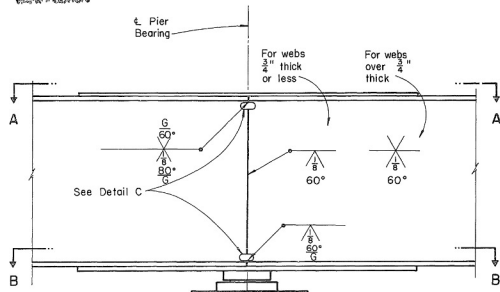
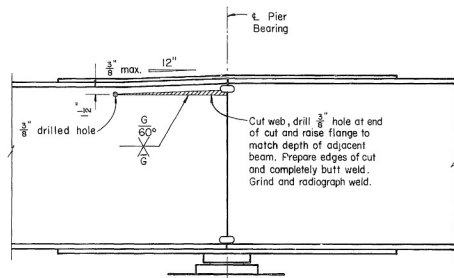


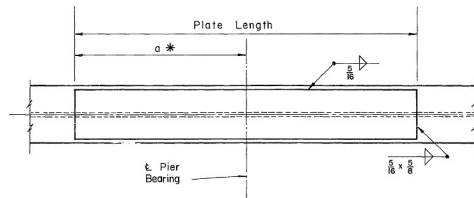
MICROFILMED  
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ENCLOSURE



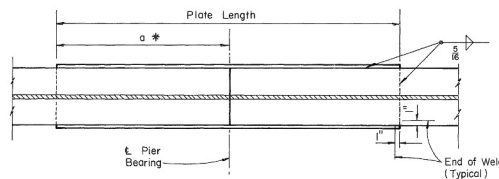
**BEAM SPLICE DETAIL A**  
For splicing beams having  
depths differing by  $\frac{1}{8}$ " or less.



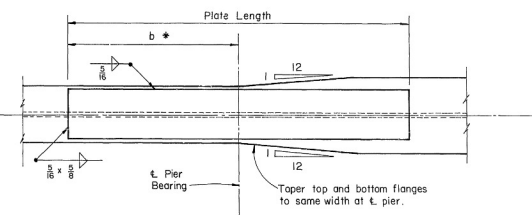
**BEAM SPLICE DETAIL B**  
For splicing beams having  
depths differing by more than  $\frac{1}{8}$ "



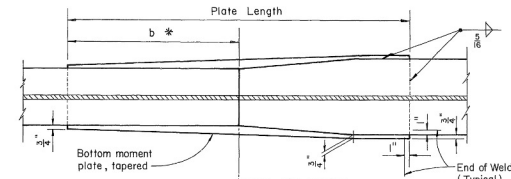
**VIEW A-A**  
For splicing beams having the  
same flange width.



**SECTION B-B**  
For splicing beams having the same  
flange width.

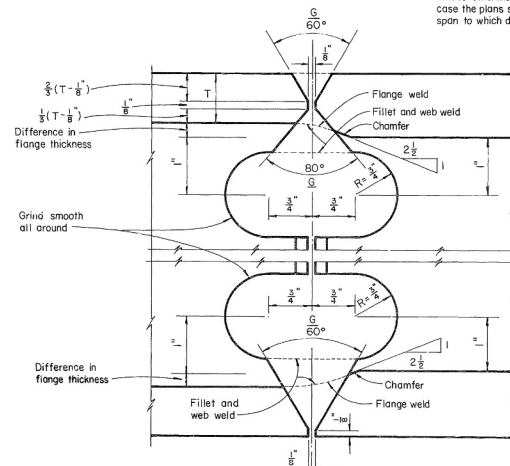


**VIEW A-A**  
For splicing beams having  
different flange widths.



**SECTION B-B**  
For splicing beams having different  
flange widths.

\* See Standard Drawings or project  
plans for dimensions "a" and "b".  
Dimension "a" equals  $\frac{1}{2}$  plate length  
unless otherwise shown, in which  
case the plans shall indicate the  
span to which dimension "a" applies.



**DETAIL C**  
END PREPARATION OF ROLLED  
BEAMS FOR FIELD WELDING

**BEAM SPLICE WELDING PROCEDURE: (For 3 spans)**

1. Raise the abutment ends of the beams the amount  
tabulated on Standard Drawings or project plans.

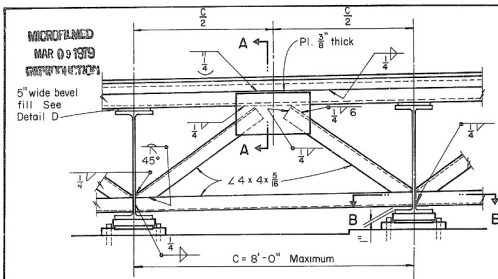
2. Butt-weld the beam flanges and web, using the  
following sequence: make two passes on the web, then  
two on each flange; repeat, using one or two passes  
at each location, until welds are completed.

3. Weld the bottom and top moment plates.

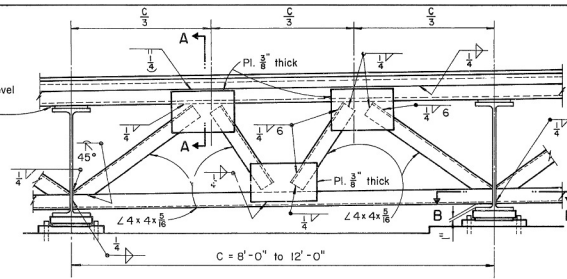
4. Lower the beam ends to final position.

For 4 or more spans see project plans.

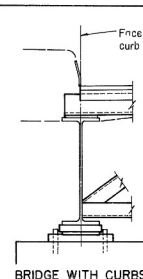
REVISIONS		U.S. OF CALIF. DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES			
		STANDARD SUPERSTRUCTURE DETAILS FOR STEEL BEAM BRIDGES			
APPROVED	DATE	DESIGNED BY	CHECKED BY	REVIEWED BY	DRAWING NUMBER
	11-17-63	W. J. K.	W. J. K.	W. J. K.	SD-11-63
PREPARED BY	TRACED BY	CHECKED BY	REVIEWED BY	SHEET NO. 1 OF 4 SHEETS	
W. J. K.	J. T. K.	W. J. K.	W. J. K.		



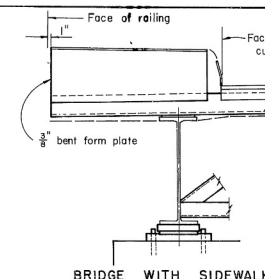
**END CROSSFRAME**  
For beam spacing of 8'-0" or less measured parallel to end dam.



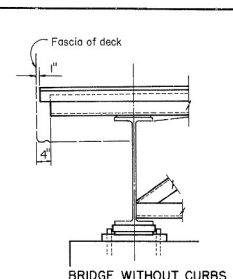
**END CROSSFRAME**  
For beam spacing of 8'-0" to 12'-0" measured parallel to end dam.



**BRIDGE WITH CURBS OR SAFETY CURBS**

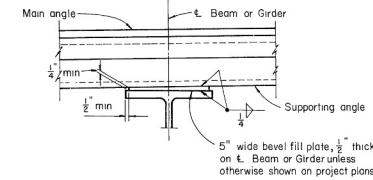


**BRIDGE WITH SIDEWALK**

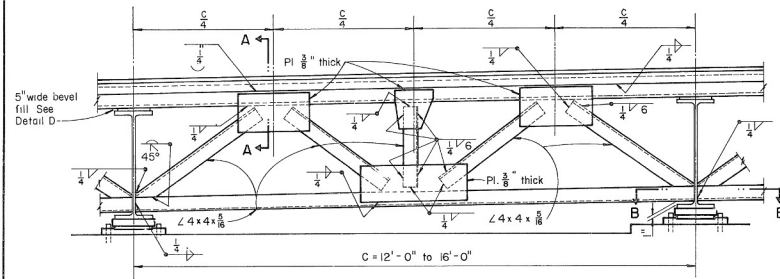


**BRIDGE WITHOUT CURBS**

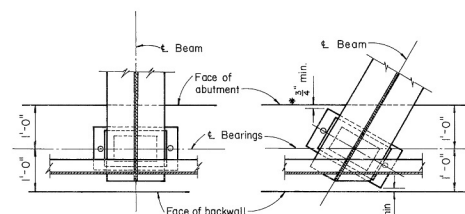
**END DAM DETAILS AT FASCIA BEAM**  
(For additional details see Sheet No. 4)



**DETAIL D**



**END CROSSFRAME**  
For beam spacing of 12'-0" to 16'-0" measured parallel to end dam.

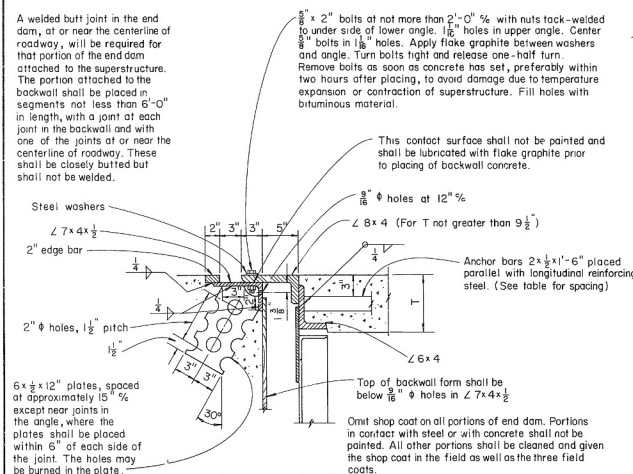


**FOR SQUARE BRIDGES**

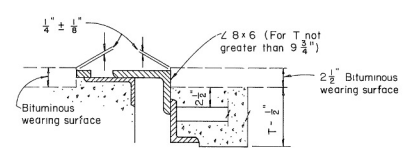
**SECTION B - B**

\* Where necessary, cope corner of masonry plate in order to maintain 3/4" clearance.

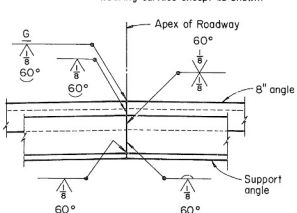
**FOR SKEWED BRIDGES**



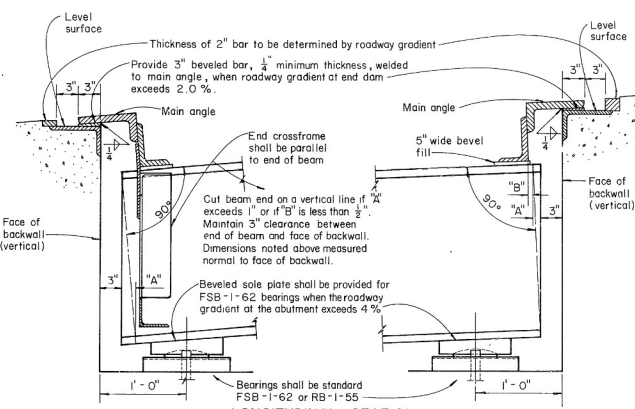
**SECTION A - A**  
SHOWING ROADWAY END DAM FOR MONOLITHIC WEARING SURFACE



**SECTION A - A**  
SHOWING ROADWAY END DAM FOR BITUMINOUS WEARING SURFACE  
Same as SECTION A-A for monolithic wearing surface except as shown.



**WELDED BUTT JOINT IN SUPERSTRUCTURE END DAM**

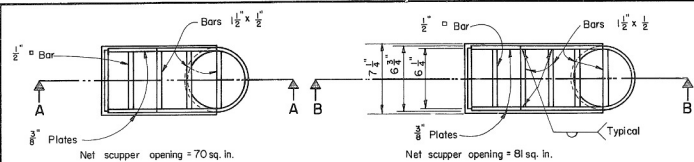


**LONGITUDINAL SECTION BRIDGE ON GRADE**

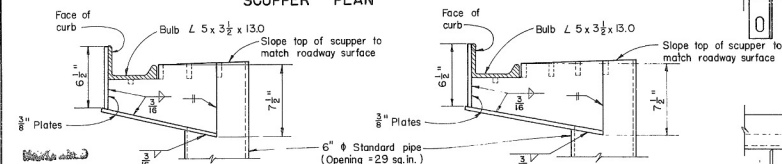
ROADWAY END DAM DATA			
Member	Thickness or spacing of member for frequency of:		
	CF = 130	CF = 400	CF = 2000
Main angle: 8x4 or 8x6 ±	3/4"	1"	1 1/2"
2" edge bar ±	18" Sp.	15" Sp.	12" Sp.
2 x 1/2 x 1'-6" anchor bars - Spacing	18" Sp.	15" Sp.	12" Sp.
Supporting angle: 6x4	1/2"	3/4"	1"

± See Sections A-A  
+ Modify thickness of bar as required for structures on grades exceeding 2%

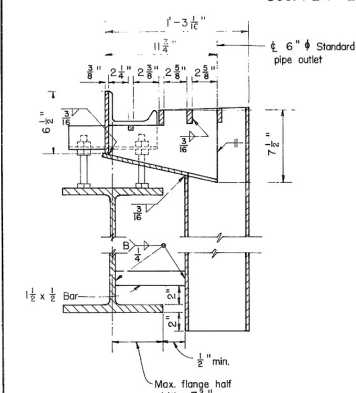
STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES			
STANDARD SUPERSTRUCTURE DETAILS FOR STEEL BEAM AND GIRDER BRIDGES			
APPROVED: <i>[Signature]</i> DATE: 11-12-63	DRAWING NUMBER: SD-1-63	SHEET NO. 2 OF 4 SHEETS	
PREPARED: FFE CHECKED: JTK DESIGNED: WLL REVIEWED: BFC, CDR, MFS, NCK, WSH	TRACED: JTK		



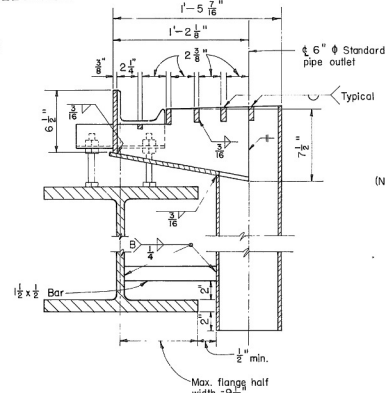
SCUPPER PLAN



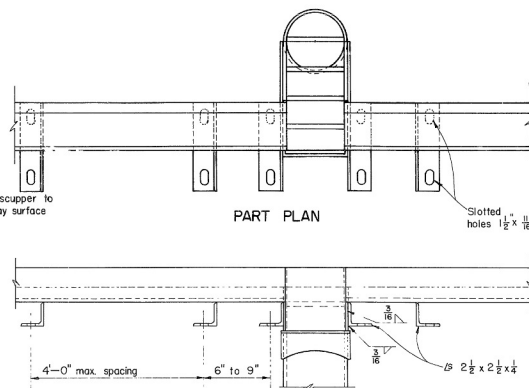
SCUPPER ELEVATION



SECTION A-A  
TYPE 1 SCUPPER



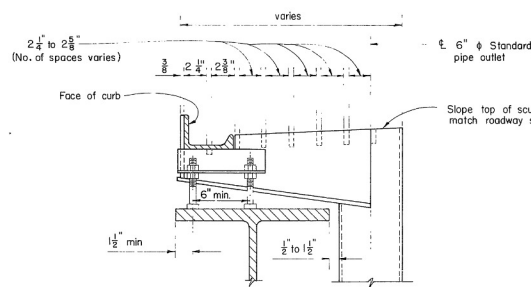
SECTION B-B  
TYPE 2 SCUPPER



PART PLAN

ELEVATION

GUTTER AND SCUPPER DETAILS



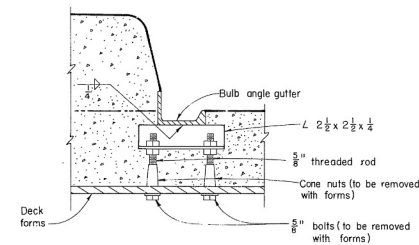
DETAIL "A"

Scupper elevation, showing method of widening scupper where necessary to clear flanges.

Gutter supports  $L 2 \frac{1}{2} \times 2 \frac{1}{2} \times \frac{1}{4}$   
spaced at not more than 4'-0"  
centers between scuppers.

$\frac{3}{8}$ " bolts or  
end-welded studs  
Weld bolts or studs to top of  
moment plates at piers.

GUTTER SUPPORT A



GUTTER SUPPORT B

For bridges on which gutters are at  
considerable distance from beam  
or girder flange.

# NOTES

Scuppers shall be furnished in sufficient number to provide one square inch of net scupper opening for each 12 to 15 square feet of deck area to be drained. The downspout shall have, at least one square inch of opening for each five square inches of net scupper opening, with a minimum nominal diameter of 6 inches.

Scuppers should clear crossframes by at least 6 inches, piers by at least 5'-0", and abutments by 2'-6".

The first support angle each side of scupper is included with scupper for payment.

Gutters shall be accurately adjusted for alignment and grade, with allowance for dead load deflection, before concrete is placed.

When scupper spacing exceeds 25 ft, milled joints will be permitted in bulb angles, but individual lengths shall be made as long as practicable.

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				STANDARD SUPERSTRUCTURE DETAILS FOR STEEL BEAM AND GIRDER BRIDGES	
APPROVED:	DATE: 11-15-43	THROUGHT: FFE	CHECKED: W.H.J.	DESIGNED: W.H.J.	DRAWN NUMBER: SD-1-63
				REVIEWED: W.H.J.	SHEET NO. 3 OF 4 SHEETS

22"

17"

11"

8.5"

8.5"

11"

17"

22"

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	STANDARD SUPERSTRUCTURE DETAILS FOR STEEL BEAM AND GIRDER BRIDGES								
	APPROVED: <i>[Signature]</i> DATE: <i>11-11-63</i>						DRAWING NUMBER SD-1-63		
PREPARED FFE		TRACED GJM		CHECKED W.J.J.		REVIEWED B.F.S. CDB MPB		SHEET NO. 4 OF 4 SHEETS	