Proper Installation of Temporary Water-Filled Attenuators

When using temporary water-filled attenuators to protect the end of a temporary concrete barrier (TCB), attention needs to be paid to their proper installation. The attenuators are used in scenarios laid out in MDOT’s Standard Plan R-126-F, Details 2, 4 and 5. As shown in the details, the attenuator must be placed parallel to the traffic, regardless of the angle of the TCB.

The two manufacturers of water-filled attenuators used in Michigan, Energy Absorption Systems (Triton CET) and Barrier Systems (Absorb 350) have an additional step to ensure the device will perform as designed. The Triton CET and Absorb 350 require a minimum 20-foot segment of TCB to be flush to its connection and parallel to both the attenuator and the traffic. This may require adding a segment of TCB to maintain proper offset, as detailed in Standard Plan R-126-F.

The flush connection and parallel segment of TCB can be waived for the Absorb 350 if an adapter plate connection is used to transition the angle (1:6 minimum flare) between the TCB and the attenuator placed parallel to the traffic.

Please share this information with consultants and local agencies in your area.