**Determination of the Installed Length of Sheetpile Sections using Nondestructive Testing**

**James J. Lynch, PhD, P.E.**  
Assistant Prof., Department of Civil, Arch., & Env. Eng.  
University of Detroit Mercy, Detroit, MI

Wednesday January 19, 2011  
4:30 – 5:30

CEE Conference Room ~ 2355 GG Brown Lab

As the City of Detroit transforms from a town of heavy industry that relies heavily on shipping, the use of the water front has been changing. A recent project related to this transformation is the construction of the Detroit Riverwalk between the Renaissance Center and the Belle Isle Bridge. One of the properties located along the proposed Detroit Riverwalk is the former Cemex Portland Cement Factory. This property will be redeveloped to include the construction of a pedestrian path along the river.

The boundary between the former Cemex Portland Cement Factory property and the Detroit River includes a seawall consisting of a Tied-back Sheetpile Wall using a Deadman to anchor the Tie-backs.

The construction of the proposed pedestrian path will increase the loads acting on the existing seawall, which requires the analysis of the seawall to determine both its geotechnical and structural adequacy. Inputs required to analyze the seawall capacity include the depth of the wall below the dredge line; however, the original design drawings are not available.

This presentation illustrates the use of the Sonic Echo method of nondestructive testing to determine the length of installed sheetpile sections on the above-referenced project.

****** Everyone is invited – refreshments will be served ******