

THIS EXHIBIT IS AN EXAMPLE NARRATIVE OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR A MAJOR RECONSTRUCTION PROJECT. ACTUAL PROJECT CONDITIONS OFTEN DICTATE DIFFERENT APPROACHES THAN SHOWN HERE. THE ENGINEER IS RESPONSIBLE FOR DEVELOPING A SITE SPECIFIC SWPPP THAT COMPLIES WITH VOLUME I CHAPTER II OF THE PLANS PREPARATION MANUAL.

The following narrative of the Stormwater Pollution Prevention Plan contains references to the Standard Specifications for Road and Bridge Construction, the Design Standards, and other sheets of these construction plans. The first sheet of the construction plans (called the Key Sheet) contains an Index to the other sheets. The complete Stormwater Pollution Prevention Plan includes several items: this narrative description, the documents referenced in this narrative, the contractor's approved Erosion Control Plan required by Specification Section 104, and reports of inspections made during construction.

1.0 SITE DESCRIPTION:

1.a. Nature of Construction Activity:

The project is the reconstruction of SR 007 (James Bond Boulevard) to a major urban roadway. This involves constructing roadway surface, curb and gutter, sidewalk, underground storm sewer systems, and stormwater management facilities. The project extends from north of Paul Russell Road to Perkins Street, a distance of approximately 1.1 miles.

1.b. Sequence of Major Soil Disturbing Activities:

In the Section 104 Erosion Control Plan, the contractor shall provide a detailed sequence of construction for all construction activities. The contractor shall follow the sequence of major activities described below, unless the contractor proposes a different sequence that is equal or better at controlling erosion and trapping sediment and is approved by the Engineer.

For each construction phase, install perimeter controls after clearing and grubbing necessary for installation of controls but before beginning other work for the construction phase. Remove perimeter controls only after all upstream areas are stabilized.

1. Clearing and grubbing, earthwork, and storm sewer construction for the outfall from the ponds.
2. Clearing and grubbing, earthwork for pond construction.
3. Storm sewer and roadway underdrain construction. Construct the storm drain pipe in the upstream direction.
4. Earthwork associated with roadway, and construction of gravity wall, curb, subgrade, base, pavement, and sidewalk.
5. Construct underdrain in pond bottom.

1.c. Area Estimates:

Total site area: 19.6 acres.
Total area to be disturbed: 19.6 acres.

1.d. Runoff Data:

Runoff Coefficients: Before: 0.62.
During: varies from 0.62 to 0.76.
After: 0.76.

Soils Data: The results of the soil borings along the roadway are shown in the Roadway Soil Survey Sheet(s). The results of soil borings done in the ponds are shown on the Pond Detail Sheets. The numbers for these are identified on the Key Sheet of these construction plans. In general, the soils are clayey sands.

Outfall Information: There are 4 outfalls.

#1 Description: Existing pond at Laura Lee.
Location: Latitude 30° 24' 30", Longitude, 84° 16' 45".
Est. Drainage Area Size: 13.6 acres.
Receiving Water Name: Not applicable.

#2 Description: Pond 1. This discharges to the storm sewer system that runs under Orange Avenue. This system in turn discharges to the box culvert at Sta. 531+00.
Location: Latitude 30° 24' 45", Longitude 84° 17' 00".
Est. Drainage Area Size: 7.3 acres.
Receiving Water Name: East Ditch.

#3 Description: Box culvert at Sta. 531+00.
Location: Latitude 30° 24' 45", Longitude 84° 17' 00".
Est. Drainage Area Size: 4.2 square miles.
Receiving Water Name: East Ditch.

#4 Description: Pond 2. This discharges to the SR 007 storm sewer system that drains to the box culvert at Sta. 531+00.
Location: Latitude 30° 25' 00", Longitude 84° 17' 00".
Est. Drainage Area Size: 15.4 acres.
Receiving Water Name: East Ditch.

1.e. Site Maps:

The construction plans are being used as the site maps. The location of the required information is described below. The sheet numbers for the plan sheets referenced are identified on the Key Sheet of these construction plans.

* Drainage Patterns: The drainage basin divides and flow directions are shown on the Drainage Maps. The Back of Sidewalk Profile Sheets show overland flow direction at the right of way line. The arrows above and below the profile represent the flow direction at the left and right property line, respectively. Arrows pointing to the profile indicate runoff coming to the site. Pointing away from the site indicate runoff leaving the site.

* Approximate Slopes: The slopes of the site can be seen in the Cross Section Sheets and the Plan-Profile Sheets. There are pond cross sections located with the Pond Detail Sheets.

* Areas Of Soil Disturbance: The areas to be disturbed are indicated on the Plan-Profile Sheets, the Cross Section Sheets, and the Pond Detail Sheets. Any areas where permanent features are shown to be constructed above or below ground will be disturbed.

* Areas Not To Be Disturbed: Essentially the whole project will be disturbed during construction.

* Locations of Temporary Controls: These are shown on the Erosion Control Sheets except for the controls associated with the box culvert replacement which are shown on the Box Culvert Construction Detail Sheet. Tables providing summaries of temporary erosion and sediment control items are provided in the Summary of Quantity Sheets.

* Locations of Permanent Controls: The stormwater ponds are the primary permanent stormwater management controls. These are shown on the Pond Detail Sheets.

* Areas To Be Stabilized: Temporary stabilization practices are shown in the same location as the temporary controls mentioned above. Permanent stabilization is shown on the Typical Section Sheets, the Plan-Profile Sheets and the Pond Detail Sheets.

* Surface Waters: The only surface water within the site is the East Ditch, which flows through the culvert at Station 531+00. This is located on the Plan-Profile Sheets and the Box Culvert Construction Detail Sheet.

* Discharge Points To Surface Waters: There is only one. This is shown on the Plan-Profile Sheets at the East Ditch (culvert at Station 531+00).

1.f. Receiving Waters:

See Item 1.d for the outfall locations and receiving water names. There are no wetland areas on the project site.

EXHIBIT SWP-1
DATE: 1/1/06

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2.0 CONTROLS:

2.a. Erosion And Sediment Controls:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed stabilization and structural practices based on the contractor's proposed Traffic Control Plan. The following recommended guidelines are based on the Traffic Control Plan (TCP) outlined in the construction plans. Where following the Traffic Control Plan (TCP) outlined in these construction plans, the contractor may chose to accept the following guidelines or modify them in the Section 104 Erosion Control Plan, subject to approval of the Engineer. As work progresses, the contractor shall modify the plan to adapt to seasonal variation, changes in construction activities, and the need for better practices.

For each construction phase, install perimeter controls after clearing and grubbing necessary for installation of controls but before beginning other work for the construction phase. Remove perimeter controls only after all upstream areas are stabilized.

Phase I of Traffic Control Plans.

Roadway, Station 501+10 to 520+40 Right:

Immediately after constructing the temporary pavement, stabilize the entire area between the temporary pavement and the right of way line using temporary sod.

Outfall of Pond 1:

Construct the outfall pipe from S-106 towards the pond. The contractor shall have sandbags available at all times during the pipe construction to substantially block runoff in the trench from entering the pipe. Construct pipe to the pond and construct the outlet structure of the pond.

Pond 1 Construction:

Clear and grub the pond site. Initially excavate the pond only enough to construct Type IV Silt Fence as detailed in the TCP. Then excavate the pond to approximate proposed dimensions. Turf all disturbed areas of the pond site above elevation 51.0. Final grading will be done at the end of phase two of the TCP.

Roadway, Station 510+10 to 523+70 Left:

Construct the storm sewer from the pond to the roadway and then in the upstream direction along the left side of the project. During the subsoil excavation, and construction of the roadway underdrain, storm sewer, and wall, use S-19 as the primary Inlet for conveyance to the pond. Stage construct the Inlet as detailed in the TCP.

Roadway, Station 501+10 to 510+40 Left:

During the subsoil excavation, and construction of the underdrain, storm sewer, and wall, use S-12 as the primary Inlet for conveyance to the Laura Lee pond. S-12 should be constructed before disturbing soil upstream. Stage construct and protect the Inlet as detailed in the TCP.

Phase II of the Traffic Control Plans:

Roadway, Station 510+10 to 523+10 Right:

During the subsoil excavation, and construction of the roadway underdrain, and storm sewer, use S-20 as the primary Inlet for conveyance to Pond 1. Stage construct and protect the Inlet in a manner similar to S-19 in Phase I of the TCP.

Roadway, Station 501+10 to 510+40 Right:

During the subsoil excavation, and construction of the underdrain, storm sewer, and walls, use S-10 as the primary Inlet for conveyance to the Laura Lee pond. Stage construct and protect the Inlet in a manner similar to S-12 in Phase I of the TCP.

Pond 1 Construction:

After entire basin is permanently stabilized, construct underdrain in the pond bottom.

2.a.1 Stabilization Practices:

In the Section 104 Erosion Control Plan, the contractor shall describe the stabilization practices proposed to control erosion. The contractor shall initiate all stabilization measures as soon as practical, but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased. The stabilization practices shall include at least the following, unless otherwise approved by the Engineer.

THE PARAGRAPH ABOVE REFERS TO A 7 DAY LIMIT BEFORE INITIATING STABILIZATION. THE DEP GENERIC PERMIT SPECIFIES 7 DAYS, BUT STRICTER REQUIREMENTS FROM OTHER PERMITTING AGENCIES WILL OFTEN APPLY AND SHOULD BE NOTED. FOR EXAMPLE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT HAS A 7 DAY LIMIT IN 40C-42 F.A.C.

Temporary:

- * Artificial coverings in accordance with Specification Section 104.
- * Turf and sod in accordance with Specification Section 104.

Permanent:

- * Asphalt or concrete surface.
- * Sod in accordance with Specification Section 570.

2.a.2 Structural Practices:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed structural practices to control or trap sediment and otherwise prevent the discharge of pollutants from exposed areas of the site. Sediment controls shall be in place before disturbing soil upstream of the control. The structural practices shall include at least the following, unless otherwise approved by the Engineer.

Temporary:

- * Silt fence in accordance with Design Standard 102 and Specification Section 104.

- * Synthetic Bales in accordance with Design Standard 102 and Specification Section 104.

- * Sandbags to control erosion and trap silt.

- * Inlet protection in accordance with Design Standard 102 and special details shown in the TCP.

- * Sediment Basin. The permanent stormwater ponds will be temporarily modified according to the details in the TCP.

Permanent:

- * Stormwater ponds.

- * Sod.

2.b Stormwater Management:

Several storm sewer systems will be constructed to convey runoff to three (3) stormwater retention / detention ponds. The facilities have been permitted by the Florida Department of Environmental Protection (FDEP) and the City of Narcoossee and comply with applicable design standards.

EXHIBIT SWP-2
DATE: 1/1/07

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2.c Other Controls:

2.c.1 Waste Disposal:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed methods to prevent the discharge of solid materials, including building materials, to waters of the United States. The proposed methods shall include at least the following, unless otherwise approved by the Engineer.

- * Providing litter control and collection within the project during construction activities.
- * Disposing of all fertilizer or other chemical containers according to EPA's standard practices as detailed by the manufacturer.
- * Disposing of solid materials including building and construction materials off the project site but not in surface waters, or wetlands.

2.c.2 Off-Site Vehicle Tracking & Dust Control:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed methods for minimizing offsite vehicle tracking of sediments and generating dust. The proposed methods shall include at least the following, unless otherwise approved by the Engineer.

- * Covering loaded haul trucks with tarpaulins.
- * Removing excess dirt from roads daily.
- * Stabilizing construction entrances according to Design Standard 106.
- * Using roadway sweepers during dust generating activities such as excavation and milling operations.

2.c.3 State and Local Regulations For Waste Disposal, Sanitary Sewer, Or Septic Tank Regulations:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed procedures to comply with applicable state and local regulations for waste disposal, and sanitary sewer or septic systems.

2.c.4 Fertilizers and Pesticides:

In the Section 104 Erosion Control Plan, the contractor shall describe the procedures for applying fertilizers and pesticides. The proposed procedures shall comply with applicable subsections of either Section 570 or 577 of the Specifications.

2.c.5 Toxic Substances:

In the Section 104 Erosion Control Plan, the contractor shall provide a list of toxic substances that are likely to be used on the job and provide a plan addressing the generation, application, migration, storage, and disposal of these substances.

2.d.4 Approved State and Local Plans and Permits:

- * FDEP Rule Chapter 62-25 F.A.C.
- * City of Narcoossee Environmental Management Ordinance Number 90-0-0044aa.

3.0 MAINTENANCE:

In the Section 104 Erosion Control Plan, the contractor shall provide a plan for maintaining all erosion and sediment controls throughout construction. The maintenance plan shall at a minimum, comply with the following.

- * Silt Fence: Maintain per Section 104. The contractor should anticipate replacing silt fence on 12 month intervals.
- * Synthetic Bales : Remove sediment when it reaches 1/2 height of bales or when water ponds in unacceptable amounts or areas.
- * Ponds One and Two: The ponds are temporary sediment basins until the areas that drain to them are stabilized, so until then, remove sediment from the pond when it becomes 1.5' deep at any point.

4.0 INSPECTIONS:

Qualified personnel shall inspect the following items at least once every seven calendar days and within 24 hours of the end of a storm that is 0.50 inches or greater. To comply, the contractor shall install and maintain rain gages and record the daily rainfall. Where sites have been permanently stabilized, inspections shall be conducted at least once every month. The contractor shall also inspect that controls installed in the field agree with the latest Stormwater Pollution Prevention Plan.

- * Points of discharge to waters of the United States.
- * Points of discharge to municipal separate storm sewer systems.
- * Disturbed areas of the site that have not been finally stabilized.
- * Areas used for storage of materials that are exposed to precipitation.
- * Structural controls.
- * Stormwater management systems.
- * Locations where vehicles enter or exit the site.

The contractor shall initiate repairs within 24 hours of inspections that indicate items are not in good working order.

If inspections indicate that the installed stabilization and structural practices are not sufficient to minimize erosion, retain sediment, and prevent discharging pollutants, the contractor shall provide additional measures, as approved by the Engineer.

5.0 NON-STORMWATER DISCHARGES:

In the Section 104 Erosion Control Plan, the contractor shall identify all anticipated non-stormwater discharges (except flows from fire fighting activities). The contractor shall describe the proposed measures to prevent pollution of these non-stormwater discharges. If the contractor encounters contaminated soil or groundwater, contact Dave Letterman, District Hazardous Materials Coordinator at 305-63BR549.

EXHIBIT SWP-3
DATE: 1/1/07

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