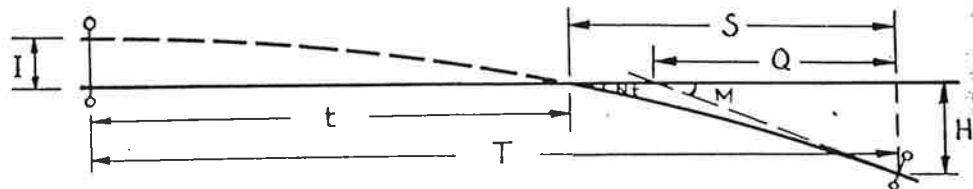


PERMANENT WAY
NOTES

SWITCH CONSTANTS (2)
OLD TYPE CURVED SWITCHES BH

THESE NOTES ARE INTENDED FOR THE GUIDANCE AND ASSISTANCE OF STAFF ENGAGED UPON PERMANENT WAY WORK. THEY DO NOT IN ANY WAY MODIFY, SUPPLEMENT OR AMEND THE INSTRUCTIONS LAID DOWN IN E.D.I., STANDARD DRAWINGS, CIRCULARS ETC., WHICH SHOULD BE REFERRED TO IN ALL CASES.

OLD
TYPE
CURVED
SWITCHES



S	9.0	10.0	12.0	S
M	17.64561033 ⁰⁵⁷	20.86995218 ²⁶⁵	25.11249639 ⁴⁰¹	M
H	.375	.375	.375	H
Q	6.611790937 ⁸⁷³	7.821739964 ²⁸⁷	9.413452946 ⁶²²	Q
Switch Radius	300	480	700	Switch Radius
Natural Angle	5.622135455 ⁴⁶⁹	7.122039829 ¹¹⁰	8.607338914 ³¹³	Natural Angle
N _t	37.55082472 ¹⁰⁸	36.95503708 ⁸⁹⁸	44.12072443 ³⁷⁹	N _t
I	.1063592600 ⁶²⁸	.1757051383 ²⁸⁶	.1797740505 ¹¹⁴	I
T	16.987755864 ¹⁶⁴	22.98637980 ⁷³¹	27.86352268 ⁵⁹²	T
t	7.987755864 ¹⁶⁴	12.98637980 ⁷³¹	15.86352268 ⁵⁹²	t
Neutral Radius	233.7131729 ⁵³⁹	326.8536780 ⁷⁹⁶	473.1656063 ⁵⁴⁵	Neutral Radius
Natural Angle	4.956722507 ¹⁴¹	5.870274704 ⁴⁵⁸	7.070903408 ⁴¹³	Natural Angle
X	2700.685554 ¹³³	3776.975835 ⁵⁸⁶	5467.691451 ²⁰⁸	X
Y	311.3675639 ³⁸⁵	435.5549041 ⁰⁶¹	630.6374751 ³⁹⁴	Y
Z	.05662585288 ⁰⁵⁵	.04788829126 ⁵²³	.03980503240 ⁸⁴⁶	Z
2√Y	35.29122066 ¹¹⁵	41.73990436 ⁵³⁰	50.22499278 ⁸⁰³	2√Y
Cos M	.9983954691 ³³¹	.9988526976 ²⁸⁵	.9992074656 ⁴²¹	Cos M
C-H	4.33'	4.33'	4.33'	C-H
$\frac{C-H}{2}$	2.166'	2.166'	2.166'	$\frac{C-H}{2}$

S	14.0	15.0	16.0	S
M	29.27935222 ³²⁰	32.00068633 ⁷¹³	34.49185702 ⁶⁵⁷	M
H	.375	.375	.375	H
Q	10.97655516 ⁸⁶⁰	11.99732775 ¹⁷⁶	12.93172385 ²¹³	Q
Switch Radius	950	1200	1440	Switch Radius
Natural Angle	10.03169755 ⁰⁶⁷	11.27757191 ⁵⁹¹	12.35598454 ¹²⁰	Natural Angle
N _t	51.52304807 ⁸⁰⁶	53.35225909 ²¹⁸	55.93912359 ⁷²⁷	N _t
I	.1789161796 ⁵²³	.2107693624 ²⁸³	.2300734393 ⁶⁸¹	I
T	32.43661385 ²³³	37.49004326 ⁵⁹⁴	41.74021312 ²⁵¹	T
t	18.43661385 ²³³	22.49004326 ⁵⁹⁴	25.74021312 ²⁵¹	t
Neutral Radius	643.1478499 ⁵⁷⁵	768.2204445 ³⁵⁶	892.4536508 ⁵⁶⁰	Neutral Radius
Natural Angle	8.249174911 ⁵³⁸	9.018366379 ⁹⁵³	9.722337117 ⁶³⁶	Natural Angle
X	7431.930710 ⁶²⁰	8877.214025 ⁷⁴⁴	10312.79774 ³²²	X
Y	857.2804666 ⁰³⁹	1024.043926 ⁰⁴⁷	1189.688201 ¹⁴¹	Y
Z	.03414380405 ⁵⁰⁸	.03124170272 ¹⁶²	.02898625911 ²⁸⁶	Z
2√Y	58.55870444 ⁶³⁹	64.00137267 ⁴²⁶	68.98371405 ³¹³	2√Y
Cos M	.9994169303 ³⁷²	.9995118588 ⁶⁴⁶	.9995798101 ¹¹⁵	Cos M
C-H	4.33'	4.33'	4.33'	C-H
$\frac{C-H}{2}$	2.166'	2.166'	2.166'	$\frac{C-H}{2}$

DEFINITION NEUTRAL RADIUS { THE RADIUS WHICH TANGENTS WITH THE SWITCH RADIUS AT THE HEEL AND WITH THE THROUGH STRAIGHT.
NEUTRAL ANGLE { THE CROSSING ANGLE PRODUCED BY THE NEUTRAL RADIUS CONTINUED ACROSS 4'-8½" GAUGE.
NATURAL ANGLE { THE CROSSING ANGLE PRODUCED BY THE SWITCH RADIUS CONTINUED ACROSS 4'-8½" GAUGE.
USE of X,Y&Z ~ SEE FUNDAMENTAL LEAD DATA SHEET.