Index 700-040 Cantilever Sign Structure

Design Criteria

AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (LRFDLTS); Structures Manual (SM), Volume 3, FDOT Modifications to LRFDLTS; Structures Manual (SM) Introduction, I.6 References; Structures Design Guidelines (SDG); FDOT Design Manual (FDM)

Design Assumptions and Limitations

The maximum span length of Cantilever Sign Structures is 50 feet. See the notes on *Index 700-040*, *FDM 230*, *FDM 261*, *Structures Manual (SM)*, Volume 3 and the *SDG* for additional information.

Use *Index 700-040* in conjunction with *Index 700-030* and the *Cantilever Overhead Sign* Mathcad 15 computer program located on the **Structures Design Programs Library** website.

Plan Content Requirements

See the *FDM 325*.

Complete the appropriate "Cantilever Sign Structures Data Table". There is a choice of two tables, one for a sign structure with a spread footing foundation and the other for a sign structure with a drilled shaft foundation. Much of the data for inclusion in the table may be found in the **Cantilever Overhead Sign** output. Include Design Wind Speed and soils information.

Cantilever Sign Structures Data Table (Spread Footing Foundation):

				CANI	ILEVE	R SIGN	STRUCTURES DATA TAI	BLE		Table Date 07-01-1
			DIME	NSIONS		PANELS		MEMBER SIZES		BACKRAKE
SIGN NO.	STATION	Α		В	С	N	D (CHORD)	E (WEB)	F (UPRIGHT)	G
		ft	ft	in	in	#	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	in
			_							

NOTES [Notes Date 7-01-13]:

- 1. Work these Data Tables with Index 700-040.
- Design Wind Speed = __ mph.
 Upright wall thickness given is a
- minimum dimension.

- FOUNDATION NOTES (Notes Date 7-01-12):

 1. Design based on Borings taken sealed by _____.

 2. Assumptions and Values used in design: Soil Type _____.

 Soil Layer Thickness = ____ ft.

 Soil Friction Angle = ____ deg.

 Soil Weight = ____ pcf

 Design Water Table is ____ ft. below surface

											C	ANTILE	EVE	ER SI	GN	STRUC	URES E	DATA	TAE	3LE	(CON	T.)						Table	Date 01	-01-11
								GUS	SET	PLATES												TRUSS	CONNEC	TION			SPL	LICE		
SIGN NO.	GA	GB		GC		GD		GE		GF		GG		GH		GJ	GK	TA	TB	3 TC	TD	TE	TF	TG	TH	TJ	SA	SB	SC	SD
	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	1	ft in	in	in	#	#	in	in	in	in	in	in	Angle (in)	#	in	#
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				. BA	SE	CONNECT	ION				ANG	CHOR				FOO	TINC	G DIMENS	ONS	5			F	OOTIN	G REIN			D. REINF.
SIGN NO.	BA	BB	BC	BD		BE	BF	BG	BH	BJ	1	3 <i>K</i>		FA		FB		FC		FD		FE	FF	FG	FH	FJ	FK	FL
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	size	size	size	size	in	# / Siz
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Cantilever Sign Structures Data Table (Drilled Shaft Foundation):

SIGN NO. STATION	these Data Tables with 700-040. In Wind Speed = mph. ht wall thickness given is a I
SIGN NO. STATION A B C N D CHORD) E (WEB) F (UPRIGHT) G 2. Design M GUSSET PLATES TRUSS CONNECTION SIGN NO. GA GB GC GD GE GF GG GH GJ GK TA TB TC TD TE TF TG TH TJ TJ TJ TJ TJ TJ TJ	In Wind Speed =mph. In Wind Speed =mph. In Wall thickness given is a not in the wall thickness given is a not in the wall thickness given is a not in the wall thickness is a not in the wall thickness =ft. It wall thickness =ft.
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CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.) SIGN NO. GA GB GC GD GE GF GG GH GJ GK TA TB TC TD TE TF TG TH TJ	ON NOTES [Notes Date 7-01-1 based on Borings taken Dy ions and Values used in desi ee er Thickness =ft. ction Angle =deg. ght =pcf Water Table isft. below
CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.) SIGN NO. GA GB GC GD GE GF GG GH GJ GK TA TB TC TD TE TF TG TH TJ	Water Table is ft. below
GUSSET PLATES	Table Date 01
GUSSET PLATES TRUSS CONNECTION SIGN NO. GA GB GC GD GE GF GG GH GJ GK TA TB TC TD TE TF TG TH TJ	Table Date 01
SIGN NO. GA GB GC GD GE GF GG GH GJ GK TA TB TC TD TE TF TG TH TJ	SPLICE
	SA SB SC
	gle (in) # in
CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.) Table Date 07-01-15	
BASE CONNECTION ANCHOR FOOTING - DRILLED SHAFT	
SIGN NO. BA BB BC BD BE BF BG BH BJ BK FA FB FC FD FE FF FG in # in in ft in in ft in ft in ft in # in # in	

Payment

Item number	Item Description	Unit Measure
700-4-11C	Overhead Static Sign Structure (F&I, Cantilever)	EA

See Standard Plans Instruction for Index 700-030 for sign panel.

See the *BOE* and *Specification 700* for additional information on payment, pay item use and compensation.