1.0 INTRODUCTION

Disclaimer: This website and documents are provided for use by persons outside of the Kansas Department of Transportation as information only. The Kansas Department of Transportation, the State of Kansas, nor its officers or employees, by making this website and documents available for use by persons outside of KDOT, does not undertake any duties or responsibilities of any such person or entity who chooses to use this website and documents. This website and documents should not be substituted for the exercise of a person’s own professional judgment nor the determination by contractors of the appropriate manner and method of construction on projects under their control. It is the user’s obligation to make sure that he/she uses the appropriate practices. Any person using this website and documents agrees that KDOT will not be liable for any commercial loss; inconvenience; loss of use, time, data, goodwill, revenues, profits, or savings; or any other special, incidental, indirect, or consequential damages in any way related to or arising from use of this website and documents.
General: This Manual is intended to better communicate the intent of the plans, Standard Specifications for State Road and Bridge Construction, Special Provisions, and Project Special Provisions to KDOT Inspectors, Contractors and Design Consultants. The content of this Manual has been compiled from observations of construction methods that have been proven to be successful in the situations where they were used. The construction methods described here are not the only successful methods of completing a particular construction task. Information found in this Manual is not meant to supersede any contract documents; it is intended to be used in conjunction with those documents. Conflicts should be pursued to obtain the most appropriate solution to the concern. This may, in turn, cause eventual changes to the plan details, specifications, and this Manual to avoid future conflicts of intent. This Manual is a constantly evolving work. Reviewing the Manual often will keep one abreast of the current practice. Your comments are appreciated. Below is a list of bridges, culverts, expansion joints & substrutures types with their structure definition codes. Four letter code is for open spans, three letter is for culverts.

### DATABASE CHARACTER SUPERSTRUCTURE/STRUCTURE TYPE CODES

**CANSYS / PONTIS / BROMS alpha character fields**

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Superstructure/Structure Type</th>
<th>Design Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Arch</td>
<td>= Not Applicable: superstructure types of Arch, Box, Beam, all Pipes, Tunnel, and Low-Water Crossing</td>
</tr>
<tr>
<td>B</td>
<td>Box</td>
<td>A</td>
</tr>
<tr>
<td>C</td>
<td>Beam</td>
<td>B</td>
</tr>
<tr>
<td>E</td>
<td>Circular</td>
<td>C</td>
</tr>
<tr>
<td>F</td>
<td>Continuous: superstructure designed to extend continuously over one or more supports</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Drop-Panel: vertical change in member height</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Encased: superstructure members are rigidly connected to the substructure</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Fixed: superstructure members are rigidly connected by longitudinal supports and decrease in size at the span end</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Fixed: superstructure members are rigidly connected by longitudinal supports</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>Encased: steel beams encased in concrete</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>Encased: steel beams encased in concrete</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Fixed: superstructure members are rigidly connected by longitudinal beams</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Fixed: superstructure members are rigidly connected by longitudinal beams</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>Fixed: superstructure members are rigidly connected by longitudinal beams</td>
<td></td>
</tr>
</tbody>
</table>
Post-Tensioned and Prestress

Post Tensioned Concrete Slab Haunched-XCSH

Post Tensioned Concrete Box Girder Continuous-XBGC

Prestressed Deck Girder Continuous-PDGC

Prestressed Concrete Beam Continuous-PBMC
Steel Types
K-Frame, Slope Leg Steel Rigid Frame Continuous-SRFC
Steel Beam Simple-SBMS
Weathering Steel Welded Plate Girder Continuous-WWGC
Steel Welded Girder Haunched-SWGH
Steel Welded Girder Simple - SWGS
Steel Riveted Girder Continuous - SRGC
Concrete Types

Reinforced Concrete Slab Haunched-RCSH

Reinforced Box Gider Continuous-RBGC

Reinforced Concrete Through Arch Fixed-RTAF

Reinforced Concrete Illinois Bulletin Continuous - RISC

Marsh Arch

Reinforced Concrete Open Spandrel Arch Fixed - ROAF

Reinforced Concrete Deck Girder Simple - RDGS

(Spandrel Arch)
Culverts

Reinforced Concrete Box - RCB

Rigid Frame Box - RFB

Reinforced Concrete Filled Spandrel Arch Fixed - RFAF

Reinforced Concrete Arch - RAR

Corrugated Metal Pipe - CMP

Masonry Arch - MAR
Substructure Types

U-Type Abutment

Pedestal Abutment

Wall Pier

Column Bent Pier

Column Bent with Web Wall on Drilled Shafts

Cantilever Pier (Tee-Pier)
Expansion Joints
Elastomeric Strip Seal

Sliding Plate
Modular
Delastiflex

Finger Joint
Pourable Joint
Transflex
Steel Trusses & Arches
Steel High Truss Continuous – SHTC

Steel Low Truss Simple - SLTS

Steel Through Arch Tied - STAT

Steel Deck Truss Haunched - SDTH

Steel Deck Truss Continuous - SDTC

Steel Low Truss Continuous – SLTC