# **EROSION CONTROL NOTES**

#### **GENERAL:**

DURING CONSTRUCTION THE CONTRACTOR IS REQUIRED TO HAVE 1. A MAINTENANCE AND INSPECTION PLAN FOR STORMWATER CONTROL AND EROSION CONTROL DEVICES, INSPECT THE DISTURBED AREAS ONCE PER WEEK AND BEFORE AND AFTER RAIN STORMS. REPAIR OR CORRECT ANY AREAS THAT ARE DEFICIENT WITHIN I CALENDAR DAYS, KEEP A LOG OF THE INSPECTIONS AND NOTE ANY CORRECTIVE ACTION TAKEN. THE LOG MUST BE AVAILABLE FOR REVIEW BY THE TOWN AND DEP. KEEP RECORDS FOR 3 YEARS.

- 2. THE DRAWINGS DEPICT THE REQUIRED SOIL EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING 2. MATERIAL THE CONSTRUCTION SITE IN SUCH A MANNER THAT:
  - . SOIL EROSION IS KEPT TO A MINIMUM
- 2. NO SEDIMENT LEAVES THE CONSTRUCTION SITE PROPER 3. ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT
- FROM ENTERING DRAINAGE COURSES AND WETLANDS EVEN BEYOND
- THE DETAILS SHOWN ON THIS PLAN IF NECESSARY
- 3. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPS PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2016.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATERBODIES, OR WETLAND AS A RESULT OF THIS PROJECT.
- 5. LOAM AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER DISTURBANCE, BUT NO LONGER THAN I DAYS. LOAM AND SEED ANY DISTURBED AREA WITHIN 15' OF WETLANDS OR WATERBODEIS WITHIN 48 HOURS OR PRIOR TO AND STORM EVENT. USE WINTER SEED RATES AND SPECIFICATIONS IF APPROPRIATE.
- 6. INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE, BUT NO LONGER THAN 2 DAYS. CLEAN AND RESET SILT FENCES AND STONE CHECK DAMS WHICH ACCUMULATE SEDIMENT AND DEBRIS.
- PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION PREVENTION OR STABILIZATION BUT THAT SHOW SIGNS OF EROSION. NOTIFY OWNER OF ANY SIGNIFICANT EROSION PROBLEM.
- APPLY MULCH TO BARE SOILS WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOILS, WITHIN 48 HOURS IF WITHIN 75' OF WETLAND OR WATERBODY, PRIOR TO ANY RAIN EVENT, OR PRIOR TO ANY WORK SHUTDOWN LASTING MORE THAN ONE DAY.
- 9. TEMPORARILY SEED WITHIN I DAYS ANY AREA WHICH WILL BE LEFT DISTURBED AND UNWORKED FOR MORE THAN 14 DAYS WITH THE TEMPORARY SEED MIX LISTED BELOW. IF AREA IS WITHIN 75' OF A WETLAND OR WATERBODY, SEED WITHIN 48 HOURS. PERMANENTLY SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH THE PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER
- 10. MULCH ALL AREAS SEEDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. DURING THE GROWING SEASON (APRIL 15 - SEPT. 30) USE EROSION CONTROL MESH (OR MULCH AND NETTING) ON:
  - -SLOPES STEEPER THAN 15% -WITHIN 100 ft. OF STREAMS AND WETLANDS BETWEEN OCT. I AND APRIL 14 USE EROSION CONTROL MESH (OR
- MULCH AND NETTING) ON: -SIDE SLOPES OF GRASSED WATERWAYS -SLOPES STEEPER THAN 8%

-THE BASE OF GRASSED WATERWAYS

- II. INSTALL EROSION CONTROL MESH IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. MESH TO BE EQUAL TO NORTH AMERICAN GREEN PRODUCT CI25BN.
- 12. FOLLOW SILT FENCE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURYING BOTTOM OF FENCE IN A TRENCH OR BERMING WITH SOIL OR CHIPPED GRUBBINGS. REFER TO SILT FENCE DETAILS.
- 13. PLACE AND GRADE LOAM IN A REASONABLY UNIFORM MANNER. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEED BED IS PREPARED. REMOVE FROM SURFACE ALL STONES LARGER THAN 2" AND ALL OTHER UNSUITABLE MATERIAL. LIME AND FERTILIZER SHOULD BE MIXED INTO SOIL PRIOR TO ROLLING EXCEPT IF INCLUDED IN HYDROSEED MIXTURE. PERMANENT STABLILIZATION OF REVEGETATED AREAS IS CONSIDERED AS 95% CATCH.
- 14. ALL CULVERT OR PIPE OUTFALL PROTECTION MUST BE INSTALLED WITHIN 48 HOURS OF INSTALLING NEW PIPE OR
- 15. DITCHES AND CHANNELS DESIGNATED TO BE LINED WITH RIPRAP AND/OR EROSION CONTROL MESH MUST BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR CHANNEL
- 16. ALL CATCH BASINS, NEW OR EXISTING, THAT MAY RECEIVE RUNOFF FROM DISTURBED AREAS MUST BE PROTECTED BY INSTALLING AND MAINTAINING SILT SACKS DURING CONSTRUCTION.
- WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE OR EROSION CONTROL MIX LINED POOL) PRIOR TO DISCHARGE. 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.
- 18. DISCHARGE OF STORMWATER FROM THE SITE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, UPLAND, OR COASTAL OR FRESHWATER WETLANDS.
- 19. WORK CAN NOT BEGIN UNTIL THE TOWN HAS INSPECTED AND APPROVED THE BOUNDARIES OF THE BUFFER AREAS ON THIS SITE. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO NOTIFY THE TOWN WHEN INSPECTIONS ARE REQUIRED.

SUITABLE TOPSOIL SALVAGED FROM SITE OR SCREENED, LOOSE AND FRIABLE SANDY LOAM OR LOAM AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE CLASSIFICATION SYSTEM FREE FROM ADMIXTURE OF SUBSOIL, REFUSE, LARGE STONES, CLODS, ROOTS, WEEDS, RHIZOMES OR OTHER UNDESIREABLE FOREIGN MATTER AS DETERMINED BY THE INSPECTING AUTHORITY. CONTRACTOR SHALL SUBMIT REPORTS OF LOAM TEST RESULTS PERFORMED BY AN INDEPENDENT TESTING LABORATORY FOR TOPSOIL FROM DIFFERENT SOURCES PRIOR TO PLACING. THE COST OF TESTING SHALL BE INCIDENTAL TO THE COST OF TOPSOIL TOPSOIL SHALL MEET THE FOLLOWING SPECIFICATIONS:

| SAND - 0.08 IN. TO 0.002 IN. DIAMETER (% BY VOLUME)  | 45 | - 75 |
|--|----|------|
| SILT - 0002 IN. TO 000008 IN. DIAMETER (% BY VOLUME) | 20 | - 40 |
| CLAY - LESS THAN 0.00008 IN, DIAMETER (% BY VOLUME)  | 5  | - 15 |

ORGANICS (SHALL MEET THE REQUIREMENTS OF MOOT STANDARD SPECIFICATION 117.09 PEAT HUMUS) (% BY VOLUME). 10 - 20

- CALCIUM (CA) (% SATURATION)......60 80 MAGNESIUM (MG) (% SATURATION) . . . . . . 10 - 25 POTASSIUM (K) (% SATURATION) . . . . . 2.1 - 3.0 PHOSPHORUS (P) (POUNDS/ACRE) ..... 10 - 40 PH ......60 - 65
- PERMEABILITY (INCHES PER HOUR)....3 10

#### 

#### **SEEDING:**

USE PERMANENT SEED MIXES AND RATES BETWEEN 5/15 AND 9/30. USE TEMPORARY SEED MIXES FOR PERIODS LESS THAN 12 MONTHS. IF USING TEMPORARY SEED MIXES AND RATES BETWEEN 10/1 AND 5/14, RE-SEED WITH PERMANENT SEED MIX AFTER 5/15.

### PERMANENT SEED:

MDOT 717.03(a) METHOD NUMBER 3

# TEMPORARY SEED:

| OATS                        | 80.00 LBS/ACRE  | 4/01 - 5/14  |
|-----------------------------|-----------------|--------------|
| ANNUAL RYEGRASS             | 40.00 LBS/ACRE  |              |
| SUDANGRASS                  | 40.00 LBS/ACRE  | 5/15 - 8/14  |
| ANNUAL RYEGRASS             | 80.00 LBS/ACRE  | 5/15 - 9/14  |
| WINTER RYE                  | 112.00 LBS/ACRE | 9/15 - 9/30  |
| WINTER RYE (W/ MULCH COVER) | 112.00 LBS/ACRE | 10/01 - 3/31 |

#### LIME AND FERTILIZER:

APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 POUNDS PER 1000 SQUARE FEET). APPLY FERTILIZER (10-20-20) AT A RATE OF 800 POUNDS PER ACRE (18.4 POUNDS PER 1000 SQUARE FEET).

#### MULCH.

| OLOTT:                              |                  |
|-------------------------------------|------------------|
| TRAW OR HAY (ANCHORED) 10 - 90 LBS  | PROTECTED AREAS  |
| TRAW OR HAY (ANCHORED)185 - 275 LBS | WINDY AREAS      |
| HREDDED OR CHOPPED 185 - 275 LBS    |                  |
| ITE MESH AS REQUIRED                | MODERATE TO HIGH |
| ,                                   | VELOCITY AREAS & |
| XCELSIOR MAT AS REQUIRED            | STEEP SLOPES     |
|                                     |                  |

# MULCH ANCHORING

| PEG AND TWINE    | LIQUID | ASF | PHALT  |       |
|------------------|--------|-----|--------|-------|
| MULCH NETTING    | WOOD   | CEL | LULOSE | FIBER |
| ASPHALT EMULSION | CHEMI  | CAL | TACK   |       |

### HOUSEKEEPING NOTES

THE DEVELOPER IS RESPONSIBLE FOR NOTIFYING THE CONTRACTOR AND OWNER OF THE HOUSEKEEPING STANDARDS.

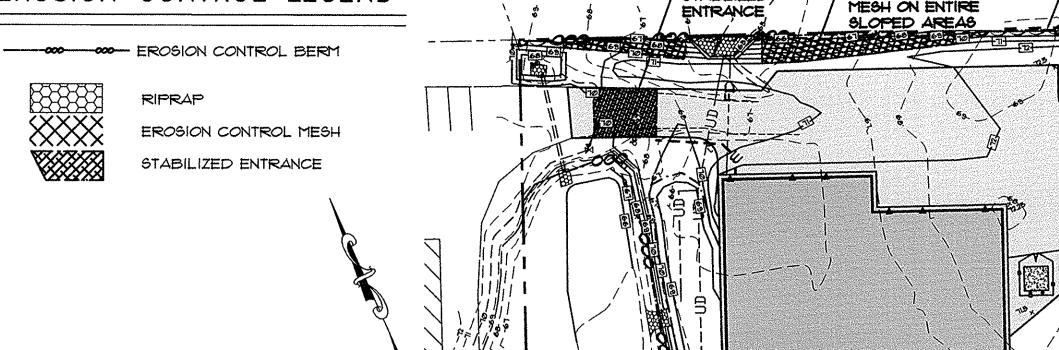
- SPILL PREVENTION: THE CONTRACTOR AND OWNERS NEED TO TAKE CARE WITH CONSTRUCTION AND WASTE MATERIALS SUCH THAT CONTAMINATES DO NOT ENTER THE STORMWATER. THE STORAGE OF MATERIALS SUCH AS PAINT, PETROLEUM PRODUCTS, CLEANING AGENTS AND THE LIKE ARE TO BE STORED IN WATERTIGHT CONTAINERS. THE USE OF THE PRODUCTS SHOULD BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. WHEN FUELING EQUIPMENT, INCLUDING SNOWBLOWERS AND LAWNMOWERS, HAVE OIL ABSORBENT PADS AVAILABLE BELOW THE FUELING.
- STAGING AREAS ARE NOTED ON THE PLANS FOR THE CONTRACTOR'S USE. REFUELING OF SMALL ENGINES BY THE OWNER SHOULD OCCUR IN THE GARAGE OR ON A PAVED SURFACE.
- ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY, FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT: HTTP://www.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/
- 2. GROUNDWATER PROTECTION: PROTECTION OF THE GROUNDWATER IS REQUIRED BY THE CONTRACTOR AND OWNER. PETROLEUM PRODUCTS SHOULD BE STORED IN MANUFACTURED CANS DESIGNED FOR THE PURPOSE. SPILL PREVENTIONS PROCEDURES SHOULD BE FOLLOWED.
- 3. FUGITIVE SEDIMENT AND DUST: THE CONTRACTOR IS REQUIRED TO MINIMIZE DUST FROM THE CONSTRUCTION OPERATION. THE ROAD SHOULD BE SWEPT REGULARLY (WEEKLY) AND PRIOR TO ANY RAIN EVENT. THE GRAVEL AREAS ARE TO BE WATERED REGULARLY TO MINIMIZE DUST. ANY MUD THAT IS TRACKED OFF SITE SHOULD BE CLEANED UP PRIOR TO IT DRYING AND BECOMING A DUST ISSUE.
- DO NOT USE OIL TO CONTROL DUST. DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE NATURAL RESOURCES PROTECTION ACT.
- 4. DEBRIS AND OTHER MATERIALS: CONSTRUCTION MATERIALS AND CONSTRUCTION DEBRIS SHOULD BE COVERED TO PREVENT RAINWATER FROM WASHING CONTAMINANTS OFF THE SITE. ANY FERTILIZERS, CLEANING PRODUCTS, HERBICIDES SHOULD BE PROTECTED FROM THE WEATHER AND USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- NOTE ANY CONTAMINANTS THAT ARE WASHED OFF THE SITE BY RAINWATER IS A VIOLATION OF THE CLEAN WATERS ACT.
- STORAGE HANDLING AND DISPOSAL OF SOLID WASTE ITEMS MUST COMPLY WITH MAINE'S SOLID WASTE MANAGEMENT RULES. LACK OF APPROPRIATE POLLUTANT CONTROL MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARDS.
- THIS PROJECT HAS A WRITTEN EROSION CONTROL PLAN AND STORMWATER MAINTENANCE PLAN. MODIFICATIONS TO THE PLAN MUST BE APPROVED BY THE TOWN.

MAINTENANCE OF STORMWATER TREATMENT AND CONTROL SYSTEMS MUST OCCUR REGULARLY. THE STORMWATER MAINTENANCE REPORT PROVIDES INSPECTION DETAILS AND TIME LINES FOR DOING THE INSPECTIONS AND REPORTING TO THE TOWN AND DEP

### STABILIZING SITE FOR THE WINTER:

- 1. STANDARD CONDITIONS REQUIRING THE TIMELY STABILIZATION OF DITCHES AND CHANNELS - THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER I. THE CONTRACTOR WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. 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 I. 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 I. 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 SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
- 2. STANDARD CONDITIONS REQUIRING THE TIMELY STABILIZATION OF DISTURBED SLOPES - THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 1. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE YEGETATED BY SEPTEMBER 15. ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) IS 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 I THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 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 15% OF THE DISTURBED SLOPE BEFORE NOVEMBER I, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF WOODWASTE 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 I. 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 TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAYING A GRADE GREATER THAN 33% (3H:IV).
- C. STABILIZE THE SLOPE WITH WOODWASTE COMPOST THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOODWASTE COMPOST ON THE SLOPE BY NOVEMBER I. PRIOR TO PLACING THE WOODWASTE COMPOST, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE CONTRACTOR WILL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:IV) 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 I. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR DRAINAGE AND SOIL SEPARATION.
- 3. STANDARD CONDITIONS REQUIRING THE TIMELY STABILIZATION OF DISTURBED SOILS - BY SEPTEMBER IS 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. STABILIZING THE SOIL WITH TEMPORARY VEGETATION -BY OCTOBER I THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 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 15% OF THE DISTURBED SOIL BEFORE NOVEMBER I, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM C OF THIS STANDARD CONDITION.
- b. STABILIZE THE SOIL WITH SOD THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER I. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- C. STABILIZE THE SOIL WITH MULCH BY NOVEMBER I THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1,000 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.

# EROSION CONTROL LEGEND



TEROSION CONTROL

STABLIZED,

TEROSION

GRAPHIC SCALE

( IN FEET

1 inch = 40 ft

CONTROL BERM

SUGGESTED SEQUENCE OF CONSTRUCTION TO CONTROL

THIS SEQUENCE OF CONSTRUCTION IS A GENERAL GUIDE TO THE CONTRACTOR. ACTUAL CONSTRUCTION PRACTICES WILL DICTATE VARIATIONS IN THE ORDER OF MAJOR EVENTS.

- 1. INSTALL ALL PERIMETER SILT FENCE AND HAY BALE PROTECTION.
- 2. INSTALL SILTATION BASINS. (PRIOR TO ANY STRIPPING OF TOPSOIL OR OTHER EARTHWORK) 3. CLEAR AND GRUB WORK AREAS. TEMPORARILY SEED AREAS NOT TO BE WORKED ON WITHIN 14 DAYS.
- 4. STRIP AND STOCKPILE ON-SITE TOPSOIL. SEED STOCKPILES WITH TEMPORARY SEED MIX.
- 5. SUBMIT SAMPLES OF TOPSOIL/LOAM FOR LAB WORK. ADJUST LIME AND FERTILIZER ACCORDINGLY. 6. BEGIN EARTHWORK FOR ROADS, PARKING AND BUILDING FOUNDATION.
- 7. STABILIZE AREAS DRAINING TO UNDERDRAINED SOIL FILTER.
- 8. CONSTRUCT UNDERDRAINED SOIL FILTER AND STORM DRAIN SYSTEM
- 9. INSTALL AND PROTECT STORM DRAINAGE SYSTEM. 10. BEGIN BUILDING CONSTRUCTION.
- ROUGH GRADE ROADS, PARKING AREAS, AND ROADWAY SIDE SLOPES.
- 12. FINE GRADE ALL PARKING LOTS AND DRIVEWAY SIDE SLOPES AND ROUGH GRADE REMAINDER OF SITE
- 13. RESEED OR TEMPORARILY SEED ANY AREA WHICH WILL BE LEFT UNDISTURBED FOR MORE THAN 14 DAYS. 14. COMPLETE FINE GRADING AND PAVING OF ROADS, WALKS AND PARKING AREAS
- 15. CLEAN SILTATION BASINS, LEVEL SPREADERS, TREATMENT POND, AND STORM DRAIN SYSTEM OF CONSTRUCTION SEDIMENTATION. 16. FINE GRADE, LOAM SEED AND FERTILIZE REMAINDER OF SITE. 17. REMOVE TEMPORARY SOIL EROSION MEASURES WITHIN 30 DAYS OF THE SITE BEING STABLE, REMOVE ACCUMULATED SEDIMENT,

#### WINTER CONSTRUCTION:

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER I THROUGH APRIL IS. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIP RAP 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, RIP RAP OR GRAVEL BASE ON A ROAD. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN I 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 PROCEEDING IS 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/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED. IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

# 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/ACRE) OR WITH A FOUR INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND WILL BE 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.

### NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 15% MATURE VEGETATION CATCH, 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 I 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 EROSION CONTROL MIX SEDIMENT BARRIERS 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 LBS/1,000 SF. OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 15 LBS/1,000 SF. 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 MULCHED WITH STRAW OR HAY AT A RATE OF 150 LBS/1,000 S.F. (3 TONS/ACRE) AND ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER I AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL TACK, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER I, 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/1000 SF, 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 SLOPE GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED AS A SUBSTITUTE FOR EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

BETWEEN THE DATES OF OCTOBER IS AND APRIL I. 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. AFTER NOVEMBER I IF THE EXPOSED AREA HAS BEEN LOAMED AND 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 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 BE SEEDED AT AN APPLICATION RATE OF 5 LBS/1000 SF. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 15 % CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL AREAS DISTURBED IN THE WINTER SHALL BE VEGETATED IN THE SPRING.

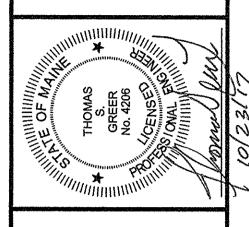
. TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION

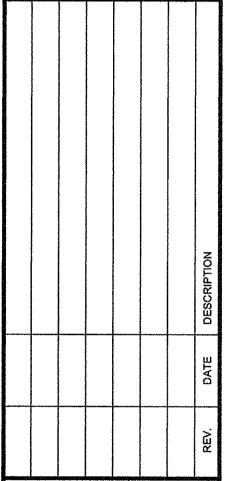
WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE OR EROSION CONTROL MIX LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES 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 DAMAGED AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 95% OF AREAS YEGETATED WITH YIGOROUS GROWTH.







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