

Concrete Sawcutting Waste Management

DESCRIPTION

Sawcutting of concrete pavement is a routine practice, necessary to control shrinkage cracking immediately following placement of plastic concrete. It is also used to remove curb sections and pavement sections for pavement repairs, utility trenches, and driveways. Sawcutting for joints involves sawing a narrow, shallow groove in the concrete, while sawcutting for removals is usually done full depth through the slab. Water is used to control saw blade temperature and to flush the detritus from the sawed groove. The resulting slurry of process water and fine particles and high pH must be properly managed.

A number of water quality parameters can be affected by introduction of concrete fines. Concrete affects the pH of runoff, causing significant chemical changes in water bodies and harming aquatic life. Suspended solids in the form of saw fines are also generated from sawcutting operations.

DESIGN CRITERIA

Slurry Collection

- During saw cutting operations, the slurry and cuttings shall be continuously vacuumed to control the flow of water from the operations site.
- The slurry and cuttings shall not be allowed to drain to the storm drain system, swale, stream or other water body.
- The slurry and cuttings shall not be allowed to remain on the pavement to dry out.

Slurry Disposal

- Develop pre-determined, safe slurry disposal areas.
- Collected slurry and cuttings shall be discharged in an area protected by one or more sediment removal BMPs and shall be done in a manner that does not result in a violation of groundwater or surface water quality standards.
- Never dump waste illicitly or without property owner's knowledge and consent.
- Slurry may be disposed of in facilities designated for washdown of concrete trucks (see M-3, Concrete Waste Management).

MAINTENANCE

Project personnel should inspect the operations to assure that operators are diligent in controlling the water produced by the saw cutting activities. Following operations the pavement should be inspected to ensure that waste removal has been adequately performed.

Applications

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization

Waste Management

Housekeeping Practices

Targeted Constituents

- Sediment
- Nutrients Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Wastes

Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 5%

Legend

- Significant Impact
- Medium Impact
- Low Impact
- ? Unknown or Questionable Impact

M-4



North Central Texas
Council of Governments