

State of Wisconsin/Department of Transportation
 RESEARCH PROGRESS REPORT FOR THE QUARTER ENDING: June 30, 2008

Program: SPR-0010(36) FFY99		Part: II Research and Development	
Project Title: Development of Full Scale Testing of an Alternative Foundation System for Post and Panel Retaining Walls		Project ID: 0092-07-06	
Administrative Contact: Nikki Hatch		Sponsor: Wisconsin Department of Transportation	
WisDOT Technical Contact: Mr. Robert Arndorfer		Approved Starting Date: 10/01/06	
Approved by COR/Steering Committee: \$79,998		Original End Date: 10/01/08	
Project Investigator (agency & contact): Sam Helwany		Current End Date:	
		Number of Extensions:	

Percent Complete: 40%

Request a No Cost Time Extension (Please Select One): YES NO

Reason for No Cost Time Extension:

Project Description: Development and full-scale testing of an alternative foundation system for post and panel retaining walls

Progress This Quarter:

A location has been selected for the field tests (near the Port Authority building in Milwaukee). The location has been agreed upon by the chairman of the project oversight committee. For site exploration, three borings in that location will be carried out in the last week of July. The intent is to perform the field tests during this summer (2008).

Work is still ongoing on the design charts for the alternative “steel plate” system for various types of cohesive and cohesionless soils. Soil parameters are derived from SPT and used in a numerical code to calculate displacements caused by lateral loads. Some unanticipated difficulties in obtaining good field tests with sufficient soil data from the literature have been encountered. Limited tests have been found and the team is calibrating the numerical model against those. The numerical model is used to establish the design charts.

Work Next Quarter:

Continue finite element parametric analysis to establish design charts for the alternative steel plate system.

Field tests will be carried out this quarter. We will provide detailed schematics for the field tests to be carried out in the summer 2008. A testing plan and procedure will be discussed with the advisory panel and Edward E. Gillen Company. This includes exploratory borings, borings for

the concrete shaft, installation of inclinometer casings, installing strain gages and other instruments before pouring the concrete, loading mechanism, and loading schedule.

Circumstances Affecting Progress/Budget:

None

Gantt Chart: