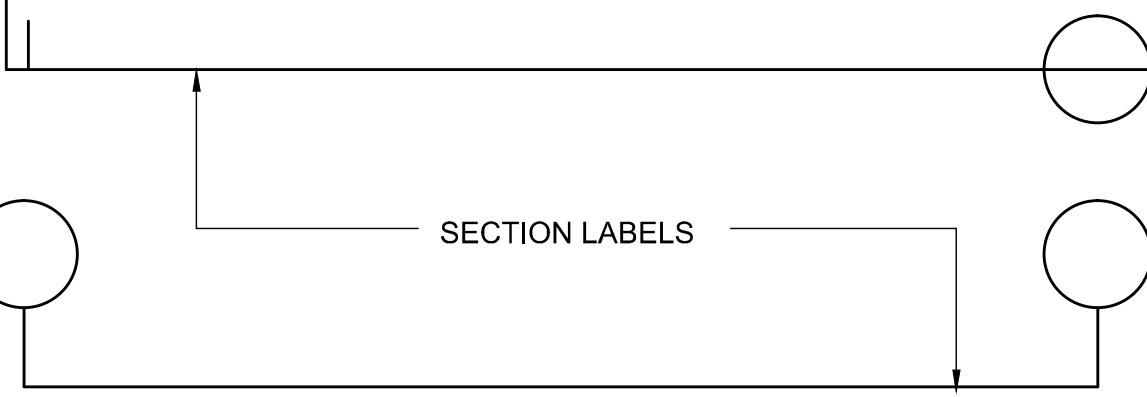


**SPOT ELEVATION REFERENCE INDEX**

**SYMBOLS**

- BITUMINOUS PAVEMENT SECTION
- TOPSOIL, LOAM AND SEED, SOD
- GRANULAR FILL MATERIAL
- COARSE AGGREGATE
- UNDISTURBED NATIVE SOIL
- CONCRETE SECTION
- GENERAL FILL MATERIAL
- SAND OR STONE DUST, CONCRETE (PLAN)
- RIGID INSULATION
- STEEL, CAST IRON



**REMOVALS NOTES**

- R1 THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES AND SHALL NOTIFY THE ARCHITECT OF UTILITIES DEVIATING FROM THOSE SHOWN ON THIS PLAN
- R2 THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE UTILITY COMPANIES WHEN INSTALLING WORK ON OR NEAR THEIR POLES.
- R3 REMOVE ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED MARKINGS.
- R4 ALL DEMOLITION DEBRIS AND REMOVALS SHALL BE DISPOSED OF OFFSITE AND IN CONFORMANCE WITH LOCAL AND STATE ORDINANCES

**LAYOUT NOTES**

- L1 THE CONTRACTOR SHALL NOTIFY THE OWNER/ARCHITECT OF CONDITIONS VARYING FROM THOSE SHOWN ON THE DRAWING SHEET PRIOR TO CONTINUING WORK.
- L2 THE CONTRACTOR SHALL EMPLOY A REGISTERED LAND SURVEYOR IN THE LAYOUT OF BUILDING, DRIVES AND SITE ELEMENTS.
- L3 THE CONTRACTOR SHALL VERIFY AND CLEARLY MARK LOCATION OF ALL PROPERTY LINES PRIOR TO COMMENCING WORK.

**GRADING NOTES**

- G1 TOPOGRAPHIC INFORMATION BASED ON A SURVEY BY OWEN HASKELL INC. LAND SURVEYORS
- G2 BOUNDARY INFORMATION BASED ON A SURVEY BY OWEN HASKELL INC. LAND SURVEYORS
- G3 ALL ELEVATIONS SHOWN HEREIN ARE BASED ON A SURVEY BY OWEN HASKELL INC. LAND SURVEYORS
- G4 ALL TOPSOIL AND ORGANICS SHALL BE REMOVED FROM PAVEMENT AND BUILDING AREAS PRIOR TO CONSTRUCTION. THIS MATERIAL SHALL NOT BE USED AS GENERAL SITE FILL.
- G5 FINISH GRADES ONE FOOT FROM BUILDING SHALL BE 6" BELOW FINISH FLOOR UNLESS OTHERWISE NOTED.
- G6 FINISH GRADES OF SIDEWALKS AT BUILDING ENTRANCES SHALL BE FLUSH WITH FINISH FLOOR UNLESS OTHERWISE NOTED
- G7 TEST PIT LOCATIONS ARE APPROXIMATE-REFER TO S.W. COLE ENGINEERING INC. GEOTECHNICAL REPORT BOUND INTO SPECIFICATIONS. BORING LOGS ARE INCLUDED IN DRAWING SET.
- G8 ALL DISTURBED AREAS NOT RECEIVING PAVEMENT, BUILDING, STONE DUST, COURSE AGGREGATE, ETC. SHALL RECEIVE 6" OF LOAM AND SEED UNLESS OTHERWISE NOTED.

**UTILITY NOTES**

- E1 ALL UNDERGROUND SECONDARY SHALL BE RUN IN SCH. 40 CONDUIT UNLESS SPECIFIED OTHERWISE.
- E2 ALL UNDERGROUND ELECTRICAL FOR SITE LIGHTING SHALL BE RUN IN SCH. 40 P.V.C. CONDUIT.
- E3 ALL CABLE TELEVISION / TELEPHONE LINES SHALL BE RUN IN SCH. 40 P.V.C. CONDUIT. PROVIDE PULL WIRE IN ALL UNDERGROUND CONDUITS.
- E5 MAINTAIN 2" - 6" COVER OVER CABLE TELEVISION/TELEPHONE.
- S1 WHERE NEW WATER AND SEWER RUN SIDE BY SIDE, MAINTAIN A TEN FOOT (10') HORIZONTAL SEPARATION. WHERE THEY CROSS, MAINTAIN AN EIGHTEEN INCH (1 1/2") VERTICAL SEPARATION. WITH WATERLINE ABOVE SEWER. IF WITHIN 18" MIN. VERTICAL SEPARATION, ENCASE WATERLINE 10" EITHER SIDE OF SEWER. IN CONC. 3,000 PSI MIN.
- S2 SEWER SERVICE, WHEN ENTERING THE BUILDING, SHALL BE 6" - 0" BELOW FINISH FLOOR, UNLESS NOTED OTHERWISE.
- W1 MAINTAIN A 5" - 6" MINIMUM COVER OVER WATER LINE.
- U1 THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCHING AND BACKFILLING OF ALL CONDUIT. CONDUIT AND WIRING SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.

NO UTILITY TRENCH SHALL BE BACKFILLED UNTIL WORK HAS BEEN INSPECTED AND APPROVED BY PROJECT ENGINEER AND CONTROLLING UTILITY CO. OR DISTRICT ENGINEER.

ALL SANITARY SEWER LINE TO BE SDR 35 PVC MEETING ALL PERFORMANCE CHARACTERISTICS OF ASTM D3034. ALL PIPES AND FITTINGS SHALL HAVE PUSH-ON JOINTS WITH RUBBER GASKETS CONFORMING TO ASTM D1889 AND F477.

ALL NEW WATER SERVICE LINE SHALL BE TYPE K COPPER MEETING ALL PERFORMANCE CHARACTERISTICS OF ASTM B-88-82 FOR TYPE K COPPER. ALL FITTINGS SHALL BE COMPRESSION TYPE.

ALL NEW WATER SPRINKLER SERVICE SHALL BE CLASS 52 DUCTILE IRON MEETING ALL PERFORMANCE CHARACTERISTICS OF THE LATEST VERSION OF ASTM AND AWWA.

THE FOLLOWING UTILITY COMPANIES ARE LOCATED WITHIN THE PROJECT SITE:

- PORTLAND WATER DISTRICT
- CENTRAL MAINE POWER COMPANY
- UNILIT GAS COMPANY
- FAIRPOINT COMMUNICATIONS
- TIME WARNER

**EROSION & SEDIMENTATION CONTROL PLAN**

(PURSUANT TO 38 MRSA § 420-C)

ALL EROSION AND SEDIMENTATION CONTROL MEASURES ARE DESIGNED ACCORDING TO THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MANUAL, 2003. SEDIMENT CONTROL MEASURES MUST BE IN PLACE BEFORE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED.

1. POLLUTION PREVENTION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWN-GRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, UPLAND, OR COASTAL OR FRESHWATER WETLANDS. MINIMIZE DISTURBED AREAS THROUGH PHASING. IF WORK WITHIN AN AREA IS NOT ANTICIPATED TO BEGIN WITHIN TWO WEEKS TIME, LEAVE THE AREA IN ITS NATURALLY EXISTING CONDITION.
2. SEDIMENT BARRIERS. PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWN-GRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
3. TEMPORARY STABILIZATION. STABILIZE WITH MULCH OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
4. REMOVAL OF TEMPORARY SEDIMENT CONTROL MEASURES. REMOVE ANY TEMPORARY SEDIMENT CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE. REMOVE SILT FENCE BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL TO AVOID ADDITIONAL SOIL DISTURBANCE.
5. PERMANENT STABILIZATION. PERMANENTLY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR THAT HAVE BEEN BROUGHT TO FINAL GRADE BY PLANTING VEGETATION SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, SOIL AND MOISTURE CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDING AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING TO AVOID DAMAGE FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDING OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED. IF NECESSARY, AREAS MUST BE SEEDING AND MULCHED AGAIN IF GERMINATION IS SPARSE. PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT, ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE:
  - (A) SEEDING AREAS. FOR SEEDING AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
  - (B) SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BIDDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
  - (C) PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.
  - (D) RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.
  - (E) AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.
  - (F) PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.
  - (G) DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH A 90% COVER OF HEALTHY VEGETATION WITH A WELL-GRADED RIPRAP LINING, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE CHANNEL BANKS, OR DOWN-CUTTING OF THE CHANNEL.
6. WINTER CONSTRUCTION. "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS.
 

**SPECIFICATIONS:**

NATURAL RESOURCE PROTECTION ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH AN EROSION CONTROL COVER. DURING WINTER CONSTRUCTION, A DOUBLE ROW 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.

SEDIMENT BARRIERS DURING FROZEN CONDITIONS. SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

MULCHING ALL AREA SHALL BE CONSIDERED TO BE DENUDE UNTIL SEEDING 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. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4-INCH THICKNESS. MULCH SHALL BE LAYED 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 OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

SOIL STOCKPILING STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH MULCHED) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

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 LOOSED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDING 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 OR EROSION CONTROL BLANKETS. 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 SEEDING DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY 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.

OVERWINTER STABILIZATION OF DITCHES AND CHANNELS ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER. INSTALL A SOD LINING IN THE DITCH: A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: 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 SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. INSTALL A STONE LINING IN THE DITCH: A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED 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.

OVERWINTER STABILIZATION OF DISTURBED SLOPES ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15, AND ALL SLOPES TO BE VEGETATED MUST BE SEEDING AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDING WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS SPECIFIED IN THE PERMIT. STABILIZE THE SOIL WITH STONE RIPRAP - THE DISTURBED SLOPE MUST BE STABILIZED 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 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 BY OCTOBER 1. LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 30% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. STABILIZE THE SOIL WITH EROSION CONTROL MIX - EROSION CONTROL MIX MUST BE CONSTRUCTION INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. STABILIZE THE SOIL WITH STONE RIPRAP - PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPER'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

OVERWINTER STABILIZATION OF DISTURBED SOILS BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDING AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET. LIGHTLY MULCH THE SEEDING SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW. STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES 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. STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15, 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. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

**MAINTENANCE:**

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 BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

**STABILIZATION SCHEDULE BEFORE WINTER:**

SEPTEMBER 15 ALL DISTURBED AREAS MUST BE SEEDING AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDING AND MULCHED. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET.

OCTOBER 1 IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDING. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDING AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.

NOVEMBER 15 ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.

DECEMBER 1 ALL DISTURBED AREAS WHERE THE GROWTH OF VEGETATION FAILS TO BE AT LEAST THREE INCHES TALL OR AT LEAST 75% OF THE DISTURBED SOIL IS COVERED BY VEGETATION, MUST BE PROTECTED FOR OVER-WINTER.

**NOTE:** THE DATES GIVEN ARE FOR PROJECTS IN SOUTH-CENTRAL MAINE. ADJUST THE DATES GIVEN BASED ON THE PROJECT'S LOCATION WITHIN THE STATE - REDUCING TIMES UP TO THREE WEEKS FOR PROJECTS IN NORTHERN MAINE AND EXTENDING TIMES UP TO TWO WEEKS FOR PROJECTS ON THE COAST IN EXTREME SOUTHERN MAINE.

7. STORMWATER CHANNELS, DITCHES, SWALES, AND OTHER OPEN STORMWATER CHANNELS MUST BE CONSTRUCTED AND STABILIZED USING MEASURES THAT ACHIEVE LONG-TERM EROSION CONTROL. EACH CHANNEL SHOULD BE CONSTRUCTED IN SECTIONS SO THAT THE SECTION'S GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL, PROPERLY-SPACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING.

8. ROADS, GRAVEL AND PAVED ROADS MUST BE CONSTRUCTED WITH CROWNS OR OTHER MEASURES, SUCH AS WATER BARS, TO ENSURE THAT STORMWATER IS DELIVERED IMMEDIATELY TO ADJACENT STABLE DITCHES, VEGETATED BUFFER AREAS, CATCH BASIN INLETS, OR STREET GUTTERS.

9. CULVERTS, CULVERT INLETS MUST BE PROTECTED WITH APPROPRIATE MATERIALS AND PROTECTION MUST EXTEND AT LEAST AS HIGH AS THE EXPECTED MAXIMUM ELEVATION OF BUFFERS OR SIDE SLOPES. CATCH BASINS MUST BE INSTALLED AND SET TO PROVIDE ENOUGH STORAGE DEPTH AT THE INLET TO ALLOW INFLOW OF PEAK RUNOFF RATES WITHOUT BY-PASS OF RUNOFF TO OTHER AREAS.

10. PARKING AREAS, PARKING AREAS MUST BE CONSTRUCTED TO ENSURE RUNOFF IS DELIVERED TO ADJACENT SWALES, CATCH BASINS, CURB GUTTERS, OR BUFFER AREAS WITHOUT ERODING AREAS DOWNSLOPE. THE PARKING AREA'S SUBBASE COMPACTION AND GRADING MUST BE DONE TO ENSURE RUNOFF IS EVENLY DISTRIBUTED TO ADJACENT BUFFERS OR SIDE SLOPES. CATCH BASINS MUST BE INSTALLED AND SET TO PROVIDE ENOUGH STORAGE DEPTH AT THE INLET TO ALLOW INFLOW OF PEAK RUNOFF RATES WITHOUT BY-PASS OF RUNOFF TO OTHER AREAS.

**INSPECTION AND MAINTENANCE PLAN**

1. DURING CONSTRUCTION, THE FOLLOWING STANDARDS MUST BE MET DURING CONSTRUCTION:
  - (A) INSPECTION AND CORRECTIVE ACTION. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND AFTER A STORM EVENT, AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.
  - (B) MAINTENANCE. MAINTAIN ALL MEASURES IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED. IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE MAINTAINED OR MODIFIED, ADDITIONAL BMPs ARE NECESSARY, OR OTHER CORRECTIVE ACTION IS NEEDED, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL).
  - (C) DOCUMENTATION. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MAINTENANCE. BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDED REPLACEMENT, AND LOCATION NEEDED ADDITIONAL BMPs. NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MAINTAINED AND ACCESSIBLE TO THE STATE ENGINEER. UPON REQUEST, THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

**HOUSEKEEPING PLAN**

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DIKES, BERMS, SLUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.

**NOTE:** AN EXAMPLE OF THE USE OF BMPs TO CONTROL FUGITIVE SEDIMENT AND DUST IS AS FOLLOWS. OPERATIONS DURING WET MONTHS THAT EXPERIENCE TRACKING OF DIRT ONTO STATE OR PUBLIC ROADS SHOULD PROVIDE FOR SWEEPING OF ROAD AREAS AT LEAST ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS, WHERE CHRONIC MUD TRACKING OCCURS, A STABILIZED CONSTRUCTION ENTRANCE SHOULD BE PROVIDED. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN THE ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED.

**NOTE:** DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT VIOLATES STATE WATER QUALITY STANDARDS AND THE NATURAL RESOURCE PROTECTION ACT.

4. DEBRIS AND OTHER MATERIALS. LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

**NOTE:** TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISIONS OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES, MAINE HAZARDOUS WASTE MANAGEMENT RULES, MAINE OIL CONSERVATION AND STORAGE RULES, AND MAINE PETROLEUM REQUIREMENTS.

5. TRENCH OR FOUNDATION DEWATERING. TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFERDAMS, POND, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGHOUT NATURAL VEGETATED AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE. LIKE A COFFERDAM SEDIMENTATION BASIN, AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

**SITE DEFINITION**

1. POSITIVE DRAINAGE SHALL MEAN PROVIDING A MINIMUM DOWN GRADIENT SLOPE OF ONE PERCENT TO A REFERENCED STRUCTURE OR VEGETATIVE SWALE UNLESS OTHERWISE NOTED.

**SITE ABBREVIATIONS**

Ø	DIAMETER	H.C.	HANDICAP
ASB.	ASBESTOS CEMENT PIPE	HORIZ., HOR.	HORIZONTAL
ADD. ALT.	ADDITIVE ALTERNATE BID ITEM	HPS	HIGH PRESSURE SODIUM
AD.	AERIAL ELECTRIC	HMA	HOT MIX ASPHALT
ARCH.	ARCHITECTURAL	I.D.	IDENTIFICATION, INSIDE DIAMETER
B.C.	BOTTOM OF CURB	I.E.	INVERT ELEVATION
BIT.	BITUMINOUS	INV.	INVERT
BLDG.	BUILDING	INSUL.	INSULATION
BOT.	BOTTOM	LBS.	POUNDS
CB	CENTERLINE	L.A.	LINEAR FEET
C/B	CATCH BASIN	LPS	LOW PRESSURE SODIUM
C.I.	CAST IRON, CONTRACTOR INSTD.	L	LENGTH
C.I.P.	CAST IN PLACE	MAS	MASONRY
CMP	CORRUGATED METAL PIPE	MATL.	MATERIAL
C.	CENTER	MAX.	MAXIMUM
C.O.	CLEANOUT	MH	MANHOLE
CONC.	CONCRETE	MIN	MINIMUM
CVP	CORRUGATED PLASTIC PIPE	MISC.	MISCELLANEOUS
CTV	CABLE TELEVISION	N	NORTH, NEW UTILITY
CFS	CUBIC FEET PER SECOND	N.I.C.	NOT IN CONTRACT
D.I.	DITCH INVERT, DUCTILE IRON	NFD	NEW FOUNDATION DRAIN
DTL.	DETAIL	NFM	NEW FORCE MAIN
DIA.	DIAMETER	NGAS	NATURAL GAS
DIM.	DIMENSION	NOM.	NOMINAL
DMH	DRAIN MANHOLE, DROP MANHOLE	NO.	NUMBER
DN	DOWN	NRD	NEW ROOF DRAIN
DWG	DRAWING	NSS	NEW SANITARY SEWER
E	EAST	NSD	NEW STORM DRAIN
E.P.	EDGE OF PAVEMENT	NTS	NOT TO SCALE
E.L.	ELEVATION	NUE	NEW UNDERGROUND ELECTRIC
E.Q.	EQUAL	NUD	NEW UNDERDRAIN
EXIST.	EXISTING	NUP	NEW UNDERGROUND PRIMARY
EXP.	EXPANSION	NUS	NEW UNDERGROUND SECONDARY
FD	FOOTING DRAIN	NW	NEW WATER LINE
F.G.	FINISH GRADE	O.A.	ON CENTER
F.H.	FIRE HYDRANT	OS/OI	OWNER SUPPLIED/OWNER INSTD
FIN.	FINISH	OE	OVERHEAD ELECTRIC
F.F.	FINISH FLOOR	OHW	OVERHEAD WIRE
F.P.	FEET PER MINUTE	PVMT.	PAVEMENT
FT.	FEET	PERF.	PERFORATED
FTG.	FOOTING	PB	PULL BOX
G.A.	GAUGE	PI	POINT OF INTERSECTION
GALV.	GALVANIZED	P & I	PROVIDE AND INSTALL
GPM	GALLONS PER MINUTE	PRELIM	PRELIMINARY
GRAN	GRANULAR	PSF	POUNDS PER SQUARE FOOT
G.V.	GATE VALVE	PSI	POUNDS PER SQUARE INCH
G	GAS	P.C.	POINT OF TANGENT
		PT	POLYVINYL CHLORIDE
		PVMT	PAVEMENT

**SITE ABBREVIATIONS CONT.**

R	RADIUS		
RCP	REINFORCED CONCRETE PIPE		
REQD	REQUIRED		
S	SEWER		
SS	SANITARY SEWER		
SCH	SCHEDULE		
SD	STORM DRAIN		
PVMT.	SECTION		
SIM.	SIMILAR		
SMH	SEWER MANHOLE		
SPECS	SPECIFICATIONS		
SQ.	SQUARE		