

<b>Presenter</b>	Thomas Graupensperger GTS Technologies, Inc.
<b>Type</b>	oral presentation
<b>Category</b>	<b>Policy and Regulation Changes</b>
<b>Title</b>	<i>Stream Diversions And In-Stream Construction</i>
<b>Abstract</b>	<p>GTS Technologies, Inc. (GTS) has designed, permitted, and monitored the construction of cross-vanes, j-hooks, and bank stabilization measures at numerous bridge replacement sites. Some of these structures were constructed during stream diversions, while many were constructed in the “wet” or in-live streams. Several larger projects included complete stream restoration, stream daylighting and channel reconstruction and bank stabilization during stream diversion.</p> <p>Stream diversion variables include pump-arounds and temporary diversion channels, as well as site-specific soil variables for erosion and sediment pollution control. In-channel vane construction and bank stabilization for bridge or channel reconstruction variables include: sequencing issues, access and staging concerns and conflicts, temporary crossing considerations. These constructability issues, when evaluated collectively, typically point to a preferred or required method of construction. In all cases, review of the site-specific and primary project variables or staging requirements must be considered. Cross-vane and j-hook structure adjustments are always provided to allow for quick fixes or “tweaks” to assure long-term performance and minimize future maintenance.</p> <p>Following is a list of projects that will be compared and contrasted to exemplify the discussion:</p> <p>Stream Relocations, Daylighting, Restorations: Lebanon Valley College, Quittapahilla Creek, Lebanon County; Hershey Center for Applied Research, Mill Run Trib., Dauphin County; S.R. 0202-300 Valley Creek, Chester County; S.R. 2001, Saw Creek, Pike County; S.R. 1010, Little Lehigh Tributary.</p> <p>Bridge Vanes: Books Covered Bridge, Perry County; County Bridge No. 20, South Branch of Towanda Creek, Bradford County; S.R. 2075, Muddy Creek, York County; S.R. 1035, Hammer Creek, Lancaster County; S.R. 3041, Codorus Creek, and S.R. 2001, Kreutz Creek, York County; T-345 over West Creek, Cameron County; S.R. 1045, East Cocalico Creek, Ephrata Borough.</p>