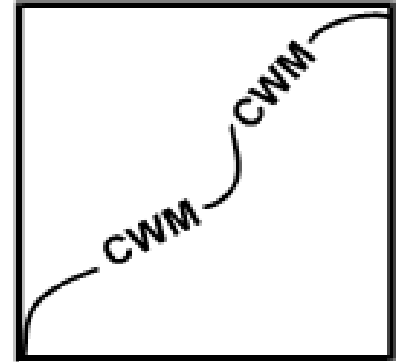


WM-9 CONCRETE WASTE MANAGEMENT

Refer to: ITD Standards and Specifications for Highway Construction, Section 720.01 and 502.03.

Refer to: ITD Standard Drawing P-5-B.



Standard Symbol

Definition and Purpose

These procedures and practices are designed to minimize or eliminate the discharge of concrete waste materials to the storm drain systems or to watercourses.

Appropriate Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete or mortar is used as a construction material or where concrete dust and debris result from demolition activities.
- Slurries containing portland cement concrete (PCC) or asphalt concrete (AC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition.
- Concrete trucks and other concrete-coated equipment are washed on-site.
- Where mortar-mixing stations exist.

Limitations

- Site conditions may constrain location of an appropriate washout area or areas.
- Cleanout areas must be routinely monitored, maintained, and emptied.

BMP Objectives	
<input type="checkbox"/>	Perimeter Control
<input type="checkbox"/>	Slope Protection
<input type="checkbox"/>	Borrow and Stockpiles
<input type="checkbox"/>	Drainage Areas
<input type="checkbox"/>	Sediment Trapping
<input checked="" type="checkbox"/>	Stream Protection
<input type="checkbox"/>	Temporary Stabilizing
<input type="checkbox"/>	Permanent Stabilizing

General Considerations

- Employees, subcontractors, and suppliers shall be educated on the concrete waste management techniques described herein.
- Designate areas to be used for concrete waste handling and to the extent practical conduct such activities only in these areas.
- The Contractor's WPCM shall oversee and enforce concrete waste management procedures.

Concrete Slurry Wastes

- PCC and AC slurry waste shall not be allowed to enter storm drains or watercourses.
- PCC and AC waste shall be collected and properly disposed of outside the highway right-of-way or placed in a temporary concrete washout facility. See also NS-3 (Paving and Grinding Operations)
- Disposal of hardened PCC and AC waste shall be in conformance with construction and domestic waste disposal requirements.
- A sign shall be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators and material testers to utilize the proper facilities.
- A foreman and/or construction supervisor shall monitor on-site concrete working tasks, such as saw cutting, coring, grinding, and grooving to ensure proper methods are implemented.
- Saw-cut PCC slurry shall not be allowed to enter storm drains or watercourses. See also NS-3 (Paving and Grinding Operations) and WM-11 (Liquid Waste Management). Residue from grinding operations shall be picked up by means of a vacuum attachment to the grinding machine. Saw cutting residue shall not be allowed to flow across the pavement and shall not be left on the surface of the pavement.
- Slurry residue shall be vacuumed, disposed in a temporary facility (as described in On-Site Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below), and allowed to dry. Dry slurry residue shall be disposed in accordance with WM-6 (Solid Waste Management).
- Residue from grooving and grinding operations shall be collected and disposed in accordance with the Standard Specifications.

On-Site Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures

- Temporary concrete washout facilities shall be located a minimum of 50 feet from storm drain inlets, open drainage facilities, and watercourses, unless determined infeasible by the Engineer. Each facility shall be located away from construction traffic or access areas to prevent disturbance or tracking.
- A sign shall be installed adjacent to each washout facility to inform concrete equipment operators and material testers to utilize the proper facilities.

- Temporary concrete washout facilities shall be constructed above grade or below grade at the option of the Contractor. Temporary concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Temporary washout facilities shall have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures. Multiple areas can be used to accommodate the predicted volume of waste.
- Washout of concrete mixer trucks shall be performed in designated areas only.
- Concrete shall be washed only from mixer truck chutes into an approved concrete washout facility.
- Excess concrete shall be pumped from concrete pump bin back into concrete mixer truck.
- Concrete washout from concrete pumper bins can be discharged into designated washout area.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete shall be broken up, removed, and disposed of per WM-6 (Solid Waste Management) or used as fill material as approved by the Engineer.

Temporary Concrete Washout Facility Type “Above Grade”

- Temporary concrete washout facility Type “Above Grade” shall be constructed, with a recommended minimum length and minimum width of 10 feet, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The length and width of a facility may be increased, at the Contractor’s expense, upon approval from the Engineer.
- Plastic lining material shall be a minimum of **10-millimeter** polyethylene sheeting and shall be free of holes, tears, or other defects that compromise the impermeability of the material.
- Refer to ITD Standard Drawing.

Temporary Concrete Washout Facility Type “Below Grade”

- Temporary concrete washout facility Type “Below Grade” shall be constructed, with a recommended minimum length and minimum width of 10 feet. The quantity and volume shall be sufficient to contain all liquid and concrete waste generated by washout operations. The length and width of a facility may be increased, at the Contractor’s expense, upon approval of the Engineer.
- Plastic lining material shall be a minimum of **10-millimeter** polyethylene sheeting and shall be free of holes, tears or other defects that compromise the impermeability of the material.
- The soil base shall be prepared free of rocks or other debris that may cause tears or holes in the plastic lining material.
- Refer to ITD Standard Drawing.

Removal of Temporary Concrete Washout Facilities

- Materials used to construct temporary concrete washout facilities shall become the property of the Contractor, shall be removed from the site of the work, and shall be disposed of as construction or domestic waste.
- Holes, depressions, or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled and repaired.

Maintenance and Inspection

Conduct inspections as required by the NPDES permit or contract specifications.