

MATERIAL	PIPE TYPE				
	1	2	3	4	5
Non-Reinforced Concrete Pipe				X	
Non-Reinforced Concrete Pipe, Class 3 (S)	X	X	X		
Reinforced Concrete Pipe (S)	X	X	X		
Reinforced Concrete Horizontal Elliptical Pipe (S)	X	X	X		
Corrugated Steel Pipe (C)	X		X		X
Corrugated Steel Pipe-Arch (C)	X		X		X
Polymer Precoated Galvanized Corrugated Steel Pipe (C)	X		X		X
Polymer Precoated Galvanized Corrugated Steel Pipe Type 1A (S)	X	X	X		X
Fully Bituminous Coated and Lined Corrugated Steel Pipe (S)		X			X
Polymer Precoated Galvanized Corr. Steel Pipe Arch Type IIA (S)	X	X	X		X
Fully Bituminous Coated and Lined Corrugated Steel Pipe-Arch (S)		X			X
Corrugated Aluminum Alloy Pipe (C)	X		X		X
Corrugated Aluminum Alloy Pipe-Arch (C)	X		X		X
Structural Plate Steel Pipe (C)	X		X		
Polymer Precoated Galvanized Corrugated Steel Pipe-Arch (C)	X		X		X

MATERIAL	PIPE TYPE				
	1	2	3	4	5
Structural Plate Steel Pipe-Arch (C)	X		X		
Structural Plate Aluminum Alloy Pipe (C)	X		X		
Structural Plate Aluminum Alloy Pipe-Arch (C)	X		X		
Clay Pipe, Extra Strength (S)	X	X	X		
Clay Pipe				X	
Perforated Clay Pipe				X	
Corrugated Polyethylene Pipe, Type SP				X	
Corrugated Polyethylene Pipe, Type (S)	X	X	X	X	X
Ribbed Polyethylene Pipe (S)	X	X	X		X
Smooth Wall Polyethylene Pipe (S)	X	X	X		X
Corrugated Polyethylene Drainage Tubing				X	
Perforated PVC Semicircular Pipe				X	
Profile Wall PVC Pipe (S)	X	X	X	X	X
Smooth Wall PVC Pipe (S)	X	X	X		X
Concrete Drain Tile				X	
Clay Drain Tile				X	

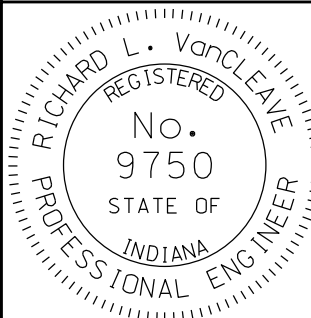
GENERAL NOTES

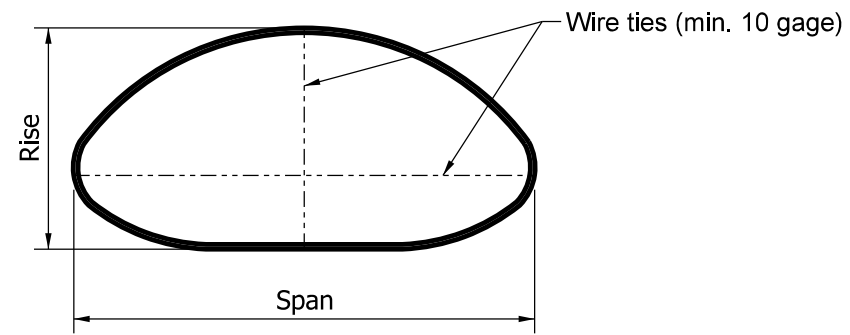
- The prescribed uses for the pipe types are as follows:
 - Type 1 Pipe - Culverts under mainline pavement and public road approaches.
 - Type 2 Pipe - Storm sewer pipe.
 - Type 3 Pipe - Culverts under driveways and field entrances.
 - Type 4 Pipe - Drain tile and longitudinal underdrains.
 - Type 5 Pipe - Broken back and other installations requiring coupled pipe.
- Refer to Standard Drawings E 715-PHCL-01 through E 715-PHCL-23 and E 717-PHCL-01 through E 717-PHCL-10 for allowable heights of cover for various pipe materials (except Type 4 pipes).

- Refer to Standard Drawings E 715-PSLC-01 through E 715-PSLC-03 for required pipe service life criteria.
- Any pipe material which is in accordance with the designated pipe type, acceptable for cover conditions, and conforms to service life criteria may be installed.

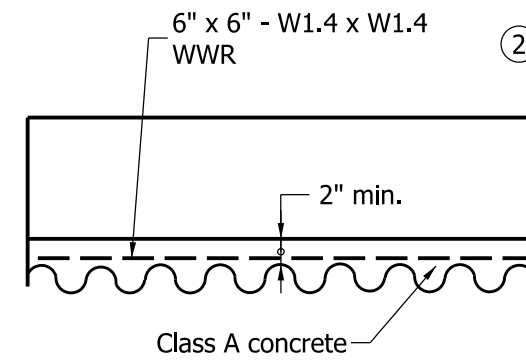
LEGEND

- (C)- Corrugated Interior Culvert Pipe.
 (S)- Smooth Interior Culvert or Storm Sewer Pipe.

INDIANA DEPARTMENT OF TRANSPORTATION	
PIPE CLASSIFICATION TABLES	
SEPTEMBER 2010	
STANDARD DRAWING NO.	E 715-PIPE-01
	<i>/s/ Richard L. VanCleave</i> 09/01/10 DESIGN STANDARDS ENGINEER DATE
DESIGN STANDARDS ENGINEER	<i>/s/ Mark A. Miller</i> 09/01/10 CHIEF HIGHWAY ENGINEER DATE



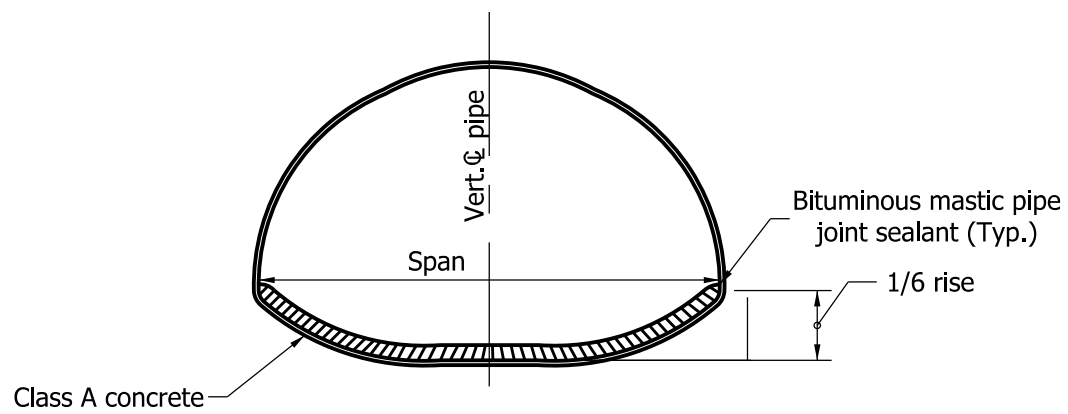
**STEEL PIPE-ARCH SECTIONS
END STABILIZATION OF 3" x 1" CORRUGATED** ①



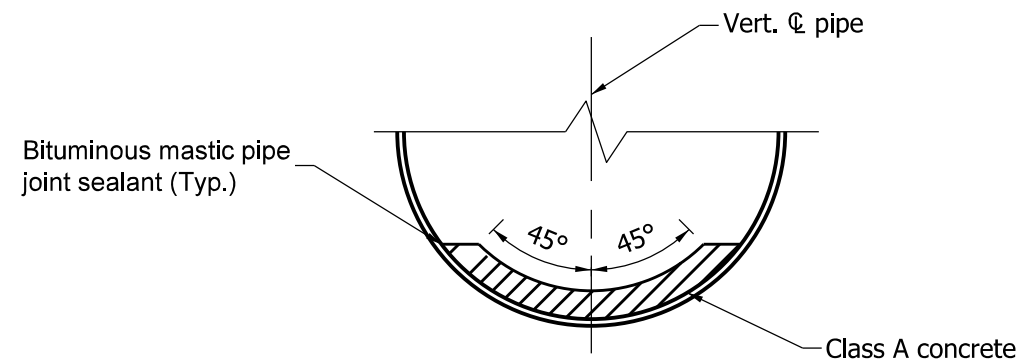
TYPICAL LONGITUDINAL SECTION

NOTES:

- ① In order to maintain their manufactured shape, all 3" x 1" corrugated steel pipe-arch sections shall have wire ties attached at each end as shown in the detail. The wire ties shall be attached across the largest vertical and horizontal dimension of the pipe-arch. The wire ties shall be installed by the manufacturer and shall remain in place until the on-site installation is complete.
- ② WWR shall be wired to every second circumferential bolt and every twelfth longitudinal bolt.

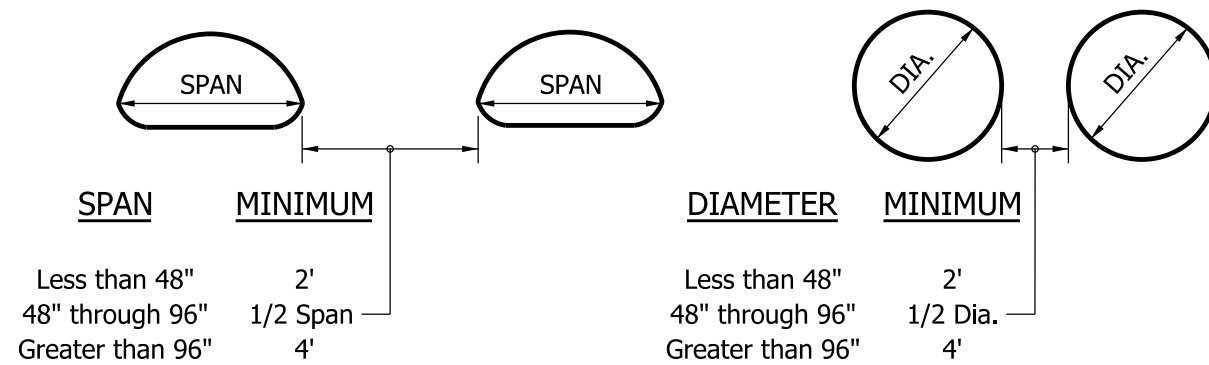


**STRUCTURAL PLATE
PIPE-ARCH CULVERT
ELEVATION**



**STRUCTURAL PLATE
PIPE CULVERT**

CONCRETE FIELD PAVED INVERT DETAILS



MULTIPLE INSTALLATIONS

INDIANA DEPARTMENT OF TRANSPORTATION											
MISCELLANEOUS PIPE DETAILS											
SEPTEMBER 2011											
STANDARD DRAWING NO.	E 715-PIPE-02										
	<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;"><i>/s/ Richard L. Vancleave</i></td> <td style="width: 20%; text-align: right;">09/01/11</td> </tr> <tr> <td>DESIGN STANDARDS ENGINEER</td> <td style="text-align: right;">DATE</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td><i>/s/ Mark A. Miller</i></td> <td style="text-align: right;">09/01/11</td> </tr> <tr> <td>CHIEF HIGHWAY ENGINEER</td> <td style="text-align: right;">DATE</td> </tr> </table>	<i>/s/ Richard L. Vancleave</i>	09/01/11	DESIGN STANDARDS ENGINEER	DATE			<i>/s/ Mark A. Miller</i>	09/01/11	CHIEF HIGHWAY ENGINEER	DATE
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