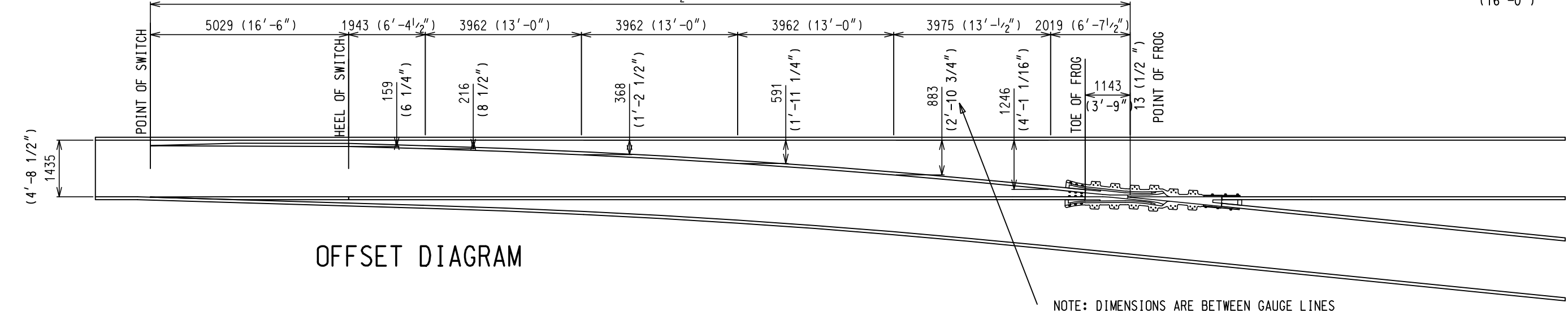
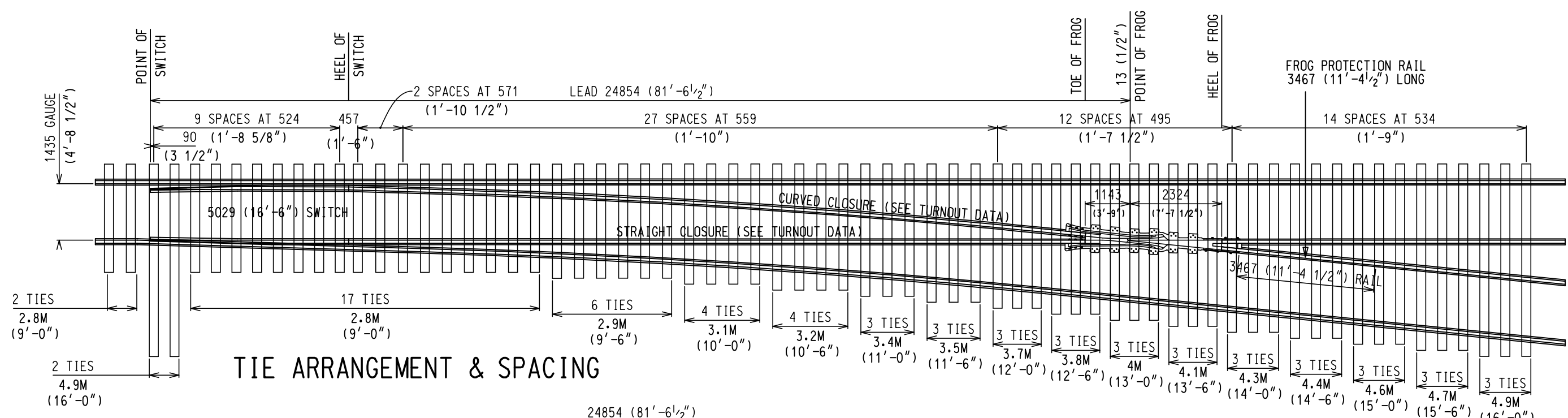
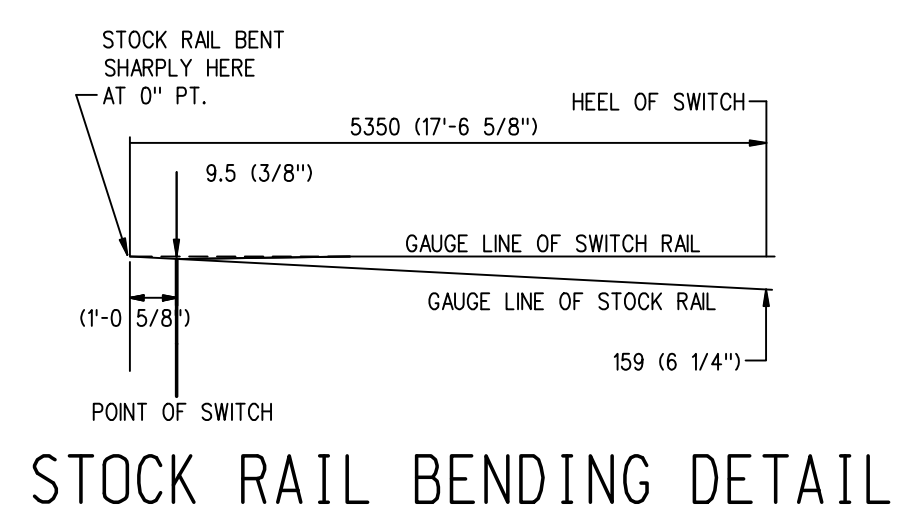


- NOTES**
- TURNOUT TO BE INSTALLED AND MAINTAINED IN ACCORDING WITH THE LATEST ISSUE OF: RM.3500 TURNOUTS, RM.3502 POWER, SPRING AND INSTALLED SWITCH, RM.3506 SWITCH STAND, SWITCH LAMPS AND TARGETS, WHERE APPLICABLE.
 - WHEN REFERRING TO MANUAL TURNOUTS, DRAWING NUMBER MUST BE STATED AS A OR B: A-RIGHT HAND TURNOUT, B-LEFT HAND TURNOUT.
 - FOR GENERAL ARRANGEMENT OF SWITCH STAND & COMBINATION SEE GTS-701 AND GTS-702.
 - FOR THE VARIOUS STANDARD TURNOUT COMBINATIONS SEE INDEX SHEET GTS-0.
 - TURNOUT GEOMETRY, FOR TABLES OF DIMENSIONS AND OFFSETS SEE GTS-2.



TURNOUT DATA:
 FROG NO -----10
 LENGTH OF SWITCH-----16'-6"
 HEEL SPREAD-----6 1/4"
 LEAD-----81'-6 1/2"
 PS TO H.F.-----89'-2"

61'-3 1/2" STRAIGHT CLOSURE LENGTH
 MADE UP BY A 61'-3 1/2" RAIL OR:
 A 39' AND 22'-3 1/2" RAIL
 A 36' AND 25'-3 1/2" RAIL
 A 33' AND 28'-3 1/2" RAIL

61'-5 1/2" CURVE CLOSURE LENGTH
 MADE UP BY A 61'-5 1/2" RAIL OR:
 A 39' AND 22'-5 1/2" RAIL
 A 36' AND 25'-5 1/2" RAIL
 A 33' AND 28'-5 1/2" RAIL

METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm	
No. 1	Date 18/07/27
Revision ADDED IMPERIAL TO METRIC CONVERSION NOTE	
By Approved	
Standard	NO. 10 TURNOUT-16'-6" POINTS S.G.M. FROG- INSULATED 132LB. R.E. RAIL
Drawn MG	Checked GGS
Approved <i>[Signature]</i> V&S Engineering & Asset Management	
Date DEC 15, 2017	Plan Number GTS-0145
Rev 1	
REFERENCE: TS-145 A/B	Sheet 1 OF 1

BILL OF MATERIALS FOR GTS-0145

ITEM	DESCRIPTION	STANDARD DRAWING	MARK NO.	QUANTITY	
				A	B
SWITCH PACK					
1	1st. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP100/GP100	1	1
2	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP105/GP101	1	-
-	2nd. GAUGE PLATE C/W INSULATION PLATE 100/132	GTS-0522	GP101/GP102	-	1
3	SWITCH ROD	GTS-0341A	341A	1	1
4	SWITCH ROD	GTS-0341D	341D	1	1
5	RIGHT POINT RAIL	GTS-0316A	316A	1	1
6	LEFT POINT RAIL	GTS-0316B	316B	1	1
7	SWITCH PLATE	GTS-0508	SP315	6	6
8	SWITCH PLATE	GTS-0509	SP316	6	6
9	SWITCH PLATE	GTS-0510	SP317	2	2
10	SWITCH PLATE	GTS-0511	SP335	2	2
11	SWITCH PLATE	GTS-0511	SP336	2	2
12	SWITCH PLATE	GTS-0511	SP337	2	2
13	HOOK TWIN TIE PLATE	GTS-0503	LR23	6	6
14	HOOK TWIN TIE PLATE	GTS-0503	L23	6	6
15	HOOK TWIN TIE PLATE	GTS-0503	LR27	8	8
16	HOOK TWIN TIE PLATE	GTS-0503	L27	8	8
17	HOOK TWIN TIE PLATE	GTS-0503	LR31	4	4
18	HOOK TWIN TIE PLATE	GTS-0503	L31	4	4
19	HEEL BLOCK	GTS-0360	16-6&22GP1-S	2	2
20	BENT SPLICE BAR(4 HOLE) - 132/136 LB. R.E.	GTS-1204D	1204D	2	2
21	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	1	1
22	SPRING WASHER for 1 - 1/8" DIA. BOLT	GTS-1301	-	12	12
23	1 - 1/8"DIA. - 7 NC OVAL NECK TRACK BOLT X 12 - 1/2" LG. C/W SQ. NUT	GTS-1320/4	-	8	8
24	PIPE THIMBLE - 1 - 1/4" DIA. X 2 - 3/8" LONG	GTS-0345J	J	2	2
25	1/4" COTTER PIN X 2" LG.	-	-	4	4
26	1-1/8" DIA. - 7 UNC HEX HD. BOLT X 5" LG. C/W HEX NUT	GTS-1311/2	-	4	4
27	ADJUSTABLE RAIL BRACE	GTS-0354	132M-14	12	12
28	7/8" DIA. 9 UNC SQ. HD. BOLT X 3-3/4" LG.	GTS-1308/5	-	24	24
29	SPRING WASHER for 7/8" DIA. BOLT	GTS-1301	-	24	24
30	DOUBLE WASHER	GTS-0354	M-10	12	12
31	DOUBLE NUT	GTS-0354	M-9	12	12
32	PANDROL CLIP - PR 631A	GTS-1322	-	2	2
33	DOUBLE SPRING WASHER - TYPE FE6	GTS-1310	-	16	16
FROG					
34	#10-132 LB. SELF GUARDED MANGANESE STEEL FROG (INTEGRAL BASE)	D-10229 NOR	-	1	1
FROG PACK					
35	HOOK TWIN TIE PLATE	GTS-0503	LR23	2	2
36	HOOK TWIN TIE PLATE	GTS-0503	L23	2	2
37	HOOK TWIN TIE PLATE	GTS-0503	LR27	4	4
38	HOOK TWIN TIE PLATE	GTS-0503	L27	4	4
39	HOOK TWIN TIE PLATE	GTS-0503	H31	2	2
40	HOOK TWIN TIE PLATE	GTS-0503	L23J	4	4
41	STRAIGHT SPLICE BAR (4 HOLE) - 132/136 LB. R.E.	GTS-1203	-	1	1
TO UPGRADE EXISTING TURNOUT, REPLACE 132 LB. PLATES WITH EQUIVALENT 136 LB. PLATES.					
*** MINOR TIE SPACING ADJUSTMENTS MAY BE NECESSARY. ***					
TURNOUT PACKAGES					
TURNOUT NUMBER	DESCRIPTION	QUANTITY PER TURNOUT			
GTS- 145A	FROG SGM 10 - 132	1			
	SW-PK INS HO NO. 10A - 132 LBS.	1			
	FR-PK SGM - 132	1			
GTS- 145B	FROG SGM 10 - 132	1			
	SW-PK INS HO NO. 10B - 132 LBS.	1			
	FR-PK SGM - 132	1			
ABBREAVATIONS					
SW - PK - SWITCH PAK		SAM - SAMSON		SGM -	
FR - PK - FROG PAK		SELF GUARD MANGANESE		RBM -	
GR - PK - GUARD RAIL PAK		HO - HAND OPERATED			
INS - INSULATED		RAIL BOUND MANGANESE			
NOTE:					
1 - For a new installation, necessary rail, bonded insulated joints, splice bars, bolts, washers, rail anchors, connecting rod, switch stand, targe and reflectorized target kit may be required in addition to the materials listed above					
BILL OF SWITCH TIES FOR HAND AND SPRING OPERATION					
TIES 180 X 230 mm (7" X 9")					
LENGTH					
METRES	FEET/INCHES	NO. OF PIECES			
2.8	9' - 0"	19			
3.1	10' - 0"	10			
3.4	11' - 0"	7			
3.7	12' - 0"	6			
4.0	13' - 0"	6			
4.3	14' - 0"	6			
4.6	15' - 0"	6			
4.9	16' - 0"	8			
TOTAL NUMBER OF TIES - 68					