GROUND MOUNTED ⊕ CANTILEVER DESIGN TABLE

WIND SPEED	GROUP NO.	CAMBER A	CAMBER B	MAX. SIGN AREA
90 MPH	1	2 1/8"	3/4"	300 SQ.FT.
110 MPH	2	1 7/8"	5/8"	300 SQ.FT.
130 MPH	3	1 13/16"	5/8"	300 SQ.FT.

GROUND MOUNTED CANTILEVER MEMBER SIZES

MEMBER DIAMETER (IN.) X MEMBER THICKNESS (IN.)

GROUP NO.	POSTS	CHORDS	TRUSS STRUTS	TRUSS DIAGONALS	INTERIOR DIAGONALS
1	24.0 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154
2	24.0 X 0.50	3.5 X 0.216	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154
3	24.0 X 0.562	4.5 X 0.237	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154

STRUCTURE MOUNTED ⊡ CANTILEVER DESIGN TABLE

WIND SPEED	GROUP NO.	CAMBER A	CAMBER B	MAX. SIGN AREA
90 MPH	1	6"	3 3/4"	250 SQ.FT.
110 MPH	2	6"	3 3/4"	250 SQ.FT.
130 MPH	3	6"	3 3/4"	200 SQ.FT.

STRUCTURE MOUNTED CANTILEVER MEMBER SIZES

MEMBER DIAMETER (IN.) X MEMBER THICKNESS (IN.)

GROUP NO.	POSTS	CHORDS	TRUSS STRUTS	TRUSS DIAGONALS	INTERIOR DIAGONALS	POST STRUTS	POST DIAGONALS
1	12.75 X 0.375	5.563 X 0.258	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	6.625 X 0.280	6.625 X 0.280
2	14.00 X 0.50	5.563 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	6.625 X 0.432	6.625 X 0.432
3	14.00 X 0.50	5.563 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	6.625 X 0.562	6.625 X 0.562

HOW TO USE TABLES:

1. DETERMINE IF CANTILEVER IS GROUND MOUNTED OR STRUCTURE MOUNTED.
2. FIND WIND VELOCITY USING WIND MAP ON GENERAL NOTES SHEET (SHT. NO. 1 OF 16) AND CHOOSE APPROPRIATE ROW IN TABLE.
3. VERIFY THAT THE PROPOSED SIGN AREA DOES NOT EXCEED THE MAXIMUM ALLOWABLE AREA.
4. FIND CORRESPONDING GROUP NUMBER IN THE APPROPRIATE "CANTILEVER MEMBER SIZES" TABLE AND APPLY MEMBER SIZES ACCORDINGLY. FILL IN THE "CANTILEVER DATA TABLE" WITH THE APPROPRIATE DESIGN INFORMATION. (SHT NO. 12 OF 16)

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

NOTES:

ALL MEMBERS LISTED IN THE CANTILEVER MEMBER SIZES TABLE SHALL BE STEEL PIPE OR TUBE AND SHALL HAVE A MINIMUM YIELD STRENGTH (Fy) OF 42 KSI.

TUBE OR A.N.S.I. PIPE SECTIONS PROVIDING EQUAL OR GREATER STRENGTH THAN ANY MEMBER DESIGNATED IN THE TABLE MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

ALL DESIGNS MUST BE CONFIRMED ON THE FABRICATION DRAWINGS AND APPROVED BY LA DOTD BEFORE FABRICATION IS INITIATED.

THE CAMBER VALUES LISTED IN THE TABLES ARE THEORETICAL VALUES ONLY. THE CONTRACTOR SHALL ENSURE THAT AFTER ERECTION OF THE SIGN TRUSS AND INSTALLATION OF THE SIGN PANELS, THE TRUSS SPAN DOES NOT DEFLECT BELOW HORIZONTAL.

⊕ A DESIGN REQUEST MUST BE SUBMITTED FOR ALL GROUND MOUNTED CANTILEVERS USED ON EMBANKMENTS ≥ 10 FT. HIGH.

⊡ A DESIGN REQUEST MUST BE SUBMITTED FOR ALL STRUCTURE MOUNTED CANTILEVERS WHOSE SIGN CENTERS ARE MORE THAN 50 FT. ABOVE THE SURROUNDING GROUNDLINE.

SHEET NUMBER

PARISH | FEDERAL PROJECT | STATE PROJECT

DESIGNED K. BRAUNER
CHECKED C. PORTER
DETAILED I.KOURILOVA
CHECKED K. BRAUNER
DATE JAN. 2011
SHEET 11 OF 16

REVISION DESCRIPTION | DATE | BY | NO.

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CANTILEVER DESIGN TABLES

(STEEL)

BD.2.7.1.0.11 - OVERHEAD TRAFFIC SIGNS

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT dotd

BRIDGE AND STRUCTURAL DESIGN