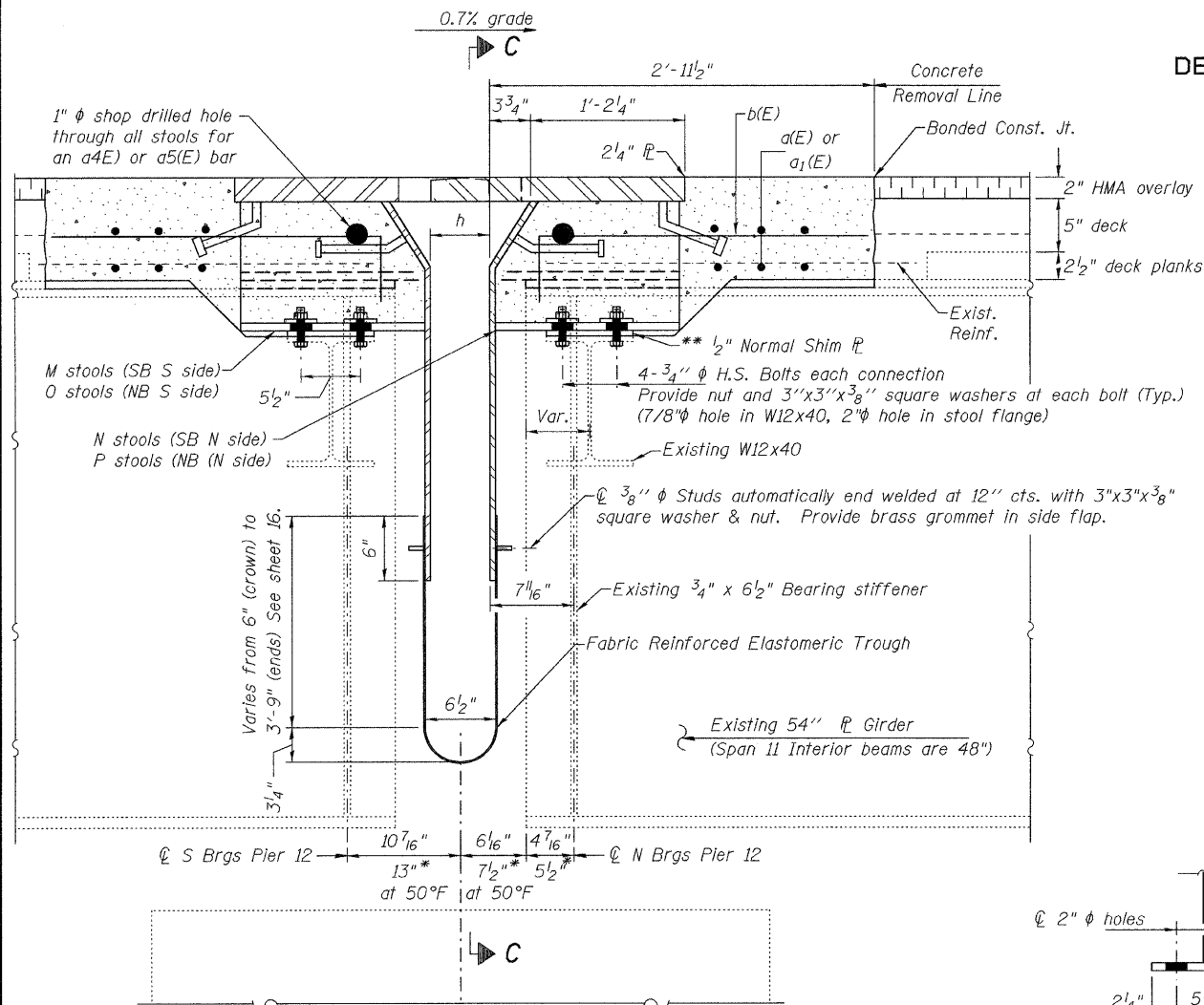


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION B-B
(Looking West)

Notes: See sheet 15 of 20 for stool locations.

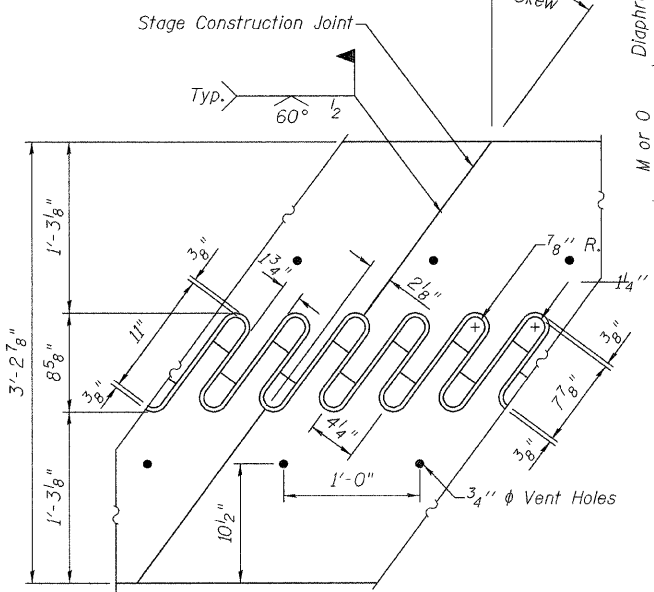
See sheet 16 of 20 for Section C-C.

Stool heights are measured along ϕ of bearings.

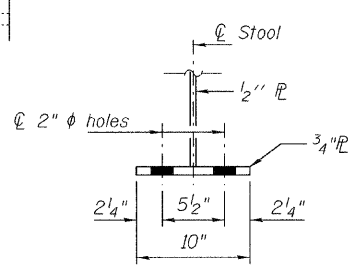
All plates shall be AASHTO M270, Gr. 50.

Existing shear studs that interfere with the finger plate stool shall be removed using the air-arc method and grind smooth all weld material remaining on the top flange. Cost included with Finger Plate Expansion Joint, 6".

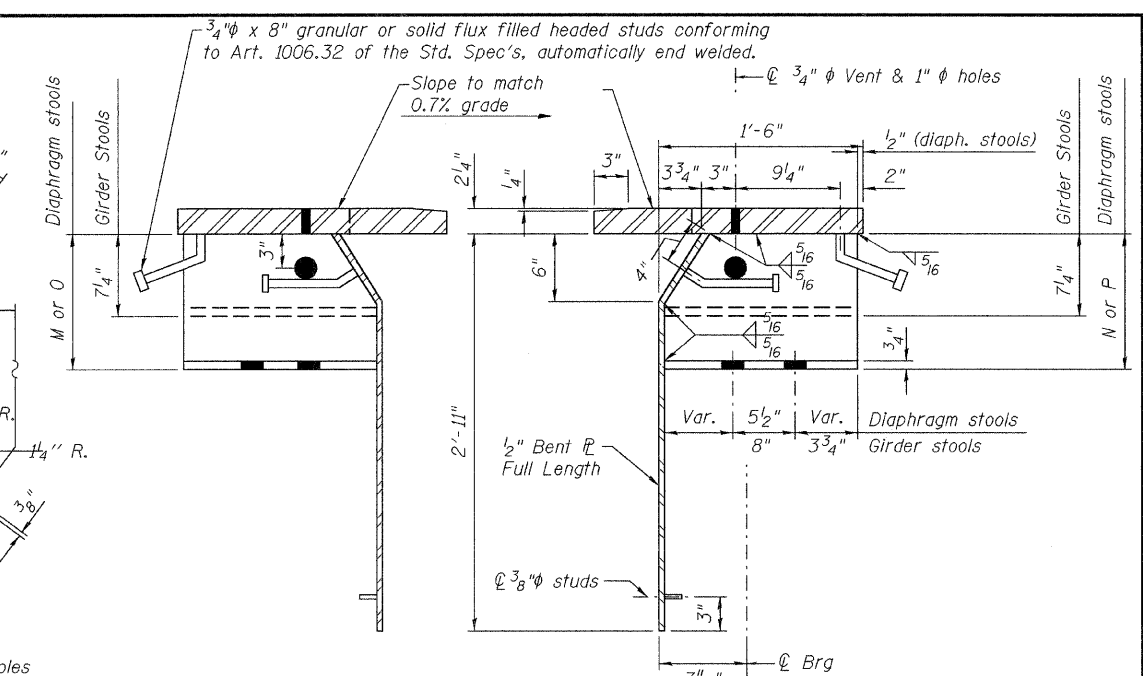
Finger Plate Expansion Joints shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection.



FLAME CUTTING DIAGRAM
(Cut from 2 1/4" x 3'-2 7/8" M270 Gr. 50)

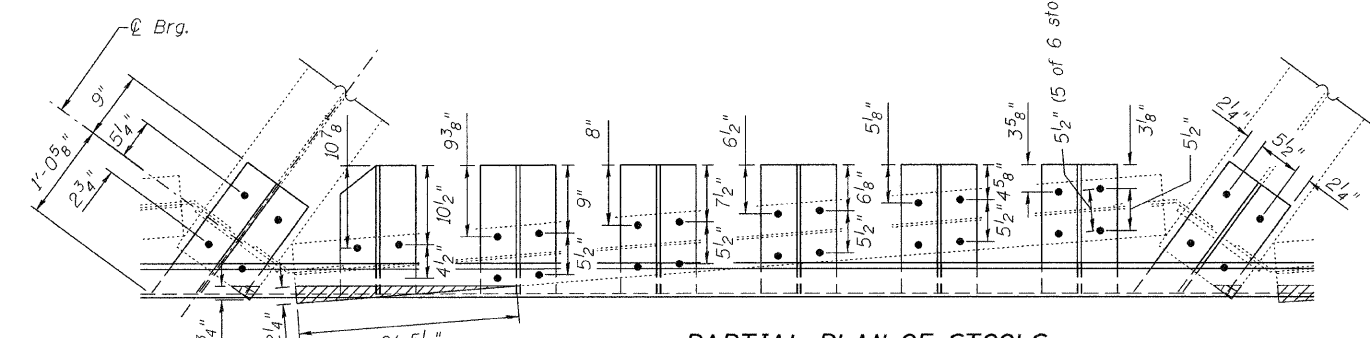


STOOL SECTION



M & O STOOLS
(Looking West)

N & P STOOLS
(Looking West)



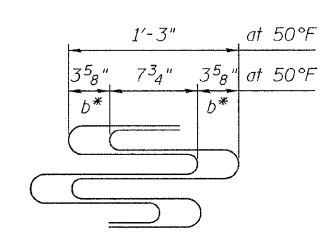
PARTIAL PLAN OF STOOLS

DIMENSIONS M & N (SB PIER 12)

Stool No.	Height	Stool No.	Height	Stool No.	Height	Stool No.	Height
M2	11 7/16"	M23	16"	N2	11 3/8"	N23	16"
M3	11 1/16"	M24	16 3/16"	N3	11 5/8"	N24	16 3/16"
M4	11 5/16"	M25	16 3/8"	N4	11 7/8"	N25	16 5/16"
M5	12 1/8"	M26	16 1/2"	N5	12 1/8"	N26	16 1/2"
M6	12 3/8"	M27	16 9/16"	N6	12 3/8"	N27	16 9/16"
M7	12 5/8"	M28	16 1/4"	N7	12 5/8"	N28	16 1/4"
M9	13 1/8"	M30	15 5/8"	N9	13 1/8"	N30	15 5/8"
M10	13 3/8"	M31	15 3/8"	N10	13 5/16"	N31	15 5/16"
M11	13 5/8"	M32	15 1/16"	N11	13 9/16"	N32	15"
M12	13 7/8"	M33	14 3/4"	N12	13 13/16"	N33	14 5/16"
M13	14 1/16"	M34	14 1/16"	N13	14 1/16"	N34	14 3/8"
M14	14 5/16"	M35	14 1/8"	N14	14 5/16"	N35	14 1/16"
M16	14 13/16"	M37	13 7/16"	N16	14 3/4"	N37	13 7/16"
M17	15 1/16"	M38	13 1/16"	N17	15"	N38	13 1/16"
M18	15 1/4"	M39	12 1/16"	N18	15 3/16"	N39	12 5/8"
M19	15 3/8"	M40	12 1/4"	N19	15 3/8"	N40	12 1/4"
M20	15 9/16"	M41	11 7/8"	N20	15 1/2"	N41	11 9/16"
M21	15 1/16"	M42	11 1/2"	N21	15 1/16"	N42	11 1/2"

DIMENSIONS O & P (NB PIER 12)

Stool No.	Height	Stool No.	Height	Stool No.	Height	Stool No.	Height
O2	11 1/2"	O23	16 1/8"	P2	11 5/16"	P23	15 7/8"
O3	11 3/4"	O24	16 1/4"	P3	11 1/2"	P24	16 1/16"
O4	12"	O25	16 7/16"	P4	11 3/4"	P25	16 3/16"
O5	12 3/16"	O26	16 9/16"	P5	12"	P26	16 3/8"
O6	12 7/16"	O27	16 11/16"	P6	12 1/4"	P27	16 7/16"
O7	12 11/16"	O28	16 3/8"	P7	12 1/2"	P28	16 1/8"
O9	13 3/16"	O30	15 3/4"	P9	13"	P30	15 1/2"
O10	13 7/16"	O31	15 7/16"	P10	13 1/4"	P31	15 3/16"
O11	13 11/16"	O32	15 9/16"	P11	13 1/2"	P32	14 15/16"
O12	13 15/16"	O33	14 13/16"	P12	13 11/16"	P33	14 5/8"
O13	14 1/16"	O34	14 1/2"	P13	13 15/16"	P34	14 5/16"
O14	14 3/8"	O35	14 3/16"	P14	14 3/16"	P35	14"
O16	14 7/8"	O37	13 9/16"	P16	14 1/16"	P37	13 5/16"
O17	15 1/8"	O38	13 1/8"	P17	14 15/16"	P38	12 15/16"
O18	15 5/16"	O39	12 3/4"	P18	15 1/16"	P39	12 9/16"
O19	15 9/16"	O40	12 3/8"	P19	15 1/4"	P40	12 1/8"
O20	15 3/8"	O41	12"	P20	15 7/16"	P41	11 3/4"
O21	15 1/16"	O42	11 5/8"	P21	15 9/16"	P42	11 3/8"



FINGER DETAILS

SB & NB Pier 12
(445' Expansion Length)

Temp.	b	h
-30°F	6 3/8"	7 3/4"
50°F	3 5/8"	5 1/2"
130°F	7 8"	7 3/4"

* Measured along ϕ girder.

** Provide 1/2" normal shim, plus one 1/4" shim, plus one 1/8" shim, and one 1/16" shim for height adjustment. Tapered shims shall be added under the stools as required by the Engineer to make a smooth finger joint.

Theoretical girder stool heights vary from 5 1/4" to 5 5/8". Fabricate all girder stools 5 1/4" tall and shim as needed. Cost shall be included with Finger Plate Expansion Joint, 6".

PIER 12 FINGER PLATE DETAILS
SN 082-0247 & 0248

DESIGNED J. Uehle
CHECKED A. Hallway
DRAWN J. Uehle
CHECKED A. Hallway

NOVEMBER 5, 2009
EXAMINED *A. Carl Powers*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 14 20 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	255	82-1HVB-I-1	ST. CLAIR	45	39
CONTRACT NO. 76926			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT IM-255()		