

**Vector™**  
**Galvanode® DAS**  
**Project History**

**Ohio Department of Transportation**  
**I-75 Slab Bridge Abutments**

- Structure:** I-75 Slab Bridge Abutments
- Location:** Sidney, Ohio  
USA
- Client:** Ohio Department of Transportation
- Contractor:** Complete General



Galvanic anode system on bridge abutment prior to encasement in reinforced concrete overlay

**Project Description:**

During the summer of 2005, Vector Corrosion Technologies, Inc. supplied and monitored Galvanode DAS anodes for ODOT bridge maintenance contract SHE-75-I.52. The project involved approach slab joint replacement, repair and protection of a total of ten bridge abutments on I-75 near Sidney, Ohio.

ODOT District 7 developed the repair scheme for this project in an attempt to improve the service life of slab bridge abutment repairs. The typical repair cycle for chip and patch repairs is between 4 and 7 years. A contributing factor in the short-lived repairs is that chloride ions from deicing salt has contaminated the abutments from the bridge deck joint leading to a constant repair cycle. District 7 decided to repair and reface the abutments with added galvanic protection to extend the time between maintenance repairs.

**Project Solution:**

In order to significantly extend the life of the repair, Galvanode DAS anodes were incorporated into the design with the expectation that the anodes will extend the life of the repair to at least 15 years. Vector supplied installation training for the contractor, and installed monitoring stations. After one year of monitoring, the Galvanode DAS system was exceeding industry accepted cathodic protection criteria and the anode life calculated from the set of monitored anodes was approximately 20 years, exceeding the specified service life expectations of the structure.

14300 - 2008Jun26

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Patents: US 6165346, 6572760, 7226532, 7726144 and other US and International patents pending.  
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