

APPENDIX A: LIST OF DESIGN AND CONSTRUCTION DRAWINGS

CONTRACT DOCUMENTS

VDOT (Virginia Department of Transportation) (1998). *Proposal of the Commonwealth of Virginia Department of Transportation*. Order No. A81, Contract No. C00016931C02, Richmond, VA.

PLAN DRAWINGS

VDOT (Commonwealth of Virginia Department of Transportation) (1997b). *Plan and Profile of Proposed State Highway, County of Montgomery Test Bed, Fr: 0.189 km W. of Rte 723 To: 0.671 km E. of Rte 723*. Plan drawings, Richmond, VA.

VDOT (Commonwealth of Virginia Department of Transportation) (1997c). *Proposed Bridge on Smart Road over Wilson Creek and Route 723 Montgomery County – 0.3 km E. of NS RWY. Project IVHS-060-101, B603*. Plan drawings No. 273-71, Structure and Bridge Division, Richmond, VA.

SHOP DRAWINGS AND SUMMARIES

Janssen & Spaans Engineering, Inc. (1998). *Shop Drawings (Smart Bridge Montgomery Co. Virginia)*. Project No. 231, Indianapolis, IN.

Janssen & Spaans Engineering, Inc. (1999d). *Reinforcing Steel Schedule and Segment Bending Diagrams*. Project No. 231, Revised March 31, 1999, Indianapolis, IN.

AVAR Construction Systems, Inc. (1998). *Form Traveler Shop Drawings*. AVAR Job No. 9860, Virginia Project No. IVHS-060-101, B603, Revision 0, 1998, Campbell, CA.

CONSTRUCTION MANUALS

Janssen & Spaans Engineering, Inc. (1999a). *Geometry Control Manual for Smart Highway Bridge: Book I of III*. Virginia Project No. IVHS-060-101, PE101, B603, March 22, 1999, Revised May 21, 1999, Indianapolis, IN.

Janssen & Spaans Engineering, Inc. (1999b). *Geometry Control Manual for Smart Highway Bridge: Book II of III*. Virginia Project No. IVHS-060-101, PE101, B603, March 22, 1999, Revised May 21, 1999, Indianapolis, IN.

Janssen & Spaans Engineering, Inc. (1999c). *Geometry Control Manual for Smart Highway Bridge: Book III of III*. Virginia Project No. IVHS-060-101, PE101, B603, March 22, 1999, Revised May 21, 1999, Indianapolis, IN.

Note: The following lists give an overview of the contents of Plan Drawings and Shop Drawings.

Plan Drawings include:

- General Plan and Elevation;
- Index of Drawings and Estimated Quantities;
- General Notes;
- Typical Cross-Sections;
- Substructure Layout;
- Abutment A Dimensions;
- Abutment A Reinforcement;
- Abutment B Dimensions;
- Abutment B Reinforcement;
- Pier Footing Dimensions and Reinforcement;
- Piers 1 and 4 Dimensions;
- Piers 1 and 4 Reinforcement;
- Piers 2 and 3 Dimensions;

- Piers 2 and 3 Reinforcement;
- Bearing Details;
- Superstructure Segment Designation;
- Type I Variable Segment Dimensions;
- Type I Variable Segment Reinforcement;
- Type II Variable Segment Dimensions;
- Type II Variable Segment Reinforcement;
- Type III Constant Depth Segment Dimensions;
- Type III Constant Depth Segment Reinforcement;
- Pier Table Dimensions, Pier Table Reinforcement;
- Pier Connections Details;
- Pier Table 3D Integrated Details;
- Abutment Segment Dimensions;
- Abutment Segment Reinforcement;
- Abutment Segment Integrated Details;
- Closure Segment Dimensions;
- Closure Segment Reinforcement;
- Transverse Post-Tensioning Details;
- Segment Bulkhead Details;
- Continuity Post-Tensioning Interior Span Layout;
- Continuity Post-Tensioning End Span Layout;
- Cantilever Post-Tensioning Layout;
- Cantilever Tendon Post-Tensioning Details;
- Pier Table P.T. Details;
- Abutment Segment P.T. Details;
- Anchor Block Details;
- Deviation Block Details;
- Superstructure P.T. Quantities and Stressing Schedule;
- Miscellaneous Superstructure Details;

- Cast-In-Place Concrete Railing (Kansas Corral);
- Railing Details;
- Abutment Access Details;
- Segment Access Details;
- Expansion Joint Details;
- Conduit and Junction Box Layout;
- Conduit Support Details;
- Superstructure Erection Scheme and Construction Notes;
- Abutment A Approach Slab;
- Abutment B Approach Slab;
- Engineering Geology;
- Bearing Replacement Details;
- Localized Deck Repair;
- Expansion Joint Replacement.

Shop Drawings include:

- Pier Table Geometry;
- Dimensions & P.T.;
- Segment Designation;
- Segment Dimensions;
- Bulkhead;
- Transverse Tendon & Longitudinal Tendon Alignment Details;
- Traveler Tie-Down Locations;
- Tendon Layout Cantilever 1-4;
- Blister Type 1-4 Details;
- Railing Layout;
- Railing Reinforcing;
- Miscellaneous Details;
- Detailed Reinforcing, Reinforcing.