

Tech Note - 36

Geotextile Dewatering Tube Installation Procedures

Dewatering Site or Cell

A. Grade Preparation: Areas in which dewatering tubes are to be placed shall be prepared according to the lines and grades shown on the Drawings. Where such areas are below the allowable grades, they shall be brought to grade. All obstructions that could damage the geotextile dewatering tubes, such as roots and projecting stones, shall be removed. The finished site surface should be designed with a level grade 0% slope across the width of the dewatering tubes and a maximum slope not to exceed 1.0% in the overall length direction of the tube. Underneath the tubes, a drainage system such as an aggregate system (or a three-dimensional filtration fabric) on a sloped cover that drains to a sump or “flume” feeding into a ditch system around the perimeter to allow the filtrate to flow unobstructed. The perimeter of the dewatering cell will be constructed using geotextile dike containment tubes.

B. Membrane: The site must have an impervious membrane placed on the prepared surface to underlay the entire dewatering tube cell and to cover the inside slope of the perimeter containment dike.

C. Drainage: On top of the membrane and under the dewatering tubes (also when stacking), a drainage medium is encouraged as described in paragraph A. Acceptable materials would be a commercially available drainage net composite or a minimum of 4 inches of washed free draining aggregate. If used, the three-dimensional drainage net composite shall be installed prior to placement of the dewatering tubes and may be installed in between each tier (layer).

D. Stacking: Should the stacking of tubes be deemed necessary in the dewatering or perimeter dike tubes, prior to placing each tier (layer) of tubes, the ENGINEER or the manufacturer’s on-staff engineer (the later having a minimum of 2 years of experience in geotextile tubes) shall be consulted and no tubes shall be placed thereon until the area has been by one of these parties.

