# SECTION 01 57 14

# CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS

## PART 1 – GENERAL

### 1.01 DESCRIPTION

A. This Section specifies the general requirements for furnishing all labor, materials, equipment, and operations necessary for work related to stormwater and non-stormwater controls to prevent illicit discharges to the City's combined sewerage system pursuant to the Construction Site Runoff Control Program (http://www.sfwater.org/index.aspx?page=235).

B. Include best management practices ("BMPs") for construction site planning and management controls, vehicle tracking and dust controls, erosion and sediment controls, and non-stormwater and waste/material management controls, and spill prevention controls that are to be implemented year-round.

C. In accordance with Federal, State, and local regulations, it is unlawful to discharge pollutants from construction sites into the City's combined sewer system or other waterbodies within or adjacent to the site. Implement best management practices at all construction sites to minimize the discharge of pollutants into the combined sewer system pursuant to Section 146 of Article 4.2 of the Public Works Code (Construction Site Runoff Control).

D. This project will disturb at least 5,000 square feet as measured cumulatively and therefore obtain a Construction Site Runoff Control Permit from the San Francisco Public Utilities Commission Wastewater Enterprise, Collection System Division ("SFPUC-WWE/CSD").

E. Contractor shall be responsible for payment of all fines imposed due to any violations of the Permit requirements or violations of Article 4.2 of the Public Works Code – Construction Site Runoff, available at: http://library.amlegal.com/nxt/gateway.dll/California/publicworks/publicworkscode?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$sync=1

F. All work in this section shall be considered as incidental work to mobilization, unless noted otherwise.

### 1.02 RELATED SECTIONS

A. Section 01 33 00 – Submittal Procedures

B. Section 01 41 00 – Regulatory Requirements

C. Section 01 57 30 – Environmental Mitigation Measures

D. Section 31 23 19 - Dewatering

## 1.03 CONSTRUCTION SITE RUNOFF CONTROL PERMIT AND EROSION SEDIMENT CONTROL PLAN (ESCP)

A. As this project disturbs a cumulative area greater than 5,000 square feet, obtain a Construction Site Runoff Control Permit ("Permit") from the SFPUC-WWE/CSD. Find permit application at: https://sfpuc.org/programs/pretreatment-program/construction-site-runoff or obtain at the San Francisco Public Utilities Commission, Wastewater Enterprise, Collection System Division, 3801 3rd Street, Suite 600, San Francisco, telephone (415) 695-7339 or San Francisco Permit Center, 49 South Van Ness, San Francisco. Include in Permit application an Erosion and Sediment Control Plan ("ESCP").

B. Obtain the Permit no less than 14 calendar days prior to the commencement of any land-disturbing activities. The City will not honor any claims from Contractor arising from delays in obtaining the Construction Site Runoff Control Permit.

C. Comply at all times with provisions contained in the Construction Site Runoff Control Permit, which may include but not be limited to specific sampling, inspection, or reporting requirements.

D. Maintain a copy of the Construction Site Runoff Control Permit and its approved ESCP onsite at all times.

## 1.04 SUBMITTALS

A. In accordance with Section 01 33 00 – Submittal Procedures, submit the following documentation listed below.

1. Qualifications of the designated qualified person implementing the ESCP.

2. Construction Site Runoff Control Permit Application – First submit the permit application to the project City Representative for review and approval no less than 45 calendar days prior to the commencement of demolition and earthmoving activities. Upon approval by the project City Representative, submit the application to SFPUC-WWE/CSD (Eric Burton at Eburton@sfwater.org or designee). Upon Permit issuance from SFPUC-WWE/CSD, submit a copy of the permit to the project City Representative.

3. Erosion and Sediment Control Plan (ESCP) – First submit the ESCP to the project City Representative for review and approval no less than 45 calendar days prior to the commencement of demolition and earthmoving activities. Upon approval by the project City Representative, submit the ECSP to SFPUC-WWE/CSD (Eric Burton at Eburton@sfwater.org) along with the Construction Site Runoff Control Permit Application.

4. Copy of written approval from SFPUC-WWE/CSD allowing vegetation clearing, land grading, or any other soil-disturbing activities on projects with slopes 5% and greater to occur between October 15th and April 15 (the rainy season).

5. Self-inspection Checklists – Use form from SFPUC-WWE/CSD for stormwater inspections, available at https://sfpuc.sharefile.com/d-s0ca145675c44ca99. Submit monthly. Make reports available upon request by the SFPUC Inspector or the City Representative.

6. Sampling results – Upon request by the City Representative, as warranted.

7. Certificate of Quarantine Compliance from the County Agricultural Commission documenting that hay, straw, or mulch used on the project has been inspected and is weed free.

## 1.05 QUALITY ASSURANCE

A. Employ a qualified person to develop the ESCP. For sites with slopes greater than 15%, a qualified person is defined as a Qualified Stormwater Developer ("QSD") (see https://www.casqa.org/resources/qsp-qsd-qualification). For sites with slopes less than 15%, a qualified person is defined as a QSD, or a Qualified SWPPP Practitioner ("QSP") (see https://www.casqa.org/resources/qsp-qsd-qualification), or a person certified as a Certified Professional in Erosion and Sediment ControlTM ("CPESC") or a Certified Professional in Stormwater QualityTM ("CPSWQ") registered through Enviro Cert International, Inc., or other person with demonstrated experience as approved by the City Representative.

B. Employ a qualified person(s) to perform BMP inspections. A qualified person is defined as a Qualified Stormwater Developer ("QSD") or a Qualified SWPPP Practitioner ("QSP") (see https://www.casqa.org/resources/qsp-qsd-qualification), or a person certified as a Certified Professional in Erosion and Sediment ControlTM ("CPESC") or a Certified Professional in Stormwater QualityTM ("CPSWQ") registered through Enviro Cert International, Inc., or other person with demonstrated experience as approved by the City Representative.

C. The qualified person shall oversee the ESCP, including worker training, implementation of all BMPs, erosion and sediment control measures, inspections, and its reporting requirements.

## 1.06 GENERAL REQUIREMENTS

A. Adhere to the requirements in the SFPUC Construction Site Runoff Control Technical Standards and Guidelines (February 2014) available at https://sfwater.org/modules/showdocument.aspx?documentid=9347.

B. Best Management Practices (BMPs): Implement BMPs consistent with:

1. SFPUC Construction Best Management Practices Handbook, available for download at: http://sfwater.org/modules/showdocument.aspx?documentid=4282.

2. California Stormwater Quality Association's Construction Best Management Practice Handbook, available at for download at: https://www.buenapark.com/Modules/ShowDocument.aspx?documentid=2557.

C. Continuously control surface and ground water at all times during the course of the construction, including Saturdays, Sundays, holidays, work stoppages, during periods of labor strikes, and during periods of work stoppages.

D. Do not discharge materials other than stormwater and approved non-stormwater discharges to the combined sewer system. Approved non-stormwater discharges include incidental discharges of potable water from irrigation of vegetative erosion control measures and water from dust control applications.

E. Contractor is advised that the SFPUC-WWE/CSD have the authority to order immediate ceasing of discharge(s) to the combined sewer system. Contractor is solely responsible for all costs associated with ceasing discharges, all costs for delay in operations, and any fines.

F. Should the existing wastewater (stormwater or non-stormwater discharges) be uncontaminated and subsequently become contaminated due to Contractor's operations, all costs related to satisfactory cleanup and disposal shall be the responsibility of Contractor. Such costs shall include re-design, re-construction, pretreatment and, sewer service permit, usage fee costs necessary to satisfy the above requirements.

G. Obtain a Batch Discharge Permit (https://sfpuc.org/sites/default/files/programs/BatchWastewaterDischargePermitAppForm_MAY2012.pdf) from the SFPUC (see Section 31 23 19 – Dewatering) for and prior to dewatering discharges, which include groundwater from

excavations, water from truck washing activities, and water from the cleaning or testing of pipes or tanks.

H. Meet requirements related to Industrial Waste, Article 4.1 of the Public Works Code, for discharges to the City's combined sewer system.

I. Educate all on-site personnel, including subcontractor personnel, regarding the importance of protecting storm water quality. The qualified person designated to implement the ECSP and/or the Site supervisors shall conduct regular tailgate meetings to discuss pollution prevention.

## 1.07 EROSION AND SEDIMENT CONTROL PLAN REQUIREMENTS

A. Prepare ESCP in consideration of alterations to the site existing topography. Conform ESCP to Section 146.7 of the Construction Site Runoff Control Ordinance and include the below elements.

B. Site Conditions

1. Project name and Contractor name.
2. Name, address, phone number, email and qualifications of the qualified person designated to implement the ESCP.
3. Description of the current site condition and any site restrictions, limitations, or natural drainages as areas of focus for BMP implementation.
4. Vicinity map showing the location and perimeter of the project site and staging areas (both on and off-site) in relation to surrounding area's watercourse, water bodies, and other significant geographical features. Include parcel boundaries. Show existing and proposed roadways.

C. Project Description and Construction Activities

1. Brief narrative of the proposed project, nature and purpose of construction activities, description of the total square foot or acreage proposed land disturbing activities, map showing areas to be disturbed, and description of the construction schedule.
2. Highlight any serious considerations related to site planning and management (materials to be stored, waste to be handles).
3. List of other permits received for the project directly associated with water resources.

D. BMPs and Implementation Schedule

1. A narrative description of the erosion and sediment control BMPs that will be implemented at the site in consideration to construction sequence and schedules, including but not limited to the elements below.

a. Pre-Construction Actions: Before construction, evaluate, mark and protect unique areas surrounding the project site.
b. Construction Access: Stabilize bare areas (equipment parking areas, construction routes, site entrances) immediately with gravel and other means to control track out.
c. Sediment Barriers and Traps: Install basins, traps, silt fences or inlet protection as needed for grading.
d. Runoff Control: Install diversion, perimeter dikes and outlet protection as needed.
e. Land clearing and grading: Begin major clearing and grading after installing sediment and runoff measures. Clear disposal areas as needed.
f. Excavation and active construction: Implement measures to protect stockpiles and good housekeeping/spill controls.
g. Surface Stabilization: Apply temporary and permanent seeding, mulch, and sod for stabilization immediately on all disturbed areas where work is delayed or completed.
h. Building construction: Install necessary erosion and sediment controls while excavation, paving and installing utilities, and demolition.
i. Landscaping and final stabilization: Stabilize all open areas, including spoil areas. Remove temporary control measures and stabilize.

2. A narrative description of the good housekeeping/spill control measures that will be implemented at the site in consideration to schedule to prevent stormwater from becoming polluted by contact with other construction materials prior to discharge into storm drains such as raw/loose asphalt and concrete, concrete waste water, hazardous materials (i.e., paints, lubricants, fuel), and leaking equipment and spills.

E. Site Plan (plan view drawing or set of drawings)

1. Legend, north arrow, and scale of the drawing.
2. The site layout, construction site boundaries and, as applicable, a "limits of disturbance" line with the overall site to show the limit of soil disturbance and areas where existing vegetation will be preserved.
3. All streams and drainage ways, all storm drain inlets and outlets, and State and Federal wetlands, if any.
4. Area drainage and proposed direction of drainage channels.
5. Contours for the existing topography and proposed grading.
6. Locations and types of erosion and sediment control BMPs, as well as dewatering and soil stabilization controls, where applicable
7. Stockpile locations, materials storage (e.g., trash, soil, fuel, construction materials, hazardous materials) and staging areas and good housekeeping/spill controls.

8. Location of vehicle/equipment wash and maintenance areas and good housekeeping/spill controls.
9. Location of entrances/exits to the project area and track-out controls.
10. Dewatering discharge points for construction wastewater (i.e., groundwater, stormwater, and dewatering byproducts and controls where applicable.
11. Locations of contaminated soils or groundwater.
12. Standard notes (see notes in Appendix 6.1 of the SFPUC (2013) Construction BMP Handbook).

F. Maintenance and Inspection

1. Summary of maintenance and inspection requirements for erosion and sediment control BMPs and for good housekeeping/spill controls.
2. Copy of the Self-inspection form to be used.

G. Spill Prevention and Response Procedures

1. Description of procedures to respond to spill of hazardous materials, including a list of key contacts responsible for spill response.
2. Statement that Contractor shall provide training to all personnel, including subcontractor personnel, on the spill response procedures.

H. Final Statements

1. Include a note that specifies that the SFPUC-WWE/CSD be notified 48 hours prior to the commencement of construction.
2. Include a statement that if there are (1) significant site changes or (2) there will be changes in the project components and methods, the Contractor will resubmit a revised ESCP to the City Representative for approval (1) within one week of the significant site changes or (2) before such changes occur.
3. Include the following statement: “Review and/or approval of the ECSP does not relieve Contractor from its responsibilities for compliance with the requirements of the Construction Site Runoff Ordinance, nor does an approved ECSP relieve Contractor from errors or omissions of the approved plan.”
4. Include a signed Contractor’s Certification that states: “I certify under penalty of perjury that the information contained on the ESCP is accurate and true.”
5. Include a signed Owner’s Certification that states: “I, the undersigned, certify that all land clearing, construction, and development should be done pursuant to the approved plan.” This must be signed in ink on each plan submitted or on an original reproducible.

6. Include the following note: "If the approved plan needs to be modified, the SFPUC may require additional sediment and stormwater controls." Implement modifications through the project City Representative."

I. Identify in ECSP that Contractor must obtain written approval from SFPUC-WWE/CSD allowing vegetation clearing, land grading, or any other soil-disturbing activities on projects with slopes 5% and greater to occur beyond October 15th. An extension requires meeting the below conditions. Contractor shall pay any associated fee.

1. Project is substantially complete
2. Remaining work can be finished in a short period of time
3. Completion of work will better stabilize the site
4. BMPs identified in the ECSP have been installed prior to October 1st
5. BMPs have been inspected by the City Representative and found to be adequate; and/or
6. Weather permits

## 1.07 EROSION AND SEDIMENT CONTROL PLAN (ESCP) IMPLEMNTATION

A. Make Permit and ESCP available on site at all times.

B. Promptly remove and correct damage resulting from any soil, miscellaneous debris or other materials washed, spilled, tracked dumped or otherwise deposited on public streets, highways, sidewalks or other public thoroughfare, incident to the construction activity, or during transit to and from the construction site.

C. Contractor's qualified person shall review the ECSP and design of erosion and sediment control BMPs each year prior to the next rainy season (Oct 1 – April 15) and modify it as necessary.

D. Provide devices or locations necessary to conduct sampling or metering operations, if requested by the SFPUC Inspector or the City Representative.

E. Immediately notify the City Representative of any suspected, confirmed or unconfirmed release of sediments or other pollutants that create a risk of polluted stormwater or non-stormwater discharges into the combined sewer system or other waterbody.

F. Milestone notifications. Notify the City Representative at least two working days before the following milestones occur:

G. Inspection, Maintenance and Repair Procedures

1. Qualified person(s) as defined above shall perform inspections.

2. Inspect BMPs in all disturbed areas, materials storage and staging areas, locations where vehicles enter and exit the site, and all catch basins, storm drains and inlets, and wherever else BMPs are used.

H. Schedule of inspections

1. October 1st through April 15th (rainy season): Inspect daily if performing clearing, grading, and excavating activities or inspect no less than weekly if performing any other activities.
2. April 16th through September 30th (dry season): Inspect no less than weekly for all activities.

I. Maintenance and Repair

1. Initiate any necessary modification to BMPs within 72 hours of identification and complete modifications as soon as possible thereafter.
2. During extended rain events, repair, replace, or add additional BMPs immediately if sediment-laden water or other potentially polluted construction water is being discharged from the site to storm drains, when safe to do so.

J. Inspection Report and Retention of Records

1. Use the Self-inspection Checklist provided at: https://sfpuc.sharefile.com/d-s0ca145675c44ca99 for both the daily and weekly inspections.
2. Keep inspection reports at the job trailer so that during an inspection, they can be shown to the SFPUC Inspector and City Representative.
3. Submit copies of the inspection reports monthly.

## 1.08 MINIMUM BEST MANAGEMENT PRACTICES (BMPS) REQUIREMENTS

A. Management of Construction Materials

1. Cover and berm stockpiled construction materials that are not actively being used. Place stockpiles a minimum 50 feet away from concentrated flows of stormwater, drainage courses, and inlets.
2. Protect stockpiles with a temporary linear sediment barrier berm prior to the onset of precipitation. During the rainy season, protect all stockpiles from stormwater runoff by completely covering them and keeping the perimeter barriers around at all times.
3. Store chemicals in watertight containers with appropriate secondary containment to prevent any spillage or leakage or in a storage shed (completely enclosed). Also store chemicals and any other hazardous materials properly labelled and pursuant to manufacturer's recommendations.

4. Minimize exposure of construction materials to precipitation. This excludes materials and equipment that are designed to be outdoors and exposed to environmental conditions (e.g, poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).
5. Provide for continuous misting of water using hoses on the project, and on roads and other areas immediately adjacent to the project limits, wherever traffic or buildings that are occupied or in use, are affected by dust caused by hauling or other operations. The materials and methods used for water laying shall be subject to the approval of the City Representative.
6. Provide for prompt and daily proper removal from existing roadways of all dirt and other materials that have been spilled, washed, tracked, or otherwise deposited thereon by Contractor's hauling and other operations.
7. Only use cold patch asphalt for smoothing around trench plates. Do not use cold patch asphalt in any way to prevent stormwater from entering the work area or to intercept and direct stormwater around the work area.

B. Rainstorm BMPs

1. During the rainy season, keep all paved areas clear of earth material and debris. Maintain site to minimize sediment runoff to any storm drain system.
2. During periods when storms are forecast:
   a. Do not place excavated soils in streets or on paved areas.
   b. Remove any excavated soils from the site by the end of the day when feasible.
   c. Where stockpiling is necessary, use a tarpaulin or surround the stockpile material with fiber rolls, gravel sediment barrier, silt fence or other runoff controls.
   d. Use inlet controls as needed (e.g., block gravel sediment barrier from storm drain adjacent to the project or stockpiled soil).
3. Alert stand-by crews for emergency work during rainstorms. City Representative may also alert Contractor's stand-by crews.
4. After October 1st through April 15th, inspect all erosion control measures daily and after each storm. Repair BMPs at the close of each day and whenever rain is forecast.
5. Stockpile gravelbags (no sandbags) on site and place at intervals shown on erosion control plans when the rain forecast is 40% or greater or when directed by the City Representative.
6. After rainstorms, check for and remove sediment trapped by gravel bags, fiber rolls, silt fence or any other sediment control. Replace sediment controls if deterioration is evident.
7. Avoid paving during the wet season. Do not apply seal coat, tack coat, slurry seal or fog seal during rain.

C. Waste Management BMPs

1. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the combined sewer system.
2. Remove sediment and trash accumulated in drainages or detention basins as soon as possible. In addition, skim oil and material floating on water surfaces immediately and properly dispose of the debris.
3. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the combined sewer system. Place them away from storm drains, anchor them to the ground, and provide secondary containment. Licensed waste material handlers must service portable sanitary facilities regularly enough to prevent exceeding their capacities.
4. Clean or replace sanitation facilities and inspect them regularly for leaks and spills.
5. Cover waste disposal containers at the end of every business day and during a precipitation event.
6. Prevent discharges from waste disposal containers to the combined sewer system.
7. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.
8. Implement procedures that effectively address hazardous and non-hazardous spills.
9. Utilize spill response procedures that include: providing equipment and materials for cleanup of spills on site, so that spills and leaks may be cleaned up immediately and properly disposed, and assigning and training appropriate spill response personnel.
10. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas or into storm drains or waterbodies.
11. Vacuum the slurry generated from saw cutting operations so there is no discharge into the underlying soil, storm drains or waterbodies.
12. Collect and remove all grindings and wastes from removal of pavement as work progresses. Cover materials and wastes associated with paving with plastic.
13. Drill cuttings, excess water from the drilling process, and other drilling byproducts shall be contained within secondary containment at the work site and hauled off site for disposal each day. Such material may be temporarily stored at staging areas contained within a closed dumpster.
14. Wash/clean out paint brushes, spray guns, and other tools into a hazardous materials barrel or original container. Do not wash out such tools in a manner that would allow wash water to enter a storm drain or other waterbody.

D. Vehicle Storage and Maintenance BMPs

1. Prevent oil, grease, fuel, chemicals, or other waste from leaking into the ground, storm drains, and catch basins.
2. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.
3. Monitor on-site vehicles for leaks. Use drip pans used where there are leaks and repair the leaky equipment as soon as possible. Drain drip pans containing oil into waste oil drums on a regular basis. City Representative may require contractor to remove equipment that continues to leak despite maintenance.
4. Ensure safety of vehicles operating in roadway(s) adjacent to erosion control facilities.

E. Vehicle Tracking and Dust Control

1. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.
2. Stabilize all entrances/exits to prevent the tracking of soils and sediment from leaving the construction site. BMPs may include installation of a rock pad or a construction mud mat, which shall be designed to support the heaviest and widest equipment entering the project site. Anchor mud mats to the adjacent surface. Size length of rock pads 15 meters minimum or four times the circumference of the largest construction vehicle tire, whichever is greater. Use crushed aggregate that is greater than 3 inches but smaller than 6 inches and provide an 8" minimum thickness for the full width of the entrance/exit. Replace aggregate when it becomes worn and is no longer effective.
3. Grade construction entrances/exits to prevent runoff from leaving the site. Direct all runoff from the access through a sediment-trapping device prior to discharge.
4. Stabilize construction roadways. Provide a surface cover, i.e., gravel, for roadways exceeding 15 percent slope.
5. Remove sediment and any other materials that have been spilled, washed, tracked, or otherwise deposited on roadways daily. Use only wet vacuum sweepers.
6. As decided by the Contractor or where mud mats and rock pads are deemed inadequate by the City Representative (e.g., regular and significant sediment deposition off site), additionally install a tire wash.
7. Dust Control: Employ construction methods and means that will keep airborne dust to the minimum to prevent track out. These may include but not be limited to spraying with a water truck, covering stockpiles, and applying a cover to exposed soil areas (e.g., tackifier, mulch, gravel).

F. Erosion and Sediment Control BMPs

1. Temporary sediment barriers such as silt fences, berms, dikes, fiber rolls, gravel bags or straw bale barriers. Install these barriers at the locations

with potential erosion and to the limits shown on the approved ESCP and as otherwise directed by the City Representative. Relocate them as necessary for construction operations, with prior approval from the City Representative. Remove sediment from behind sediment controls no later than when the sediment accumulation reaches one-third (1/3) barrier height. Remove the temporary barriers at the end of the project.

2. Install and maintain silt dams (or check dams) on public streets to prevent sediments from flowing into storm drain inlets and public streets. Protect storm drain inlets by surrounding the inlets with BMPs such as fiber rolls or filters media, silt fence, and gravel bags, appropriate to the type of inlet and traffic and as approved by the City Representative.
3. Use erosion Control Blankets to control to stabilize disturbed and exposed soil, if weather warrants such blankets.
4. Install silt fencing at the foot of the slope of the slope around the entire perimeter of the stockpiled soil.
5. Install V-ditches and silt traps/sediment traps at the perimeter of the stockpile to collect runoff where necessary to allow flow to continue to storm drain inlets.
6. As part of the erosion control measures, complete installation of underground storm drain facilities as shown on the improvement plans where designed for this project.
7. Protect borrow areas and temporary stockpiles with appropriate erosion control measures to the satisfaction of the City Representative.
8. If existing driveway is removed during construction, place drain rock as a gravel roadway (8" minimum thickness for the full width and length of site egress area as defined in the ESCP or contract drawing) at the entrance of the site.
9. Prior to seeding, roughen/scarify and decompact soils to facilitate germination.

G. Dewatering

1. Conduct dewatering operations in a manner that removes sediment and other pollutants prior to discharge into the sewer system, such using dewatering tanks or sediment filter bags. Obtain a Batch Permit from SFPUC-WWE/CSD prior to dewatering to the sewer. See Section 31 23 19 – Dewatering.

## 1.09 SPILL PREVENTION AND RESPONSE PROCEDURES

A. Minimize the potential for spills of pollutants stored onsite. Minimize leaks and spills, and if observed or caused, clean them up immediately and institute preventive measures.

1. Be aware of potential spill areas and drainage routes in work area.

2. Keep containers closed at all times except when transferring contents. Keep materials, including paints, drill lubricants, oils, fuels, stucco, and other construction materials properly labeled, pursuant to manufacturer's recommendations, and in secondary containment.
3. Do not attempt to carry or move heavy containers of oil or hazardous materials.
4. Use funnels, pumps with closed hose systems, or other means to prevent spills while transferring material from large containers to small ones. Do not leave pumps in operation left on, unattended.
5. Store hazardous materials in a designated area that is away from vehicle/traffic areas.
6. Immediately notify the supervisor of any spill. It is the responsibility of Contractor's designated Safety Officer to direct the cleanup activities and contact necessary regulatory agencies. Post all necessary emergency telephone numbers at the construction site at a location accessible to all personnel.
7. Know the proper methods to clean up small spills in their work areas, and how spent cleanup material shall be managed and disposed of.
8. Contractor's designated qualified person shall record all steps taken to control spills in the daily inspection checklist.
9. Keep spill cleanup equipment readily available on site. Emergency response equipment includes absorbent socks, over pack drums, personal protective equipment, shovel, labels, valves, valve charts, valve wrenches to shut off water supply, etc.
10. Provide secondary containment for all hazardous materials while used at the work site. See Part 2 – Products below for acceptable secondary containment products. The height of the containment wall or dike shall be no less than 12 inches. Clear secondary containment of water, sediment, or other construction material prior to any forecast storm and after storms. If water is suspected of being contaminated (e.g., equipment has been leaking, there is an odor, stained soil or sheen), dispose the water/soil off-site as a hazardous waste.

## PART 2 – PRODUCTS

### 2.01 PRODUCT LIST

A. Store adequate quantities of BMP materials on-site at all times for installation as needed.

B. Silt fence: Geotextile fencing made of woven monofilament polyprylene geotextile material. Bury fence to a depth of 6 inches and extend no less than 36 inches above ground.

C. Fiber or sediment rolls shall be certified, weed-free and shall be free of plastic monofilament netting or mesh. Netting or mesh shall consist of natural/biodegradable fibers.

D. Manufactured berms for secondary containment such as ENPAC Snap Wall Containment Berm, the ENPAC® Stinger Berm™, the CONDOR Spill Containment Berm, the ULTRATECH Economy Model Berm, the BLACK DIAMOND Snap-Up Containment Berm or, contained as approved by the City Representative, equivalent constructed secondary containment with berms and lined with a material resistant to the properties of the hazardous material being used.

E. Keep hydrocarbon detection strips onsite to screen for presence of hydrocarbons in water such as or equivalent to those available at: https://www.ciagent.com/wastewater-dewatering-and-filtration/hydrocarbon-detection-strips-oil-testing/.

**PART 3 – EXECUTION (NOT USED)**

**END OF SECTION**