6" x 2" STRUCTURAL PLATE STEEL PIPE-ARCH (BOLTED)
HEIGHT OF COVER LIMITS (ft.)

Rc (in.)	SPAN (ft.-in.)	RISE (ft.-in.)	AREA (sft)	THICKNESS (in.)									
				0.111		0.140 thru 0.280							
				MIN.	MAX.	MIN.	MAX.						
31	15-4	10-4	123	1.9	10.5	1.9	10.5						
31	15-7	10-6	127	2.0	10.3	2.0	10.3						
31	15-10	10-8	132	2.0	10.1	2.0	10.1						
31	16-3	10-10	137	2.0	9.7	2.0	9.7						
31	16-6	11-11	142	2.1	9.5	2.1	9.5						
31	17-0	11-2	146	2.1	9.2	2.1	9.2						
31	17-2	11-4	151	2.2	9.1	2.2	9.1						
31	17-5	11-6	157	2.2	8.9	2.2	8.9						
31	17-6	11-8	161	2.2	8.6	2.2	8.6						
31	18-1	11-10	167	2.3	8.5	2.3	8.5						
31	18-7	12-0	172	2.3	8.2	2.3	8.2						
31	18-9	12-2	177	2.3	8.0	2.3	8.0						
31	19-3	12-4	182			2.4	7.7						
31	19-6	12-6	188			2.4	7.6						
31	19-8	12-8	194			2.5	7.5						
31	19-11	12-10	200			2.5	7.4						
31	20-5	13-0	205			2.6	7.1						
31	20-7	13-2	211			2.6	7.0						

NOTE:

1. The tabulated cover depths shall be measured from the bottom of the asphalt or concrete pavement to the top of the pipe.
2. A specific design shall be performed for structures with corner radii other than those tabulated above to determine the appropriate cover depth limits.
3. The tabulated plate thickness reflects the required thickness for top and side plates. Refer to 908.09 (a) for the required bottom plate thickness.

INDIANA DEPARTMENT OF TRANSPORTATION

PIPE HEIGHT OF COVER LIMITS

JANUARY 1998

STANDARD DRAWING NO. **E 717-PHCL-10**

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

DETAILS PLACED IN THIS FORMAT 11-15-99

/s/ Anthony L. Uremovich 11-15-99
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 11-15-99
CHIEF HIGHWAY ENGINEER DATE

ORIGINALLY APPROVED 1-02-98