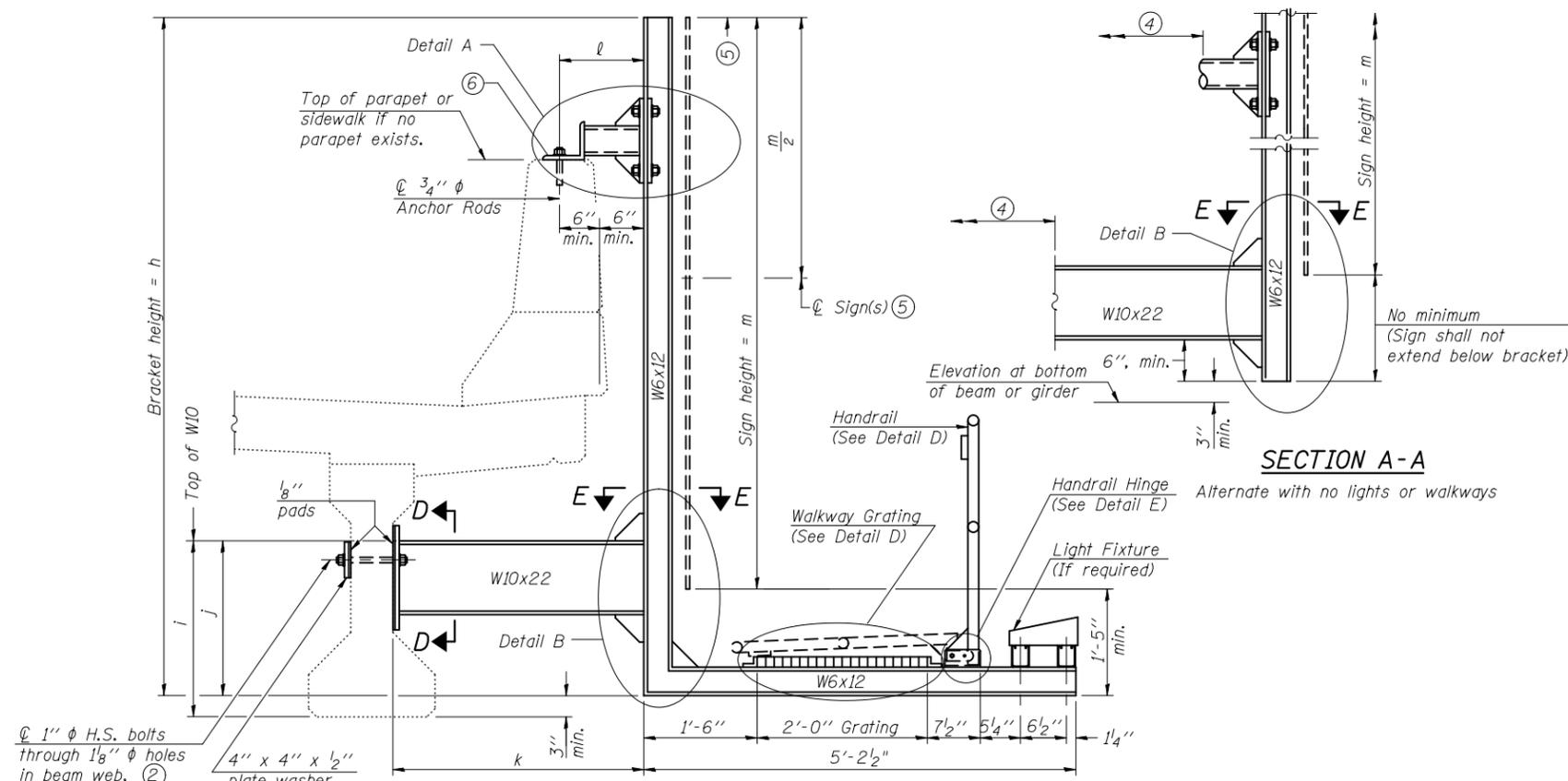
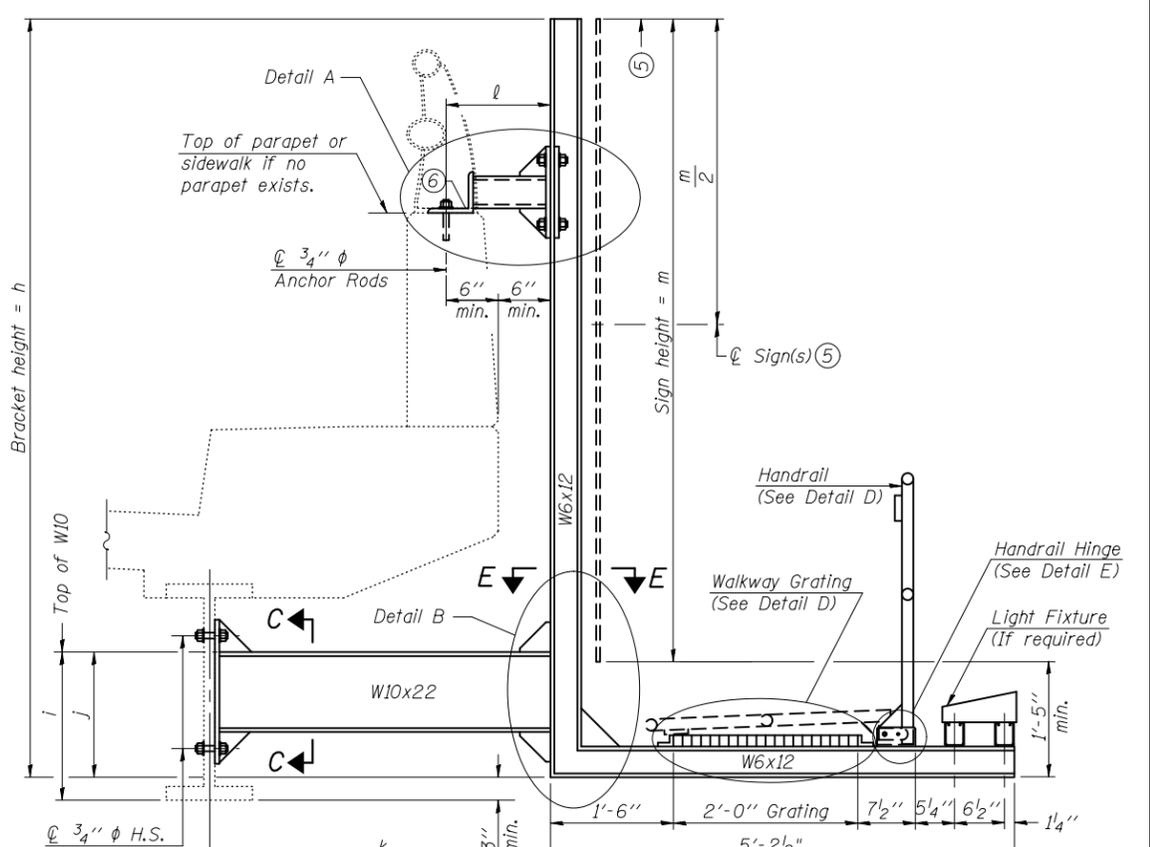


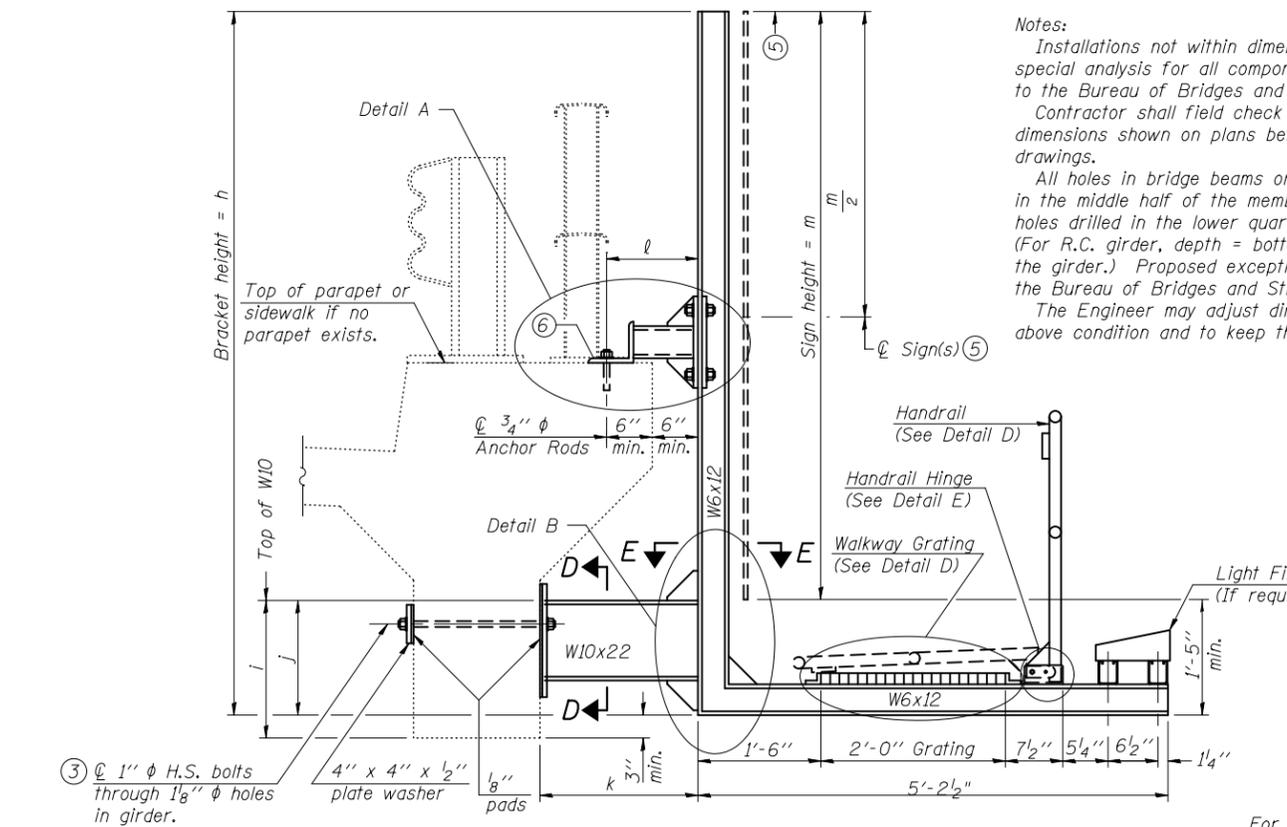
CELL / MODEL NAME	DESCRIPTION	DATE
BM-1	General plan and elevation	06/01/2012
BM-2	Walkway and connection details	06/01/2012
BM-3	Connection details	06/01/2012
BM-4	Walkway details	06/01/2012



SECTION A-A Details for mounting to PPC I Beam or Bulb "I" & Details for mounting to parapet w/o rail



SECTION A-A Details for mounting to steel beam or girder & Details for mounting with existing parapet mounted rail



SECTION A-A Details for mounting to integral reinforced concrete girder & Details for mounting on safety curb with surface-mount bridge rail

Notes:
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.
 The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
- ④ For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
- ⑤ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑥ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

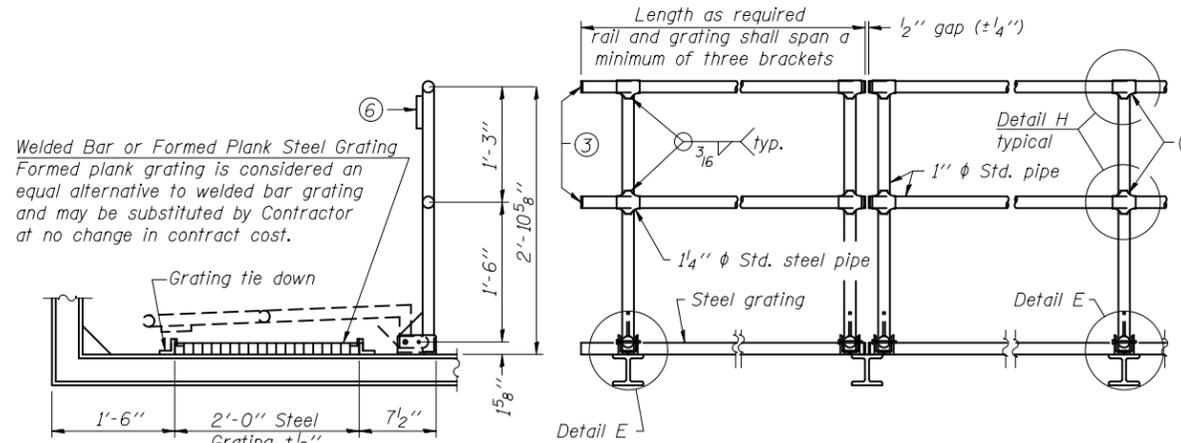
BM-2 6-1-12

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

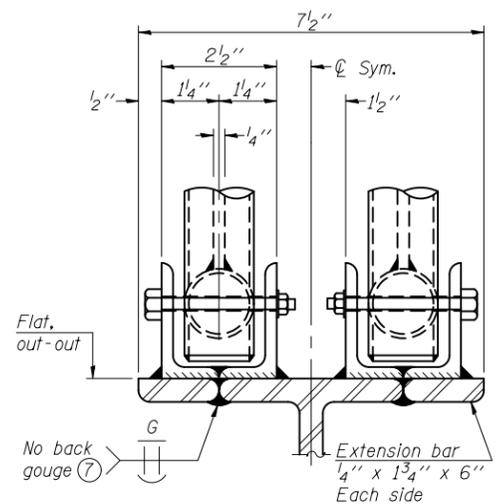
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)

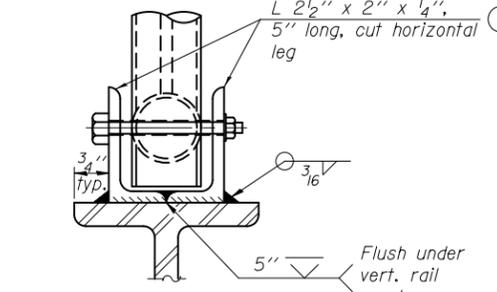
BRIDGE MOUNT SIGN STRUCTURES		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
WALKWAY AND CONNECTION DETAILS		CONTRACT NO.				
SHEET NO. OF SHEETS		ILLINOIS FED. AID PROJECT				



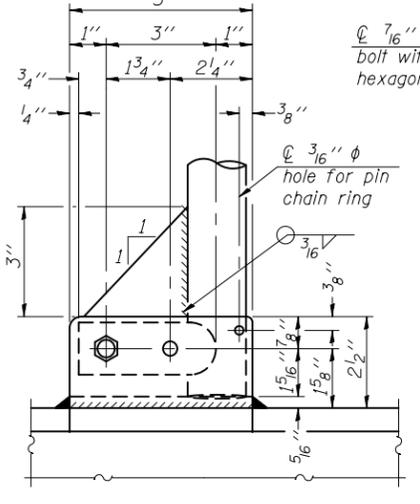
SIDE ELEVATION DETAIL D HANDRAIL FRONT ELEVATION



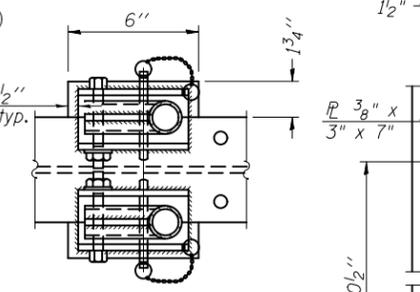
ELEVATION AT HANDRAIL JOINT
(Details not shown same as "FRONT ELEVATION")



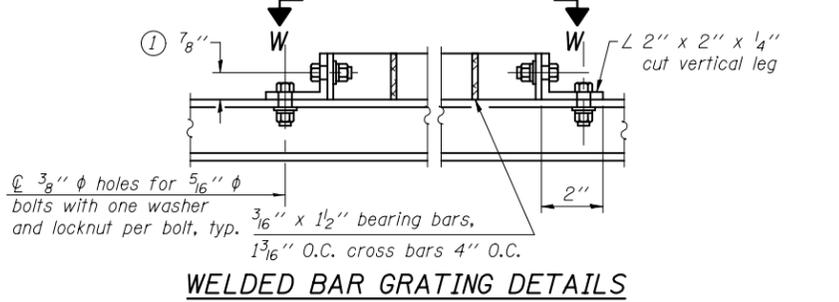
FRONT ELEVATION
(See above Elevations for dimensions.)



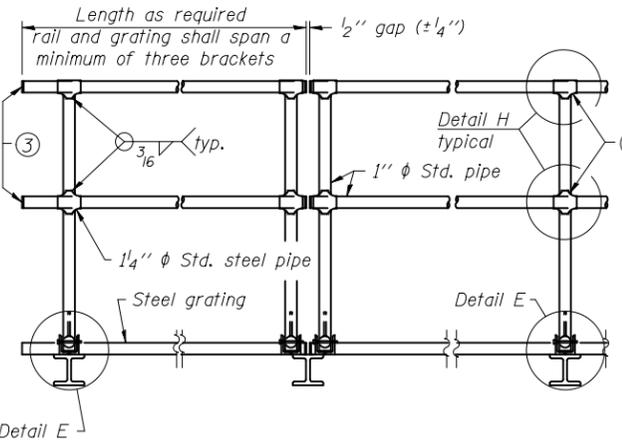
SIDE ELEVATION



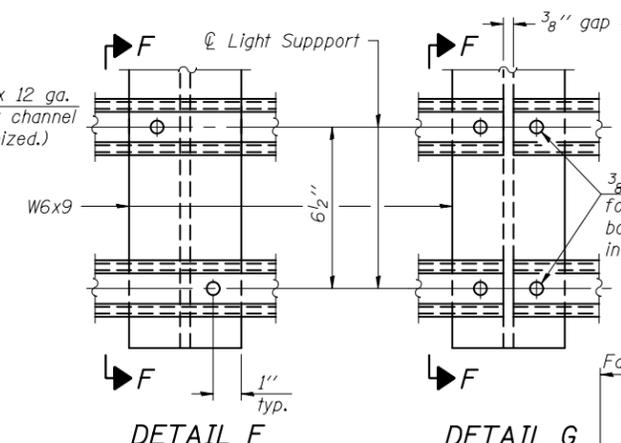
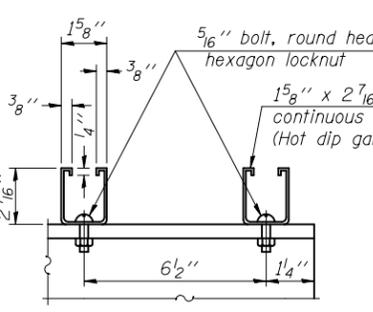
PLAN AT HANDRAIL JOINT
(For Details, see Elevations.)



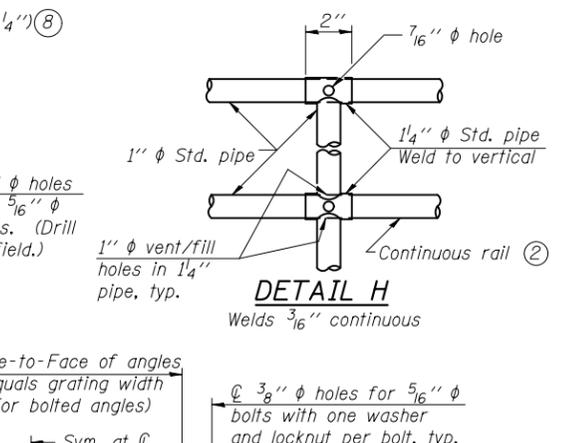
WELDED BAR GRATING DETAILS



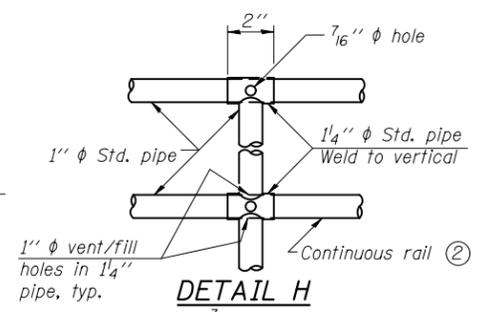
SECTION F-F LIGHTING FIXTURE MOUNTS
(If required)



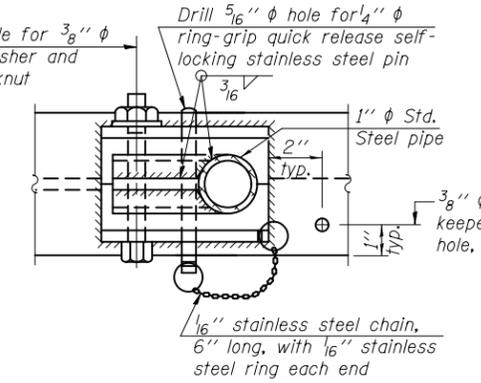
DETAIL F



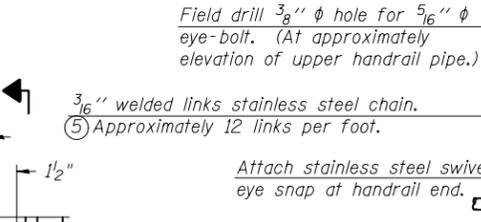
DETAIL G



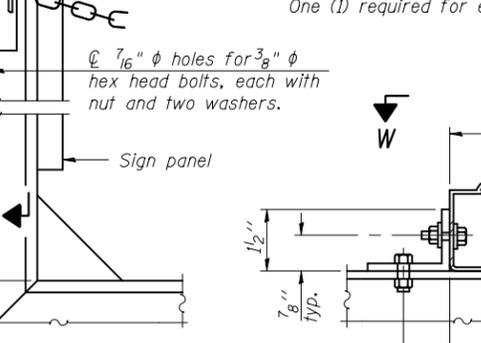
DETAIL H
Welds 3/16" continuous



PLAN AT SINGLE HANDRAIL HINGE
DETAIL E

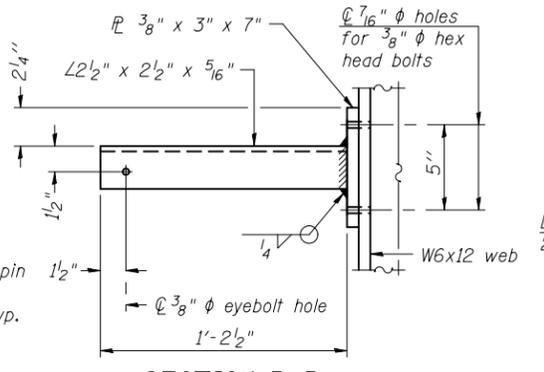


SAFETY CHAIN

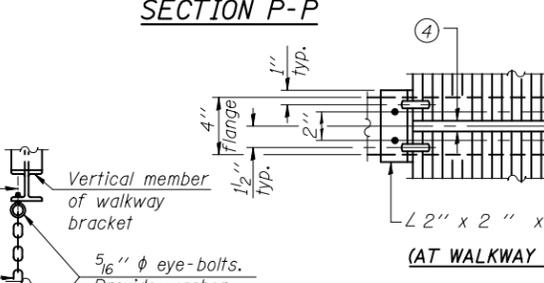


SAFETY CHAIN ATTACHMENT

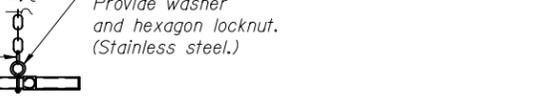
(With Sign Present)
Items not shown same as "SIDE ELEVATION" and "SAFETY CHAIN"



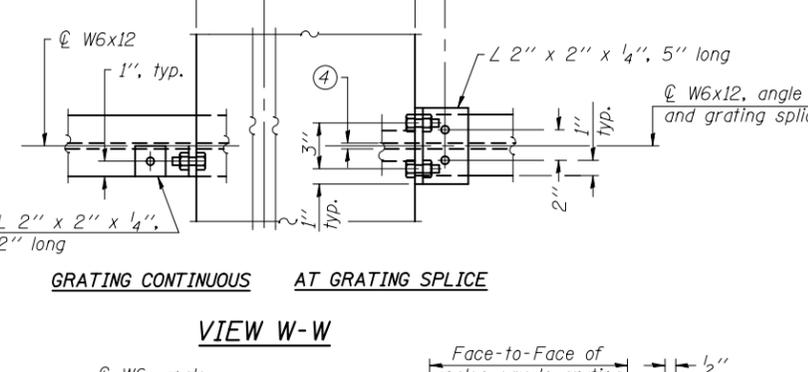
SECTION P-P



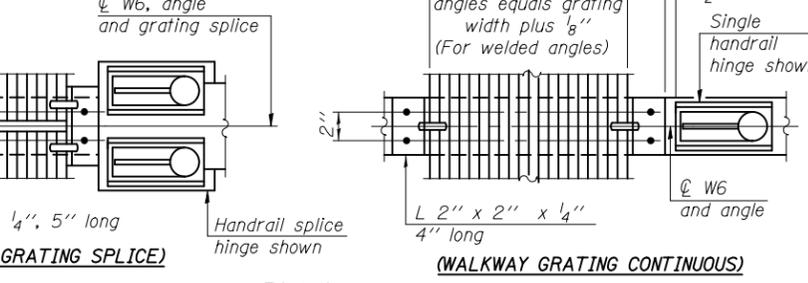
VIEW W-W



(AT WALKWAY GRATING SPLICE)



GRATING CONTINUOUS AT GRATING SPLICE

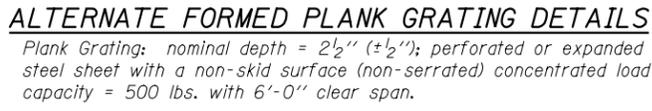


(WALKWAY GRATING CONTINUOUS)

PLAN

NOTES

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment. Field drilled holes must be touched up with galvanized paint.
- Horizontal rail member shall be continuous thru 1 1/4" pipe. Provide 7/16" hole in 1 1/4" pipe for 3/8" bolt. Field drill 7/16" hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" holes on top rail at ends only.)
- Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends.)
- 3/8" (±1/4") gap between grating panels at splice.
- Chain to be type 304L stainless steel suitable for prolonged exterior exposure. Approximately 3'-6" long chain per location. Maximum sag with handrail erected = 4".
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Extrusions may be used in lieu of details shown, with approval by Engineer.
- Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



ALTERNATE FORMED PLANK GRATING DETAILS

Plank Grating: nominal depth = 2 1/2" (±1/2"); perforated or expanded steel sheet with a non-skid surface (non-serrated) concentrated load capacity = 500 lbs. with 6'-0" clear span.

BM-4

6-1-12

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE MOUNT SIGN STRUCTURES WALKWAY DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED -	REVISED -			CONTRACT NO.					
	PLOT DATE =	DRAWN -	REVISED -			SHEET NO. OF SHEETS					
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					