



- Post-Tensioning Systems
- DSI Product Overview
- Strand Post-Tensioning System
- Monostrand PT System
- Bar Post-Tensioning System
- Structural Repair Solutions
- Methods
- Special Products
- References
- DYNA® Force Elasto-Magnetic Sensor

- Downloads [read more ...](#)
- Brochure DYWIDAG Post-Tensioning Systems, Filesize:1.8 MB
  - Brochure Repair and Strengthening, Filesize:574 kB
  - Brochure What is Post-Tensioning, Filesize:17.6 kB
  - Brochure ASBI Grouting Practices, Filesize:67 kB

- References [read more ...](#)
- New Grand-Mère Generating Station, Canada
  - SAR Transit Skytrain, Vancouver, BC, Canada

Convert Technical Units



## Repair & Strengthening

### References



#### Repair of the Trent Street Bridge, Spokane, WA

Washington Department of Transportation

DSI performed an NDT inspection using Ground Penetrating Radar to detect post-tensioning ducts and steel reinforcement as well as an Impact Echo Scanner to detect voids in the grouted ducts.

Videoscope inspections were carried out to assess the condition of the post-tensioning strands. The volume of voids inside the ducts was measured with state-of-the-art equipment capable of compensating for air leaks. The grouting remediation of the post-tensioned tendons in web b was performed using vacuum grouting.

**i DSI Services** Inspection: NDT (GPR and Impact Echo), Special drills with shut-off capabilities when in contact with metal, Videoscope and Void volume measurement with air leak compensation capabilities / Repair: Vacuum Grouting



#### Mid Bay Bridge, Destin, FL

Mid Bay Bridge Authority

Inspection at anchorage areas of external tendons of the bridge and vacuum grouting of voids.

**i DSI Services** Inspection and Measurement of the Volume of Voids / Repair: Vacuum injected more than 700 voids Engineering: Assisted in preparing procedures for detensioning and replacement of 11 external tendons



#### C & D Canal Bridge, SR1 over Chesapeake & Delaware Canal, St. Georges, New Castle Co., Delaware

Delaware Department of Transportation

**i DSI Services** NDT inspection, by videoscope, of 18 cable stay guide pipes at the stays and NDT, limited invasive inspection and vacuum grouting of the anchorages of the external P.T. tendons in the bridge.



#### I-88 & I-355 Interchange, Downer Grove, IL

The Illinois State Toll Highway Authority

Overall inspection of the post-tensioning tendons of 4 segmental ramps. Inspection included both tendons in the superstructure as well as in the substructure. DSI planned and performed NDT and limited invasive inspection in a selected sample of the post-tensioning tendon population of these ramps and assessed the condition of those elements of the structure (i.e. condition of the prestressing steel and grout).

**i DSI Services** Preparation and implementation of the inspection plan. Inspection included the use of GPR, IE, vibration testing of external tendons, drillings, videoscope, volume measurement of the voids found inside the ducts and report preparation



Subject to modification.