

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA...

PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK...

CONSTRUCTION AND POST-CONSTRUCTION PHASE

DURING CONSTRUCTION

- 1. INSPECTION AND CORRECTIVE ACTION: INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION...
- 2. MAINTENANCE: IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM...
- 3. DOCUMENTATION: KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN...

THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST.

POST-CONSTRUCTION

- 1. PLAN: CARRY OUT AN APPROVED INSPECTION AND MAINTENANCE PLAN THAT IS CONSISTENT WITH THE MINIMUM REQUIREMENTS OF THIS SECTION...
- 2. INSPECTION AND MAINTENANCE: ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION, A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL...
- 3. REGULAR MAINTENANCE: CLEAR ACCUMULATIONS OF WINTER SAND IN PARKING LOTS AND ALONG ROADWAYS AT LEAST ONCE A YEAR, PREFERABLY IN THE SPRING...
- 4. DOCUMENTATION: KEEP A LOG (REPORT) SUMMARIZING INSPECTIONS, MAINTENANCE, AND ANY CORRECTIVE ACTIONS TAKEN...

EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED WITHIN THE CURRENT MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION CHAPTER 500 RULES...

- 1. POLLUTION PREVENTION: WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE...
- 2. TEMPORARY MULCHING: ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT...
- 3. SOIL STOCKPILES: STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE...
- 4. NATURAL RESOURCES PROTECTION: ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION COVER...
- 5. SEDIMENT BARRIERS: PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING...

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION...

EROSION CONTROL MIX: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND...

- 6. TEMPORARY CHECK DAMS: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING...

STONE CHECK DAMS: SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.

HAY BALE CHECK DAMS: WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES...

- 1. STORMDRAIN INLET PROTECTION: INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS...

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

- 2. STABILIZED CONSTRUCTION EXIT: PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO PAVED ROADWAY...
- 3. DUST CONTROL: DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS...
- 4. TEMPORARY VEGETATION: TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS...
- 5. PERMANENT VEGETATION: REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED.

SEEDBED PREPARATION:

- A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION...
- B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS...
- C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT.

APPLICATION OF SEED:

Table with columns: ITEM, APPLICATION RATE. Includes rows for 10-20-20 FERTILIZER (18.4 LBS./1,000 S.F.), GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE) (138 LBS./1,000 S.F.), and SEED TYPE (RED FESCUE, REDTOP, TALL FESCUE) with their respective application rates.

- A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 2 IS DISPLAYED)...
- B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED.
- C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:

FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE...

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 LINER POOL) PRIOR TO DISCHARGE.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPE BY NOVEMBER 15. IF THE CONTRACTOR WILL SEED AND MULCH ADJ. SLOPES TO BE VEGETATED BY SEPTEMBER 15...

- 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 1,000 SQUARE FEET...
- B. STABILIZE THE SOIL WITH SOD -- THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY NOVEMBER 15.
- C. STABILIZE THE SLOPE WITH EROSION CONTROL MIX -- THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF EROSION CONTROL MIX ON THE SLOPE BY NOVEMBER 15.
- D. STABILIZE THE SLOPE WITH STONE RIPRAP -- THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15.

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 8%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE...

- 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...
- B. STABILIZE THE SOIL WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1.
- C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 75 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE.
- D. STABILIZE THE SOIL WITH EROSION CONTROL MIX -- THE CONTRACTOR SHALL PLACE A MINIMUM TWO-INCH LAYER OF EROSION CONTROL MIX ON THE SOIL BY NOVEMBER 15.

CONSTRUCTION SCHEDULE

SITE IMPROVEMENTS WILL MOST LIKELY BEGIN IN _____ DEPENDING UPON FINAL PROJECT APPROVAL. THE FOLLOWING SCHEDULE IS ANTICIPATED:

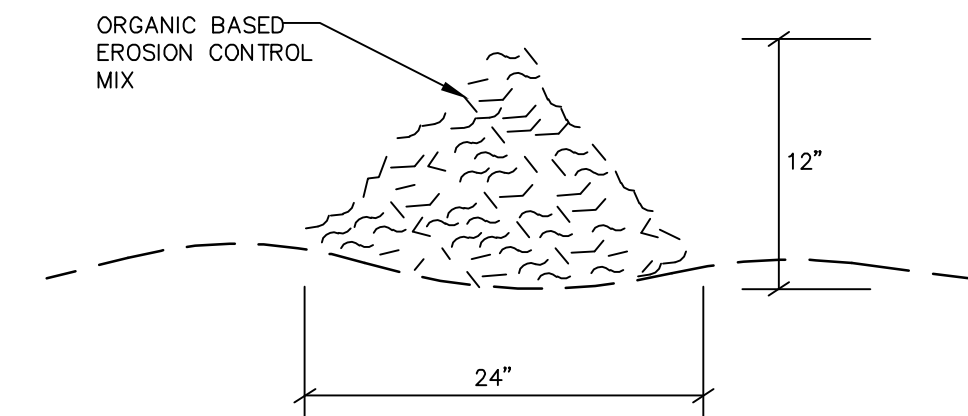
Table with columns: #, ESTIMATED CONSTRUCTION TIME, -- MONTHS. Lists 11 construction tasks from site clearing to removal of erosion control devices, with corresponding month ranges.

* HOME CONSTRUCTION ON INDIVIDUAL LOTS MAY BEGIN ONCE THE ROADWAY BASE HAS BEEN SUFFICIENTLY CONSTRUCTED TO ALLOW VEHICLE ACCESS TO THE LOT(S). HOME CONSTRUCTION MAY CONTINUE BEYOND ESTIMATED COMPLETION DATE FOR ROADWAY CONSTRUCTION...

HOUSEKEEPING:

THE FOLLOWING GENERAL PERFORMANCE STANDARDS APPLY TO THE PROPOSED PROJECT.

- A. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER...
- B. 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...
- C. 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 AFTER CONSTRUCTION...
- D. DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF...
- E. EXCAVATION DE-WATERING: EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION...
- F. AUTHORIZED NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE EXISTING NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES...



COMPOSITION

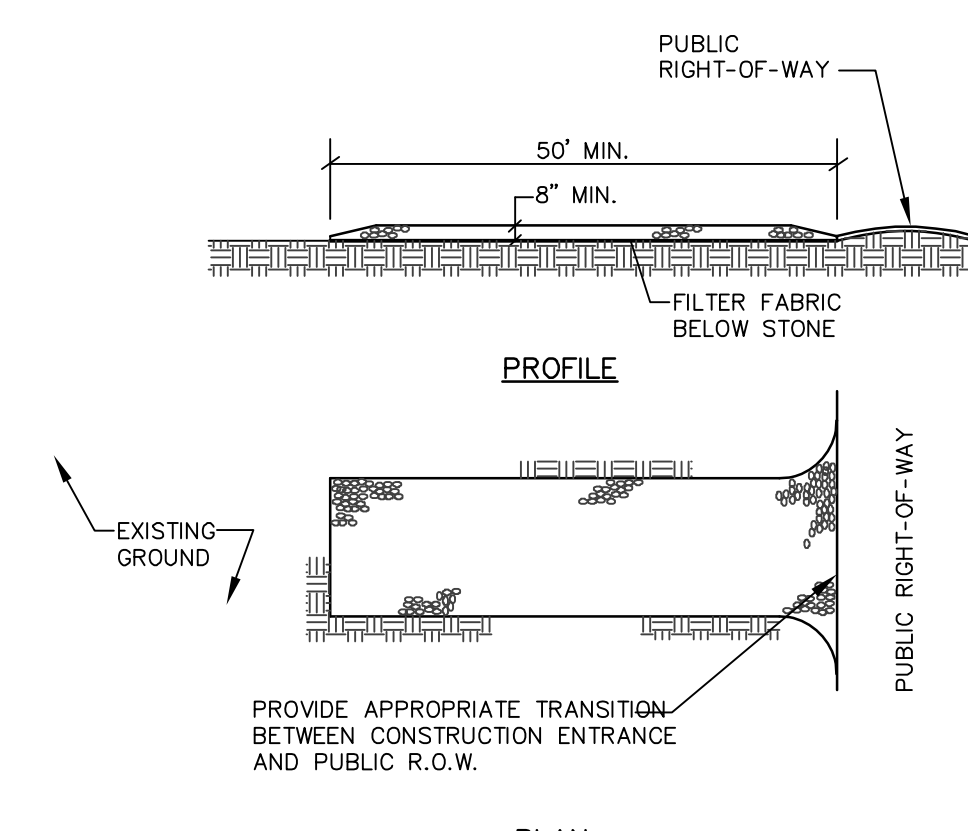
EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE MDEP MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, LAST REVISED 3/2003 OR LATER...

INSTALLATION:

- 1. THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.
- 2. EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES...
- 3. THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 8% IN GRADE...
- 4. EROSION CONTROL MIX CAN BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS IN AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW CULVERT OUTLET APRONS...

EROSION CONTROL MIX BERM

NOT TO SCALE

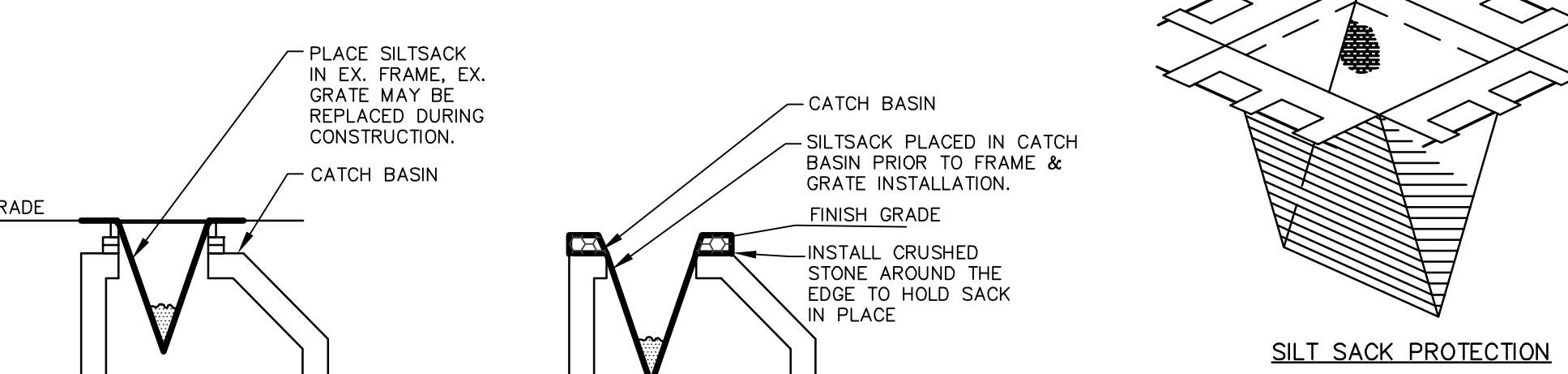


NOTES:

- 1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (1/2" TO 1 1/2") USE CRUSHED STONE.
- 2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
- 3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
- 4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
- 5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY...

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTES:

PRIOR TO FINAL GRADING AND PAVING OPERATIONS BEGIN A CATCH BASIN INSERT (SUCH AS SILT SACK OR A SANDY-BAG) MUST BE INSTALLED IN EACH BASIN PER MANUFACTURER'S INSTRUCTIONS...

CATCH BASIN PROTECTION DETAIL (FOR PAVED AREAS)

NOT TO SCALE

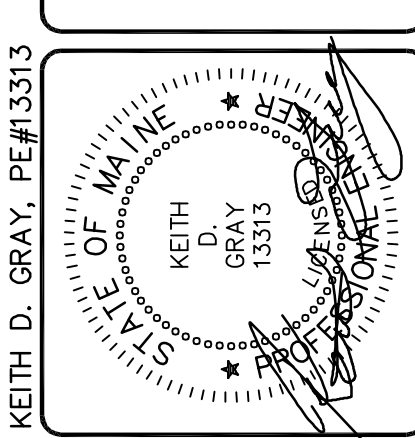
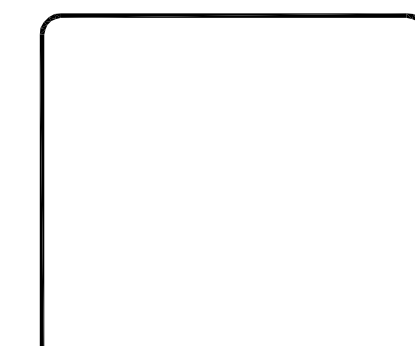


Table with columns: DESIGNED, CHECKED, KDG, KDG. Includes a vertical title 'SEBAGO TECHNICS' and a vertical title 'DETAILS OF: 218-220 WASHINGTON AVENUE PORTLAND, MAINE'. Includes a vertical title 'FOR: 218-220 WASHINGTON AVENUE LLC 199 ELDERBERRY ROAD SOUTH PORTLAND, MAINE 04106'.

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PROJECT NO. 06172, SCALE AS SHOWN, SHEET 8A OF 23, 1-Tab 01.