



## Replacement of the West Nursery Road Bridges over MD 295 (Baltimore-Washington Parkway)

May - November 2012

### **SPMTs - Making the Move**

How self-propelled modular transporters (SPMTs) will remove the existing West Nursery Road bridges

- Step 1** SPMTs are assembled in the construction staging area (MD 295 median). Two lines of 18 axles each are linked together and controlled by a single remote control power pack unit. Lattice/jacks are placed atop the SPMT assembly.
- Step 2** The SPMT assembly is guided down MD 295 and positioned under the first West Nursery Road bridge to be removed.
- Step 3** The SPMT assembly is raised to meet the existing bridge. The bridge is secured to the SPMT assembly.
- Step 4** The final bridge retaining bolts are removed. (Most of the bridge removal preparation has been accomplished prior to placement of the SPMTs.)
- Step 5** The old bridge is lifted from its anchor points, driven to the median staging area and placed on temporary supports for demolition.

*See reverse for installation steps*



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### **SPMTs - Making the Move**

How self-propelled modular transporters (SPMTs) will install the new West Nursery Road bridges

- Step 1** The SPMT assembly is positioned under the new bridge in the median staging area.
- Step 2** The operator raises the SPMT hydraulic assembly to meet the new bridge. The bridge is secured to the SPMT using tie-down straps.
- Step 3** The operator guides the SPMT out of the staging area, onto MD 295 and down to the West Nursery Road interchange. Sensors on the bridge monitor movement and changes in terrain and provide constant feedback to the remote control unit. Adjustments are made automatically to keep the bridge at a constant elevation all the way to the interchange area.
- Step 4** The new bridge is positioned at the interchange, carefully lowered into place and fastened to the anchor points. Tie-down straps are removed.
- Step 5** The SPMT assembly is returned to the median staging area.

*See reverse for removal steps*