

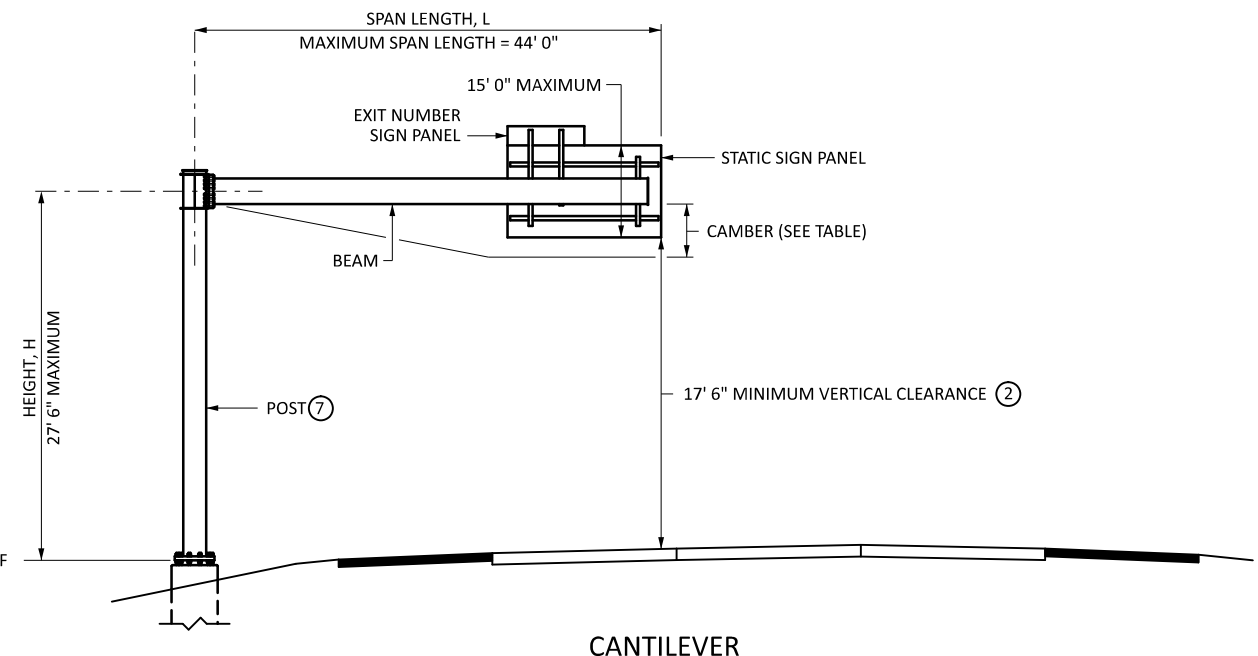
STRUCTURE QUANTITIES			
-LENGTH (L) OF SIMPLE SPAN SUPPORT STRUCTURE IS FROM ϵ POST TO ϵ POST.			
-LENGTH (L) OF CANTILEVER STRUCTURE IS FROM ϵ POST TO END OF PROJECTING ELEMENT.			
-HEIGHT (H) OF SUPPORT STRUCTURE IS FROM BOTTOM OF BASEPLATE TO ϵ BEAM.			
-STRUCTURAL STEEL QUANTITIES INCLUDE THE FOLLOWING:			
SIMPLE SPAN: BASEPLATES, POSTS, SLEEVES, BEAM, AND BEAM SPLICE PLATES.			
CANTILEVER: BASEPLATE, POST, POST/BEAM CONNECTION, BEAM, AND END CAPS.			
STRUCTURAL STEEL	SIMPLE SPAN	BEAM WITH CONNECTIONS	676 LBS + 83(L) LBS/FT
		POSTS WITH CONNECTIONS	2210 LBS + 73(H) LBS/FT (5)
	CANTILEVER	BEAM WITH CONNECTIONS	366 LBS + 105(L) LBS/FT
		POST WITH CONNECTIONS	1678 LBS + 79(H) LBS/FT

SIMPLE SPAN	
SPAN LENGTH	MAX. SIGN AREA SQ. FT (4)
55' 0"	225
70' 0"	210
80' 0"	200

CANTILEVER	
SPAN LENGTH	MAX. SIGN AREA SQ. FT (4)
20' 0"	205
25' 0"	200
30' 0"	170
35' 0"	140
40' 0"	115
44' 0"	100

SIMPLE SPAN CAMBER (INCHES)	
SPAN LENGTH	MID-SPAN CAMBER (6)
45' 0"	1 1/4
50' 0"	1 7/16
55' 0"	1 3/8
60' 0"	1 1/8
65' 0"	2 3/16
70' 0"	2 5/8
75' 0"	3 1/8
80' 0"	3 3/4

CANTILEVER CAMBER (INCHES)	
SPAN LENGTH	CANTILEVER END CAMBER
20' 0"	1 1/16
25' 0"	1 3/16
30' 0"	1 3/8
35' 0"	1 5/8
40' 0"	2
44' 0"	2 1/2



GENERAL NOTES:

DESIGN CRITERIA:

THE DETAILS SHOWN ON THESE STANDARD PLANS ARE BASED ON THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS," FIRST EDITION, 2015, 2017, 2018, 2019, AND 2020 INTERIM REVISIONS.

STRENGTH LIMIT WIND LOADING OF 120 MPH
SERVICE LIMIT WIND LOADING OF 76 MPH

MATERIAL PROPERTIES:

PROVIDE STRUCTURAL CONCRETE (3G52) PER SPEC. 2461 FOR DRILLED SHAFTS.

PROVIDE DEFORMED BILLET BARS IN ACCORDANCE WITH AASHTO M 31, GRADE 60 (SPEC. 2472 AND SPEC. 3301) FOR FOUNDATION REINFORCEMENT. PROVIDE EPOXY-COATED BARS WHERE IDENTIFIED.

ALL REINFORCEMENT IS IN ENGLISH DESIGNATIONS.

- STRUCTURAL STEEL (EXCEPT POST) - SPEC. 3306
- STRUCTURAL STEEL PIPE ----- SPEC. 3362, ASTM A 500 GRADE B (F_y = 42 ksi) OR GREATER API 5L, GRADES B, X42, X46, X52, X56, X60, X65
- HIGH-STRENGTH BOLTS-----SPEC. 3391.2B
- ANCHOR RODS-----SPEC. 3385 TYPE B
- CASTINGS-----SPEC. 3322
- REINFORCEMENT
 - BARS-----SPEC. 3301
 - SPIRAL-----SPEC. 3305

DEMONSTRATE THAT THE POST MATERIAL MEETS THE REQUIREMENTS OF ONE OF THE ABOVE CITED SPECIFICATIONS AND THE MINIMUM YIELD STRENGTH.

FINISH:

WITH THE EXCEPTION OF REINFORCEMENT BARS, THE LOWER PORTIONS OF ANCHOR RODS, AND ALUMINUM AND OTHER NON-FERROUS INCIDENTALS, GALVANIZE COMPONENTS AFTER FABRICATION IN ACCORDANCE WITH SPEC. 3392 OR SPEC. 3394 AS APPLICABLE. BEARING SURFACES MUST BE SMOOTH.

FABRICATION:

FABRICATE STRUCTURAL METALS IN ACCORDANCE WITH SPEC. 2471 AND 2564. ALL WELDING TO BE CONTINUOUS. ALL CONTACT SURFACES MUST BE COMPLETELY SEALED.

INSPECTION:

PROVIDE INSPECTION BEFORE AND AFTER GALVANIZING IN ACCORDANCE WITH SPEC. 1511 AND 2471.

SPECIFIC NOTES:

- (1) MEASURE MINIMUM CLEARANCE FROM THE HIGHEST ELEVATION OF THE TRAVELED WAY OR SHOULDER, OR IF BARRIER CURBS ARE USED, THE HIGHEST ELEVATION BETWEEN CURB LINES TO THE LOW SIGN EDGE.
- (2) MEASURE MINIMUM CLEARANCE FROM THE LOW SIGN EDGE OF THE TALLEST PANEL TO THE HIGHPOINT ELEVATION OF TRAVELED WAY OR SHOULDER BENEATH THE STRUCTURE.
- (3) NO MORE THAN TWO SECTIONS ARE ALLOWED. THE SECTIONS ARE NOT REQUIRED TO BE EQUAL LENGTHS.
- (4) INCLUDES EXIT PANEL.
- (5) FOR SIMPLE SPAN STRUCTURES, H = H_L + H_R.
- (6) CAMBER AT THE QUARTER POINT TO BE APPROXIMATELY 75% OF THESE VALUES.
- (7) WHEN ERECTING THE CANTILEVER STRUCTURE, SET THE POST 1/8" PER FOOT OUT OF PLUMB AWAY FROM THE TRAFFIC LANE UNDER THE SUPPORTED SIGN TO COMPENSATE FOR DEFLECTION OF THE POST.