOULD BE PERFORMED THROUGHOUT

CONTINUED FUNCTION.

PERIOD FROM OCTOBER 15 THROUGH MAY 15.

NHSMM, VOL. 3 FOR SPECIFICATION).

OCTOBER 15.

CONSTRUCTION, INCLUDING OVER THE WINTER PERIOD. AFTER EACH

RAINFALL, SNOWSTORM, OR PERIOD OF THAWING AND RUNOFF, THE SITE

CONTRACTOR SHOULD CONDUCT INSPECTION OF ALL INSTALLED EROSION

2. FOR ANY AREA STABILIZED BY TEMPORARY OR PERMANENT SEEDING PRIOR

CONDUCT AN INSPECTION IN THE SPRING TO ASCERTAIN THE CONDITION OF THE VEGETATION AND REPAIR ANY DAMAGED AREAS OR BARE SPOTS AND

RESEED AS REQUIRED TO ACHIEVE AN ESTABLISHED VEGETATIVE COVER (AT

FOLLOWING STABILIZATION TECHNIQUES SHOULD BE EMPLOYED DURING THE

TO THE ONSET OF THE WINTER SEASON, THE CONTRACTOR SHOULD

LEAST 85% OF AREA VEGETATED WITH HEALTHY, VIGOROUS GROWTH.)

THE AREA OF EXPOSED, UNSTABILIZED SOIL SHOULD BE LIMITED TO 1-ACRE

NHSMM, VOL. 3 AND ELSEWHERE IN THIS PLAN SET, PRIOR TO ANY THAW OR

ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR

ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15%

WHICH DO NOT EXHIBIT A MINIMUM 85% VEGETATIVE GROWTH BY OR ARE

ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX (REFER TO

ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN

WITH A PROPERLY INSTALLED EROSION CONTROL BLANKET OR WITH A

MINIMUM OF 4 INCHES OF EROSION CONTROL MIX, UNLESS OTHERWISE

SPECIFIED BY THE MANUFACTURER. NOTE THAT COMPOST BLANKETS

SHOULD NOT EXCEED 2 INCHES IN THICKNESS OR THEY MAY OVERHEAT.

4. ALL STONE COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY

SHOULD NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.

7. WITHIN 24 HOURS OF STOCKPILING SOIL MATERIALS SHOULD BE MULCHED

MULCH SHOULD BE RE-ESTABLISHED PRIOR TO ANY RAIN OR SNOWFALL.

CONSTRUCTION) SHOULD BE STOCKPILED SEPARATELY AND IN A LOCATION

9. INSTALLATION OF EROSION CONTROL BLANKETS SHOULD NOT OCCUR OVER

10. ALL GRASS-LINED DITCHES AND CHANNELS SHOULD BE CONSTRUCTED BY

SEPTEMBER 1. ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT 85%

VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15, SHOULD

APPROPRIATE FOR THE DESIGN FLOW CONDITIONS AS DETERMINED BY A

PROFESSIONAL ENGINEER. IF STONE LINING IS NECESSARY, THE

STABILIZED BY OCTOBER 15.

OF DUST ON SITE.

2. WATER APPLICATION:

WATERBODIES.

WASHED AGGREGATE.

3. STONE APPLICATION

WATER TO CONTROL DUST.

CONTRACTOR MAY NEED TO RE-GRADE THE DITCH AS REQUIRED TO

11. ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND

12. AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE

ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER SHOULD BE

BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKET

PROVIDE ADEQUATE CROSS-SECTION AFTER ALLOWING FOR PLACEMENT OF

PROTECTED WITH A MINIMUM 3 INCH LAYER OF SAND AND GRAVEL WITH A

GRADATION THAT IS LESS THAN 12% OF THE SAND PORTION, OR MATERIAL

PASSING THE NUMBER 4 SIEVE, BY WEIGHT, PASSES THE NUMBER 200

13. SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS

CONTAINED BERMS. SILT FENCES AND HAY BALES SHOULD NOT BE

1. APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL

A) COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.

4. REFER TO "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME

3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER

TACKIFIERS OR CHEMICAL TREATMENTS SUCH AS CALCIUM CHLORIDE, ETC.)

B) AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN

MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL

DUST CONTROL PRACTICES:

SHOULD CONSIST OF EROSION CONTROL MIX BERMS, OR CONTINUOUS

INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBEDMENT OF

SNOW OF GREATER THAN 1 INCH IN DEPTH OR ON FROZEN GROUND.

NO SOIL STOCKPILE SHOULD BE PLACED (EVEN COVERED WITH MULCH)

WITHIN 100-FT OF ANY WETLAND OR OTHER WATER RESOURCE AREA.

FROZEN MATERIAL (I.E. FROST LAYER REMOVED DURING WINTER

AWAY FROM ANY AREA NEEDING PROTECTION. FROZEN MATERIAL

DIFFICULT TO TRANSPORT DUE TO HIGH SOIL MOISTURE CONTENT.

STOCKPILES CAN MELT IN SPRING AND BECOME UNWORKABLE AND

FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE

NORMAL RATE OR WITH A 4 INCH LAYER OF FROSION CONTROL MIX.

5. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX

6. ALL MULCH APPLIED DURING WINTER SHOULD BE ANCHORED (I.E. BY

NETTING, TRACKING, WOOD CELLULOSE FIBER).

15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY

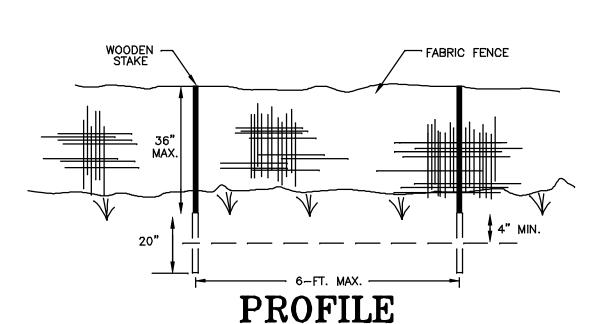
OR ARE DISTURBED AFTER OCTOBER 15 SHOULD BE SEEDED AND COVERED

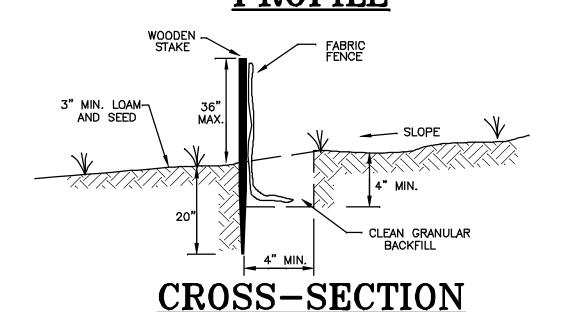
TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH

DISTURBED AFTER OCTOBER 15, SHOULD BE SEEDED AND COVERED WITH 3

AND SHOULD BE PROTECTED AGAINST EROSION BY THE METHODS DISC

STABILIZATION AS FOLLOWS SHOULD BE COMPLETED WITHIN A DAY OF





FENCES SHOULD BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED

- 2. SEDIMENT DEPOSITION SHOULD BE REMOVED, AT A MINIMUM, WHEN DEPOSITION ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FENCE, AND MOVED TO AN APPROPRIATE LOCATION SO THE SEDIMENT IS NOT READILY TRANSPORTED BACK TOWARD THE SILT
- SILT FENCES SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER
- BEHIND THEM, SEDIMENT BARRIERS SHOULD BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND
- THE BARRIER STILL IS NECESSARY; THE FABRIC SHOULD BE REPLACED PROMPTLY. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM
- THE EXISTING GRADE PREPARED AND SEEDED. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS
- 7. SILT FENCES HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT FENCE SHOULD BE REPAIRED PERIODICALLY AS REQUIRED TO MAINTAIN EFFECTIVENESS.

FENCES SHOULD BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE FENCE, SEDIMENT BARRIERS SHOULD BE INSTALLED PRIOR O ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE MAXIMUM CONTRIBUTING DRAINAGE AREA ABOVE THE FENCE SHOULD BE LESS THAN 1A ACRE PER 100 LINEAR FEET OF FENCE;

- THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET; THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1; FENCES SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, AND
- THE ENDS OF THE FENCE SHOULD BE FLARED UPSLOPE; THE FABRIC SHOULD BE EMBEDDED A MINIMUM OF 4 INCHES IN DEPTH AND INCHES IN WIDTH IN A TRENCH EXCAVATED INTO THE GROUND, OR IF SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE, OR THE PRESENCE OF HEAVY ROOTS, THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE; THE SOIL SHOULD BE COMPACTED OVER THE EMBEDDED FABRIC;
- SUPPORT POSTS SHOULD BE SIZED AND ANCHORED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WITH MAXIMUM POST ADJOINING SECTIONS OF THE FENCE SHOULD BE OVERLAPPED BY A MINIMUM OF 6 INCHES (24 INCHES IS PREFERRED), FOLDED AND STAPLED TO A SUPPORT POST. IF METAL POSTS ARE USED, FABRIC SHOULD BE WIRE—TIED DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES
- SILT FENCING SHOULD NOT BE STAPLED OR NAILED TO TREES. THE FILTER FABRIC SHOULD BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHOULD BE
- CERTIFIED BY THE MANUFACTURER OR SUPPLIER. THE FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES FAHRENHEIT TO 120 DEGREES FAHRENHEIT.
- POSTS FOR SILT FENCES SHOULD BE EITHER 4-INCH DIAMETER WOOD OR 1.33 POUNDS PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHOULD HAVE, PROJECTIONS FOR FASTENING WIRE TO THEM. POSTS SHOULD BE PLACED ON THE 10. THE HEIGHT OF A SILT FENCE SHOULD NOT EXCEED 36 INCHES AS HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT
- 11. THE FILTER FABRIC SHOULD BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY; FILTER CLOTH SHOULD BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM
- 6-INCH OVERLAP, AND SECURELY SEALED. 12. A MANUFACTURED SILT FENCE SYSTEM WITH INTEGRAL POSTS MAY BE USED. 13. POST SPACING SHOULD NOT EXCEED 6 FEET.

DRAWN BY: RRL

SCRD NO: D-###

PLAN NO. C-2604 CHK'D BY: RRL

DWG. NO. 11107/SP-1CRLSN

| FILE NO. 141

F.B. NO. ###

HE TRENCH SHOULD BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.

- 14. A TRENCH SHOULD BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UP 15. THE STANDARD STRENGTH OF FILTER FABRIC SHOULD BE STAPLED OR WIRED TO THE POST, AND 8 INCHES OF THE FABRIC SHOULD BE EXTENDED INTO THE TRENCH. THE FABRIC SHOULD NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- 17. SILT FENCE MAY BE INSTALLED BY "SLICING" USING MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PROCEDURE, THE SLICING METHOD USES AN IMPLEMENT TOWED BEHIND A TRACTOR TO "PLOW" OR SLICE THE SILT FENCE MATERIAL INTO THE SOIL THE SLICING METHOD MINIMALLY DISRUPTS THE SOIL UPWARD AND SLIGHTLY DISPLACES THE SOIL, MAINTAINING THE SOIL'S PROFILE
- AND CREATING AN OPTIMAL CONDITION FOR SUBSEQUENT MECHANICAL COMPACTION. 18. SILT FENCES SHOULD BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEGMENT WILL
- 19. THE ENDS OF THE FENCE SHOULD BE TURNED UPHILL. 20. SILT FENCES PLACED AT THE TOE OF A SLOPE SHOULD BE SET AT LEAST 6 FEET FROM THE TOE M ALLOW SPACE FOR SHALLOW PONDING AND TO ALLOW FOR MAINTENANCE ACCESS WITHOUT DISTURBING THE SLOPE.
- 21. SILT FENCES SHOULD BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILTATION CONTROL FENCE DETAIL

NOT TO SCALE

SOIL STOCKPILE PRACTICES:

- 1. LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.
- 2. PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS OR OTHER APPROVED PRACTICES.
- 3. STOCKPILES SHOULD BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN NHSMM VOL. 3. TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE
- 4. IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.
- 5. PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.
- <u>PROTECTION OF INACTIVE STOCKPILES:</u>
 6. INACTIVE SOIL STOCKPILES SHOULD BE COVERED WITH ANCHORED TARPS OR PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICE) AND TEMPORARY PERIMETER SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) AT ALL
- 7. INACTIVE STOCKPILES OF CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND SIMILAR MATERIALS SHOULD BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY SHOULD ALSO BE COVERED.
- ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY LINEAR SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) PRIOR TO THE ONSET OF PRECIPITATION. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIAL FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
- 9. WHEN A STORM IS PREDICTED, STOCKPILES SHOULD BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

EROSION CONTROL MIX -GROUND ' ↑ 1-FT MIN. SLOPE TO 2:1 SLOPE

EROSION CONTROL MIX BERM CROSS-SECTION

- EROSION CONTROL MIX BERMS SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED
- EROSION CONTROL MIX BERMS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW
- IF THERE ARE SIGNS OF BREACHING OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, THE EROSION CONTROL MIX BERMS SHOULD BE REPLACED WITH OTHER MEASURES TO INTERCEPT AND TRAP SEDIMENT (SUCH AS A DIVERSION
- BERM DIRECTING RUNOFF TO A SEDIMENT TRAP OR BASIN) SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.
- SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) OF THE HEIGHT OF THE BARRIER. EROSION CONTROL MIX BERMS SHOULD BE RESHAPED OR REAPPLIED AS NEEDED.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

CONSTRUCTION SPECIFICATIONS: EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF OF THE PROJECT SITE.

- EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
- 4. <u>COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:</u>

 A. EROSION CONTROL MIX SHALL BE A WELL GRADED MIXTURE OF PARTICLE SIZES FREE OF REFUSE, PHYSICAL CONTAMINANTS,
- MATERIAL TOXIC TO PLANT GROWTH AND MAY NOT CONTAIN ROCKS LESS THAN 4-INCHES IN DIAMETER;
- ORGANIC MATTER= 25-65% DRY WEIGHT BASIS PARTICLES PASSING BY WEIGHT:
 - <u>SCREEN:</u> 3-INCH PASSING BY WEIGHT:
 - 1-INCH
 - 90-100% 3/4-INCH 70-100% 1/4-INCH 30-75%
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- THE MIX SHOULD CONTAIN NO SILTS, CLAYS OR FINE SANDS.
- SOLUBLE SALTS CONTENT < 4.0 mmhos/cm
- G. pH OF THE MIX SHOULD BE BETWEEN 5.0 AND 8.0
- 5. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
- IT MAY BE NECESSARY TO CUT TALL GRASSES AND WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES IN THE BARRIER THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
- THE BARRIER MUST BE A MINIMUM OF 12-INCHES TALL AS MEASURED ON THE UPHILL SIDE OF THE BARRIER. 8. THE BARRIER MUST BE A MINIMUM OF 2-FT WIDE.

CONTINUOUS CONTAINED BERM (ALTERNATIVE): 1. AN ALTERNATIVE PRODUCT, THE CONTINUOUS CONTAINED BERM (OR "FILTER SOCK") CAN BE AN EFFECTIVE SEDIMENT BARRIER AS IT

- ADDS CONTAINMENT AND STABILITY TO A BERM OF EROSION CONTROL MIX. 2. IN THE EVENT THAT USE OF CONTINUOUS CONTAINED BERM IS DESIRED, THE PRODUCT SELECTED SHOULD BE REVIEWED AND
- APPROVED BY THE DESIGN ENGINEER.
- 3. INSTALLATION OF CONTINUOUS CONTAINED BERMS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE

EROSION CONTROL MIX BERM DETAIL NOT TO SCALE

- CONTROL PRACTICES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR
 - ii) A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED,
 - iii) EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.

 - ALL AREAS OF EXPOSED OR DISTURBED SOIL SHOULD BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 45 DAYS FROM THE TIME OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT OR AN INDEPENDENT MONITOR

 - MAXIMUM AREA OF DISTURBANCE:
 - 5. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR

 - AREAS TO PRESERVE NATURAL VEGETATION. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHOULD BE
 - 7. ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHOULD
 - TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHOULD BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING
 - 9. STOCKPILES, BORROW AREAS AND SPOILS SHALL BE STABILIZED AS
 - 10. SLOPES SHOULD NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR
 - AREAS SHOULD BE SCARIFIED TO A MINIMUM DEPTH OF 3-INCHES PRIOR TO PLACEMENT OF TOPSOIL. TOPSOIL SHOULD BE PLACED WITHOUT SIGNIFICANT COMPACTION TO PROVIDE A LOOSE BEDDING FOR PLACEMENT
 - SPECIFICATIONS TO REDUCE EROSION. SLIPPAGE. SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES. SITE UTILITIES. CONDUITS AND OTHER FACILITIES. SHOULD BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
 - PROJECT GEOTECHNICAL REPORT AND/OR THE "PROJECT SPECIFIC PHASING NOTES" FOR SPECIFIC GUIDANCE.
 - 15. ANY AND ALL FILL MATERIAL SHOULD BE FREE OF BRUSH, RUBBISH, ROCKS (LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING INSTALLED), LOGS, SATISFACTORY LIFTS.
 - 16. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE (I.E. CLAY, SILT) MATERIALS ARE SUSCEPTIBLE TO ACCELERATED SETTLEMENT AND POTENTIAL ACCELERATED EROSION. WORK IN AREAS OF THESE MATERIALS SHOULD BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL
- A) MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE 18. ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.
 - FURROWS AS APPROPRIATE TO REDUCE THE LENGTH OF CUT-FILL SLOPES TO LIMIT SHEET AND RILL EROSION AND PREVENT GULLY EROSION. ALL BENCHES SHOULD BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF
 - STONE, COMPOST BLANKET, OR OTHER GROUND COVER AS SOON AS OR MORE. USE MULCH OR OTHER APPROVED METHODS TO STABILIZE AREAS TEMPORARILY WHERE FINAL GRADING MUST BE DELAYED.
 - 22. ALL GRADED AREAS SHOULD BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
 - ABOVE NOTES EXCERPTED, ADAPTED AND REFERENCED FROM "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" (NHSMM, VOL.

GENERAL CONSTRUCTION PHASING:

- A SITE IS DEEMED STABILIZED WHEN IT IS IN A CONDITION IN WHICH THE SOIL ON SITE WILL NOT EXPERIENCE ACCELERATED OR UNNATURAL EROSION UNDER THE CONDITIONS OF A 10-YEAR STORM EVENT, SUCH AS BUT NOT
- IN AREAS THAT WILL NOT BE PAVED:

 i) A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
- IN AREAS TO BE PAVED: BASE COURSE GRAVELS HAVE BEEN INSTALLED.
- PERMANENT STABILIZATION:
 ALL AREAS OF EXPOSED OR DISTURBED SOIL SHOULD BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING,
- THE AREA OF UNSTABILIZED SOIL SHOULD NOT EXCEED 5 ACRES AT ANY
- CONSTRUCTION.
- A) FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED. B) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE
- PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON
- BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON SHEET C2.
- AND BE PROTECTED FROM EROSION.
- DESCRIBED UNDER "SOIL STOCKPILE PRACTICES".
- OTHER RELATED DAMAGE.
- 11. AREAS TO BE FILLED SHOULD BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBJECTIONABLE MATERIALS.
- 13. ALL FILLS SHOULD BE COMPACTED IN ACCORDANCE WITH PROJECT
- 14. IN GENERAL, FILLS SHOULD BE COMPACTED IN LAYERS RANGING FROM 6 TO 24 INCHES IN THICKNESS. THE CONTRACTOR SHOULD REVIEW THE
- STUMPS, BUILDING DEBRIS, FROZEN MATERIAL AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF
- 17. THE OUTER FACE OF THE FILL SLOPE SHOULD BE ALLOWED TO STAY LOOSE, NOT ROLLED OR COMPACTED, OR BLADE SMOOTHED. A BULLDOZER MAY RUN UP AND DOWN THE FILL SLOPE SO THE DOZER TREADS (CLEAT TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE **ROUGHENING"** IN THE NHSMM, VOL.3.
- 19. USE SLOPE BREAKS, SUCH AS DIVERSIONS, BENCHES, OR CONTOUR
- B) IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR 20. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHOULD BE EVALUATED BY A **PROFESSIONAL ENGINEER** (PREFERABLY THE DESIGN ENGINEER) TO DETERMINE IF THE PROPOSED DESIGN SHOULD BE REVISED TO PROPERLY MANAGE THE CONDITION.
- 2008" FOR OTHER ALLOWABLE DUST CONTROL PRACTICES (I.E. COMMERCIAL 21. STABILIZE ALL GRADED AREAS (AS ABOVE) WITH VEGETATION, CRUSHED GRADING IS COMPLETE OR IF WORK IS INTERRUPTED FOR 21 WORKING DAYS

ADDED LANDSCAPING PLAN ADDRESSED STAFF COMMENT- 12/12/11 REVISED PER NOD - 04/26/12

REVISIONS:

PROJECT SPECIFIC CONSTRUCTION PHASING:

- 1. REFER TO THE "GENERAL CONSTRUCTION PHASING" NOTES PRIOR TO COMMENCING CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING PHASING. THE "GENERAL CONSTRUCTION PHASING" NOTES APPLY TO THE OVERALL CONSTRUCTION AND SHALL BE ADHERED TO.
- 2. INSTALL ALL TEMPORARY SEDIMENT CONTROL BARRIERS (I.E. SILT FENCE, EROSION CONTROL MIX BERMS, STONE CHECK DAMS, ETC.) AROUND THE OUTER PERIMETER OF THE CONSTRUCTION SITE AS DEPICTED ON SHEET C2.
- 3. CLEAR, GRUB AND STRIP THE SITE. STUMPS, BRUSH AND OTHER ORGANIC WASTE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. 4. STOCKPILE STRIPPED TOPSOIL AND CUT MATERIAL TO BE REUSED ON SITE
- IN AN APPROPRIATE LOCATION IN ACCORDANCE WITH THE "SOIL STOCKPILES PRACTICES". MAINTAIN THE STOCKPILES AS DIRECTED IN THE SOIL STOCKPILE PRACTICES" 5. PERFORM THE NECESSARY CUTS AND FILLS TO SUBGRADE IN THE
- BUILDING AND PARKING LOT AREAS. A)INSTALL REQUIRED FILLS IN MAXIMUM 8-INCH LIFTS AND COMPACT EACH LIFT TO 95% MAXIMUM PROCTOR DENSITY.
- 6. AS SUBGRADE IS ACHIEVED INSTALL REMAINING SEDIMENT CONTROL BARRIERS WITHIN THE SITE (I.E. ADDITIONAL SILT FENCE, EROSION CONTROL MIX BERMS, CHECK DAMS AND SEDIMENT CONTROLS AND CATCH BASINS,
- 7. INSTALL ALL UTILITIES AND CLOSED DRAINAGE SYSTEM COMPONENTS (I.E. CATCH BASINS, PIPE CULVERTS, FLARED END SECTIONS, ETC.) PER THE CORRESPONDING DETAILS AND AS SHOWN ON **SHEET C2**. AS EACH STRUCTURE IS COMPLETED INSTALL THE CORRESPONDING TEMPORARY SEDIMENT CONTROL BARRIER DEPICTED ON SHEET C2.
- 8. ALL CUT AND FILL SLOPES AND LAWN AREAS NOT TO BE PAVED SHALL BE LOAMED AND SEEDED FOR PERMANENT VEGETATION AND STABILIZATION AS DESCRIBED UNDER THE "PERMANENT VEGETATION PRACTICES" WITHIN 3 DAYS OF ACHIEVING FINAL GRADE
- 9. INSTALL ALL GRAVEL BASE AND CRUSHED GRAVEL MATERIALS FOR THE PARKING AREA AND SIDEWALK AS SPECIFIED IN THE CORRESPONDING

10. THE PARKING AREAS SHALL BE STABILIZED (CONSTRUCTED TO GRAVEL

MATERIALS. IN NO CASE SHALL AREAS TO BE PAVED BE LEFT

- BASE COURSE) WITHIN 3 DAYS OF ACHIEVING FINISHED SUBGRADE 11. INSTALL PAVEMENT SURFACES AS SOON AS POSSIBLE AFTER INSTALLATION OF GRAVEL BASE AND CRUSHED GRAVEL INSTALLATION, IN ORDER TO LIMIT SOIL EROSION AND POLLUTION OF THE GRAVEL MATERIALS WITH ORGANIC
- UNPROTECTED THROUGH THE WINTER MONTHS 12. ALL DISTURBED AREAS EXCLUDING AREAS TO BE PAVED SHALL BE STABILIZED AS SOON AS POSSIBLE. IN NO CASE SHALL ANY DISTURBED AREA RE LEFT LIN-STARILIZED FOR LONGER THAN 21 DAYS IF NECESSARY TEMPORARY STABILIZATION MEASURES AS DISCUSSED IN THE "GENERAL CONSTRUCTION PHASING NOTES" AND NHSMM, VOL. 3 SHOULD
- MAINTENANCE AND INSPECTION:

 13. DURING CONSTRUCTION ALL TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL AND STORMWATER MANAGEMENT PRACTICES SHOULD BE INSPECTED WEEKLY, AFTER EVERY 1/2 INCH OF RAINFALL, AND ANNUALLY.
- 14. EXCESS SEDIMENT SHOULD BE REMOVED FROM TEMPORARY SEDIMENT, EROSION CONTROL AND STORMWATER MANAGEMENT PRACTICES WHEN IT REACHES PRESCRIBED THRESHOLDS DISCUSSED IN THE DETAILS FOR EACH
- 15. ALL DAMAGED TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL AND STORMWATER MANAGEMENT PRACTICES SHOULD BE REPAIRED OR REPLACED IMMEDIATELY UPON NOTICE.
- 16. SEDIMENT SHALL BE DISPOSED OF PROPERLY EITHER ON SITE OR OFF SITE. ROJECT COMPLETION AND STABILIZATION:
 7. UPON PROJECT COMPLETION, ONCE THE SITE IS DEEMED STABILIZED

(VEGETATION IS GERMINATED), THE TEMPORARY SEDIMENT CONTROL BARRIERS AND EROSION CONTROL PRACTICES SHALL BE REMOVED. ANY DISTURBANCE CREATED DURING REMOVAL SHALL BE REPAIRED IN AN APPROPRIATE MANNER.

EROSION CONTROL **DETAILS** ROUTE 11/TEN ROD ROAD ROCHESTER, NH STRAFFORD COUNTY ROCHESTERDOM,

> NOVEMBER 2011 REVISION DATE 04/26/12

SHEET C-3

NORWAY PLAINS ASSOCIATES, INC.

SLOPE INSTALLATION

FILLING THE MAT WITH SOIL.

FILE NO. 141

F.B. NO. ###

DRAWN BY: RRL

SCRD NO: D-###

PLAN NO. C-2604 CHK'D BY: RRL

DWG. NO. 11107/SP-1CRLSN

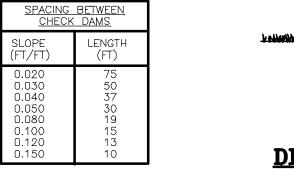
- ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD 2. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RF-INSTALLED
- CONSTRUCTION SPECIFICATIONS:1. MANUFACTURE'S INSTALLATION INSTRUCTIONS: A. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- B. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12' (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM

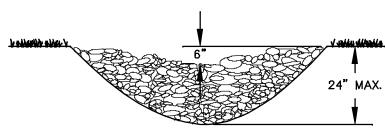
STAPLÉS/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE

- D. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" 5" (5 CM 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.
- 2. SITE PREPARATION: PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL. GRADE AND SHAPE AREA IF INSTALLATION. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE
- DIRECT CONTACT WITH THE SOIL. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
- SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED. B. WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO

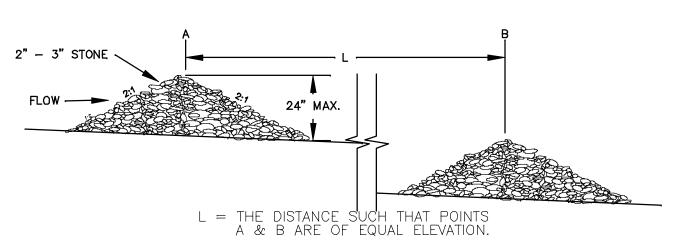
TEMPORARY EROSION CONTROL BLANKET DETAIL

NOT TO SCALE





DRAINAGEWAY CROSS-SECTION



SPACING BETWEEN STONE CHECK DAMS

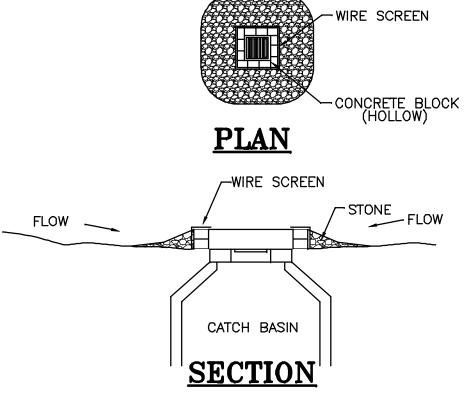
STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING. . CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION

5. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

- TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
- WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE

STONE CHECK DAM INSTALLATION DETAIL

NOT TO SCALE



*THIS METHOD IS APPROPRIATE FOR PAVEMENT AREAS AND GRASS AREAS WITH STEEP (IN EXCESS OF 5%)

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER

NOT TO SCALE

- PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH AND NO GREATER THAN 24 INCHES HIGH.
- WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. 3. STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN ABOVE. STONE GRADATION
- SHALL BE WELL GRADED WITH THE MAXIMUM STONE SIZE OF 6 INCHES AND MINIMUM STONE SIZE OF 1 INCH. 4. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

<u>MAINTENANCE NOTES:</u> 1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS

SLOPES LEADING TO THE INLET

ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT FRODE. 3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY

> SEDIMENTATION CONTROL AT CATCH BASINS NOT TO SCALE

(603) 335-3948

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TEMPORARY VEGETATION:

- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- 2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- 3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.
- 4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR O THE DIRECTION OF THE
- SLOPE TO CATCH SEED AND REDUCE RUNOFF. STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH
- THE SEEDING AREA. 2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER,
- 3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
- 4. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:
- LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)* *EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE
- FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000-SF)* *LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT
- 5. FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY, NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.
- SEEDING:

 I. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
- 2. TEMPORARY SEED SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15. 3. AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND
- PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3. 4. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR

OVERWINTER PROTECTION.

- TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD BE INSPECTED JUST PRIOR TO SEPTEMBER 15. TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
- 2. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED. THEN OTHER TEMPORARY STABILIZATION MEASURES SHOULD BE IMPLEMENTED.
- 3. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT

TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS.)	PER 1,000-SF	REMARKS	
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.	
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	S. BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.	
ANNUAL RYEGRASS	40 LBS.	1.0 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.	
PERENNIAL RYEGRASS	30 LBS.	0.7 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.	
COLIDATE				

NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLE 2. MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

PERMANENT VEGETATION:

SPECIFICATIONS:

- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- 2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- 3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.
- 4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR O THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO

- A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- REMOVE FROM THE SURFACE ALL STONES 2INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL

INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL

- COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE. 4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER,
- 5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE
- MAY BE APPLIED AT THE FOLLOWING RATES: LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)* *EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE
- FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000-SF)* *LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT
- FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.

- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER) NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
- WHERE FEASIBLE EXCEPT WHERE EITHER CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- 4. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDED IN LATE SUMMER AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATÉS, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3. AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- 5. AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AN PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3.
- 6. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.
- WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER
- 2. SLOPES BUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY.
- 3. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
- 4. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

- PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
- 2. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
- 3. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
- 4. AT A MINIMUM 85% OF THE SOIL SURFACE SHOULD BE COVERED BY
- 5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGÉTATION ESTABLISHMENT.

REVISIONS:

ADDED LANDSCAPING PLAN ADDRESSED STAFF COMMENT- 12/12/11 REVISED PER NOD - 04/26/12

PERMANENT VEGETATION SEEDING RECOMMENDATIONS

USE	MIXTURE	SPECIES	LB2./ACRE	1,000-SF
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	А	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL	20 20 2 42	0.45 0.45 0.05 0.95
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	А	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL	20 20 2 42	0.45 0.45 0.05 0.95
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY RECREATION SITES	А	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL	20 20 2 42	0.45 0.45 0.05 0.95
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL ESSENTIAL FOR GOOD TURF)	F	CREEPING RED FESCUE KENTUCKY BLUEGRASS TOTAL	50 50 100	1.15 1.15 2.30

NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLES 4-2 AND 4-3

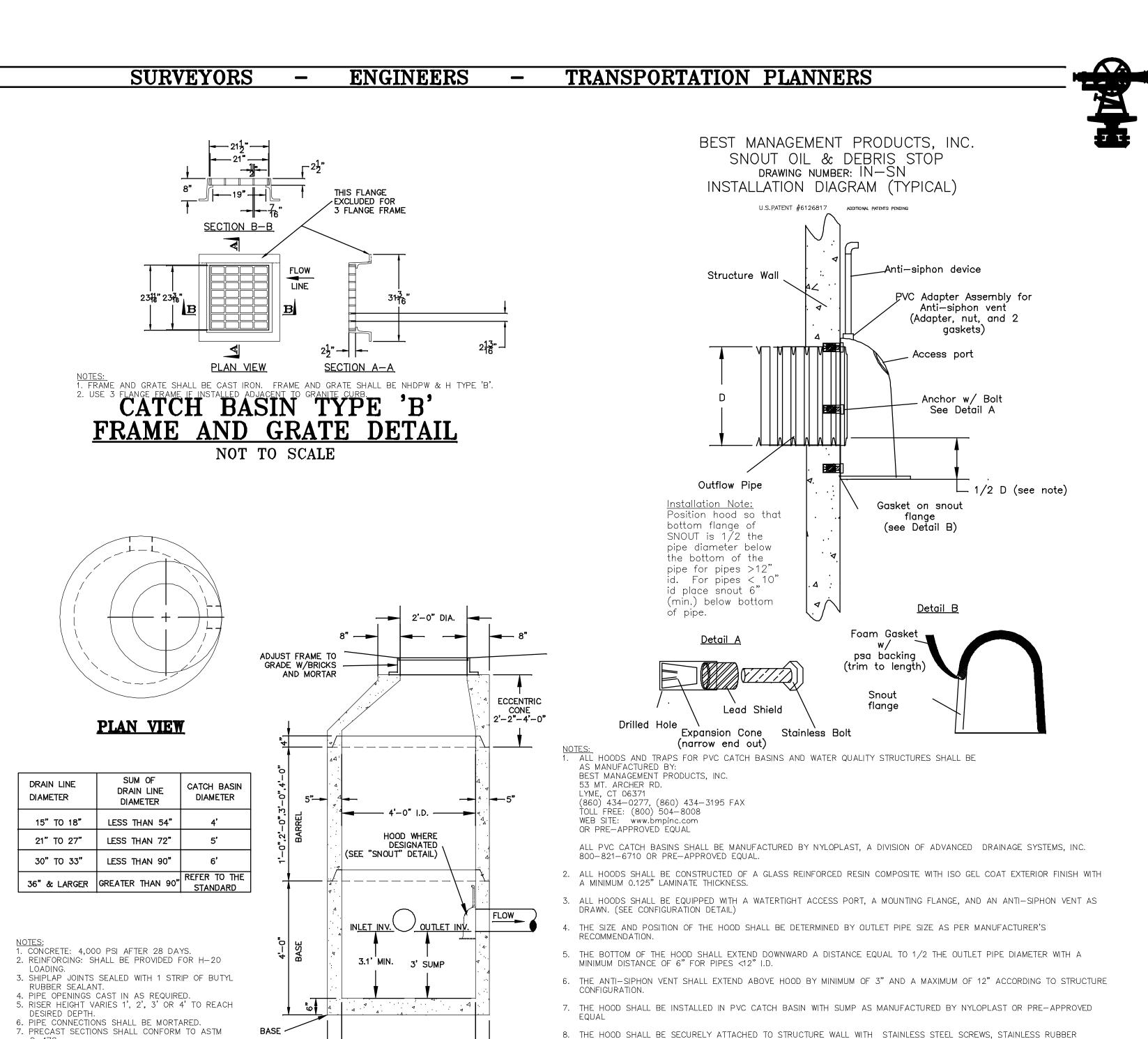
2. MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

EROSION CONTROL **DETAILS** ROUTE 11/TEN ROD ROAD ROCHESTER, NH STRAFFORD COUNTY ROCHESTERDOM,

> NOVEMBER 2011 REVISION DATE 04/26/12

SHEET C-4

NORWAY PLAINS ASSOCIATES, INC.



"SNOUT" INSTALLATION DETAIL NOT TO SCALE

BACKED WASHERS, AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)

9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.

INSTALLATION KIT SHALL INCLUDE:

INSTALLATION INSTRUCTIONS

STAINLESS STEEL SCREWS

E. SCREW GASKETS

PVC ANTI-SIPHON VENT PIPE AND ADAPTER

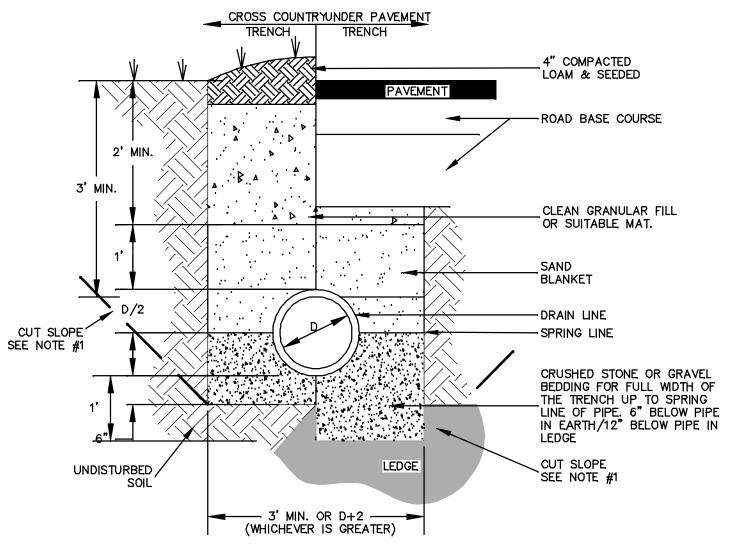
OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING

SECTION VIEW

PRE-CAST REINFORCED CATCH BASIN

NOT TO SCALE

P.O. Box 249, Rochester, N.H. 03866-0249 (603) 335-3948



1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.

2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN. 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

DRAINAGE PIPE TRENCH INSTALLATION DETAIL NOT TO SCALE

REVISIONS:

ADDED LANDSCAPING PLAN ADDRESSED STAFF COMMENT- 12/12/11 REVISED PER NOD - 04/26/12

UTILITIES NOTES:
1. CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888 344-7233) 72 HOURS PRIOR TO THE START OF CONSTRUCTION.

2. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND ELEVATIONS.

3. THIS PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATE OF THE SURVEY. THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THIS PLAN, BUT IN EXISTENCE IS NOT INTENDED OR IMPLIED.

4. ANY UTILITY POLES THAT NEED TO BE RELOCATED SHALL BE COORDINATED WITH PSNH OR FAIRPOINT TELECOMMUNICATIONS.

5. PROPOSED UTILITIES ARE TO BE UNDERGROUND. COORDINATE LOCATION OF UNDERGROUND UTILITIES AND TRANSFORMER PADS WITH PSNH AND OTHER PERTINENT UTILITY COMPANIES.

6. WATER AND SEWER LINES SHALL BE INSTALLED A MINIMUM OF 10-FT APART HORIZONTALLY.

7. WHERE SEWER AND WATER LINES MUST CROSS, SEWER PIPE JOINTS SHALL BE LOCATED A MINIMUM 9-FT HORIZONTALLY FROM THE WATER LINE AND A VERTICAL SEPARATION OF 18-INCHES SHALL BE MAINTAINED.

8. SEWER PIPE JOINTS SHALL BE TESTED WITH ZERO LEAKAGE AT 25 POUNDS PER SQUARE INCH FOR GRAVITY SEWER AND AT 1-1/2 TIMES WORKING PRESSURE FOR ALL FORCE MAINS.

9. <u>WATERLINE CONSTRUCTION</u> A. ALL PROPOSED WATER LINE MATERIAL USED SHALL MEET SOMERSWORTH WATER DEPARTMENT AND SOMERSWORTH ENGINEERING DEPARTMENT SPECIFICATIONS. WATER LINES SHALL BE A.W.W.A C 151, CLASS 52, CEMENT LINED, DUCTILE IRON PIPE,

B. PROPOSED WATER GATE VALVES SHALL BE MANUFACTURED BY KENNEDY OF AMERICAN FLOW CONTROL, RESILIENT SEAT TYPE.

C. ALL WATER LINES SHALL BE BURIED A MINIMUM OF 5'.

D. IF 5' OF COVER IS NOT AVAILABLE WATER LINE SHALL BE INSULATED AS SHOWN IN THE "SHALLOW COVER TRENCH DETAIL FOR INSULATED WATER PIPE".

E. ALL WATER FITTINGS SHALL BE CLASS 350.

POLYWRAPPED.

F. PROPOSED WATER GATE VALVE SHALL OPEN CLOCKWISE (LEFT).

10. WORK TO CONNECT INTO THE WATER OR SEWER MAINS REQUIRES A PERMIT FROM THE SOMERSWORTH PUBLIC WORKS DEPARTMENT. CONTRACTORS ARE TO BE PRE-QUALIFIED.

11. CONTRACTOR SHALL LOCATE EXISTING SERVICES AND COORDINATE WITH THE CITY OF SOMERSWORTH FOR DISCONTINUATION OF THE SERVICES.

DRAINAGE STRUCTURE **DETAILS** ROUTE 11/TEN ROD ROAD ROCHESTER, NH STRAFFORD COUNTY ROCHESTERDOM, LLC

> NOVEMBER 2011 REVISION DATE 04/26/12

8. SEE SLAB TOP DETAIL FOR STRUCTURES REQUIRING SLAB TOPS, I.E. DOUBLE GRATE AND FRAME

STRUCTURES.

