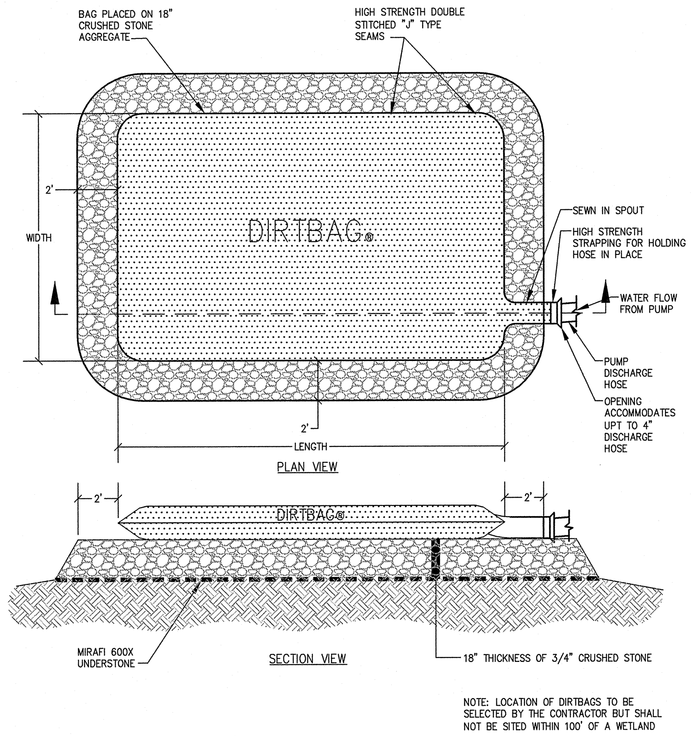


NOTE: LOCATION OF DIRTBAGS TO BE SELECTED BY THE CONTRACTOR BUT SHALL NOT BE SITED WITHIN 100' OF A WETLAND

Ⓐ DIRTBAG AND SPECIFICATIONS FOR DEWATERING DETAIL
N.T.S.

SPECIFICATIONS AND REQUIREMENTS FOR DEWATERING

THIS PROJECT WILL REQUIRE THE DISCHARGE OF CONSTRUCTION DEWATERING AND TURBID LADEN RUNOFF FROM THE SITE.

OVERVIEW:

TRADITIONALLY, MEDEP PERMITS HAVE HAD A STANDARD CONDITION WHICH STATES:

"THE APPLICANT SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THAT ITS ACTIVITIES OR THOSE OF ITS AGENTS DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS ON THE SITE DURING THE CONSTRUCTION AND OPERATION OF THE PROJECT COVERED BY THIS APPROVAL."

THE CONTRACT SPECIFICATIONS HAVE BEEN DEVELOPED FOR THE PURPOSE OF ADDRESSING CONSTRUCTION-DEWATERING ACTIVITIES WITH THE CONTINGENCY THAT UNPREDICTABLE WEATHER CAN CREATE.

ACCEPTABLE METHODS OF DISCHARGING CONSTRUCTION SITE RUNOFF:

DEWATERING OF THE CONSTRUCTION SITE SHALL BE ACCOMPLISHED USING ONE OF THE FOLLOWING MEASURES:

- THE DIRECTION OF THE RUNOFF TO TEMPORARY SEDIMENTATION SUMPS BY GRAVITY FLOW.
- THE PUMPING OF DIRTBAGS WITH A DISCHARGE TO A STABILIZED OUTLET.
- THE PUMPING OF CONSTRUCTION SITE WATER AND COLLECTED RUNOFF TO A DIRTBAG (PATENTED PRODUCT BY ACF ENVIRONMENTAL PRODUCTS) WITH RELEASE THROUGH A VEGETATED BUFFER AT LEAST 50 FEET UPGRADIENT OF A WETLAND.

REQUIREMENTS FOR DIRTBAGS:

THE DIRTBAGS SHALL BE FIELD LOCATED BY THE CONTRACTOR BUT ARE NOT TO BE INSTALLED IN ANY "CRITICAL" AREA. (THE SITE CRITICAL AREAS ARE SHOWN ON THE EROSION-SEDIMENT CONTROL PLAN.) THE DIRTBAG SHALL BE INSTALLED ON A PREPARED SUBGRADE. THIS SUBGRADE SHALL CONSIST OF THE INSTALLATION OF A LAYER OF MIRAFI 600X, AND 18 INCHES OF ¾ INCH CRUSHED STONE. THE PLAN DIMENSION OF THE CRUSHED STONE PAD SHALL EXCEED THE PLAN AREA OF THE DIRTBAG BY AT LEAST TWO FEET IN ALL DIRECTIONS. THE DIRTBAG SHALL NOT BE INSTALLED ON AN UNDERLYING SLOPE OF GREATER THAN 15 PERCENT.

CONSTRUCTION DEWATERING OPERATIONS:

ALL CONSTRUCTION-DEWATERING OPERATIONS ARE THE RESPONSIBILITY OF THE SITE CONTRACTOR. IT SHALL BE THE SITE CONTRACTOR WHO IS RESPONSIBLE FOR SELECTING THE SITE FOR THE DIRTBAG, THE SELECTION OF THE USE OF THE DIRTBAG OR THE SEDIMENTATION BASIN FOR DIRECTING DEWATERING, EXCEPT THAT THE OWNER MAY DIRECT THE SITE CONTRACTOR TO ALTER THE SELECTED OPERATION IF TURBID DISCHARGE TO A WETLAND OR TO THE EXISTING SITE CULVERTS.

WINTER OPERATIONS:

IN THE EVENT THAT WINTER OPERATIONS ARE REQUIRED, THE CONTRACTOR SHALL "POLY", ENCLOSE, AND PROVIDE TEMPORARY HEAT TO PREVENT THE DIRTBAG FROM SUBSTANTIAL FREEZING.

RECORD KEEPING:

THE WEEKLY EROSION-SEDIMENT CONTROL REPORTS PREPARED IN ACCORDANCE WITH THE NPDES PERMIT SHALL MAINTAIN A LOG OF THE LOCATION, USE, AND REMOVAL OF DIRTBAGS. IN THE EVENT THAT THE STONE UNDER THE DIRTBAG BECOMES HIGHLY CONTAMINATED WITH FINES, THE NEXT DIRTBAG SHALL BE INSTALLED IN A DIFFERENT LOCATION.

Overview of Soil Erosion and Sedimentation Concerns

The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. The "K" value is frequently used with the universal soil loss equation. The higher values are indicative of the more erodible soils.

Soil Type	Soil Description	K Value
Cu – Cut and Fill Land	Gravelly sandy loam	0.02
Gp – Gravel Pit	Gravelly sandy loam	0.02
HIC – Hinckley	Gravelly sandy loam	0.17

Based on a review of the K values, the onsite soils in the cut area where construction is focused are highly susceptible to erosion after the cover material is stripped. The soils in the wetland areas are highly erosive.

The primary emphasis of the erosion and sedimentation control plan to be implemented for this project is as follows:

1.) Development of a careful construction sequence.

2.) Rapid stabilization of denuded areas to minimize the period of soil exposure.

3.) Rapid stabilization of drainage paths to avoid rill and gully erosion

4.) The use of on-site measures to capture sediment (hay bales/silt fence, etc.).

5.) Protection of natural resource areas including wetlands through buffering and BMPs.

6.) The implementation of long-term measures for erosion/sediment and pollutant treatment through the construction of permanent water quality measures.

Description and Location of Limits of All Proposed Earth Movements

The construction of the development will require the following on – site improvements to serve the proposed Mercy Hospital, Ambulatory Care and Medical Office buildings:

1. Construction of approximately 398 and 753 space parking lots for staff parking and Hospital, Ambulatory Care (ACC), and Medical Office Building (MOB) facilities parking respectively.

2. Construction of an access drive around the perimeter of the proposed Hospital, ACC, and MOB facilities.

3. Construction of an access drive extended from County Way onto the site as well as three entrances off of a MDOT interconnector road.

4. Construction of a service drive on the backside of the Hospital, ACC, and MOB.

5. Construction of utilities to serve the Hospital, ACC, and MOB.

6. Construction of stormwater conveyance and management systems to include a wet pond that will also serve as a temporary sediment basin during construction.

These improvements and the building construction will disturb approximately 25 acres of land.

Existing and Proposed Drainage Features

The existing site has features that flow to discharge areas on three locations on the site. Approximately 20 percent of the site flows overland into two wetland areas on the northern portion of the site; the wetlands discharge via a corrugated culvert under the tracks eventually discharging into the Fore River by way of twin 36" culverts to the northwest of the project site. Approximately 40 percent of the site flows overland to the southwest discharging to the Fore River. The remaining 40 percent of the site flows overland into the existing wetland in the central portion of the site. This wetland drains to a swale in the midwestern portion of the site eventually discharging to the Fore River via a 20" concrete culvert. Erosion problems are evident in the area from the noticeable sediment deposits in the standing water of the wetland.

The proposed drainage will capture runoff from the hardened surface (roof or pavement) and convey it through formal storm drain systems to outlets along the Fore River. Measurements including casco traps within the catch basins will serve to collect and treat surface runoff prior to discharge to the basin.

Resource Areas

Resource project areas include the wetlands on the project site as well as the unstabilized slopes around the perimeter of the former gravel pit. These areas have been delineated by Eco-Analysts, Inc. and are depicted on the Existing Conditions Plan (Sheet C-3)

Erosion/Sedimentation Control Devices

The following erosion and sediment control devices will be implemented by the Contractor as part of the site development. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

1. Siltation fence shall be installed downslope of any disturbed areas to trap runoff borne sediments until the site is revegetated. The silt fence shall be installed per the detail provided in the plan set and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made immediately by the Contractor if there are any signs of erosion or sedimentation below the fence line. Proper placement of stakes and keying the bottom of the fabric into the ground is critical to the fence's effectiveness. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence, the barrier shall be replaced with a stone check dam.

2. A wood chip barrier shall be installed as the primary non-structural measure along disturbed slopes and exposed soils. The barrier shall be installed per the detail in the plan set and inspected on a daily basis. Repairs shall be made immediately by the Contractor if there are any signs of erosion or sedimentation through the barrier. The barrier shall be installed along the work limits and adjacent the fringes of the existing wetland pond adjacent the work zone. Double rows of wood chip barrier shall be installed at points along identified concentrated runoff. Temporary wood chip barriers may be required along areas of active excavation i.e. within the building pad zones, so that the maximum length of sheet flow off exposed soils areas is less than 150'.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed on slopes of less than 10 percent shall be anchored by applying water; mulch placed on slopes steeper than 10 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Proposed drainage channels that are to be revegetated shall receive curlex blankets by American Excelsior or equal. Mulch application rates are provided in Attachment A of this section. Hay mulch shall be availa ble on site at all times in order to provide immediate temporary stabilization when necessary. Where necessary, a temporary stone channel pipe sluice shall be used to convey runoff down the slope.

4. Riprap slopes, ditch linings, stone check dams, hay bale barriers, and culvert outlet aprons are intended to reduce runoff velocities and protect denuded soil surfaces from concentrated flows. Installation details and stone sizes are provided in the construction plan set on the erosion control detail sheets.

5. A construction entrance will be constructed at access points onto the site to prevent tracking of soil onto adjacent local roads.

6. Stone sediment traps or a premanufactured SiltSack™ will be installed at catch basin inlets to prevent silt from entering the storm drain system. Installation details are provided in the plan set on the erosion control detail sheets.

7. Reinforced turf will be used as necessary on extremely steep slopes and in the yard areas.

8. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures, such as riprap. Specific areas as shown on the landscape plan will receive sod. Application rates are provided in Attachment A of this section for temporary and permanent seeding in non-wetland areas.

9. Dirtbags™ shall be made available to allow the discharge of trench dewatering flows or other sediment laden runoff prior to discharge to the ponds or undisturbed areas.

Temporary Erosion/Sedimentation Control Measures

The following are planned as temporary erosion/sedimentation control measures during construction:

1. Two crushed stone stabilized construction entrances shall be placed at the site access points off of the MDOT interconnector.

2. A wood chip barrier and Siltation fence shall be installed along the downgradient side of the proposed improvement areas. The siltation fence will remain in place and properly maintained until the site is acceptably revegetated

3. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

a) Temporary stockpiles shall not be located within 100 feet of any drainage ditches and at least 50 feet upgradient of the perimeter silt fence.

b) Inactive stockpiles shall be stabilized within 5 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch. If necessary, mesh shall be installed to prevent wind from removing the mulch.

4. All denuded areas which have been rough graded shall receive mulch or erosion control mesh fabric within 14 days of initial disturbance of soil.

5. All soils disturbed between November 1 and April 1 will be covered with mulch within 5 days of disturbance, prior to any predicted storm event of the equivalent of ½" of equivalent rainfall in a 24-hour period, or prior to any work shutdown lasting more than 35 hours (including weekends and holidays). The mulch rate shall be double the normal rate.

For work that is conducted between November 1 and April 15 of any calendar year, all denuded areas will be covered with hay mulch, applied at twice the normal application rate and (in areas over 10% grade) anchored with a fabric netting. The time period for applying mulch shall be limited to 5 days for all areas or immediately in advance of a predicted rainfall event.

6. The access road and the MDOT interconnector road shall be swept to control mud and dust as necessary. Additionally, in the event mud and/or dust migrates off of the site onto the interconnector, the affected area shall be swept. A street sweeper shall be available on immediate notice.

7. During grubbing operations stone check dams or hay bale barriers will be installed at any evident concentrated flow discharge points.

8. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be properly anchored a minimum of 6" par the plan detail and backfilled. Any silt fence identi fied by the owner or reviewing agencies as not being properly installed during construction shall be immediately repaired in accordance with the installation details.

9. Storm drain catch basin inlet protection shall be provided through the use of stone se diment barriers or a premanufactured SiltSack™ as distributed by A. H. Harris Company, Portland, Maine. Stone sediment barrier installation details are provided in the plan set. The barriers shall be inspected after each rainfall and repairs made as necessary. Sediment shall be removed and the barrier restored to its original dimensions when the sediment has accumulated to ½ the design depth of the barrier. Sediment shall be removed from SiltSacks™ as necessary. Inlet protection shall be removed when the tributary drainage area has been stabilized

10. Disturbed slopes over 4:1 shall receive erosion control mesh.

11. Slopes steeper than 3:1 shall receive reinforced turf.

Standards for Stabilizing Sites for the Winter

Standard for the timely stabilization of ditches and channels : The contractor shall construct and stabilize all stone – lined ditches and channels on the site by November 15. The contractor shall 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 1, then the contractor shall take one of the following actions to stabilize the ditch for late fall and winter.

i. Install a sod lining in the ditch. The contractor shall line the ditch with properly installed sod by October 1. Proper installation includes the applicant 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, an d anchoring the sod with jute or plastic mesh to prevent the sod strips from sloughing during flow conditions.

ii. Install a stone lining in the ditch. The contractor shall line the ditch with stone rip rap by November 15. The contractor shall 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 shall regrade the ditch prior to placing the stone lining so as to prevent the stone lining from reducing the ditch's cross-sectional area.

2. Standard for the timely stabilization of disturbed slopes : The contractor shall construct and stabilize all stone – covered slopes by November 15. The contractor shall seed and mulch all slopes to be vegetated by September 1. The department will consider any area having a grade greater than 15% to be a slope. If the contractor fails to stabilize any slope to be vegetated by September 1, then the contractor shall take one of the following actions to stabilize the slope for late fall and winter.

i. Stabilize the soil with temporary vegetation and erosion control mesh. By October 1 the contractor shall 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 shall monitor growth of the rye over the next 45 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed slope by November 15, then the contractor shall cover the slope with a layer of woodwaste compost as described in item iii of this standard or with stone rip rap as described in item iv of this standard.

ii. Stabilize the slope with sod. The contractor shall 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 contract between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late season sod installation to stabilize slopes having a grade greater than 33% (3H:1V) or having groundwater seeps on the slope face.

iii. Stabilize the slope with woodwaste compost. The contractor shall place a six-inch layer of woodwaste compost on the slope by November 15. Prior to placing the woodwaste compost, the contractor shall remove any snow accumulation on the disturbed slope. The contractor shall not use woodwaste compost to stabilize slopes having grades greater than 50% (2H:1V) or having groundwater seeps on the slope face.

iv. Stabilize the slope with stone rip rap. The contractor shall place a layer of stone rip rap on the slope by November 15. The contractor shall hire a registered professional engineer to determine the stone size needed for stability and to design a filter layer for underneath the rip rap.

3. Standard for the timely stabilization of disturbed soil : By September 1, the contractor shall 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 shall take one of the following actions to stabilize the soil for late fall and winter.

i. Stabilize the soil with temporary vegetation. By October 1, the contractor shall 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 shall monitor the growth of the rye over the 45 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 15, then the contractor shall mulch the area for ewer winter protection as described in item iii of this standard.

ii. Stabilize the soil with sod. The contractor shall stabilize the disturbed soil with properly installed sod by October 1. Proper installation includes the contractor pinning t he 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.

iii. Stabilize the soil with mulch. By November 15, the contractor shall m ulch 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 shall remove any snow accumulation on the disturbed area. Immediately after applying the mulch, the contractor shall anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

Sedimentation Sumps

The use of shallow sediment sumps on the downgradient side of erodible stockpiles and areas where denuded conditions will be prolonged is encouraged.

Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion/Sedimentation Control Plan:

1. All storm drain pipes shall have riprap aprons at their outlet to protect the outlet and receiving channel of the culverts from scour and deterioration. Installation details are provided in the plan set. The aprons shall be installed and stabilized prior to directing runoff to the tributary pipe or culvert.

2. All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, mulched, and seeded. Fabric netting, anchored with staples, shall be placed over the mulch in areas where the finish grade slope is greater than 10 percent. Native topsoil shall be stockpiled and temporarily stabilized with seed and mulch and reused for final restoration when it is of sufficient quality.

3. Catch basins will be provided with sediment sumps for all outlet pipes that are 12" in diameter.

4. All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, mulched, and seeded. Fabric netting, anchored with staples, shall be placed over the mulch in areas where the finish grade slope is greater than 10 percent. Native topsoil shall be stockpiled and temporarily stabilized with seed and mulch and reused for final restoration when it is of sufficient quality.

Timing and Sequence of Erosion/Sedimentation Control Measures

The following construction sequence shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized.

Note: For all grading related activities, the Contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

1. Install crushed stone – stabilized construction entrance as shown on the Erosion and Sedimentation Control Plan at the access road.

2. Install wood chip barrier and siltation fence and conduct land clearing activity

3.Complete the sideslope restoration around the perimeter of the former gravel pit as outlined on the plans.

4. Construct diversion and drainage channels to direct flow to theproposed collection system.

5. Install stone and hay bale check dams at any concentrated flow discharge points.

6. Clear and grub foundation areas.

7. Install storm drain, underground electric, foundations and other utility work. Install inlet and outlet protection immediately after the installation of any culverts.

8. Bring site to subgrade including extension of embankments and temporary slope stabilization.

9. Construct other site improvements and utilities.

10. Raise catch basins to grade and install inlet protection devices.

11. Install pavement as detailed on the site plans.

12. Loam, lime, fertilize, seed, and mulch all disturbed and denuded areas.

13. Remove accumulated sediment from all barriers.

14. Review stability of the site. If a 75% catch of grass is achieved, remove temporary erosion control devices.

Soil will be considered dist urbed if it does not have an established stand of vegetation covering at least 75% of the soil surface or has not been mulched with hay applied at a rate of 230 lb./1000 sq. ft.

Contracting Procedure

The project will be constructed by a General Contractor under contract to Mercy Hospital. The Contractor shall submit a schedule for the completion of the work that will satisfy the following criteria:

1. The above construction sequence should generally be completed in the specified order however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of this sequence is to provide for erosion control and to have structural measures such as silt fence and construction entrances in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 30 days.

b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a predicted storm event; or temporarily stabilized within 7 days of initial disturbanc e of soil for areas identified as critical (refer to paragraph 24.4.A) and 14 days for all other areas.

c) Incorporate planned inlets and drainage system as early as possible into the construction phase. The ditches shall be immediately lined or revegetated as soon as their installation is complete.

3. Once final grade has been established, the Contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of fabric netting anchored with staples.

a) If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5#/1000 s.f.

All areas seeded during the winter months will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less th an 75 percent catch) shall be revegetated by replacing loam, seed and mulch.

b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non – stabilized construction shall be limited to the m inimum area practicable. An area shall be considered to be denuded until the subbase gravel is installed in parking areas, or the areas of future loam and seed have been loamed, seeded, and mulched. The mulch rate shall be twice the rate specified in the seeding plan. [For example, 115#/1,000 s.f. x 2 = 230#/s.f.]

5. Within the exposed work area, temporary sedimentation sumps shall be provided at the interface between parking areas and graded slopes (refer to paragraph 24.7). This shall be accomplished by creating an area 18" below adjacent temporary grades. The sedimentation area shall have a bottom width of 3' and 3:1 side slopes. Culverts to allow access shall be installed by the Contractor. Along the sedimentation sumps, barriers shall be provided at sufficient intervals to permit runoff to be accumulated to a minimum depth of 12" before overflowing.

6. The schedule shall be subject to the approval of the Owner.

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.

The Contractor shall note that no area within 50 feet of the perimeter side slope shall remain denuded for a period of over 5 days before it is temporarily stabilized. Temporary stabilization shall be the installation of mulching. All other areas shall be stabilized within 14 days. For construction between November 1 and April 15 of any calendar year, all areas shall be temporarily stabilized at the earlier time frames specified above.

Provisions for Maintenance of the Erosion/Sedimentation Control Features

The project will be contracted by the Owner. The project is subject to the requirement of a MeDEP Site Location of Development Permit and an EPA NPDES Permit for Stormwater Pollution Prevention. These permits require the Contractor to prepare a list and designate by name, address and telephone number all individuals who will be responsible for implementation, inspection, and maintenance of all erosion control measures identified within this section and as contained in the Erosion and Sedimentation Control Plan of the contract drawings. Specific responsibilities of the Inspector(s) will include:

1. Execution of the Contractor/Subcontractor Certification contained in Attachment B by any and all parties responsible for erosion control measures on the site as required by the EPA.

2. Assuring and certifying the Owner's construction sequence is in conformance with the specified schedule of this section. A weekly certification stating compliance, any deviations, and corrective measures necessary to comply with the erosion control requirements of this section shall be prepared and signed by the inspector(s).

3. In addition to the weekly certifications, the inspector(s) shall maintain written reports recording construction activities on site which include:

–Dates when major grading activities occur in a particular areas.

–Dates when major construction activities cease in a particular area, either temporarily or permanently.

–Dates when an area is stabilized.

4. Inspection of this project work site on a weekly basis and after each significant rainfall event (0.5 inches or more within any consecutive 24 hour period) during construction until permanent erosion control measures have been properly installed and the site has been stabilized. Inspection of the project work site shall include:

–Identification of proper erosion control measure installation in accordance with the erosion control detail sheet or as specified in this section.

–Determine whether each erosion control measure is properly operating. If not, identify damage to the control device and determine remedial measures.

–Identify areas that appear vulnerable to erosion and determine additional erosion control measures that should be used to improve conditions.

–Inspect areas of recent seeding to determine percent catch of grass. A minimum catch of 75 percent is required prior to removal of erosion control measures.

Accumulated silt/sediment should be remo ved when the depth of sediment reaches 50 percent of the barrier height. Accumulated silt/sediment should be removed from behind silt fencing when the depth of the sediment reaches 6 inches.

5. If inspection of the site indicates a change should be made to the erosion control plan, either to improve effectiveness or correct a site – specific deficiency, the inspector shall immediately implement the corrective measure and notify the owner of the change.

Once construction has been completed, long term mainte nance of the detention pond and catch basins will be the responsibility of the applicant. The catch basin sumps shall be inspected in April and October of each year. Sediment shall be removed when the depth of sediment reaches one half the depth of the sump

All certifications, inspection forms and written reports prepared by the inspector(s) shall be filed with the Owner, and the NPDES Permit File contained on the project site. All written certifications, inspection forms, and written reports must be filed within one (1) week of the inspection date.

Preconstruction Conference

Prior to any construction at the site, representatives of the Contractor, and the site design engineer shall arrange for and meet with the Owner to discuss the scheduling of the site construction. On or before that meeting, the Contractor will prepare a detailed schedule and a marked–up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. If disturbed areas are not to be finished (loamed, seeded, and mulched) within seven (7) days, the scheduling shall indicate those areas to be protected with temporary seeding/mulch. Three copies of the schedule and marked–up site plan shall be provided to the Owner. Temporary seed mixture shall be annual rye grass applied at the rate of 0.9 lbs/1000 sq. ft.

PERMANENT SEEDING PLAN NON–WETLAND AREAS

Project Mercy Hospital Relocation Project

Site Location Ogdenburg Road, Portland, Maine

X Permanent Seeding Temporary Seeding

1. Area to be seeded: 5 acres, OR M Sq. Ft.

2. Instructions on preparation of soil: Prepare a good seed bed for planting method used.

3. Apply lime as follows: #/acres, OR #/M Sq. Ft.

4. Fertilize with pounds of N–P–K/ac. Or

15 pounds of 20 – 4 – 12 N–PK/M Sq. Ft.

5. Method of applying lime and fertilizer: Spread and work into the soil before seeding.

6. Seed with the following mixture:
See sheet C13A for seed mixtures

When using small grain as nurse crop seed it at one–half the normal seeding rate.

7. Mulching instructions: Apply at the rate of tons per acre. OR
115 pounds per M. Sq. Ft.
Amount Unit #, Tons, Etc.

8. TOTAL LIME..... 0 #/1000 sq. ft.

9. TOTAL FERTILIZER.....15 #/1000 sq. ft.

10. TOTAL SEED..... 3 to 4 #/1000 sq. ft.

11. TOTAL mulch..... 115 #/1000 sq. ft.

12. TOTAL Other materials, seeds, etc..... #/1000 sq. ft.

13.

REMARKS

Spring seeding is recommended, however, late summer (prior to September 1) seeding can be made. Permanent seeding should be made prior to August 5 or as a dormant seeding after the first killing frost and before the first snowfall. If seeding cannot be done within these seeding dates, temporary seeding and mulching shall be used to protect the site. Permanent seeding shall be delayed until the next recommended seeding period.

Fertilizer requirements shall be subject to actual test results of the topsoil used for the project. The Contractor shall be responsible for providing topsoil test results for pH and recommended fertilizer application rates to the owner.

Seed mixture shall be fresh, clean, new crop seed. Seed may be mixed by an appropriate method on the site or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers bearing the dealer's guaranteed analysis. If seed is mixed by the dealer, the Seeding Contractor shall furnish to the Owner the dealer's guaranteed statement of the composition of the mixture and the percentage of purity and germination of each variety.

Seed shall be purchased from a recognized distributor and shall test to a minimum percentage of 95% for purity and 85% for germination.

TEMPORARY SEEDING PLAN NON–WETLAND AREAS

Project Mercy Hospital Relocation Project

Site Location Ogdenburg Road, Portland, Maine

Permanent Seeding X Temporary Seeding

1. Area to be seeded: 5 acres, OR M Sq. Ft.

2. Instructions on preparation of soil: Prepare a good seed bed for planting method used.

3. Apply lime as follows: #/acres, OR #/M Sq. Ft.

4. Fertilize with pounds of N–P–K/ac. Or

15 pounds of 20 – 4 – 12 N–PK/M Sq. Ft.

5. Method of applying lime and fertilizer: Spread and work into the soil before seeding.

6. Seed with the following mixture:
50% Perenial Ryegrass
50% winter Rye

When using small grain as nurse crop seed it at one–half the normal seeding rate.

7. Mulching instructions: Apply at the rate of tons per acre. OR
230 pounds per M. Sq. Ft.
Amount Unit #, Tons, Etc.

8. TOTAL LIME..... 0 #/1000 sq. ft.

9. TOTAL FERTILIZER.....15 #/1000 sq. ft.

10. TOTAL SEED..... 3.5 #/1000 sq. ft.

11. TOTAL mulch..... 230 #/1000 sq. ft.

12. TOTAL Other materials, seeds, etc..... #/1000 sq. ft.

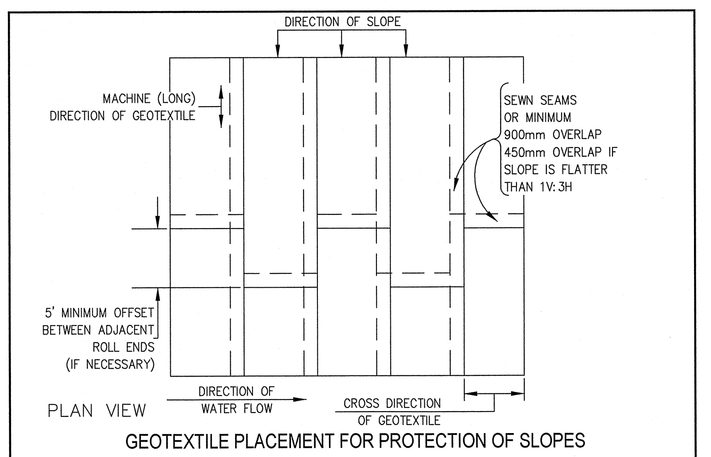
13.

REMARKS

Recommended seeding dates after August 15.

For areas with slopes >10%, waterways, areas within 100 feet of the stream, and fall and winter erosion control areas, mulch netting shall be used per manufacturer's specifications.

Fertilizer requirements shall be subject to actual test results of the topsoil used for the project. The Contractor shall be responsible for providing topsoil test results for pH and recommended fertilizer application rates to the owner.



Ⓑ GEOTEXTILE PLACEMENT FOR PROTECTION OF SLOPES ADJACENT TO STREAMS AND TIDAL AREAS
N.T.S.

REV	DATE	DESCRIPTION
5	7.28.06	RELEASED TO CONSTRUCTION MANAGER
4	7.25.06	RESUBMITTED TO CITY OF PORTLAND
3	6.09.06	RESUBMITTED TO CITY OF PORTLAND
2	3.10.06	PRELIMINARY SITE PLAN APPLICATION TO CITY OF PORTLAND
1	1.11.02	SITE LOCATION OF DEVELOPMENT PERMIT SUBMISSION

REVISIONS

STATE OF MAINE STEPHEN B BUSHEY 7429 REGISTERED PROFESSIONAL ENGINEER

P.E. STEPHEN BUSHEY
LIC. # 7429

PROJECT: MERCY AT THE FORE

SHEET TITLE: EROSION / SEDIMENT CONTROL DETAILS AND NOTES

CLIENT: MERCY HOSPITAL

DeLUCA-HOFFMAN ASSOCIATES, INC.
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SOUTH PORTLAND, ME 04106
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DESIGNED:	SRB	SCALE:	N.T.S.
CHECKED:	SRB	JOB NO.	2149.01
FILE NAME:	2149.01–DET–EROS		
SHEET	C-14C		

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