

PART 1 – GENERAL**1.1 SUMMARY**

- A. This Section covers all the temporary erosion controls required by the Contractor during the construction of the Project.
- B. The Contractor shall conform to the Owner's policies and regulations and all Federal, State, and local environmental regulations pertaining to the prevention of storm water pollutants, including the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000 and all applicable Owner storm water requirements.
- C. Any project that disturbs soil, removes a protective surface layer to expose soil, or stores a significant amount of potential storm water pollutants shall prepare a Storm Water Pollution Prevention Plan (SWPPP) or an Airport specific Erosion Control Plan (ECP). Storm Water Pollution Prevention Plans and Erosion Control Plans are intended to minimize pollutants from entering the storm water runoff.

1.2 DEFINITIONS

- A. iSWM: Integrated Storm Water Management. A program of Best Management Practice (BMP) manuals and technical manuals published by the North Central Texas Council of Governments (NCTCOG) for control of quality of storm water runoff from construction activities.
- B. Minimize Pollutant: To reduce or eliminate a pollutant to the extent achievable using storm water controls that are technologically available and economically practicable and achievable based on best industry practices.

1.3 SUBMITTALS

- A. The Contractor shall attend an Environmental Review Meeting prior to obtaining a construction permit. In that meeting, the Airport Environmental Affairs Department (EAD) will discuss the environmental submittals required for the Project.
- B. All documents that require mailing to the Texas Commission on Environmental Quality (TCEQ) shall be submitted to the OAR for forwarding to EAD to perform the mailing.
- C. If the Project is subject to the TPDES Construction General Permit (CGP), the Contractor shall prepare a site-specific Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP, the original Construction Site Notice (CSN), Delegation of Authority Letter, and Notice of Intent (NOI) shall be submitted to the OAR for forwarding to the EAD, prior to obtaining a construction permit and prior to beginning any construction activities.
- D. If the Project disturbs less than one (1) acre of soil and is not part of a SWPPP a site-specific Erosion Control Plan (ECP) shall be submitted to the OAR for review and approval of the EAD.
- E. Submit copies of ECP and SWPPP Inspection Reports within 48 hours after completing the inspection. Reports are to be signed and certified by the Contractor's Superintendent, or the delegated inspector, and submitted to the OAR.

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- F. Submit the following close-out documentation to the OAR, prior to demobilizing or when Final Stabilization is achieved whichever comes first.
 - 1. If the Project required an ECP, submit copies of all inspection reports.
 - 2. If the Project required an SWPPP, one copy of the final SWPPP that includes all inspection reports, maintenance records, date tracking records, amendments, and any additional recordkeeping required by the CGP.
 - 3. If the Project required a NOI, a completed, signed Notice of Termination (NOT) of coverage.

PART 2 - PLANS

2.1 EROSION CONTROL PLANS

- A. If the Project disturbs less than one (1) acre of soil and that is not covered under an SWPPP, then the Project must submit a project specific ECP.
- B. An ECP template has been prepared by the Owner and is available at <https://www.dfairport.com/sustainability/index.php>. The Contractor shall complete the ECP template and submit to the OAR for EAD approval prior to obtaining a construction permit.
- C. The ECP addresses the following topics:
 - 1. Detailed site description
 - 2. Names of the Contractor and all Subcontractors
 - 3. Sequence of construction activities
 - 4. Detailed project maps
 - 5. Erosion and sediment controls
 - 6. Good housekeeping controls
 - 7. Potential pollutants
 - 8. Non-storm water discharges
 - 9. BMP maintenance
 - 10. Inspections
 - 11. Certifications
- D. The Contractor shall designate the onsite contact person responsible for implementing the ECP with the authority to direct resources towards the maintenance or repair of the storm water management controls, and should be readily accessible onsite during work hours.
- E. Inspections:
 - 1. The Contractor shall employ and provide a qualified inspector to provide and record inspections of the Project site and all associated areas such as staging area(s) a minimum of once every fourteen (14) Calendar Days and within 24 hours after any storm event of greater than 0.5 inch or an alternate schedule of once (1) every seven (7) Calendar Days on the same day each week.

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2. Inspection reports shall include, at a minimum, a summary of the scope of the inspection, name(s) of personnel conducting the inspection, the date of the inspection, a record of failed or damaged BMPs, evidence of pollutants escaping the site, and actions taken.
 3. A qualified inspector must meet the requirements of TXR150000. Proof of formal training is preferred, but not mandatory. The Owner reserves the right to reject an inspector as unqualified and may either require proof of formal training or require the inspector to submit to a written exam to prove such knowledge and skills or require appointment of a different inspector.
- F. The Contractor shall maintain a copy of the ECP onsite available for review by Federal/State inspectors or the OAR within 24 hours of a review request.

2.2 STORM WATER POLLUTION PREVENTION PLANS

- A. The Contractor shall apply for and meet the requirements and provisions of the TPDES CGP, Permit No. TXR150000, under the permitting authority of the TCEQ. A copy of the CGP and other information can be found at the TCEQ website <https://www.tceq.texas.gov/permitting/stormwater/construction>

The SWPPP shall adhere to the requirements in TXR150000, and include the following statements as required by the local authority having jurisdiction, the Airport. These statements are considered BMPs that the Contractor shall be responsible for implementing on the Project.

1. All trucks carrying erodible materials such as soil, sand, gravel, crushed or broken up concrete, shall use a cover, in functional condition, over the bed of the truck while on the public roads of the Airport.
2. Water from any source accumulating in an excavation that has visual or olfactory evidence of contamination such as a sheen or odor or is at a site within the Voluntary Cleanup Program (VCP) area shall not be released from the Project site or allowed to mix with uncontaminated water and shall be contained, stored and properly disposed of in accordance with the Project's Soil Management Plan and Waste Management Plan.
3. If high pH is observed by the Owner at an outfall sampling point downstream of the Project, the Contractor will be asked to pH test standing water (rainwater or groundwater) at the Project site prior to pumping or draining off. If the standing water is found to be higher than pH 9.0, it shall not be pumped or drained off as routine storm water discharge as "dewatering" and will be considered a wastewater to be recorded on the Project Waste Management Plan for disposal. Water between pH 9.0 to 11.0 may be disposed through a sanitary sewer line with prior approval from EAD, through the OAR. Water above pH 11.0 shall be disposed of off the Airport through a reputable company as wastewater.
4. The following segments are listed as impaired waters on either the Clean Water Act (CWA) 303(d) list or the Texas Integrated Report of Surface Water Quality for CWA sections 305(b) and 303(d): Segment 0822A (Cottonwood Branch Creek), 0822B (Grapevine Creek) and segment 0841 (Estelle Creek). All segments are impaired waters for bacteria.

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Caution shall be taken with sources of bacteria, such as portable toilets and exposure of sanitary sewer lines, during construction in order to not contribute bacteria to these water segments. Potential bacteria sources on the Project shall be identified and BMPs incorporated into the SWPPP. All portable toilets shall be located at least 50 feet away from any storm drain inlet and at least 100 feet away from the edge of a surface water.

5. Include a list of all Subcontractors in the SWPPP and require a responsible representative of each Subcontractor sign an acknowledgement certifying they are aware of the SWPPP regulations and shall abide by them for this Project.
- B. The Contractor shall implement the SWPPP in its entirety, including but not limited to: posting and maintaining of notices, performing required inspections, BMP installation and maintenance, updating and amending the SWPPP documentation as the Project proceeds, and advise the OAR when the Plans or funds are insufficient to meet or maintain the standards of the CGP.
- C. Designate the onsite contact person responsible for implementing the SWPPP. This person must have the authority to direct resources towards the maintenance or repair of the storm water management controls, and should be readily accessible onsite during work hours.
- D. Inspections:
 1. The Contractor shall employ and provide a qualified inspector to provide and record inspections of the Project site and all associated areas including staging area(s) a minimum of once (1) every fourteen (14) Calendar Days and within 24 hours after any storm event of greater than 0.5 inch, or an alternate schedule of once (1) every seven (7) Calendar Days on the same day each week.
 2. Inspection reports shall include, at a minimum, a summary of the scope of the inspection, name(s) of personnel conducting the inspection, the date of the inspection, a record of failed or damaged BMPs, evidence of pollutants escaping the site, and actions taken.
 3. A qualified inspector must meet the requirements of TXR150000. Proof of formal training is preferred, but not mandatory. The Owner reserves the right to reject an inspector as unqualified and may either require proof of formal training or require the inspector to submit to a written exam to prove such knowledge and skills or require appointment of a different inspector.
- E. The Contractor shall maintain a copy of the SWPPP onsite available for review by Federal, State or the OAR within 24 hours of a review request.

PART 3 - PRODUCTS

3.1 MATERIALS

- A. All erosion and sediment controls shall adhere to the NCTCOG iSWM program. Other published material guidelines may be accepted upon submittal for review and approval to EAD, through the OAR.

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- B. Do not use silt fence or silt fabric as an erosion and sediment control BMP within the Airport Operations Area (AOA) without prior approval from Airport Operations
- C. Do not use hay bales as an erosion and sediment control BMP on the Project.
- D. Do not use straw wattles or other flow blocking devices at active street curb inlets.
- E. Install and maintain erosion and sediment control products according to manufacturer's recommendations and instructions, or NCTCOG iSWM program. Replace or change controls as needed to restore effectiveness.

PART 4 - EXECUTION

4.1 GENERAL

The Contractor shall:

- A. Prevent water pollution associated with the construction activity from entering any surface water, drainage device, or adjacent property.
 - 1. Ensure all applicable water quality standards are met. Additional storm water controls may be required to meet water quality standards.
 - 2. Immediately capture and remove any sediment that escapes from the Project site. The Contractor shall be responsible for documenting any pre-existing accumulated sediment or debris.
- B. Install and maintain all BMPs and structural controls in accordance with the NCTCOG iSWM program and any additional manuals approved by the EAD, through the OAR.
- C. Immediately correct ineffective control measures and implement new or additional controls as directed by the OAR.
- D. Plan and conduct all land disturbing activities to minimize the area to be exposed at any one time, and to minimize the time of exposure.
- E. Protect materials from rain exposure by:
 - 1. Provide protected storage areas for paints, chemicals, solvents, fertilizers, and other potential pollutants.
 - 2. Store containers on a raised surface.
 - 3. Cover erodible materials with a tarp or plastic.
- F. Upon discovery, immediately contain and remove all spills or leaks.
- G. Properly contain and dispose of wastewater, such as concrete truck washout, wash water for cleaning paint tools, and curing compounds.
- H. Cover all trucks or trailers hauling an erodible material such as soil, gravel, small rock or sand with a tarp while on the public roads of the Airport.
- I. Tracking
 - 1. Prevent off-site tracking by installing and maintaining a construction exit
 - 2. Keep paved areas free from tracking. Sediment tracked off-site shall be cleaned with a vacuum truck or sweeping by hand. Sweeper trucks are not allowed.

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J. Dust Control:

1. Maintain dust control in all areas impacted by construction via water application or additional methods as approved by the OAR.
2. Do not apply water to the point that causes flooding, erosion or pollution.

4.2 SEQUENCING AND SCHEDULING

A. Prior to ground disturbing activities, the Contractor shall perform the following:

1. The ECP or SWPPP must have been approved by the EAD.
2. Submit NOI to the OAR for forwarding to TCEQ (if applicable), and coordinate submission of the NOI and payment of filing fees with the EAD, through the OAR.
3. Post the CSN at the Project site (if applicable)
4. Provide a hardcopy of the ECP or SWPPP at the Project site
5. All storm water management controls for the initial phase of construction shall be installed and inspected by a qualified storm water inspector.

B. Divide larger sites into distinct portions. Begin permanent stabilization when work is complete on a portion of the Project site. At minimum, detention basins, drainage swales, creek banks, channel banks, and culverts will be considered distinct portions; and stabilization will be initiated independent of ongoing activities in other sections of the Project site.

4.3 MAINTENANCE

A. General

1. Maintain all erosion, sediment, and pollutant control measures in effective operating condition throughout the Project until Final Acceptance.
2. The EAD will inspect the project for environmental compliance and any deficiencies, including installation and maintenance of storm water controls, shall be corrected in the time indicated.
3. If the Contractor fails to correct the deficiencies to the satisfaction of the EAD, the Owner may separately contract a crew to perform the necessary maintenance and the cost will be deducted from Contract Amount.

B. Construction Exit

1. Maintain construction entrance/exits in a condition which will prevent the tracking of sediment onto any paved surface.
2. For stone exits, periodically re-grade and top with additional stone to maintain efficiency in removal of tracked materials.

C. Perimeter Control

1. Inspect the perimeter of the Project site regularly and remove sediment before it reaches half the height of the control.
2. Ensure perimeter BMPs are properly embedded or toed-in and repair any under-cutting the BMP.

D. Check Dam

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When a check dam is required for erosion control on the Project, the Contractor shall provide the check dam meeting the following requirements:

1. The top of the ends of the check dam shall be a minimum of 12 inches higher than the middle of the dam, unless otherwise directed by the OAR.
2. The check dam shall be embedded a minimum of 18 inches into the side of the drainage ditch, swale, or channel to minimize the potential for flows to erode around the side of the check dam.
3. The check dam shall be inspected regularly, and sediment removed when it reaches approximately one-third the height of the check dam or 12 inches, whichever is less.

E. Inlet Protection

When inlet protection is required for erosion control on the Project, the Contractor shall provide the inlet protection meeting the following requirements:

1. Inspect the inlet protection regularly for damage.
2. Remove any blockage from the inlet or inlet protection after every storm event.
3. Clean and/or replace the inlet protection when clogged with sediment, to ensure effectiveness.
4. Remove sediment from the inlet protection before it reaches approximately 50 percent of the design height or volume of the inlet protection.

4.4 CLOSE OUT

- A. Prior to close-out of the construction permit, the EAD, through the OAR, must approve the Final Stabilization, or the transfer of responsibility for the SWPPP or ECP to another contractor.
 1. The Contractor shall request an inspection to determine if the Final Stabilization meeting the CGP definition has been accomplished.
 2. If the EAD determines Final Stabilization has been accomplished, the Contractor shall submit, through the OAR, the following
 - a. The NOT, as applicable, shall be submitted to the OAR for forwarding to TCEQ after approval from the EAD.
 - b. All Project inspection reports.
 - c. All amendments incorporated into the SWPPP or ECP during construction.
 - d. Additional recordkeeping as required by the CGP, as applicable.
- B. The Contractor shall remove all materials, wastes, and temporary BMPs from the Project site including any accumulated sediment issues identified by the OAR.
- C. The Contractor shall fully resolve any issue of non-compliance or violation brought by a Federal or State agency.
- D. The Contractor shall have completed all submittals and received approvals required for closeout.

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PART 5 – MEASUREMENT AND PAYMENT

Not Used.

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