

## PREPARING FOR PRESSUREMETER TESTING

A successful pressuremeter test relies upon proper preparation of the borehole. Typically, a single borehole will need to be two different diameters; a larger diameter from the ground surface down to just above the test depth, and then a smaller diameter of at least 5 feet in length in which to perform the pressuremeter test (herein referred to as the “Pressuremeter Test Zone”). AWJ or NWJ drill rods are required to attach to and lower the pressuremeter probe assembly into the borehole. Additionally, the borehole must be full of water or drilling fluid for any test greater than 30 feet deep. The required dimensions and preferred drilling methods are described below.

DRILLING REQUIREMENTS	Pressuremeter Test Zone	Remainder of Borehole
<b>Diameter</b>	2-15/16 inches	At least 3-3/8 inches
<b>Length</b>	At least 5 feet. However, over drilling by 3 to 5 feet is preferred in weak soils to establish a bottom discharge of drilling mud to reduce borehole disturbance during drilling.	The entire borehole length from the top of the Pressuremeter Test Zone to the ground surface should be oversized (at least 3-3/8 inches) and cased if necessary.
<b>Preferred Drilling Methods</b>	Mud rotary with axial fluid injection. Depending on soil conditions, either a tri-cone roller bit or a 3-wing drag bit should be used. The mixture of drilling mud will also be dependent on soil conditions; ranging from water only in clays to very thick mud in loose sands.	<ul style="list-style-type: none"> <li>▪ Hollow-stem augers</li> <li>▪ Mud rotary with advanced casing if necessary</li> <li>▪ Solid flight auger (only if no risk of caving)</li> </ul>
<b>Additional Drilling Methods</b>	In certain bedrock formations, N-sized rock coring may be acceptable. In soft clay soils, the advancement of thin-wall samplers (multiple, consecutive) may be acceptable.	
<b>Connections</b>	The pressuremeter probe assembly has AWJ or NWJ box (female) thread connections that must attach to the drill string to be lowered down the hole. AWJ and NWJ drill rods are common in the industry. However, if they are not used by your subcontractor, a crossover sub must be provided to AWJ or NWJ threads.	
<b>Rotary Bits</b>	If your subcontractor does not have or cannot obtain the appropriate sized rotary bit, we can provide either a tri-cone roller bit or a 3-wing drag bit of the appropriate size for the Pressuremeter Test Zone.	