



URBAN DRAINAGE AND FLOOD CONTROL DISTRICT

Paul A. Hindman, Executive Director
2480 W. 26th Avenue, Suite 156B
Denver, CO 80211-5304

Telephone 303-455-6277
Fax 303-455-7880
www.udfcd.org

MEMORANDUM

FROM: Ken A. MacKenzie, PE, CFM
Manager, Master Planning Program

SUBJECT: UDFCD position on the use of pervious concrete pavement

DATE: January 10, 2013

In June 2008 UDFCD called for a moratorium on pervious concrete pavement due to widespread surface raveling problems with this best management practice (BMP). Since that time we collaborated with the Colorado Ready Mixed Concrete Association (CRMCA) and others to develop a guidance document titled *The Specifier's Guide for Pervious Concrete Pavement Design*, which we believed would minimize, and hopefully prevent future failures. In 2010, The National Renewable Energy Laboratory (NREL) constructed a pervious concrete demonstration pad at its research laboratory in Golden, Colorado, to the new specifications and under the supervision of CRMCA. After only two years in service, the surface of this pervious concrete has heavily deteriorated. This, combined with several other premature failures and very few successes in Colorado, indicates to us that, until significant advances are made in pervious concrete composition, mixing and placing, successful implementation of this BMP is highly unlikely even under tight controls and ideal conditions.

For this reason, UDFCD does not at this time recommend the use of pervious concrete pavement as a sustainable stormwater quality best management practice in Colorado and we have removed it from the *Urban Storm Drainage Criteria Manual Volume 3: Best Management Practices (USDCMV3)*.



Golden, CO: The National Renewable Energy Laboratory's pervious concrete demonstration pad two years after construction. Note the large quantity of concrete surface aggregate in the gutter section.

This memorandum applies only to pervious concrete pavement. UDFCD continues to monitor and to recommend the use of other permeable pavement technologies found in the USDCMV3 such as permeable interlocking concrete pavement (PICP), concrete grid pavement, porous gravel pavement, and reinforced grass pavement. UDFCD will continue to monitor advances in pervious concrete composition, mixing and placing, and will update this position as appropriate.