

CITY OF KIRKLAND
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DEPARTMENT OF PUBLIC WORKS
PRE-APPROVED PLANS POLICY

Policy D-16: RECYCLED CONCRETE AND CEMENT TREATMENT USE WITHIN CITY LIMITS

Recycled Concrete:

Recycled concrete is not allowed within the City of Kirkland. See special provisions for capital improvement projects.

Cement Treatment:

Soil amendments are sometimes used to stabilize construction sites in order to stabilize the ground for building. The applicant may apply for use of soil amendments allowed under this policy. Additional conditions may vary from site to site, but the conditions below must be followed.

Soil Amendment Conditions:

- 1) Fly ash or kiln dust are not allowed within the City of Kirkland. Only Portland Cement Type II (cement treatment) as the soil amendment additive is allowed.
- 2) Cement treatment is only allowed under impervious areas and under the following types of impervious areas:
 - a. Within the City right-of-way, cement treatment is only allowed under the road prism.
 - b. Shared access private driveways
 - c. Commercial properties
- 3) Cement treatment is not allowed within the buffer of a wetland, stream or lake.
- 4) If cement treatment is placed near low impact development (LID), a geotechnical engineer shall be on site to verify permeability of soil

Conditions for Implementation of Soil Amendment:

- 1) The contractor shall hold a preconstruction meeting with the assigned inspector to discuss potential application of cement treatment.
- 2) The application rate shall be determined by the geotechnical engineer. The geotechnical engineer must be present during application.
- 3) Cement treatment shall not be mixed or placed while the temperature is at or below 40 degrees or while raining.
- 4) The contractor shall be prepared to implement dust control, as needed, to prevent fugitive dust during the treatment process.

- 5) Cement treatment to be placed in a uniform layer over the subgrade by the use of an approved, large-wheeled, mechanical spreader capable of measure the rate of cement application
- 6) Cement treatment will be mixed in to the top 12 inches or as recommended by geotechnical engineer using skirted rototilling equipment.
- 7) Treated areas to be regraded and compacted within 1 hour of application.
- 8) Treated area should be left undisturbed for at least 24 hours after compaction. After 24 hours, the treated subgrade shall be proof rolled. The proof roll shall be conducted under observation of the geotechnical engineer.
- 9) In the event the treated areas degrade due to equipment traffic or do not pass the proof roll test, the areas should be re-excavated and import shall be used to meet compaction requirements.

The following erosion control BMPs must be in place until the cement treated base is covered with an impervious surface:

- 1) Stormwater from the application area shall be kept separate from uncontaminated stormwater
- 2) During application, stormwater runoff shall be collected in a permanent system that is not connected to the City storm system (Capping storm is not allowed. Temporary collection systems may be required). Ponds are not an allowable method to store runoff from the cement treatment area.
- 3) Stormwater runoff shall be disposed to either sanitary sewer (must obtain a King County Industrial Waste Water Permit) or transported offsite to an approved site.
- 4) An emergency backup plan must be prepared and ready to implement to handle large quantities of stormwater sized for the developed condition 10-year peak discharge using the approved model with 15-minute time steps as computed in the hydrologic analysis.