

# ISM - International Workshop on Micropiles May 6, 2006



## Report on Field Day by Kerry Allen

## **What was the ADSC Geo<sup>3</sup> Conference all about?**

- **Held November 6-9, 2005 in the Dallas / Fort Worth Texas area**
- **Combination of the three foundation technologies (Drilled Shaft, Anchored Earth Retention and Micropile) represented by the ADSC and it's members into a “one stop shop” conference**
- **Papers and presentations focused on Quality Assurance / Quality Control and Verification Testing**
- **Keynote addresses for each – Micropile Keynote delivered by Dr. Roger Frank**
- **Compilation of Papers submitted to create a 600 page Proceedings made available to all attendees and non-attendees in CD or in bound format**
- **Exhibition of industry suppliers of products, equipment and services**
- **Demonstration Day designed to compliment the technical presentations**

# **It seemed so simple when I volunteered...**

- **Original concept was a series of demonstrations at a site close to the host hotel**
- **Scope of the Field Day expanded over time into something much larger**
- **Pre-installation of full scale drilled shafts, micropiles, construction of a mock beam and lagging retaining wall with tiebacks and a mock soil nail wall**
- **Pre-conference load testing of all preinstalled foundation elements**
- **Live Materials testing demonstrations**
- **Creation of a full replacement indoor program in case of inclement weather**
- **Drilled shaft, Micropile and Earth Retention demonstrations**
- **Live drilling area with drilled shaft and micropile installation demonstrations**



































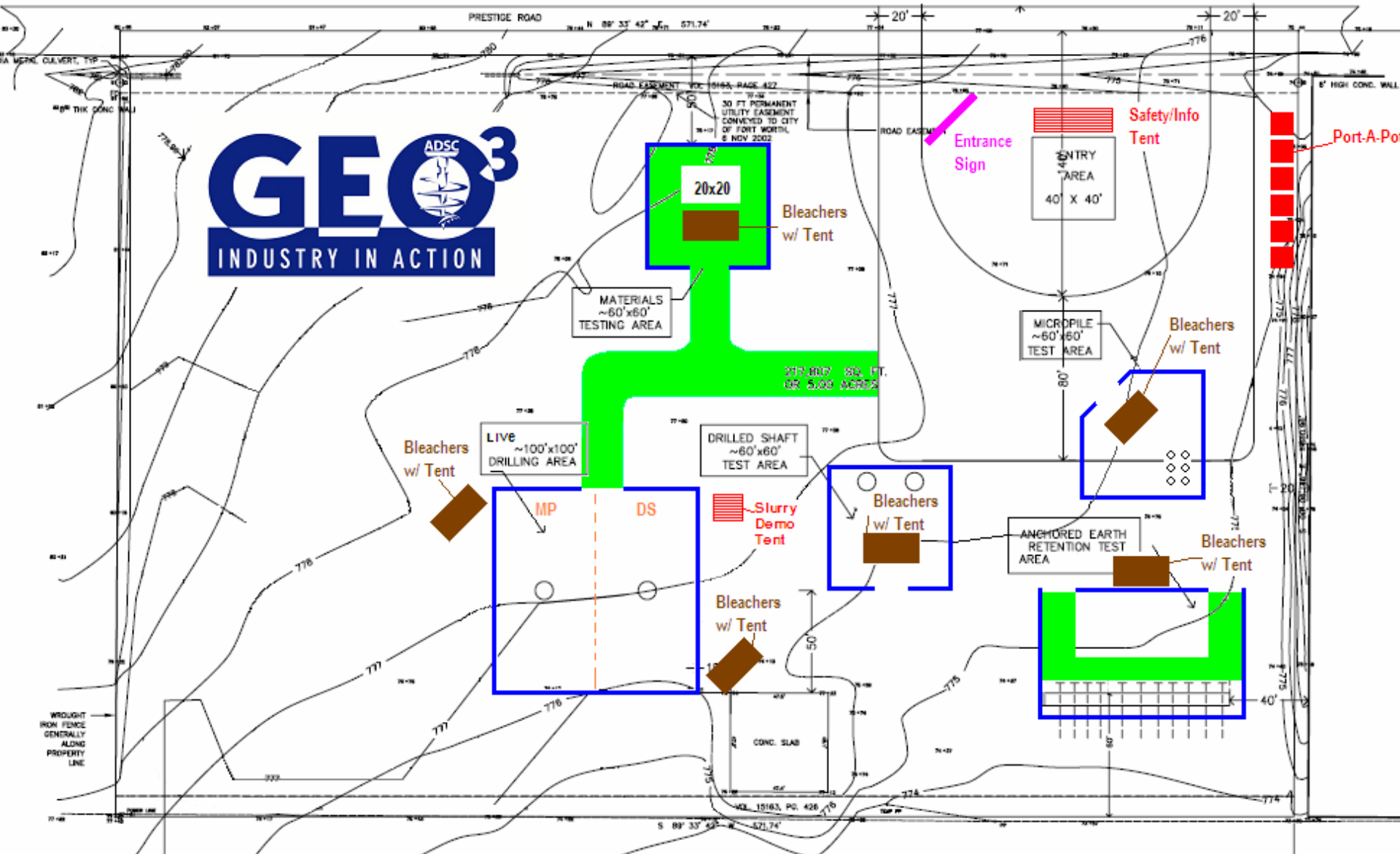








# FIELD DAY SITE PLAN



## FIELD DAY PROGRAM HIGHLIGHTS

### DRILLED SHAFT:

- O-Cell Testing demonstration
- Cross-hole Sonic Logging Demonstration
- Bottom Cleaning of a Shaft<sup>+</sup>
- Drilling Fluid Sampling and Testing<sup>+</sup>
- Depth Sounding<sup>+</sup>
- Shaft Tolerance Issues<sup>+</sup>
- Reinforcing Cage Placement<sup>+</sup>
- Concrete Tremie Discussion<sup>+</sup>
- Safety Issues

### ANCHORED EARTH RETENTION:

- Anchor Fabrication Issues
- Anchor installation Issues
- Testing Equipment Discussion
- Proof Testing Demonstration
- Performance Testing Demonstration
- Creep Testing Discussion
- Soil Nail Testing Demonstration
- Soil Nail Wall Construction Issues
- Safety Issues

### MICROPILE:

- Compression Test Set Up and Procedures
- Tension Test Set Up and Procedures
- Lateral Load Test Set Up and Procedures
- Reinforcing and Casing Placement<sup>+</sup>
- Grout Placement Issues<sup>+</sup>
- Drilling Procedure Demonstration<sup>+</sup>
- Safety Issues<sup>+</sup>

### MATERIALS TESTING:

- C39 Compressive Strength of Concrete Cylinders
- C109 Compressive Strength of Grout Cubes
- C143 Slump of Concrete
- C191 Time of Setting of Hydraulic Cement by Vicat Needle
- C939 Flow of Grout for Concrete
- C940 Expansion and Bleeding of Grout
- C942 Compressive Strength of Grouts in Lab
- C953 Setting Time for Grouts





**Let's watch a brief DVD recap of the big day.....**

# What's left to do?

- **Much video footage to be used to create training and education tools for future use. Work ongoing in ADSC committees**
- **Hundreds of digital photos taken and collected during installation, pre-testing and during the demonstration day to be cataloged and supplied to members for use in schools and seminars**

## HOW MUCH DID IT COST?

**Total cost of the Field Day - \$412,400.00**

**Expenditures budgeted for - \$75,000.00**

**Actual cash expenses - \$28,750.00**

**Dollar value of member contributions – \$383,650**

# Outstanding support from the industry

- **Hayward Baker**
- **Texas Shafts**
- **Kleinfelder**
- **Loadtest**
- **Olson Engineering**
- **DSI-Lang Geotech**
- **Con-Tech Systems**
- **Williams Form Engineering**
- **Skyline Steel**
- **Terracon**
- **Schnabel Engineering**
- **Richard Goettle**
- **ADSC Committes**
- **ADSC Staff**