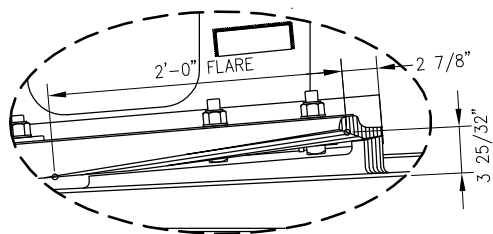
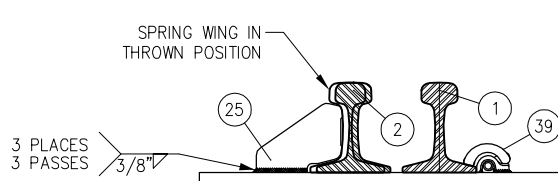
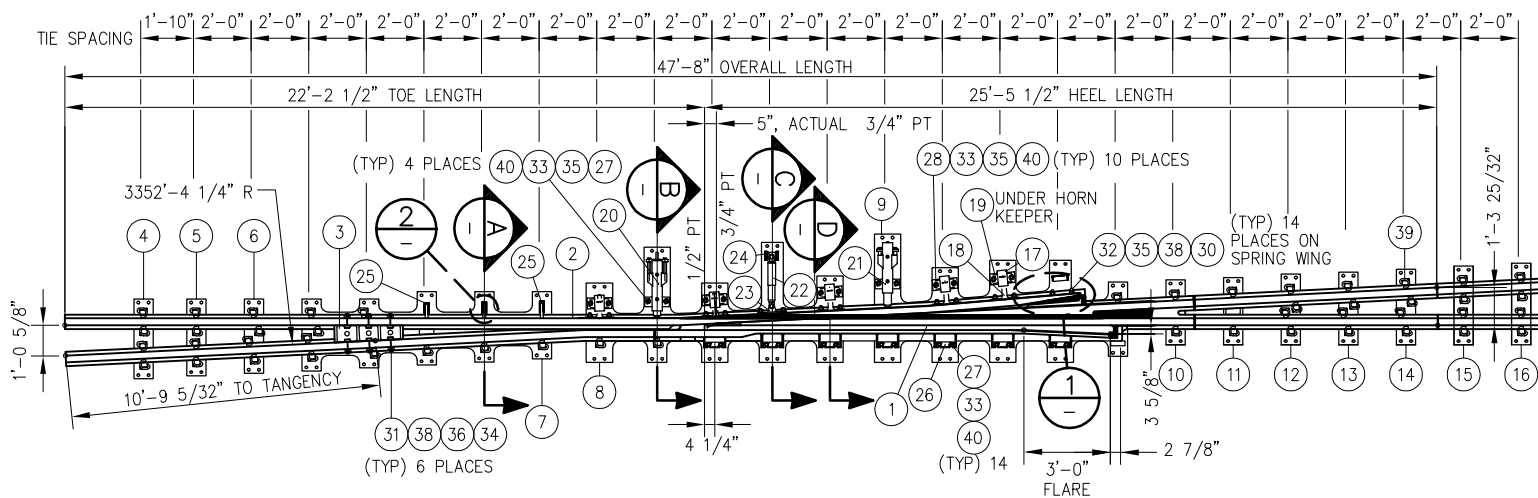
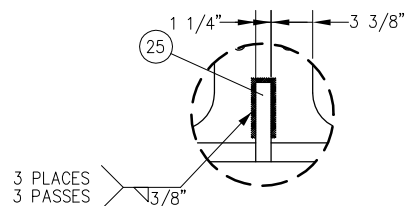


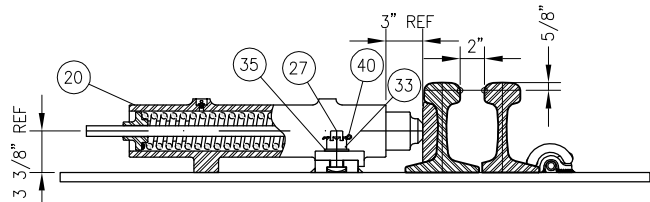
BILL OF MATERIAL				BILL OF MATERIAL			
ITEM	QTY	DESCRIPTION	DWG NO	ITEM	QTY	DESCRIPTION	DWG NO
1	1	NO 20-136 LB RE SPRING FROG, LH POINT ASSEMBLY	-	21	1	SPRING BOX ASSEMBLY, WITH 5 1/2" MAXIMUM PLUNGER TRAVEL	-
2	1	SPRING WING RAIL, NO 20-136 LB RE, LH, C/W D-BAR	-	22	1	RETARDER TIMING DEVICE (ENIDINE P/N SP22917)	-
3	1	TOE BLOCK, NO 20-136 LB RE WSM	-	23	1	RETARDER BRACKET FOR SPRING FROGS	-
4	1	FROG PLATE (SF20-136-75LC)	SD-2723	24	1	RETARDER PLATE BRACKET FOR FROG	-
5	1	FROG PLATE (SF20-136-76LC)	SD-2723	25	3	FLAT RAIL BRACE FOR NON D-BAR APPLICATIONS	-
6	1	FROG PLATE (SF20-136-77LC)	SD-2723	26	7	WASHER, BOLT CAPTURE STYLE, 1/4" THICK	-
7	1	FROG PLATE (SF20-136-78LC)	SD-2725	27	18	BOLT, 1" DIA x 3" LONG, THIN SQUARE HEAD, DRILLED @ 2 1/2", GR 5	-
8	1	FROG PLATE (SF20-136-83LC)	SD-2727	28	10	BOLT, 1" DIA x 3 1/2" LONG, THIN SQUARE HEAD, DRILLED @ 2 11/16", GR 5	-
9	1	FROG PLATE (SF20-136-88LC)	SD-2729	29	2	BOLT, 1" DIA x 4 1/8" LONG, HEAVY HEX HEAD, GR 8	-
10	1	FROG PLATE (SF20-136-93LC)	SD-2731	30	14	BOLT, 1" DIA x 4 1/2" LONG, SQUARE HEAD, GR 5	-
11	1	FROG PLATE (SF20-136-94LC)	SD-2731	31	6	BOLT, 1 3/8" DIA x 5 1/2" LONG, SQUARE HEAD, GR 8	-
12	1	FROG PLATE (SF20-136-95LC)	SD-2731	32	16	SECURITY LOCK NUT, 1" DIA, HEX (SH521), GR 5	-
13	1	FROG PLATE (SF20-136-96LC)	SD-2733	33	28	NUT, 1" DIA HEAVY HEX, SLOTTED, GR 5	-
14	1	FROG PLATE (SF20-136-97LC)	SD-2733	34	6	SECURITY LOCK NUT, 1 3/8" DIA HEX (SH530), GR 8	-
15	1	FROG PLATE (SF20-136-98LC)	SD-2735	35	32	FLAT WASHER, FOR 1" DIA x 5/32" THICK, HARDENED	-
16	1	FROG PLATE (SF20-136-99LC)	SD-2735	36	6	FLAT WASHER, FOR 1 3/8" DIA x 1/4" THICK, HARDENED	-
17	5	HORN KEEPER, REVERSIBLE	-	37	6	TAIL WASHER, FLAT (837K)	-
18	5	HOLD-DOWN HORN	-	38	14	HEADLOCK WASHER, FLAT (837P)	-
19	5	WEAR PLATE FOR REVERSIBLE HORN KEEPER	-	39	48	CLIP, PANDROL, E2055	-
20	1	SPRING BOX ASSEMBLY, WITH 3" MAXIMUM PLUNGER TRAVEL	-	40	28	COTTER PIN, 1/4" DIA x 2" LONG	-



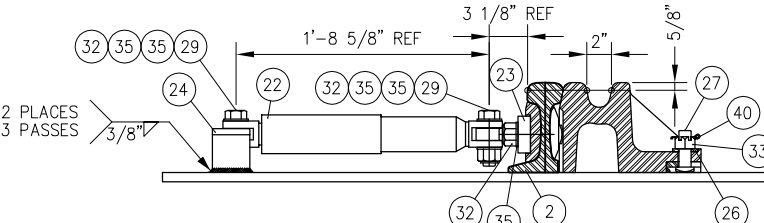
DIMENSIONS AT GAUGE ELEVATION



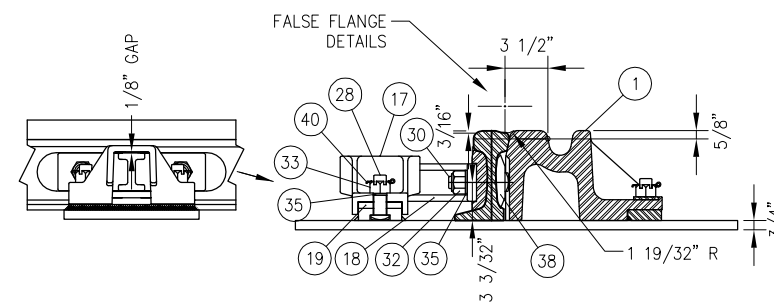
FLAT RAIL BRACE MOUNTING DETAILS
TYPICAL 3 PLACES



SPRING BOX MOUNTING DETAILS



RETARDER MOUNTING DETAILS
(RETARDER NOT SHOWN SECTIONAL)



HORN AND KEEPER MOUNTING DETAILS



NOTES:

- RETARDER CLOSING TIME RANGES FROM 1 TO 3 MINUTES
- SPRING BOX LOAD IS 300 LB/IN
- SPRING WING SHALL BE THROWN TO A 1 7/8" FLANGEWAY AT THE 3/4" POINT TO DETERMINE THE SPRING WING THROWN POSITION
- FLAT RAIL BRACES (ITEM NO 25) SHALL BE WELDED WHERE SHOWN, UP AGAINST SPRING WING WHEN FULLY THROWN
- RAIL END DRILLING SHALL BE @ 9" AND 15 1/2", 3 3/32" ABOVE RAIL BASE, 1 5/16" DIA AT ALL 4 RAIL ENDS. ALL RAIL HOLE EDGES SHALL BE ROUNDED WITH A 1/8" R
- RETARDER BRACKET (ITEM NO 23) SHALL BE WELDED AS SHOWN
- FROG SHALL BE CONSTRUCTED TO TOLERANCES GIVEN ON LATEST AREMA PLAN 1010, PERMISSIBLE VARIATIONS IN COMPLETED FROGS
- INSERT SHALL BE EXPLOSIVE DEPTH HARDENED TO 352 BRINELL PER AREMA
- NAME TAG SHALL BE AFFIXED TO RIGID WING RAIL NEAR 1/2" PT WITH INFORMATION SHOWN
- CALTRAIN WILL CONSIDER A TAPERED HEEL SPRING OF SAME ALIGNMENT AND DIMENSIONS TO REPLACE WSM

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bernard Anzures *Steph Chen*
ENGINEERING MANAGER DEPUTY DIRECTOR OF ENGINEERING



STANDARD DRAWINGS

SPECIAL TRACKWORK
NO 20 TURNOUT
WSM FROG LH
AND FROG PACK

CADD FILE NO.: SD-2721	
REV 0	DATE 093011
STANDARD NO.: SD-2721	

REV	DATE	BY	CHK	APP	DESCRIPTION