EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED TO PROVIDE A STRATEGY FOR CONTROLLING SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROPOSED DEVELOPMENT. THIS PLAN IS BASED ON STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, 2003.

GENERAL CONSTRUCTION DETAILS

THE EQUIPMENT ANTICIPATED TO BE USED FOR THE CONSTRUCTION INCLUDES THE FOLLOWING: BACKHOES, BULLDOZERS, LOADERS, TRUCKS, CRANES, COMPACTORS, AND GRADERS. THE FOLLOWING MEASURES WILL BE UNDERTAKEN TO PROVIDE MAXIMUM PROTECTION TO THE SOIL, WATER, AND ABUTTING LANDS:

1. PRIOR TO GRUBBING OR ANY EARTH MOVING OPERATION, SILTATION FENCE OR EROSION CONTROL MIX BERMS WILL BE INSTALLED ACROSS THE SLOPE ON THE CONTOUR AT THE DOWNHILL LIMIT OF THE WORK AS PROTECTION AGAINST CONSTRUCTION RELATED EROSION.
2. STONE CHECK DAMS WILL BE INSTALLED IN THE DRAINAGE SWALES TO PREVENT EROSION PRIOR TO THE STABILIZATION OF THE CHANNELS. EROSION CONTROL MESH WILL ALSO BE INSTALLED IN ALL DITCHES TO BE REVEGETATED.
3. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA WILL BE COMPLETED WITHIN FIFTEEN (15) CALENDAR DAYS AFTER FINAL GRADING HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE OR PRACTICAL TO PERMANENTLY STABILIZE DISTURBED LAND, TEMPORARY EROSION CONTROL MEASURES WILL BE IMPLEMENTED WITHIN THIRTY CALENDAR DAYS OF EXPOSURE OF SOIL. ALL DISTURBED AREAS WILL BE MULCHED FOR EROSION CONTROL UPON COMPLETION OF ROUGH GRADING.
4. ANY EXPOSED SLOPES GREATER THAN 3:1 AND NEWLY CONSTRUCTED DRAINAGE SWALES WILL BE STABILIZED WITH EROSION CONTROL MESH TO PREVENT EROSION DURING CONSTRUCTION AND TO FACILITATE REVEGETATION AFTER PLACEMENT OF TOPSOILING AND SEEDING.
5. TO PROVIDE PROTECTION AGAINST EROSION, RIPRAP WILL BE PLACED AT ALL STORM DRAIN INLETS AND OUTLETS AS SHOWN ON THE ATTACHED DRAWINGS. TEMPORARY SILTATION CONTROL RISERS SHALL BE INSTALLED AT ALL CULVERT INLET LOCATIONS DURING CONSTRUCTION.
6. IN AREAS OF CONSTRUCTION DEWATERING, PUMPED DISCHARGE SEDIMENT DEVICES WILL BE UTILIZED ADJACENT TO THE ACTIVITY. SEDIMENT TRAPS WILL BE CONSTRUCTED UTILIZING DIRTBAGS, OR OTHER SIMILAR DEVICES THAT DO NOT REQUIRE ADDITIONAL SOIL DISTURBANCE. ADDITIONAL SEDIMENTATION PROTECTION WILL BE PROVIDED BY THE INSTALLATION OF HAYBALE BARRIERS BETWEEN THE SEDIMENT TRAPS AND THE RECEIVING DRAINAGE COURSE.
7. NATIVE TOPSOIL SHALL BE SAVED, STOCKPILED, MULCHED, AND REUSED AS MUCH AS POSSIBLE ON THE SITE. SILTATION FENCE SHALL BE INSTALLED AT THE BASE OF STOCKPILES AT THE DOWNHILL LIMIT TO PROTECT AGAINST EROSION. STOCKPILES WILL BE STABILIZED BY SEEDING AND MULCHING UPON FORMATION OF THE PILES. UPHILL OF THE STOCKPILES, STABILIZED DITCHES AND/OR BERMS WILL BE CONSTRUCTED TO DIVERT STORMWATER RUNOFF AWAY FROM THE PILES.
8. ALL SILTATION FENCE AND HAY BALE BARRIERS WILL BE INSPECTED BY THE CONTRACTOR ON A WEEKLY BASIS OR FOLLOWING ANY SIGNIFICANT RAINFALL. (1/2 INCH OR MORE) OR SNOWMELT. ALL DAMAGED EROSION CONTROL DEVICES WILL BE REPAIRED AND/OR REPLACED IMMEDIATELY. TRAPPED SEDIMENT WILL BE REMOVED BEFORE IT HAS ACCUMULATED TO ONE-HALF OF THE INSTALLED SILTATION FENCE OR HAY BALE BARRIER HEIGHT. DEVICES NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION WILL ALSO BE REPAIRED AND/OR REPLACED AS NECESSARY.
9. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED BY SEPTEMBER 15 OF THE YEAR OF CONSTRUCTION, THEN WITHIN THE NEXT 10 CALENDAR DAYS THESE AREAS WILL BE GRADED AND SMOOTHED, THEN SEEDED TO A WINTER COVER CROP OF RYE AT A RATE OF 3 LBS. PER 1,000 SQ. FT. THE FOLLOWING WILL BE INCORPORATED INTO THE SOIL PRIOR TO RYE SEEDING: GROUND LIMESTONE AT A RATE OF 130 LBS. PER 1,000 SQ. FT., FOLLOWED BY A 10-10-10 FERTILIZER AT A RATE OF 14 LBS. PER 1,000 SQ. FT. HAY MULCH WILL BE APPLIED AT A RATE OF 100 LBS. PER 1,000 SQ. FT. FOLLOWING SEEDING. IF THE RYE SEEDING CANNOT BE COMPLETED BY OCTOBER 1, THEN ON THAT DATE HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE TO PROVIDE WINTER PROTECTION. IF RYE DOES NOT MAKE ADEQUATE GROWTH BY NOVEMBER 5, THEN ON THAT DATE, HAY MULCH SHALL BE APPLIED AT THE RATE OF 100 LBS. PER 1,000 SQ. FT. A SUITABLE BINDER SUCH AS CURASOL OR RM61 PLUS SHALL BE USED ON HAY MULCH FOR EROSION CONTROL. BIODEGRADABLE NETTING WILL BE INSTALLED ON STEEP SLOPES (3:1 AND STEEPER) AND ON AREAS OF CONCENTRATED FLOWS.
10. INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND INCORPORATED INTO THE PROJECT AREA.
11. SHOULD CONSTRUCTION OCCUR AFTER NOVEMBER 15, ADDITIONAL EROSION CONTROL METHODS WILL BE IMPLEMENTED. ALL DISTURBED AREAS WILL BE MINIMIZED AS MUCH AS POSSIBLE PRIOR TO FREEZING. ADDITIONAL EROSION CONTROL DEVICES WILL BE INSTALLED AS APPROPRIATE. INSPECTION OF THESE EROSION CONTROL ITEMS WILL BE CONSTANT, WITH PARTICULAR ATTENTION PAID TO WEATHER PREDICTIONS TO ENSURE THAT THESE MEASURES ARE PROPERLY IN PLACE TO HANDLE LARGE AMOUNTS OF RUNOFF FROM HEAVY RAINS OR THAWS.
12. AN AREA WILL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    -BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
    -A MINIMUM OF 75% VEGETATED GROWTH HAS BEEN ESTABLISHED.
    -A MINIMUM OF 3" OF NON-EROSIVE MATERIAL, SUCH AS CRUSHED STONE OR RIPRAP HAS BEEN INSTALLED.
    -EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

SEEDING AND REVEGETATION PLAN

UPON COMPLETION OF SITE CONSTRUCTION, ALL AREAS PREVIOUSLY DISTURBED WILL BE TREATED AS STATED BELOW. THESE AREAS WILL BE CLOSELY MONITORED BY THE CONTRACTOR UNTIL SUCH TIME AS A SATISFACTORY GROWTH OF VEGETATION IS ESTABLISHED.

1. TOPSOIL WILL BE SPREAD OVER ALL DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH OF 4 INCHES.
2. THE FOLLOWING WILL BE INCORPORATED INTO THE SOIL PRIOR TO SEEDING: AGRICULTURAL LIMESTONE AT THE RATE OF 130 POUNDS PER 1,000 SQUARE FEET, FOLLOWED BY 10-10-10 FERTILIZER AT THE RATE OF 14 POUNDS PER 1,000 SQUARE FEET.
3. DISTURBED AREAS WILL BE SEEDED AT THE RATE OF 3 LBS.PER 1,000 SQ. FT. OF THE FOLLOWING MIXTURE: 50% CREEPING RED FESCUE, 30% KENTUCKY BLUEGRASS AND 20% ANNUAL RYE GRASS.
4. SEEDING WILL BE COMPLETED BETWEEN THE DATES OF APRIL 1 AND SEPTEMBER 15. WATERING MAY BE REQUIRED DURING DRY PERIODS.
5. HAY MULCH WILL BE APPLIED AT THE RATE OF 100 LBS. PER 1,000 SQ. FT. FOLLOWING SEEDING. MULCH SHALL BE ANCHORED BY WATERING OR TRACKING BY BULLDOZER FLAT AREAS, USING ANCHORING EMULSION OR TRACKING BY BULLDOZER ON AREAS OF MODERATE SLOPES AND INSTALLING BIODEGRADABLE NETS ON STEEP SLOPES (3:1 AND STEEPER).
6. ALL SEDIMENT CONTROL STRUCTURES WILL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 85% OF THE AREA IS VEGETATED WITH VIGOROUS GROWTH.

MONITORING PROGRAM

SEDIMENTATION AND EROSION CONTROL STRUCTURES WILL BE INSPECTED CONTINUALLY BY THE CONTRACTOR AND ALL STRUCTURES DAMAGED BY CONSTRUCTION EQUIPMENT, VANDALS, OR THE ELEMENTS WILL BE REPAIRED IMMEDIATELY. FOLLOWING RAINSTORMS AND DURING RUNOFF EVENTS, THE SITE AND ALL STRUCTURES WILL BE INSPECTED FOR EROSION AND DAMAGE. ALL DAMAGED STRUCTURES WILL BE REPAIRED AND/OR ADDITIONAL EROSION CONTROL STRUCTURES WILL BE INSTALLED PRIOR TO CONTINUING THE CONSTRUCTION.

FOLLOWING THE FINAL SEEDING, THE SITE WILL BE INSPECTED TO ENSURE THAT THE VEGETATION HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT, WITH FOLLOW-UP INSPECTION, IN THE EVENT OF ANY UNSATISFACTORY GROWTH.

AFTER THE CONSTRUCTION INSPECTOR HAS DETERMINED THAT THE PROJECT AREA HAS STABILIZED, THE CONTRACTOR SHALL REMOVE ALL SILTATION FENCE, TEMPORARY SILTATION CONTROL RISERS, AND ANY OTHER TEMPORARY EROSION CONTROL MEASURES.

DUST CONTROL PROGRAM

IF DUSTY CONDITIONS OCCUR ON-SITE AS A RESULT OF INCREASED VEHICULAR TRAFFIC DURING DRY CONDITIONS, DUST CONTROL MEASURES WILL NEED TO BE IMPLEMENTED.

1. WATER: WATER SHOULD BE APPLIED AT A RATE SUFFICIENT ENOUGH TO MOISTEN EXPOSED SOIL TO PREVENT DUST TRANSPORT BUT NOT AT A RATE THAT PRODUCES ANY AMOUNT OF SILT-LADEN RUNOFF OR MUDDY POOLS IN THE TRAVEL WAY.
2. CALCIUM CHLORIDE: LIQUID OF FINE-FLAKED CALCIUM CHLORIDE MAY BE USED. CALCIUM CHLORIDE SHOULD NOT BE APPLIED ADJACENT TO WETLANDS, LAKES, POOLS OR OTHER NATURALLY SENSITIVE AREAS. LIMIT APPLICATION RATES TO 30% CALCIUM CHLORIDE OR AS RECOMMENDED BY MANUFACTURER.
3. STONE: COARSE GRAVEL SHOULD BE PLACED IN AREAS THAT ROUTINELY EXPERIENCE DUSTY CONDITIONS. USE ONLY CHEMICALLY STABLE AGGREGATES.
4. LIGNOSULPHONATE DUST SUPPRESSANT: NON-TOXIC, NON-HAZARDOUS, HAVING A LEVEL OF LESS THAN 20 PARTS PER QUADRILLION (PPQ) SHALL BE APPLIED ADJACENT TO WETLANDS OR OTHER NATURALLY SENSITIVE AREAS.

WINTER CONSTRUCTION

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75 % MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

1. SOIL STOCKPILES
   STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND REESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.
2. NATURAL RESOURCES PROTECTION
   ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75 % MATURE VEGETATION COVER, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.
3. SEDIMENT BARRIERS
   DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.
4. MULCHING
   ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.
5. MULCHING ON SLOPES AND DITCHES
   SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8 %. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAT 3 % FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8 %. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8 % OR GREATER. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES LESS THAN 3:1, BUT NOT IN DITCHES.
6. SEEDING
   BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75 % CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.
7. TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION
   WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SIMILAR DEVICE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.
8. INSPECTION AND MONITORING
   MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/ OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90 % OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS
   THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1. IF THE CONTRACTOR FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
   A. INSTALL A SOD LINING IN THE DITCH
      THE CONTRACTOR WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.
   B. INSTALL A STONE LINING IN THE DITCH
      THE CONTRACTOR WILL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES
   THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (6.67H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:
   A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS
      BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM C OF THIS CONDITION OR WITH STONE RIPRAP AS DESCRIBED IN ITEM D OF THIS CONDITION.
   B. STABILIZE THE SLOPE WITH SOD
      THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
   C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST
      THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE CONTRACTOR WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
   D. STABILIZE THE SLOPE WITH STONE RIPRAP
      THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
3. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS
   BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:
   A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION
      BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION.
   B. STABILIZE THE SOIL WITH SOD
      THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
   C. STABILIZE THE SOIL WITH MULCH
      BY NOVEMBER 15 THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

REV.	DESCRIPTION	DR. BY	CHD. BY	APP. BY	DATE
A	SUBMISSION TO PLANNING BOARD	XXX	XXX	XXX	10-10-11

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NORTHEAST RADIANT TECHNOLOGY DEVELOPMENT
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EROSION CONTROL NOTES

SCALE: AS NOTED
DATE : May 2009
DES BY: TJM
DWN BY:
CHK BY: TJM

PROJECT NO. 000.00.00
SHEET 1 OF 1
DRAWING NO. C-202