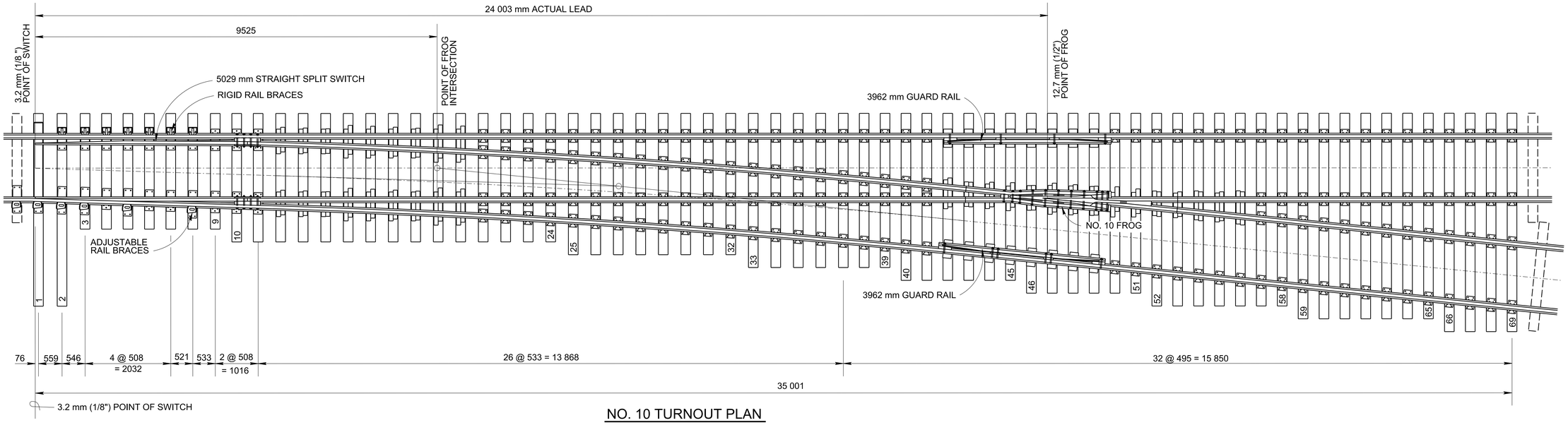
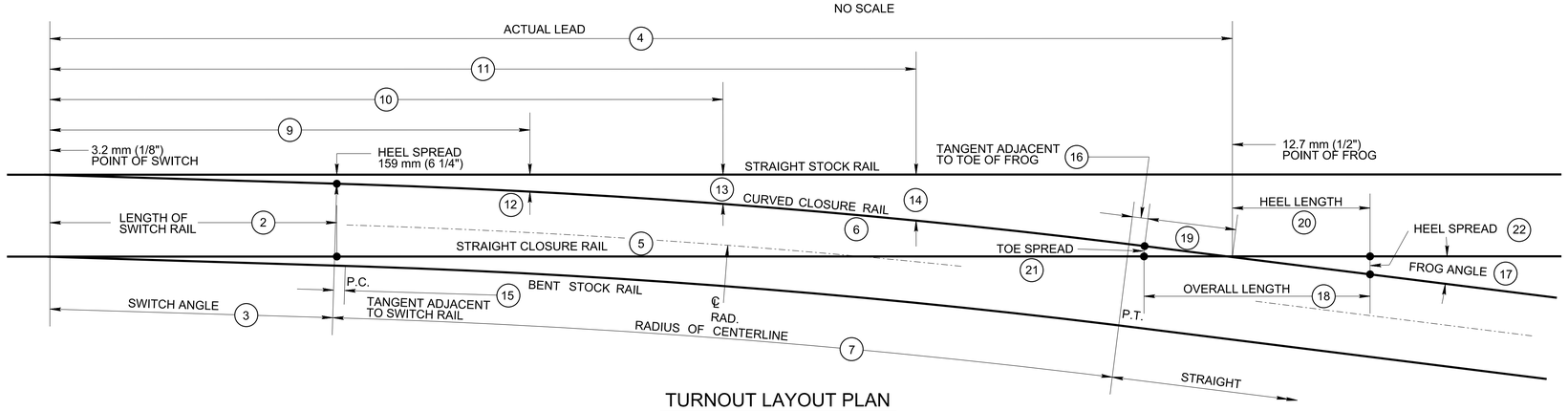


NO. 10 TURNOUT PLAN

NO SCALE



TURNOUT LAYOUT PLAN

NO SCALE

TURNOUT DATA

	PROPERTIES OF SWITCHES			CLOSURE DISTANCE		LEAD CURVE		GAGE LINE OFFSETS								PROPERTIES OF FROGS						
COL. 1	COL. 2	COL. 3	COL. 4	COL. 5	COL. 6	COL. 7	COL. 8	COL. 9	COL. 10	COL. 11	COL. 12	COL. 13	COL. 14	COL. 15	COL. 16	COL. 1	COL. 17	COL. 18	COL. 19	COL. 20	COL. 21	COL. 22
FROG NUMBER	LENGTH OF SWITCH RAIL	SWITCH ANGLE	ACTUAL LEAD	STRAIGHT CLOSURE RAIL	CURVED CLOSURE RAIL	RADIUS OF CENTER LINE	DEGREE OF CURVE							TANGENT ADJACENT TO SWITCH RAIL	TANGENT ADJACENT TO TOE OF FROG	FROG NUMBER	FROG ANGLE	OVERALL LENGTH	TOE LENGTH	HEEL LENGTH	TOE SPREAD	HEEL SPREAD
	mm	DEG.MIN.SEC.	mm	mm	mm	m	DEG.MIN.SEC.	mm	mm	mm	mm	mm	mm	mm	mm		DEG.MIN.SEC.	mm	mm	mm	mm	mm
10	5029	1-46-22	24 003	17 018	17 069	237.56	7-21-24	9138	13 246	17 355	311	533	829	634	0.00	10	5-43-29	5029	1956	3073	183	321

NOTES:

1. AREA PLANS REFERENCED BELOW REFER TO THE AMERICAN RAILWAY ENGINEERING ASSOCIATION'S PORTFOLIO OF TRACKWORK PLANS.
2. FOR SOLID MANGANESE FROGS, THE STRAIGHT AND CURVED CLOSURES SHALL BE LENGTHENED TO CONFORM.
3. SWITCHES, CLOSURE RAILS, AND STOCK RAILS ADJACENT TO SWITCHES SHALL BE NEW IN TURNOUTS WITH USED RAIL.
4. SWITCHES SHALL BE 5029 mm (16'-6") REINFORCED STRAIGHT SPLIT SWITCHES WITH GRADUATED RISERS CONFORMING TO AREA PLAN NO. 112.
5. SWITCH POINTS SHALL CONFORM TO AREA PLAN NO. 221, DETAIL 4000 OR 6100. MANGANESE STEEL TIPS ARE NOT REQUIRED.
6. RAIL BRACES SHALL BE EITHER FIXED OR ADJUSTABLE TYPE AND SHALL BE OF STANDARD MANUFACTURE. RIGID RAIL BRACES AND SWITCH PLATES SHALL CONFORM TO AREA PLAN NO. 223. ADJUSTABLE RAIL BRACES AND SWITCH PLATES SHALL CONFORM TO AREA PLAN NO. 224.
7. FROGS SHALL BE RAILBOUND MANGANESE OR SOLID MANGANESE SELF-GUARDED TYPE. GUARD RAILS SHOWN ARE REQUIRED ONLY IF RAILBOUND MANGANESE FROGS ARE PROVIDED.
8. NUMBER AND LOCATION OF HOOK TWIN PLATES SHALL CONFORM TO AREA PLAN NO. 112 AND PLAN NO. 241. HOOK TWIN PLATES SHALL CONFORM TO AREA PLAN NO. 241.
9. SETTING FOR GUARD RAILS SHALL CONFORM TO AREA PLAN NO. 502. GUARD RAILS SHALL CONFORM TO AREA PLAN NO. 504.
10. IN NO CASE MAY THE END OF A SWITCH TIE BE WITHIN 356 mm OF A SPIKE.
11. A TOTAL OF 150 STANDARD TIE PLATES ARE REQUIRED WITHIN TIE NUMBERS 1-69. SEE THE AMERICAN RAILWAY ENGINEERING ASSOCIATION'S PORTFOLIO OF TRACKWORK PLANS FOR TYPE AND NUMBER OF OTHER TIE PLATES WITHIN TURNOUT.
12. A TOTAL OF 734 SPIKES ARE REQUIRED WITHIN TIE NUMBERS 1-69. SEE SHEET C-X FOR TURNOUT SPIKING PATTERN.
13. ALL TIES WITHIN TIE NUMBERS 1-69 SHALL BE BOX-ANCHORED TO THE EXTENT POSSIBLE (APPROXIMATELY 360 TOTAL). A TIE SHALL NOT BE ANCHORED UNLESS ANCHORS CAN BE APPLIED TO EACH SIDE OF THE TIE AT ALL RAILS.
14. QUANTITIES FOR STANDARD TIE PLATES, SPIKES, AND RAIL ANCHORS ARE APPLICABLE IF A RAILBOUND MANGANESE FROG IS PROVIDED. IF A SOLID MANGANESE SELF-GUARDED TYPE FROG IS PROVIDED, QUANTITIES SHOULD BE ADJUSTED ACCORDINGLY.

NO. 10 TURNOUT BILL OF SWITCH TIES

NUMBER	DESCRIPTION	SIZE
2 PCS	NO'S 1 AND 2	178X229X4572
7 PCS	3 TO 9 INCL.	178X229X2743
15 PCS	10 TO 24 INCL.	178X229X3048
8 PCS	25 TO 32 INCL.	178X229X3353
7 PCS	33 TO 39 INCL.	178X229X3658
6 PCS	40 TO 45 INCL.	178X229X3962
6 PCS	46 TO 51 INCL.	178X229X4267
7 PCS	52 TO 58 INCL.	178X229X4572
7 PCS	59 TO 65 INCL.	178X229X4877
4 PCS	66 TO 69 INCL.	178X229X5182
69 PCS		

ALL DIMENSIONS SHOWN IN MILLIMETRES UNLESS OTHERWISE NOTED

US Army Corps of Engineers
Omaha District

Symbol	Description	Date	Approved

Designed by: X
Dwn by: X
Ckd by: X
Reviewed by: X
Submitted by: X
Chief: X
Date: DECEMBER 1997
Design file no. C209.DGN
Plot Scale Ratio: 50 : 1
Drawing code: X
Rev.
Spec. No. DACA 45
Contract No. DACA 45

XX X

NO. 10 TURNOUT DETAILS

Sheet reference number:
C2.09