

2/7/2014 sk1dd	Fri Feb 07 11:10:51 2014 \\gdot-dsn1\gocfg\resources\gdot-2012.tbl	C:\dgn\662650\EC_stuff\New Erosion Notes.dgn	STATE <b>GA</b>	PROJECT NUMBER STP00-0012-01(112)	SHEET NO.	TOTAL SHEETS
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**ESPCP GENERAL NOTES:**

The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land disturbing activities.

Erosion and sedimentation control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective control, additional erosion and sedimentation control measures shall be implemented to control or treat the sediment source.

**PLAN ALTERATIONS**

This Erosion, Sedimentation, and Pollution Control Plan (ESPCP) is provided by the Department. It addresses the staged construction of the project on the basis of common construction methods and techniques. If the Contractor elects to alter the staged construction from that shown in the plans or utilize construction techniques that render this plan ineffective, the Contractor shall revise the plans in accordance to Special Provision 161 of the contract.

The Contractor, the Certified Design Professional, and the WECS shall carefully evaluate this plan prior to commencing land-disturbing activities. A major modification or deletion of structural BMPs with a hydraulic component requires a formal revision of the ESPCP and the signature of a GSWCC level-II-certified design professional. Additional BMPs may be added per Special Provision 161 - Control of Soil Erosion and Sedimentation.

**TEMPORARY MULCHING**

EPD General Permit GARI00002 states that "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding." However, the Department typically requires disturbed areas to be stabilized every 7 days. The construction documents, special provisions, or specifications may require mulching more often than 7 days.

**VEGETATION AND PLANTING SCHEDULE**

All temporary and permanent vegetative practices including plant species, planting dates, seeding fertilizing, liming and mulching for this project can be found in section 700 of the current edition of the Department's Standard Specifications (or special provisions) and other applicable contract documents, or landscaping plans.

**SEQUENCE OF MAJOR ACTIVITIES**

The Contractor is responsible for developing the construction schedule for the project. The construction schedule for this project shall be submitted after the project is awarded with the NOI. A copy of the construction schedule shall be maintained at the project site.

The project budget includes sufficient funds for the payment of construction exits. The Contractor is responsible for establishing at least one (1) construction exit per the specifications of the construction exit detail included in this ESPCP. To facilitate project logistics, the Contractor is also responsible for selecting the location(s) of the construction exit(s).

Best Management Practices (BMPs) shall apply to this project. They consist of vegetative and structural measures that shall be properly installed and maintained in accordance with the GDOT standards and practices. They shall provide effective erosion prevention and sedimentation control. If possible existing vegetations on construction site should be maintained. Good seed must be planted on construction site. No construction activities shall be conducted within twenty five feet of all state waters and within fifty feet along the bank of any stream. The BMPs must be implemented in three stages:

Stage 1: Site preparation.

This stage relates to all activities prior to construction activities and shall be completed into three sub-stages, according to the following order:

A. Installation of temporary silt fences and baled straw erosion checks as shown on plans. Silt fences shall specially be used as preventive filters to protect existing ponds, lakes and small channels. They must be applied upstream of ponds/lakes and downstream of construction.

B. Installation of type C fabric ditch checks and/or stone check dams in existing roadway ditches.

C. Access stabilization: construction exits shall provide stable access to sites. They must be checked daily and repaired as needed. They must be removed after construction and restored to pre-existing conditions.

D. Clearing and grubbing operations: during this sub-stage, all exposed areas must be covered with temporary mulch. The mulch shall be applied to all exposed areas within fourteen days of disturbance and they will be maintained so that at least ninety percent of the soil surface is covered. The materials will be applied uniformly and anchored immediately after application. Mulch can be used as a single erosion control device for up to six months. Temporary seeding, an alternative to mulch, can be used on rough graded areas that will be exposed for less than six months. If the area is expected to be undisturbed for longer than six months, permanent vegetative cover shall be used. Temporary seeding shall be applied to all exposed areas within fourteen days of disturbance. Plant species that will germinate quickly and provide ample protective cover for that area and season of the year shall be selected. In most cases, temporary vegetation can be established without mulch except on steep slopes and in concentrated flow areas. Seeding must be applied according to the pure live seed (PLS) rates.

Stage 2: Intermediate or construction activities.

During this stage, grading operations take place. GDOT approved temporary and permanent vegetative and structural BMPs must be applied as shown on plans. On areas where temporary vegetative BMPs have to be applied, all BMPs mentioned for clearing and grubbing shall apply. Permanent vegetative BMPs (sodding, matting and blankets) must be laid and anchored appropriately (start at top of slope and work down).

Permanent vegetative BMPs shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice or sodding shall also be applied immediately to all areas at final grade. Low maintenance and native plant species appropriate for the region shall be planted, established, and maintained so that at least seventy percent of the soil is covered with perennial vegetation for long-term erosion control. For adequate plant growth, the soil must have proper pH and ample plant food. Suitable and anchored mulch is required for all sites planted with permanent vegetation, except where erosion control blankets or block sod are used. Mulch anchoring and application must be done appropriately according to the GDOT standards and practices. All installed mats and blankets must be inspected periodically after storm events until the areas become permanently stabilized with vegetation. Any dislocation or failure shall be repaired immediately.

The temporary and permanent structural BMPs are shown on plans. To provide erosion control at point of concentrated flow and high flow velocities, rock filter dam and stone dumped rip rap shall be used. Sediment barrier must be installed along contours with ends pointing uphill except in waterways or areas of concentrated flow. Temporary sediment barrier must be placed around storm drain inlets that receive runoff from disturb areas except where vehicular traffic will be affected. Check-dams (or ditch-checks) must be placed in small open channels (ditch), not in live streams. Seed and mulch area beneath the check-dam after its removal. Temporary down drain structures must be removed once the permanent stormwater disposal system is installed and functioning. Storm drain outlet protection shall be placed at the down drain outlet. Permanent down drain structures shall safely convey the 25-yr, 24-hr storm and may be constructed of concrete, pipe, pre-fabricated sectional conduit or other adequate materials approved by GDOT standards and specs.

Stage 3: Post construction activities: see post-construction BMPs section POST-CONSTRUCTION BMPS

All permanent, post-construction BMPs are shown in the construction plans and in the ESPCP for velocity dissipation and outlet stabilization, channel/ditch stabilization with permanent soil plan. The post-construction BMPs for this project include grassing, rip-rap at pipe outlets reinforcing mats and rip-rap where necessary. The post-construction BMPs will provide permanent stabilization of the site and prevent accelerated transportation of sediment and pollutants into receiving waters.

Sediment shall not be washed into inlet. It shall be removed from the sediment traps and disposed of and stabilized so that it will not enter the inlets again. Mulch or temporary grassing shall be applied to all exposed areas within fourteen days of land disturbance. All disturbed areas left mulched after thirty days shall be stabilized with permanent grassing.

The contractor shall maintain all erosion control measures until permanent ground cover is established.

All roadway and parking shoulders should be grassed as soon as final grade is achieved behind curbs.

Sediment and erosion control measures should be checked after each rain event. Each device is to be maintained or replaced if sediment accumulation has reached one half the capacity of the device. Additional devices must be installed if new channels have developed.

Erosion control measures must be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source as directed by the onsite inspector or the design professional.

**PETROLEUM STORAGE, SPILLS AND LEAKS**

These plans expressly delegate the responsibility of on-site hazardous material management to the Contractor. The Contractor shall at a minimum provide an action plan and keep the necessary materials on site for the capture and disposal of any petroleum product leaks or spills associated with the servicing, refueling or operation of any equipment utilized in the work. A copy of the action plan shall be submitted to the Project Engineer and maintained on the project site. All personnel operating or servicing equipment shall be familiar with this plan. The Contractor shall not park, refuel, or maintain equipment within stream buffers.

If the Contractor elects to store petroleum products on site, the Contractor shall prepare an ESPCP addendum that addresses the additional BMPs needed for onsite storage and spill prevention for petroleum products. This plan shall be prepared by a Certified Design Professional as required by GARI00002 for inclusion with these plans. The Contractor's attention is specifically directed to Standard Specification 107-Legal Regulations and Responsibility to the public for additional requirements.

**SOIL SERIES INFORMATION**

A project-specific soil survey and geotechnical investigation was performed for this project and can be made available upon request. Soil characteristics have been given full consideration in the hydrologic analysis, the design of channels and linings, selection of temporary BMPs, design of energy dissipaters, and in the selection of permanent vegetation and fertilizers.

The following is a summary of the soils that are expected to be found on the project site:

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — Cherokee, Gilmer, and Pickens Counties, Georgia (GA622)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Afs	Augusta fine sandy loam	Slight	Augusta (95%)		0.5	0.0%
			Worsham (5%)			
AmC2	Appling sandy loam, 6 to 10 percent slopes, eroded	Slight	Appling (100%)		7.1	0.4%
Chc	Chewacla-Cartecay complex	Slight	Cartecay (50%)		2.9	0.2%
			Chewacla (45%)			
			Wehadkee (5%)			
GdD3	Gwinnett sandy clay loam, 6 to 15 percent slopes, severely eroded	Slight	Gwinnett (100%)		6.4	0.4%
GgE2	Gwinnett loam, 10 to 25 percent slopes, eroded	Moderate	Gwinnett (100%)	Slope/erodibility (0.50)	0.1	0.0%
HJE3	Hayesville sandy clay loam, 10 to 25 percent slopes, severely eroded	Moderate	Hayesville (100%)	Slope/erodibility (0.50)	2.3	0.1%
HIE	Hayesville fine sandy loam, 10 to 25 percent slopes	Moderate	Hayesville (100%)	Slope/erodibility (0.50)	14.3	0.9%
HSC	Hiwassee loam, 6 to 10 percent slopes	Slight	Hiwassee (100%)		1.5	0.1%
MCE	Musella cobbly loam, 10 to 25 percent slopes	Moderate	Musella (100%)	Slope/erodibility (0.50)	4.7	0.3%
MiC2	Madison gravelly sandy clay loam, 2 to 10 percent slopes, eroded	Slight	Madison (100%)		37.0	2.3%
MiB	Madison fine sandy loam, 2 to 6 percent slopes	Slight	Madison (100%)		4.4	0.3%
MiC	Madison fine sandy loam, 6 to 10 percent slopes	Slight	Madison (100%)		184.6	11.5%



REVISION DATES STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: DISTRICT 6/ROAD DESIGN ESPC GENERAL NOTES	
SR20 @ SR108	DRAWING No. <b>51-1</b>