01 57 00 TEMPORARY CONTROLS

1. GENERAL
	1. WORK INCLUDED
		1. Provide labor, materials, equipment, and incidentals necessary to construct temporary facilities to provide and maintain control over environmental conditions at the Site. Remove temporary facilities when no longer needed.
		2. Construct temporary impounding works, channels, diversions, furnishing and operation of pumps, installing piping and fittings, and other construction for control of conditions at the Site. Remove temporary controls at the end of the Project.
		3. Provide a Storm Water Pollution Prevention Plan (SWPPP) as required by Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR150000 for stormwater discharges from construction activities as applicable to the nature and size of the Project. Comply with all requirements of the Texas Commission on Environmental Quality (TCEQ) and Laws and Regulations. File required legal notices and obtain required permits prior to beginning any construction activity.
		4. Provide labor, materials, equipment, and incidentals necessary to prevent stormwater pollution for the duration of the Project. Provide and maintain erosion and sediment control structures as required to preventive sediment and other pollutants from the Site from entering any stormwater system including open channels. Remove pollution control structures when no longer required to prevent stormwater pollution.
	2. QUALITY ASSURANCE
		1. Construct and maintain temporary controls with adequate workmanship using durable materials to provide effective environmental management systems meeting the requirements of the Contract Documents and Laws and Regulations. Use materials that require minimal maintenance to prevent disruption of construction activities while providing adequate protection of the environment.
		2. Periodically inspect systems to determine that they are meeting the requirements of the Contract Documents.
	3. DOCUMENT SUBMITTAL
		1. Provide documents requiring approval by the OPT as Shop Drawings in accordance with Article 25 of SECTION 00 72 00 GENERAL CONDITIONS.
		2. Provide copies of notices, records, and reports required by the Contract Documents or Laws and Regulations as Record Data in accordance with Article 26 of SECTION 00 72 00 GENERAL CONDITIONS.
	4. STANDARDS
		1. Provide a SWPPP that complies with all requirements of TPDES General Permit No. TXR150000 and any other applicable Laws and Regulations.
		2. Perform Work to comply with the City of Corpus Christi Code of Ordinances, Part III, Chapter 14, Article X - titled “STORM WATER QUALITY MANAGEMENT PLANS” and any other applicable Laws and Regulations.
	5. PERMITS
		1. As applicable, submit the following to the TCEQ and the Operator of any Municipal Separate Storm Sewer System (MS4) receiving stormwater discharges from the Site:
			1. Notice of Intent (NOI) at least 48 hours prior to beginning construction activity. Construction activity may commence 24 hours after the submittal of an electronic NOI.
			2. Notice of Change (NOC) letter when relevant facts or incorrect information was submitted in the NOI, or if relevant information in the NOI changes during the course of construction activity.
			3. Notice of Termination (NOT) when the construction Project has been completed and stabilized.
		2. Post a copy of the NOI at the Site in a location where it is readily available for viewing by the general public and as required by Laws and Regulations prior to starting construction activities and maintain the posting until completion of the construction activities.
		3. Maintain copies of a schedule of major construction activities, inspection reports, and revision documentation with the SWPPP.
	6. STORMWATER POLLUTION CONTROL
		1. Comply with the current requirements of TPDES General Permit No. TXR150000 as set forth by the TCEQ for the duration of the Project as applicable to the nature of the work and the total disturbed area:
			1. Develop a SWPPP meeting all requirements of the TPDES General Permit.
			2. Submit of a Notice of Intent to the TCEQ.
			3. Develop and implement appropriate Best Management Practices as established by local agencies of jurisdiction.
			4. Provide all monitoring and/or sampling required for reporting to the TCEQ.
			5. Submit reports to the TCEQ as required as a condition of the TPDES General Permit.
			6. Submit copies of the reports to the Designer as Record Data in accordance with Article 26 of SECTION 00 72 00 GENERAL CONDITIONS.
			7. Retain copies of these documents at the Site at all times for review and inspection by the OPT or regulatory agencies. Post a copy of the permit as required by Laws and Regulations.
			8. Assume sole responsibility for implementing, updating, and modifying the TPDES General Permit per Laws and Regulations for the SWPPP and Best Management Practices.
		2. Use forms required by the TCEQ to file the Notice of Intent. Submit the Notice of Intent at least 2 days prior to the start of construction. Develop the SWPPP prior to submitting the Notice of Intent. Provide draft copies of the Notice of Intent, SWPPP, and any other pertinent TCEQ submittal documents to Owner for review prior to submittal to the TCEQ.
		3. Return any property disturbed by construction activities to either specified conditions or pre-construction conditions as set forth in the Contract Documents. Provide an overall erosion and sedimentation control system that will protect all undisturbed areas and soil stockpiles/spoil areas. Implement appropriate Best Management Practices and techniques to control erosion and sedimentation and maintain these practices and techniques in effective operating condition during construction. Permanently stabilize exposed soil and fill as soon as practical during the Work.
		4. Assume sole responsibility for the means, methods, techniques, sequences, and procedures for furnishing, installing, and maintaining erosion and sedimentation control structures and procedures and overall compliance with the TPDES General Permit. Modify the system as required to effectively control erosion and sediment.
		5. Retain copies of reports required by the TPDES General Permit for 3 years from date of Final Completion.
	7. POLLUTION CONTROL
		1. Prevent the contamination of soil, water, or atmosphere by the discharge of noxious substances from construction operations. Provide adequate measures to prevent the creation of noxious air-borne pollutants. Prevent dispersal of pollutants into the atmosphere. Do not dump or otherwise discharge noxious or harmful fluids into drains or sewers, nor allow noxious liquids to contaminate public waterways in any manner.
		2. Provide equipment and personnel and perform emergency measures necessary to contain any spillage.
			1. Contain chemicals in protective areas and do not dump on soil. Dispose of such materials at off-site locations in an acceptable manner.
			2. Excavate contaminated soil and dispose at an off-site location if contamination of the soil does occur. Fill resulting excavations with suitable backfill and compact to the density of the surrounding undisturbed soil.
			3. Provide documentation to the Owner which states the nature and strength of the contaminant, method of disposal, and the location of the disposal site.
			4. Comply with Laws and Regulations regarding the disposal of pollutants.
		3. Groundwater or run-off water which has come into contact with noxious chemicals, sludge, or sludge-contaminated soil is considered contaminated. Contaminated water must not be allowed to enter streams or water courses, leave the Site in a non-contained form, or enter non-contaminated areas of the Site.
			1. Pump contaminated water to holding ponds constructed by the Contractor for this purpose, or discharge to areas on the interior of the Site, as designated by the OAR.
			2. Construct temporary earthen dikes or take other precautions and measures as required to contain the contaminated water and pump to a designated storage area.
			3. Wash any equipment used for handling contaminated water or soil within contaminated areas three times with uncontaminated water prior to using such equipment in an uncontaminated area. Dispose of wash water used to wash such equipment as contaminated water.
	8. EARTH CONTROL
		1. Remove excess soil, spoil materials, and other earth not required for backfill at the time of generation. Control stockpiled materials to eliminate interference with Contractor and Owner’s operations.
		2. Dispose of excess earth off the Site. Provide written approval from the property owner for soils deposited on private property. Obtain approval of the Owner if this disposal impacts the use of Site or other easements.
		3. Ozone Days are typically needed in the Bid Form for projects that include hot mix and/or roofing, and a bid item (per Day) should be included. If there is no work in this Project that would involve restrictions for Ozone Advisory Days, add “NOT APPLICABLE” next to the heading for 1.09.
	9. OZONE ADVISORY DAYS
		1. Do not conduct roofing, priming, or hot-mix paving operations, except for repairs, on days the City Engineer has notified Contractor that an ozone advisory is in effect. An extension of time will be allowed for each day for which priming or hot mix paving was scheduled, crews were prepared to perform this Work and the City Engineer issued ozone alert prevents this Work. Contractor will be compensated at the unit price indicated in the Bid for each day for which an extension of time was granted due to an ozone alert.
	10. MANAGEMENT OF WATER
		1. Manage water resulting from rains or ground water at the Site. Maintain trenches and excavations free of water at all times.
		2. Lower the water table in the construction area by acceptable means if necessary to maintain a dry and workable condition at all times. Provide drains, sumps, casings, well points, and other water control devices as necessary to remove excess water.
		3. Provide continuous operation of water management actions. Maintain standby equipment to provide proper and continuous operation for water management.
		4. Ensure that water drainage does not damage adjacent property. Divert water into the same natural watercourse in which its headwaters are located, or other natural stream or waterway as approved by the Owner. Assume responsibility for the discharge of water from the Site.
		5. Remove the temporary construction and restore the Site in a manner acceptable to the OAR and to match surrounding material at the conclusion of the Work.
	11. DEWATERING
		1. This item is considered subsidiary for all dewatering methods other than “well pointing” to the appropriate bid items as described in the Bid Form where dewatering is needed to keep the excavation dry, as approved by the Designer, and shall include all costs to provide a dry foundation for the proposed improvements.
		2. Storm water that enters an excavation can be pumped out as long as care is taken to minimize solids and mud entering the pump suction and flow is pumped to a location that allows for sheet flow prior to entering a storm water drainage ditch or storm water inlet.
		3. An alternative to sheet flow is to pump storm water to an area where ponding occurs naturally without leaving the designated work area or by a manmade berm(s) prior to entering the storm water system. Sheet flow and ponding is to allow solids screening and/or settling prior to entering a storm water conduit or inlet.
		4. Storm water or groundwater shall not be discharged to private property without permission. It is the intent that Contractor discharges groundwater primarily into the existing storm water system, provided that the quality of groundwater is equal to or better than the receiving stream, the **[Corpus Christi Bay] [Oso Creek] [Laguna Madre] [CC Ship Channel]**.
		5. Testing of groundwater quality is to be performed by the Contractor, at the Contractor’s expense, prior to commencing discharge and shall be retested by the Contractor, at the Contractor’s expense, a minimum of once a week. Contractor shall coordinate with the Owner on all testing. Tests will also be performed as each new area of construction is started.
		6. Another option for disposal of groundwater by Contractor would include pumping to the nearest wastewater system. If discharging to temporary holding tanks and trucking to a wastewater or wastewater plant, the costs for these operations shall be negotiated. Other groundwater disposal alternatives or solutions may be approved by the Designer on a case by case basis.
		7. Prior to pumping groundwater from a trench to the wastewater system the Contractor shall contact **Wastewater Pre-treatment Coordinator at 826-1817** to obtain a “no cost” permit from the Owner’s Waste Water Department. Contractor will pay for any water quality testing or water analysis cost required. The permit will require an estimate of groundwater flow. Groundwater flow can be estimated by boring a hole or excavating a short trench then record water level shortly after completion, allow to sit overnight, record water level again, pump hole or trench dry to a holding tank or vacuum truck then record how long it takes to fill to original level and overnight level.

**NOTE TO SPECIFIER: If well pointing is not anticipated for this Project, do not delete 1.12, but add “NOT APPLICABLE” next to the heading for 1.12.**

* 1. DISPOSAL OF CONTAMINATED GROUNDWATER
		1. An allowance will be included in the Bid for the unanticipated disposal of contaminated groundwater. This allowance may not be needed but is provided in case contaminated groundwater is encountered during the course of the Project and does not meet the water quality requirements for discharge into the storm water or wastewater systems. This allowance includes all materials, tools, equipment, labor, transportation, hauling, coordination, and proper disposal of the contaminated water at an approved landfill, deep water injection well, or other site as agreed to by the Designer. Suggested disposal facilities would be **[US Ecology (USET) in Robstown, Texas or Texas Molecular in Corpus Christi, Texas]**.
		2. The payment for this Work will be based on the Contractor’s actual costs and will be negotiated. Payment will not include costs associated with routine dewatering, which is considered subsidiary to the appropriate bid items as described in Paragraph 1.11.
	2. DISPOSAL OF HIGHLY CHLORINATED WATER
		1. Dispose of water used for testing, disinfection, and line flushing. Comply with Owner’s requirements and Laws and Regulation regarding the disposal of contaminated water, including water with levels of chlorine, which exceed the permissible limits for discharge into wetlands or environmentally sensitive areas. Comply with the requirements of all regulatory agencies in the disposal of all water used in the Project. Include a description and details for disposal of this water in a Plan of Action per SECTION 01 35 00 SPECIAL PROCEDURES. Do not use the Owner’s wastewater system for disposal of contaminated water.
	3. WINDSTORM CERTIFICATION
		1. All affected materials and installation shall comply with Texas Department of Insurance Requirements for windstorm resistant construction for design wind speed as required by the current version of the International Building Code (IBC). When applicable, **[Contractor] [Owner]** shall be responsible for contracting with a licensed structural engineer in the State of Texas to perform all inspections and provide documentation for windstorm certification to the Texas Board of Insurance. The Contractor shall be responsible for providing all necessary design/assembly documentation for all new windows, doors, louvers, etc. to the windstorm engineer/inspectors required to conform with the requirements of the Texas Department of Insurance.
1. PRODUCTS
	1. MATERIALS
		1. Provide materials that comply with Laws and Regulations.
2. EXECUTION
	1. CONSTRUCTING, MAINTAINING AND REMOVING TEMPORARY CONTROLS
		1. Construct temporary controls in accordance with Laws and Regulations.
		2. Maintain controls in accordance with regulatory requirements where applicable, or in accordance with the requirements of the Contract Documents.
		3. Remove temporary controls when no longer required, but before the Project is complete. Correct any damage or pollution that occurs as the result of removing controls while they are still required.

END OF SECTION