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Workshop sponsored by the:

***Cement and Concrete Products  
Industry of Hawaii***

*and the*

***Hawaii Local Technical Assistance  
Program***

*in cooperation with the*

*Hawaii State Department of Transportation,*

*University of Hawaii's Department of Civil &*

*Environmental Engineering*

*and the Federal Highway Administration*

# Cement-Based Applications for Pavements

East-West Center, Jefferson Hall,

Asia Room

1777 East West Road

Honolulu, Hawaii

**January 30, 2008**

**8:30 a.m. – 4:30 p.m.**

## Registration Procedure

- 1) Please contact Gail Ikeda at 808-956-8367, 808-956-8851 (FAX) or [gail@eng.hawaii.edu](mailto:gail@eng.hawaii.edu) by **Wednesday, January 16, 2008**.
- 2) Attendance is limited to 60 participants, and preference is given to local government employees.

## Parking

East-West Center parking passes are available at \$4/day. If you would like a parking pass please contact us by January 16, 2008. Payment can be made via Check – payable to the Research Corporation of the University of Hawaii (RCUH), Purchase Order, Credit Card (Visa, MasterCard, Discover & American Express) or Purchasing Card.

## Cancellations

Please contact us if you are unable to attend or if someone will be substituting for you. Refunds for parking passes will be made if they are returned prior to the workshop date.



*Registration begins at 8:00 a.m.  
Boxed lunch will be provided courtesy of  
CCPI*

**Hawaii Local Technical Assistance Program**  
University of Hawaii at Manoa  
Department of Civil & Environmental Engineering  
2540 Dole Street, Holmes Hall #383  
Honolulu, Hawaii 96822



**Course Description:**

In this workshop, you will learn how Portland cement can be used to improve subgrade soils, to strengthen pavement bases, to serve as an effective material for backfill, and to recycle worn out flexible pavements in order to create environmentally friendly pavements. Many innovative solutions to Public Works challenges will be discussed. Important information will be presented on cement-based applications for pavements including cement-modified soil, cement-treated base, full-depth reclamation, flowable fill, ultra-thin white topping, pervious concrete, and roller-compacted concrete pavements. Topic will include applications, benefits, design, materials engineering, construction, testing, and performance of these pavements.

**Who Should Attend:**

This course should be of interest to county engineers, city engineers, Public Works officials, DOT personnel, contractors, consultants, and all those who work with soils/aggregates and pavements.

**Course Agenda:**

<u>Time</u>	<u>Topic and Speaker</u>
8:30 AM	<i>Welcome and Introductions</i> <ul style="list-style-type: none"> <li>Greg Halsted, Portland Cement Association (PCA)</li> </ul>
8:45 AM	<i>Cement-Modified Soils (CMS)</i> <ul style="list-style-type: none"> <li>Greg Halsted, PCA</li> </ul>
9:45 AM	<i>Flowable Fill Applications in Hawaii</i> <ul style="list-style-type: none"> <li>CCPI of Hawaii</li> </ul>
10:15 AM	BREAK
10:30 AM	<i>Cement-Treated Base (CTB)</i> <ul style="list-style-type: none"> <li>Greg Halsted, PCA</li> </ul>
11:30 AM	<i>Analysis of Cement-Treated Base with Local Conditions</i> <ul style="list-style-type: none"> <li>Brandon Hee, Hawaii DOT</li> </ul>
12:00 PM	LUNCH
1:00 PM	<i>Full-Depth Reclamation (FDR)</i> <ul style="list-style-type: none"> <li>Greg Halsted, PCA</li> </ul>
2:00 PM	<i>Hawaii DOT Projects with Ultra-Thin White Topping</i> <ul style="list-style-type: none"> <li>Brandon Hee, Hawaii DOT</li> </ul>
2:30 PM	BREAK
2:45 PM	<i>Roller-Compacted Concrete (RCC)</i> <ul style="list-style-type: none"> <li>Greg Halsted, PCA</li> </ul>
3:45 PM	<i>Pervious Concrete Pavement for Stormwater BMP</i> <ul style="list-style-type: none"> <li>CCPI of Hawaii</li> </ul>
4:15 PM	<i>Questions and Wrap-up</i> <ul style="list-style-type: none"> <li>Greg Halsted, PCA</li> </ul>
4:30 PM	ADJOURN

**Speakers:****Greg Halsted**

Greg Halsted, P.E., is the Program Manager for Soil-Cement and Roller-Compacted Concrete Pavements for the Portland Cement Association. He has 23 years of pavement experience including material and thickness design, construction and testing protocols, field technical services assistance, and promotion of engineered soil/aggregate pavement products. He works across the United States and Canada and has authored numerous articles, engineering bulletins, information sheets, and project profiles related to the use of portland cement in pavement applications.

**Brandon Hee**

Mr. Brandon H. Hee, P.E. has obtained his Masters (1995) and Bachelors (1991) degree from UH specializing in Geotechnical Engineering. Since then, Mr. Hee has worked at various consulting firms from 1991 till joining HDOT in 2004. Currently Mr. Hee is the Geotechnical Unit Head of the HDOT Highways Division. Mr. Hee's experience includes pavement design, ground improvement, foundation design, slope stability analysis and stabilization, and rockfall remediation.