



## Legislation Text

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**File #:** 18427, **Version:** 1

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### **Title**

Monitoring Plan for Effectiveness of Pervious Pavement.

### **Body**

MONITORING PLAN FOR EFFECTIVENESS OF PERVIOUS PAVEMENT

### DESCRIPTION

The intent of the monitoring plan for the pervious pavement is threefold. The first expectation is that the pavement system will, in fact infiltrate stormwater runoff. The Second expectation is that the water being infiltrated will be reasonably free of pollutants. The third is the durability of the pavement structure as a whole. Testing these expectations, both reasonably and inexpensively is somewhat challenging. A proposed approach is delineated below:

#### Infiltration

To test the efficacy of the infiltration system being constructed, City Engineering shall estimate the volume of storage available in the system, the size rain needed to generate sufficient runoff to fill the storage system to an elevation where the under drain system would be activated. Once these estimates have been made the City shall, after a rain event that is smaller than that needed to activate the under drain, visit the site and note flow through the under drain system. Should flow be found, a sample of the discharge to the under drain shall be taken. This practice shall be completed a minimum of three (3) times per season for 2 years after completion of construction of the project (monitoring is expected during summers of 2011 and 2012).

Further, if no flow is noted during the three (3) site visits noted above, then the site shall be visited during three (3) additional storm events when the capacity of the infiltration system should be exceeded and samples shall be taken from the under drain.

#### Pollutants

To test the quality of the water reaching the under drain system (which will not be the same but will be similar to that being infiltrated), a minimum of three samples per year shall be taken from the under drain system and shall be tested for heavy metals, oil & grease, Nitrogen (NO<sup>2</sup>, NO<sup>3</sup>, NH<sup>3</sup>, and TKN), Phosphorous and, 2-4 -D.

#### Pavement Structure

City Engineering staff will rate the pavement annually and compare the deterioration of the pavement to other similar concrete pavements and determine if the pervious pavement degrades at a similar rate to standard concrete pavement.

#### Report

A report on this pavement shall be drafted at the completion of two years of monitoring and presented to the City Engineer.