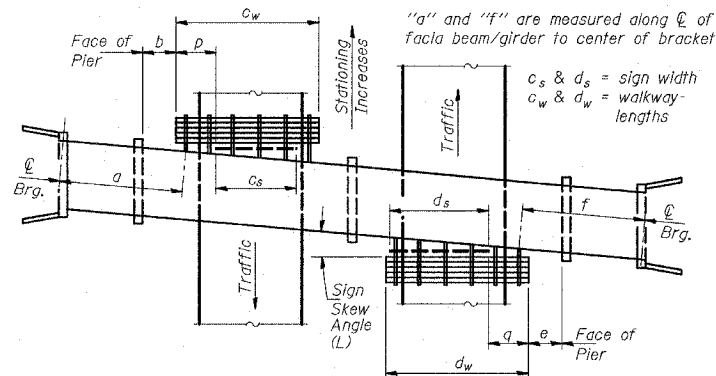
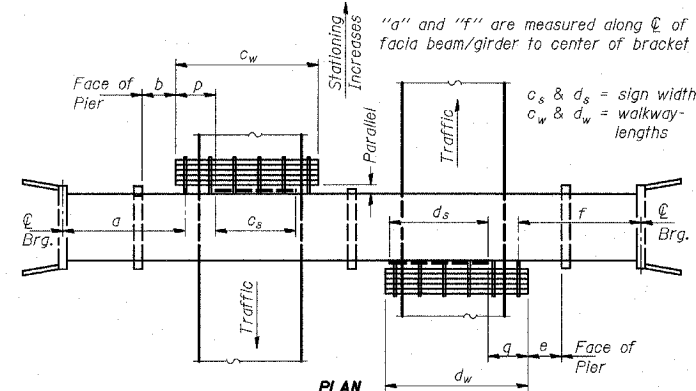


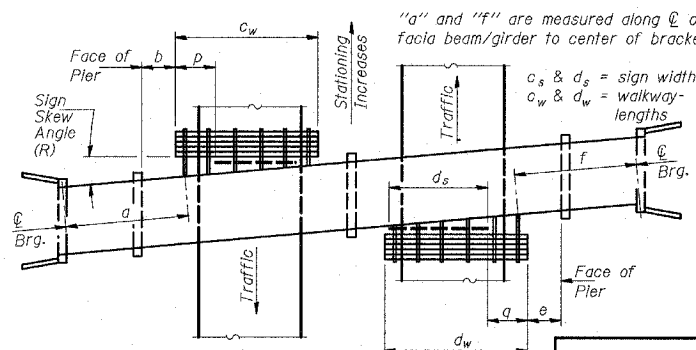
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**PLAN**  
(Left Sign Skew > 15°)  
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



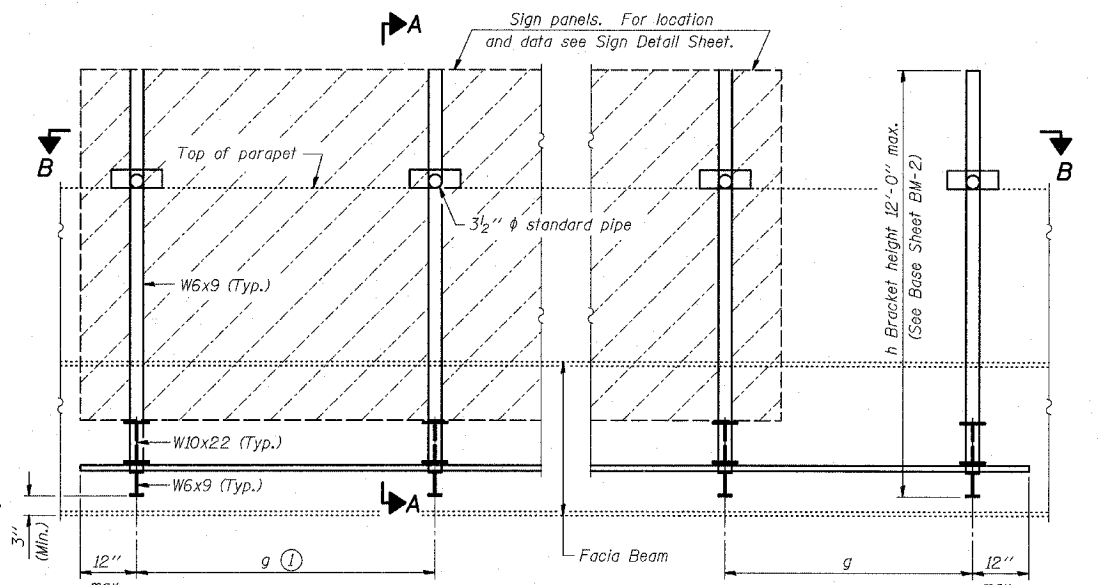
**PLAN**  
(For Sign Skew ≤ 15°, all brackets constant)  
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



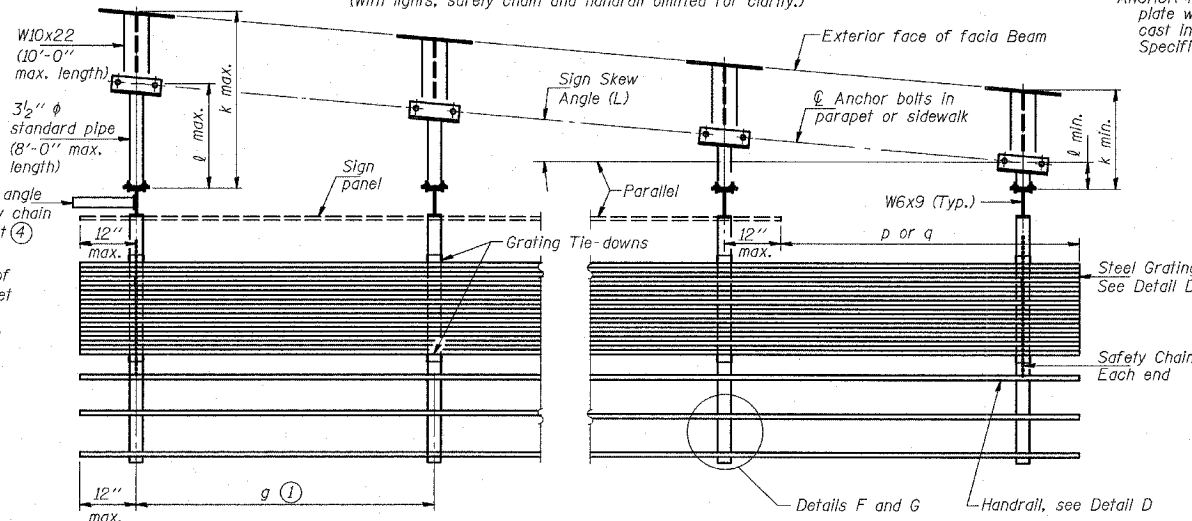
**PLAN**  
(Right Sign Skew > 15°)  
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)

DESIGNED	20
CHECKED	
DRAWN	
CHECKED	

BM-1 11/1/2002



**TYPICAL FRONT ELEVATION**  
(With lights, safety chain and handrail omitted for clarity.)



**SECTION B-B**  
(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c <sub>s</sub>	c <sub>w</sub>	d <sub>s</sub>	d <sub>w</sub>	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Hndrl. Lengths (c <sub>w</sub> + d <sub>w</sub> )
1B0161057L357.6	0°	107+16	016-2029	FAI-94	6.00'		13.50'	13.50'					6.00'	3			13.50'
1B0161094R060.8	0°	1313+24	016-1144	FAI-94	4.81'		37.58'	38.00'					6.00'	9			38.00'
1B0161094R060.3	0°	1339+32	016-1145	FAI-94	52.36'	7.52'	41.99'	50.00'					6.00'	12	8.01'		50.00'
1B0161094R059.7	0°	1365+87	016-1146	FAI-94	50.25'	5.42'	9.00'	16.00'					6.00'	4	7.00'		16.00'
1B0161094R060.4	2°54'-23°R	2332+18	016-2850	FAI-94					46.5'	55.0'	36.08'	37.17'	6.00'	12	9.00'		55.00'

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.  
When c<sub>w</sub> < c<sub>s</sub> and/or d<sub>w</sub> < d<sub>s</sub>, use alternate brackets without walkway supports where applicable, see ③.

**GENERAL NOTES**

- SPECIFICATIONS:**  
DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") ②  
CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")  
LOADING: 80 M.P.H. WIND VELOCITY PLUS 30% GUST FACTOR  
WIND LOADING: 35 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.  
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.  
MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)  
WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.  
MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.  
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50).  
HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.  
GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.  
ANCHOR RODS: All threaded rod conforming to ASTM A307, 3/4" φ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- Bracket spacing g ≤ 6'-0" max. Spacing shall be uniform if possible but may vary ±6" to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
  - Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
  - Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (c<sub>w</sub>, d<sub>w</sub>) unless otherwise specified.
- For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.  
④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

NUMBER	REVISION	DATE

**TOTAL BILL of MATERIAL**

③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	173.00
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FOR BRIDGE-MOUNTED SIGN STRUCTURES AT STA. 107+16, STA. 1313+24, & STA. 2332+18 USE W6X12 INSTEAD OF W6X9.

THE CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTRACTOR TO ALLOW FOR INSTALLATION OF APPROPRIATE EQUIPMENT PRIOR TO ERECTION OF THE SIGN STRUCTURES.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94 (DAN RYAN EXPRESSWAY)  
**BRIDGE MOUNT SIGN STRUCTURES  
GENERAL PLAN AND ELEVATION**

SCALE: AS NOTED  
DATE: MARCH 25, 2005  
DRAWN BY: AMB  
CHECKED BY: TB