

INFORMATION REQUIRED BY THE CONTRACTOR

Much of the erosion control information shown on the erosion control plans and described in this narrative is general in nature. More site specific information is not yet available as a contractor has not yet been selected. The following list outlines some of the specific information that is not included in the erosion control plans and described in this narrative:

1. The location of stabilized construction entrances.
2. The location of stockpiles, staging areas, and disposal areas.
3. A specific timetable of construction and earthwork activities.
4. The name, title, qualifications, and contact information for the on-site project coordinator.

SPECIFIC GUIDELINES

Phase 1 - Establish Perimeter Erosion Controls

Prior to any construction activities, the Project Demarcation Fencing shall be placed along the perimeter of the project as shown on the Erosion Control Plans. The installation of the demarcation fencing will be performed such that no vegetation on the outside of the fencing is disturbed.

Prior to any construction or staging, the contractor will install Stabilized Construction Entrances leading to staging areas and the project site to prevent the tracking of silts and sediments offsite. Coarse stone fill over filter fabric should be utilized where an already established stable entrance does not exist. The crushed stone product used for the construction of the Stabilized Construction Entrances shall be monitored for sediment accumulation and replaced as necessary as directed by the Resident Engineer. Stabilized Construction Entrances shall also be established and maintained at all offsite waste and borrow areas. The minimum size of a Stabilized Construction Entrance shall be 4 meters wide by 15 meters long.

Install inlet protection controls at the inlets of all existing culverts.

After the clearing of trees and shrubs, but prior to any grubbing and excavation, construct perimeter controls to ensure that any disturbed sediment does not leave the site. Sediment traps/basins, where water has been adequately treated, may be directed to nearby undisturbed streams or swales.

Install perimeter silt fence in areas of proposed work as shown on the plans prior to grubbing and filling activities. In areas of high exposure, it may be necessary to double up protection with additional silt fencing or placement of hay bales behind the silt fencing. In areas of exposed ledge, stone check dams will be utilized.

During grubbing operations, stone check dam barriers shall be installed at any obvious concentrated flow discharge points, or as directed by the Resident Engineer.

All areas of exposed soils after the grubbing activity shall be temporarily stabilized with mulching & seeding, erosion matting, or STRAW matting as soon as practicable and before any predicted rainfall event. These temporary erosion control measures can be placed in any combination in areas of potential erosion as deemed necessary by the Resident Engineer.

After perimeter controls are in place, and prior to grading operations, construct temporary onsite sediment traps where necessary. Grade disturbed areas to drain towards sediment traps where possible.

All material stockpiles, including but not limited to, grubbing material, sand borrow, earth borrow, granular borrow, topsoil, subbase, and any excavated waste piles shall be mulched and shall also have silt fence installed around the base of the stockpile.

Any off-site areas where borrow or excavated materials will be stockpiled will have two installations of silt fence, 600 mm apart, around the base of each stockpile. Waste disposal sites will also have two installations of silt fence around the base of each stockpile, and immediately after final grading, shall be seeded and mulched. Removal of the silt fences around the waste areas shall be performed only after approval by the Resident Engineer.

Phase 2 - Establish Temporary Detour Erosion Controls

On partially completed fill & cut slopes, all exposed soils will be stabilized with STRAW matting at the end of each working day. In any areas on the detour roadway where concentrated flows may tend to collect, temporary flexible slope pipes will be used to channel the anticipated runoff into settling basins or detention ponds. No roadway runoff will be allowed to be channeled directly into Mendon Brook without being treated for sediment. Once the detour fill slopes are completed, the entire detour, including all fill and cut slopes (except the paved surfaces), shall be entirely covered with STRAW matting.

Phase 3 - Establish Bridge Erosion Controls

It is anticipated that the lower portions of both existing abutments (that are to be retained) can serve as check dams during construction of the new abutments and related stone fill slopes.

New slopes steeper than 50% (1-2 slope) will be constructed with stone fill for slope stabilization as the embankment construction progresses.

The new substructures will be constructed in the dry, and will require the use of cofferdams. The cofferdams will be used as a barrier to prevent sediments from the substructure excavation from entering the stream. Construction of the substructures may require dewatering of the cofferdams. All water pumped from substructure and other excavation areas will be pumped to either a dirt bag silt containment device, or an excavated sediment basin. The first pumping of the excavations will contain the greatest volume of water with the highest sediment load. It may be necessary to construct additional settling structures, or to control the rate of drawdown of the excavations.

After completion of the substructures, all collected sediments should be removed from the settling structures and the ground shaped to its final grade and slope. Dispose of the collected sediments in an upland portion of the project, or in a manner approved by the Resident Engineer that will not result in sediments or pollutants entering the stream.

Phase 4 - Establish Roadway Erosion Controls

New drainage culverts that are being constructed in the same location as existing culverts shall be isolated from the new work by means of damming and pumping into a settling basin, or by installing a temporary pipe of sufficient size to handle expected flows.

Stone fill for channel and slope stabilization at the outlet ends of culverts is to be placed prior to installation of the culverts. All work on new culverts should proceed from the outlet towards the inlet. Silt fence and/or crushed stone check dams are to be installed on undisturbed ground and downstream of the stone fill pads at outlets. Stone fill for ditch stabilization shall be placed during the same working day that the ditch excavation was performed, unless directed otherwise by the Resident Engineer. Install inlet protection controls at the inlets of all new culverts.

On any partially completed permanent cut and fill slopes, all exposed soils will be stabilized with straw matting or seeded and mulched. In areas of concentrated runoff above newly constructed fill slopes, flexible slope pipes or other approved diversion methods will be used to transport runoff down the fill slopes to sediment traps or settling basins.

Any new fill slopes that are designed with stone fill blankets for slope stabilization shall be constructed with the stone fill being placed as the fill slope embankment construction progresses.

The subbase material should be placed as soon as the subgrade has reached its final grade and slope. The temporary traveling surface will be graded to promote sheet flow off the surface onto slopes, or flows will be directed to collection areas and shall be transported down the fill slopes (using flexible slope drains) into sediment traps or settling basins.

All graded areas shall be permanently stabilized following final grading activities.

Phase 5 - Detour Removal & Final Erosion Controls

Remove temporary detour fill material to original ground.

On any partially removed temporary fill slopes, all exposed slopes will be stabilized at the end of each work day.

As the temporary detour fills are removed, all exposed soil surfaces will be stabilized with STRAW matting and/or seed & mulch.

The channel stone fill slopes will be completed, and grubbing material will be applied to stone filled areas around each abutment. The grubbing material shall not be placed beneath the new structure or below the ordinary high water elevation. Refer to the hydraulics information on the Preliminary Information sheet.

The newly placed grubbing material shall be stabilized with STRAW matting and/or seed & mulch as directed by the Resident Engineer.

Removal of silt fence shall commence only after all upslope areas are stabilized and well established, and the Resident Engineers has approved the removal.

Removal of perimeter silt fences and sediment traps only after any toe-of-fill ditches have stabilized and vegetation is well established.

Remove all remaining temporary erosion control measures, regrade any areas if necessary, treat all regraded areas with STRAW matting and/or mulch & seed, and establishment of any final erosion control devices as deemed necessary by the Resident Engineer.

**SHEET #2  
EROSION CONTROL NOTES**

PROJECT: MENDON	PROJECT NO.: BRO 1443(35)
DESIGN FILE NAME: /str5/95j290/sj290ecbdr.dgn	PLOT DATE: 18-NOV-2005
IPARM FILE NAME: sj290ecnotes2.i	SURVEY DATE: 2/96
SURVEYED BY: L. ORVIS	DRAWN BY: G. SHANGRAW
SQUAD LEADER: C. KELLER	SHEET: 25 OF 94