Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

September 1, 2026

Daniel Holt, PE, PTOE
Director, Project Delivery
Director, Technical Services
FHWA
400 West Washington Street, Suite 4200
Orlando, FL 32801

Re: State Specifications Office
Section: 104
Proposed Specification: **1040400 Prevention, Control, and Abatement of Erosion and Water Pollution**

Dear Mr. Holt:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Jason Russell to clarify and align with specification changes in the Design office.

Please review and transmit your comments, if any, within two weeks (10 business days). Comments should be sent via email daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on File

Daniel Strickland, P.E.
State Specifications Engineer

DS/am
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

**PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**
**(REV 6-12-26)**

ARTICLE 104-4 is deleted and the following substituted:

**104-4 Materials for Temporary Erosion Control.**

Meet the following requirements:

Temporary Sod.....Section 570
Plastic Erosion Mat…….Section 571
Geosynthetic Materials* .....Section 985
*Use products listed on the Department's APL.

For materials that are part of the permanent work, meet the testing requirements of the applicable permanent materials.

For materials not part of the permanent work, no testing is required; acceptance will be based on visual inspection.

Use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project.

ARTICLE 104-5 is deleted and the following substituted:

**104-5 Preconstruction Requirements.**

Prior to the Preconstruction Conference, submit a site-specific Stormwater Pollution Prevention Plan (SWPPP) and the associated Erosion and Sediment Control Plan meeting the requirements and special conditions of all permits authorizing project construction. ~~If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the Contractor's site-specific Erosion and Sediment Control Plan will be governed by 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104.~~

When a NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities permit (CGP) is required, the Contractor's SWPPP and the associated Erosion and Sediment Control Plan shall be prepared to accompany the Department's Stormwater Runoff Control Concept. The SWPPP and Erosion and Sediment Control Plan must meet all requirements of the NPDES CGP. Do not begin any soil disturbing activities before receiving the Engineer's written acknowledgement of the SWPPP and Erosion and Sediment Control Plan and the required signed certification statements.

~~Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the NPDES CGP.~~

If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the Contractor must develop a site-specific SWPPP and the associated Erosion and Sediment Control Plan ~~will be governed by~~in accordance with 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104. Prepare a site-specific SWPPP and the associated Erosion and Sediment Control Plan ~~in accordance with the planned sequence of operations~~ and present it in a format acceptable to the Department.

-The SWPPP and Erosion and Sediment Control Plan shall include, but not be limited to, the following items or activities:

1. For each phase ~~of construction operations or activities~~and in accordance with the planned sequence of construction operation, supply the following information:

a. a Site Plan with locations of all erosion control devices best management practices;

b. types of all erosion control devices;

c. estimated time erosion control devices will be in operation;

d. monitoring schedules for maintenance of erosion control devices;

e. methods of maintaining erosion control devices;

f. dewatering plan;

g. locations of all stored fuel or other petroleum products, pollutants, chemicals, concrete washouts, sanitary waste, or other hazardous waste;

h. spill prevention and response measures and disposal and removal methods;

i. submit any changes to the Erosion and Sediment Control Plan within seven calendar days; and

2. the name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.

~~Do not begin construction activities until the SWPPP and the associated Erosion and Sediment Control Plan receives written acknowledgement from the Engineer.~~

ARTICLE 104-6 is deleted and the following substituted:

**104-6 Construction Requirements.**

Do not begin construction activities until the SWPPP and the associated Erosion and Sediment Control Plan receives written acknowledgement from the Engineer.

Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the NPDES CGP.

**104-6.1 Limitation of Exposure of Erodible Earth:** Do not allow the surface area of erodible earth that clearing and grubbing operations, excavation and filling operations, or other earth disturbing activities to exceed 750,000 square feet without specific prior written approval by the Engineer. This limitation applies separately to clearing and grubbing operations and excavation and filling operations.

The Engineer may further limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide additional erosion or pollution control measures to prevent contamination of any surface waters, wetlands, or groundwater or to prevent detrimental effects on property outside the project limits or damage to the project.

**104-6.2 Incorporation of Erosion and Sediment Control Devices:** Incorporate permanent erosion and sediment control devices into the project at the earliest practical time. Complete the installation of temporary erosion and sediment control devices prior to or in conjunction with the commencement of any earth disturbing activities. Use temporary erosion

and sediment control devices found in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual) to control erosion and sediment generated by construction operations, to correct unforeseen conditions during construction, and to control erosion and sediment prior to the incorporation of permanent erosion and sediment control devices. An electronic version of the E&SC Manual can be found at the following URL:

https://www.fdot.gov/specifications/specifications-references

**104-6.3 Scheduling of Successive Operations:** Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing such that grading operations can be incorporated immediately thereafter. Schedule and perform grading operations so that permanent erosion control devices can follow immediately thereafter if conditions on the project permit.

**104-6.4 Details for Temporary Erosion and Sediment Control Devices:**

**104-6.4.1 General:** Use temporary erosion, sediment and water pollution control devices found in the E&SC Manual. Identify in the site-specific Erosion and Sediment Control Plan the existing natural and temporary BMPs to be used. These devices consist of, but are not limited to, temporary sod, rolled erosion control products, sediment containment systems, runoff control structures, sediment barriers, inlet protection systems, silt fences, turbidity barriers, and chemical treatment. For design details for some of these devices, refer to the E&SC Manual. Perform installation, inspection, and maintenance~~, and removal~~ of all temporary erosion and sediment control devices in accordance with the E&SC Manual, applicable permits, and manufacturer's directions~~, and the Contract Documents~~. Remove all temporary erosion and sediment control devices that will not be a part of the permanent construction prior to final acceptance.

**104-6.4.2 Temporary Sod:** The Engineer may designate certain areas of sod constructed in accordance with Section 570, as a temporary erosion control device. Do not use seed as a temporary erosion control device. The Engineer may waive the turf establishment requirements of Section 570 for areas of temporary sod that will not be a part of the permanent construction.

**104-6.4.3 Runoff Control Structures:** Construct runoff control structures in accordance with the details shown in the ~~Contract Documents~~E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer.

**104-6.4.4 Sediment Containment Systems:** Construct sediment containment systems in accordance with the details shown in the ~~Contract Documents~~E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer. Clean out sediment containment systems as necessary and in accordance with ~~the Contract Documents~~applicable permits.

**104-6.4.5 Sediment Barriers:** Provide and install sediment barriers ~~according to details shown in the Contract Documents~~in accordance with the details shown in the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer~~ to protect against downstream accumulation of sediment~~. Sediment Barriers include, but are not limited to synthetic bales, silt fence, fiber logs and geosynthetic barriers. Reusable barriers that have had sediment deposits removed may be reinstalled on the project as approved by the Engineer.

**104-6.4.6 Silt Fence:**

**104-6.4.6.1 General:** Furnish, install, maintain, and remove silt fences, in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, the manufacturer's directions, ~~and the Contract Documents~~or as directed by the Engineer.

**104-6.4.6.2 ~~Materials and~~ Installation:** Use a woven or nonwoven geotextile meeting the physical requirements of Section 985 according to those applications for erosion control.

Choose the type and size of posts and wire mesh reinforcement (if required). Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective silt fence that controls sediment ~~in accordance with the Contract Documents~~.

Erect silt fence at upland locations, as necessary, and at temporary locations ~~shown in the Contract Documents~~ or where continuous construction activities change the natural contour and drainage runoff. Do not attach silt fence to existing trees ~~unless approved by the Engineer~~.

**104-6.4.6.3 Inspection and Maintenance:** Inspect all silt fences in accordance with any applicable permits, manufacturer's instructions, or as directed by the Engineer. If the project does not have a permit, inspect within 24 hours after each rain event and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, repair or replace silt fences in accordance with the ~~Contract Documents~~ applicable permits, manufacturer's instructions, or as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately 1/2 the height of the silt fence or as directed by the Engineer. Shape any remaining sediment deposits to conform with the finished grade and prepare the area for turf in accordance with Section 570.

**104-6.4.7 Floating Turbidity Barriers and Staked Turbidity Barriers:** Furnish, install, maintain, and remove floating turbidity barriers in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, the manufacturer's directions, ~~and the Contract Documents~~or as directed by the Engineer. The Contractor may need to deploy turbidity barriers around isolated areas of concern (such as, seagrass beds, coral communities) both within as well as outside the project limits. These areas will be identified in the Contract Documents or as directed by ~~T~~the Engineer ~~will identify such areas~~. Place the barriers prior to the commencement of any work that could impact the area of concern. Ensure that the type of barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the project. The Engineer may approve alternate methods or materials.

Install and maintain turbidity barriers to avoid or minimize the degradation of the water quality of the surrounding waters and minimize damage to areas where the floating barriers are installed.

**104-6.4.8 Inlet Protection System:** Furnish and install inlet protection systems ~~as shown in the Contract Documents~~in accordance with the E&SC Manual, Contractor's site-

specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer.

**104-6.4.9 Rolled Erosion Control Products (RECPs):**

**104-6.4.9.1 General:** Furnish and ~~I~~install RECPs ~~in locations where temporary protection from erosion is needed~~in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer.

~~-~~Two common applications are described below.

1. Use RECPs composed of natural fiber mats ~~or plastic sheeting~~ as protection against erosion, when directed by the Engineer, during temporary pauses in construction caused by inclement weather or other circumstances. Remove the material when construction resumes.

2. Use RECPs as erosion control blankets, ~~at locations shown in the Plans,~~ to facilitate plant growth while permanent grassing is being established in accordance with Section 57~~1~~0.

**104-6.4.10 Chemical Treatment**: Provide chemical treatment in accordance with the ~~Contract Documents~~E&SC Manual, manufacturer's instructions, or as directed by the Engineer. Chemical treatment may be used to clarify turbid or sediment laden water that does not meet state water quality standards or to supplement other erosion and sediment control devices to aid in their performance. The contractor must provide the required toxicity testing information in accordance with the ~~Contract Documents~~E&SC Manual to the Engineer for review and acceptance prior to using any chemical treatment on the project site.

**104-6.5 Removal of Temporary Erosion Control Devices:** In general, remove or where applicable, incorporate into the soil any temporary erosion control devices upon incorporation of the permanent erosion control devices into the project. The Engineer may direct temporary devices to be left in place.

SUBARTICLE 104-7.1 is deleted and the following substituted:

**104-7 Maintenance of Erosion and Sediment Control Devices.**

**104-7.1 General:** Provide routine maintenance of permanent and temporary erosion and sediment control devices, at no expense to the Department, until the project is complete and accepted. If reconstruction or replacement of erosion and sediment control devices is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion and sediment control devices, improper installation, lack of maintenance, excessive wear, design-life exceedance or failure by the Contractor to install permanent erosion control devices as scheduled, the Contractor shall repair or replace such erosion control devices at no expense to the Department. If reconstruction of permanent or temporary erosion and sediment control devices is necessary due to factors beyond the control of the Contractor, the Department will pay for replacement under the appropriate Contract pay item or items.

Inspect all erosion and sediment control devices in accordance with applicable permits or at least once every seven calendar days and within 24 hours of the end of a storm event that is 0.50 inches or greater. Maintain all erosion and sediment control devices ~~as required by the Contractor's SWPPP and associated Erosion and Sediment Control Plan, and if applicable, as specified in the NPDES CGP~~in accordance with the E&SC Manual, contractor's

site-specific SWPPP, applicable permits, manufacturer's instructions, or as directed by the Engineer.

ARTICLE 104-8 is deleted and the following substituted:

**104-8 Protection During Suspension of Contract Time.**

Initiate stabilization measures within seven calendar days upon suspension or completion of construction activities. If it is necessary to suspend the construction operations for any appreciable length of time, shape the disturbed areas to facilitate stormwater runoff and construct earthen berms along the top edges of embankments to intercept stormwater runoff. Provide temporary slope drains in areas that are highly erodible to avoid pollution of surface waters, wetlands, groundwater, or property beyond the project limits. Locate slope drains at intervals of approximately 500 feet and stabilize by paving or covering with waterproof materials. Should such preventive measures fail, immediately take action as necessary to effectively prevent erosion and siltation. During suspension of operations, the Engineer may direct the Contractor to perform additional erosion and sediment control work as necessary.

ARTICLE 104-10 is deleted and the following substituted:

**104-10 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including phased installation and routine maintenance of temporary erosion control devices throughout the life of the Contract.

Any additional costs resulting from compliance with the requirements of this Section, other than construction, routine maintenance, and removal of temporary erosion control devices, will be included in the Contract unit prices for the item or items to which such costs are related. Temporary sod used as a temporary erosion control device in accordance with 104-6.4.2 will be paid for under Section 570.

Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items.

In case of repeated failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the Department's own forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress estimate.

Payment will be made under:

| | |
|---|---|
| Item No. 104- 1- | Artificial Coverings/ Rolled Erosion Control Products - per square yard. |
| Item No. 104- 6- | Slope Drains (Temporary)/ Runoff Control Structures - per foot. |
| Item No. 104- 7- | Sediment Basins/ Containment Systems - each. |
| Item No. 104- 9- | Sediment Basin/ Containment system Cleanouts - each. |
| Item No. 104- 10- | Sediment Barriers - per foot |
| Item No. 104- 11- | Floating Turbidity Barrier - per foot. |

Item No. 104- 12- Staked Turbidity Barrier - per foot.
Item No. 104- 15- Soil Tracking Prevention Devices – each.
Item No. 104- 18- Inlet Protection System - each.
Item No. 104- 19- Chemical Treatment - per square yard.
Item No. 104- 20- Chemical Treatment (floc logs, drums of product) - each.

**PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**
**(REV 6-12-26)**

ARTICLE 104-4 is deleted and the following substituted:

**104-4 Materials for Temporary Erosion Control.**

Meet the following requirements:

Temporary Sod.....Section 570
Plastic Erosion Mat…….Section 571
Geosynthetic Materials* .....Section 985

*Use products listed on the Department's APL.

For materials that are part of the permanent work, meet the testing requirements of the applicable permanent materials.

For materials not part of the permanent work, no testing is required; acceptance will be based on visual inspection.

Use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project.

ARTICLE 104-5 is deleted and the following substituted:

**104-5 Preconstruction Requirements.**

Prior to the Preconstruction Conference, submit a site-specific Stormwater Pollution Prevention Plan (SWPPP) and the associated Erosion and Sediment Control Plan meeting the requirements and special conditions of all permits authorizing project construction.

When a NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities permit (CGP) is required, the Contractor's SWPPP and the associated Erosion and Sediment Control Plan shall be prepared to accompany the Department's Stormwater Runoff Control Concept. The SWPPP and Erosion and Sediment Control Plan must meet all requirements of the NPDES CGP. Do not begin any soil disturbing activities before receiving the Engineer's written acknowledgement of the SWPPP and Erosion and Sediment Control Plan and the required signed certification statements.

If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the Contractor must develop a site-specific SWPPP and the associated Erosion and Sediment Control Plan in accordance with 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104. Prepare a site-specific SWPPP and the associated Erosion and Sediment Control Plan and present it in a format acceptable to the Department.

The SWPPP and Erosion and Sediment Control Plan shall include, but not be limited to, the following items or activities:

1. For each phase and in accordance with the planned sequence of construction operation, supply the following information:

a. a Site Plan with locations of all erosion control devices best management practices;

b. types of all erosion control devices;

c. estimated time erosion control devices will be in operation;

d. monitoring schedules for maintenance of erosion control devices;

e. methods of maintaining erosion control devices;

f. dewatering plan;

g. locations of all stored fuel or other petroleum products, pollutants, chemicals, concrete washouts, sanitary waste, or other hazardous waste;

h. spill prevention and response measures and disposal and removal methods;

i. submit any changes to the Erosion and Sediment Control Plan within seven calendar days; and

2. the name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.

ARTICLE 104-6 is deleted and the following substituted:

**104-6 Construction Requirements.**

Do not begin construction activities until the SWPPP and the associated Erosion and Sediment Control Plan receives written acknowledgement from the Engineer.

Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the NPDES CGP.

**104-6.1 Limitation of Exposure of Erodible Earth:** Do not allow the surface area of erodible earth that clearing and grubbing operations, excavation and filling operations, or other earth disturbing activities to exceed 750,000 square feet without specific prior written approval by the Engineer. This limitation applies separately to clearing and grubbing operations and excavation and filling operations.

The Engineer may further limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide additional erosion or pollution control measures to prevent contamination of any surface waters, wetlands, or groundwater or to prevent detrimental effects on property outside the project limits or damage to the project.

**104-6.2 Incorporation of Erosion and Sediment Control Devices:** Incorporate permanent erosion and sediment control devices into the project at the earliest practical time. Complete the installation of temporary erosion and sediment control devices prior to or in conjunction with the commencement of any earth disturbing activities. Use temporary erosion and sediment control devices found in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual) to control erosion and sediment generated by construction operations, to correct unforeseen conditions during construction, and to control erosion and sediment prior to the incorporation of permanent erosion and sediment control devices. An electronic version of the E&SC Manual can be found at the following URL:

https://www.fdot.gov/specifications/specifications-references

**104-6.3 Scheduling of Successive Operations:** Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing such that grading operations can be incorporated immediately thereafter. Schedule and perform grading operations so that permanent erosion control devices can follow immediately thereafter if conditions on the project permit.

**104-6.4 Details for Temporary Erosion and Sediment Control Devices:**

**104-6.4.1 General:** Use temporary erosion, sediment and water pollution control devices found in the E&SC Manual. Identify in the site-specific Erosion and Sediment Control Plan the existing natural and temporary BMPs to be used. These devices consist of, but are not limited to, temporary sod, rolled erosion control products, sediment containment systems, runoff control structures, sediment barriers, inlet protection systems, silt fences, turbidity barriers, and chemical treatment. For design details for some of these devices, refer to the E&SC Manual. Perform installation, inspection, and maintenance of all temporary erosion and sediment control devices in accordance with the E&SC Manual, applicable permits, and manufacturer's directions. Remove all temporary erosion and sediment control devices that will not be a part of the permanent construction prior to final acceptance.

**104-6.4.2 Temporary Sod:** The Engineer may designate certain areas of sod constructed in accordance with Section 570, as a temporary erosion control device. Do not use seed as a temporary erosion control device. The Engineer may waive the turf establishment requirements of Section 570 for areas of temporary sod that will not be a part of the permanent construction.

**104-6.4.3 Runoff Control Structures:** Construct runoff control structures in accordance with the details shown in the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer.

**104-6.4.4 Sediment Containment Systems:** Construct sediment containment systems in accordance with the details shown in the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer. Clean out sediment containment systems as necessary and in accordance with applicable permits.

**104-6.4.5 Sediment Barriers:** Provide and install sediment barriers in accordance with the details shown in the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer. Sediment Barriers include, but are not limited to synthetic bales, silt fence, fiber logs and geosynthetic barriers. Reusable barriers that have had sediment deposits removed may be reinstalled on the project as approved by the Engineer.

**104-6.4.6 Silt Fence:**

**104-6.4.6.1 General:** Furnish, install, maintain, and remove silt fences, in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, the manufacturer's directions, or as directed by the Engineer.

**104-6.4.6.2 Installation:** Use a woven or nonwoven geotextile meeting the physical requirements of Section 985 according to those applications for erosion control.

Choose the type and size of posts and wire mesh reinforcement (if required). Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective silt fence that controls sediment. Erect silt fence at upland locations, as necessary, and at temporary locations or where continuous construction activities change the natural contour and drainage runoff. Do not attach silt fence to existing trees.

**104-6.4.6.3 Inspection and Maintenance:** Inspect all silt fences in accordance with any applicable permits, manufacturer's instructions, or as directed by the Engineer. If the project does not have a permit, inspect within 24 hours after each rain event and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, repair or replace silt fences in accordance with the applicable permits, manufacturer's instructions, or as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately 1/2 the height of the silt fence or as directed by the Engineer. Shape any remaining sediment deposits to conform with the finished grade and prepare the area for turf in accordance with Section 570.

**104-6.4.7 Floating Turbidity Barriers and Staked Turbidity Barriers:** Furnish, install, maintain, and remove floating turbidity barriers in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, the manufacturer's directions, or as directed by the Engineer. The Contractor may need to deploy turbidity barriers around isolated areas of concern (such as, seagrass beds, coral communities) both within as well as outside the project limits. These areas will be identified in the Contract Documents or as directed by the Engineer. Place the barriers prior to the commencement of any work that could impact the area of concern. Ensure that the type of barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the project. The Engineer may approve alternate methods or materials.

Install and maintain turbidity barriers to avoid or minimize the degradation of the water quality of the surrounding waters and minimize damage to areas where the floating barriers are installed.

**104-6.4.8 Inlet Protection System:** Furnish and install inlet protection systems in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer.

**104-6.4.9 Rolled Erosion Control Products (RECPs):**

**104-6.4.9.1 General:** Furnish and install RECPs in accordance with the E&SC Manual, Contractor's site-specific Erosion and Sediment Control Plan, applicable permits, manufacturer's instructions, or as directed by the Engineer.

Two common applications are described below.

1. Use RECPs composed of natural fiber mats as protection against erosion, when directed by the Engineer, during temporary pauses in construction caused by inclement weather or other circumstances. Remove the material when construction resumes.

2. Use RECPs as erosion control blankets, to facilitate plant growth while permanent grassing is being established in accordance with Section 570.

**104-6.4.10 Chemical Treatment**: Provide chemical treatment in accordance with the E&SC Manual, manufacturer's instructions, or as directed by the Engineer. Chemical treatment may be used to clarify turbid or sediment laden water that does not meet state water quality standards or to supplement other erosion and sediment control devices to aid in their performance. The contractor must provide the required toxicity testing information in accordance with the E&SC Manual to the Engineer for review and acceptance prior to using any chemical treatment on the project site.

**104-6.5 Removal of Temporary Erosion Control Devices:** In general, remove or where applicable, incorporate into the soil any temporary erosion control devices upon incorporation of the permanent erosion control devices into the project. The Engineer may direct temporary devices to be left in place.

SUBARTICLE 104-7.1 is deleted and the following substituted:

**104-7 Maintenance of Erosion and Sediment Control Devices.**

**104-7.1 General:** Provide routine maintenance of permanent and temporary erosion and sediment control devices, at no expense to the Department, until the project is complete and accepted. If reconstruction or replacement of erosion and sediment control devices is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion and sediment control devices, improper installation, lack of maintenance, excessive wear, design-life exceedance or failure by the Contractor to install permanent erosion control devices as scheduled, the Contractor shall repair or replace such erosion control devices at no expense to the Department. If reconstruction of permanent or temporary erosion and sediment control devices is necessary due to factors beyond the control of the Contractor, the Department will pay for replacement under the appropriate Contract pay item or items.

Inspect all erosion and sediment control devices in accordance with applicable permits or at least once every seven calendar days and within 24 hours of the end of a storm event that is 0.50 inches or greater. Maintain all erosion and sediment control devices in accordance with the E&SC Manual, contractor's site-specific SWPPP, applicable permits, manufacturer's instructions, or as directed by the Engineer.

ARTICLE 104-8 is deleted and the following substituted:

**104-8 Protection During Suspension of Contract Time.**

Initiate stabilization measures within seven calendar days upon suspension or completion of construction activities. If it is necessary to suspend the construction operations for any appreciable length of time, shape the disturbed areas to facilitate stormwater runoff and construct earthen berms along the top edges of embankments to intercept stormwater runoff. Provide temporary slope drains in areas that are highly erodible to avoid pollution of surface waters, wetlands, groundwater, or property beyond the project limits. Locate slope drains at intervals of approximately 500 feet and stabilize by paving or covering with waterproof materials. Should such preventive measures fail, immediately take action as necessary to effectively prevent erosion and siltation. During suspension of operations, the Engineer may direct the Contractor to perform additional erosion and sediment control work as necessary.

ARTICLE 104-10 is deleted and the following substituted:

**104-10 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including phased installation and routine maintenance of temporary erosion control devices throughout the life of the Contract.

Any additional costs resulting from compliance with the requirements of this Section, other than construction, routine maintenance, and removal of temporary erosion control devices, will be included in the Contract unit prices for the item or items to which such costs are related. Temporary sod used as a temporary erosion control device in accordance with 104-6.4.2 will be paid for under Section 570.

Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items.

In case of repeated failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the Department's own forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress estimate.

Payment will be made under:

| | |
|---|---|
| Item No. 104- 1- | Artificial Coverings/ Rolled Erosion Control Products - per square yard. |
| Item No. 104- 6- | Slope Drains (Temporary)/ Runoff Control Structures - per foot. |
| Item No. 104- 7- | Sediment Basins/ Containment Systems - each. |
| Item No. 104- 9- | Sediment Basin/ Containment system Cleanouts - each. |
| Item No. 104- 10- | Sediment Barriers - per foot |
| Item No. 104- 11- | Floating Turbidity Barrier - per foot. |
| Item No. 104- 12- | Staked Turbidity Barrier - per foot. |
| Item No. 104- 15- | Soil Tracking Prevention Devices – each. |
| Item No. 104- 18- | Inlet Protection System - each. |
| Item No. 104- 19- | Chemical Treatment - per square yard. |
| Item No. 104- 20- | Chemical Treatment (floc logs, drums of product) - each. |