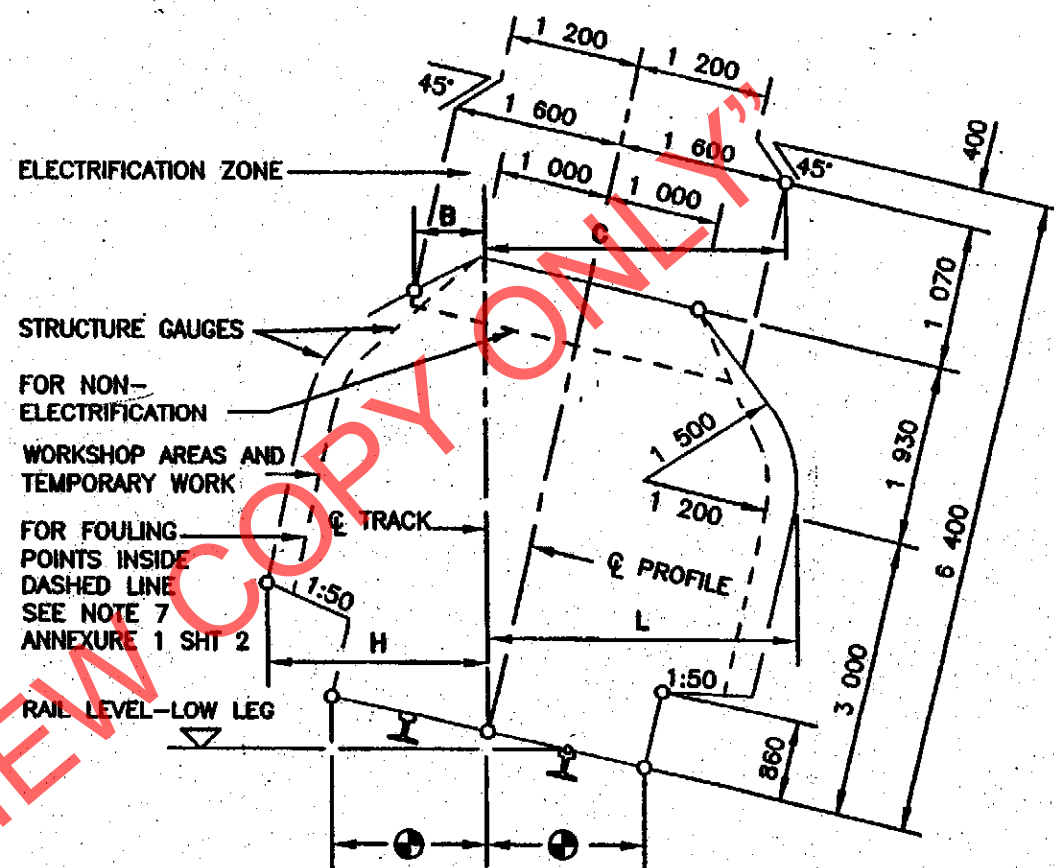


RADIUS (m)	WITH CANT		NO CANT	WITH CANT	
	H (mm)	L (mm)	H & L	B (mm)	C (mm)
90	2 730	3 090	2 780	1 130	2 100
100	2 700	3 030	2 750	1 140	2 050
120	2 650	2 970	2 700	1 160	2 010
140	2 620	2 920	2 660	1 175	1 990
170	2 590	2 870	2 630	1 190	1 970
200	2 570	2 820	2 600	1 205	1 950
250	2 550	2 790	2 580	1 230	1 920
300	2 540	2 760	2 560	1 250	1 900
350	2 530	2 730	2 540	1 270	1 890
400	2 520	2 710	2 530	1 290	1 875
500	2 510	2 680	2 520	1 320	1 850
600	2 500	2 660	2 510	1 340	1 830
800	2 490	2 620	2 500	1 365	1 790
1 000	2 480	2 600	2 490	1 380	1 760
1 200	2 480	2 580	2 490	1 200	1 730
1 500	2 480	2 550	2 480	1 415	1 700
2 000	2 480	2 500	2 480	1 440	1 660
3 000	2 470	2 470	2 470	1 500	1 600
>5 000	2 460	2 460	2 460	1 600	1 600



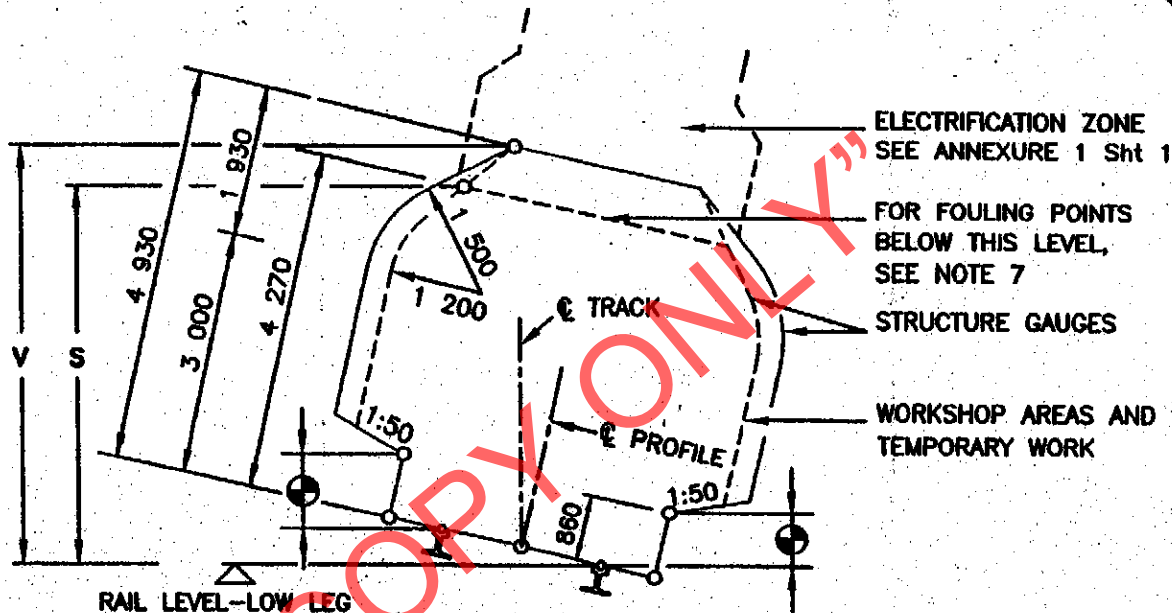
ANNEXURE 1
SHEET 1 of 5
AMENDMENT

HORIZONTAL CLEARANCES :
1 065mm TRACK GAUGE

REMARKS:

1. H AND B IS THE REQUIRED HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
2. L AND C IS THE REQUIRED HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR WORKSHOP AREAS AND TEMPORARY WORK, CLEARANCES H AND L MAY BE REDUCED BY 300mm.
5. Ⓞ SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.
6. ALSO REFER TO REMARKS 4 TO 8 OF ANNEXURE 1 SHEET 2.

LOCATION	RADIUS (mm)	NOT ELECTRIFIED S (mm)	ELECTRIFIED (PRESENT OR FUTURE)	
			3kV & 25kV V (mm)	50kV V (mm)
ALL AREAS OTHER THAN THOSE INDICATED BY * BELOW	100	4 470	5 050	5 400
	300	4 410	5 020	5 370
	600	4 370	5 000	5 350
	1 000	4 350	4 990	5 340
	1 500	4 310	4 960	5 310
	2 000	4 290	4 940	5 290
	>3 000	4 270	4 930	5 280
* OVER OR NEAR POINTS AND CROSSING IF REQUIRED BY ELECTRICAL IRRESPECTIVE OF RADIUS			5 650	6 000



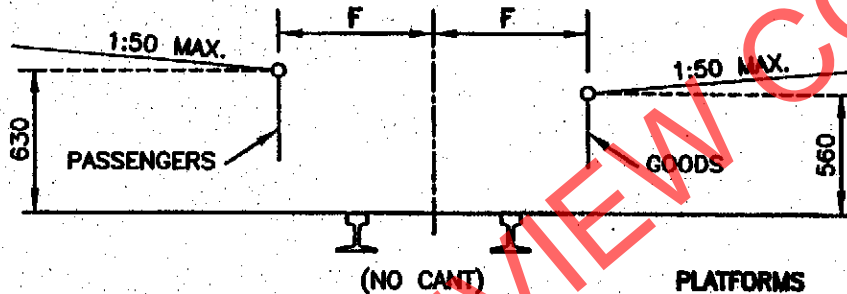
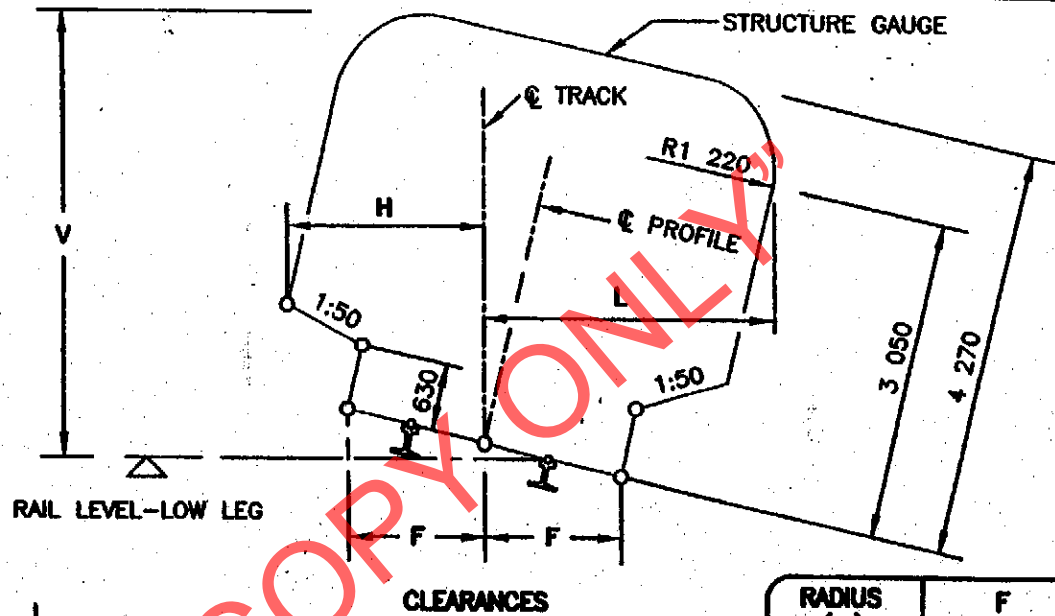
ANNEXURE 1
SHEET 2 of 5
AMENDMENT

VERTICAL CLEARANCES :
1 065mm TRACK GAUGE

REMARKS:

1. V IS THE REQUIRED VERTICAL CLEARANCE EXCEPT WHERE REDUCED CLEARANCE S APPLIES.
2. S IS THE MINIMUM VERTICAL CLEARANCE FOR STRUCTURES AND TEMPORARY WORK OVER NON-ELECTRIFIED LINES.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR APPLICATION AT CURVES
 - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 3m BEYOND THE ENDS OF THE CIRCULAR CURVE.
 - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
 - 4.3 FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 15m ALONG STRAIGHTS.
5. NEW STRUCTURES: SEE BRIDGE CODE.
6. TUNNELS: SEE DRAWING BE 82-35.
7. FOULING POINTS: SEE CLAUSE 8.1.
8. CLEARANCES ARE BASED ON 15m BOGIE CENTRES AND 21,2m VEHICLE BODY LENGTH.
9. SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.

RADIUS (m)	WITH CANT		NO CANT	V (mm)
	H (mm)	L (mm)	H & L (mm)	
50	2 370	2 490	2 400	4 320
70	2 310	2 420	2 330	4 310
100	2 260	2 370	2 280	4 310
140	2 220	2 340	2 250	4 310
200	2 200	2 300	2 220	4 300
300	2 190	2 270	2 200	4 300
500	2 180	2 230	2 190	4 290
700	2 170	2 200	2 180	4 270
1 000	2 170	2 170	2 170	4 270
>2 000	2 160	2 160	2 160	4 270

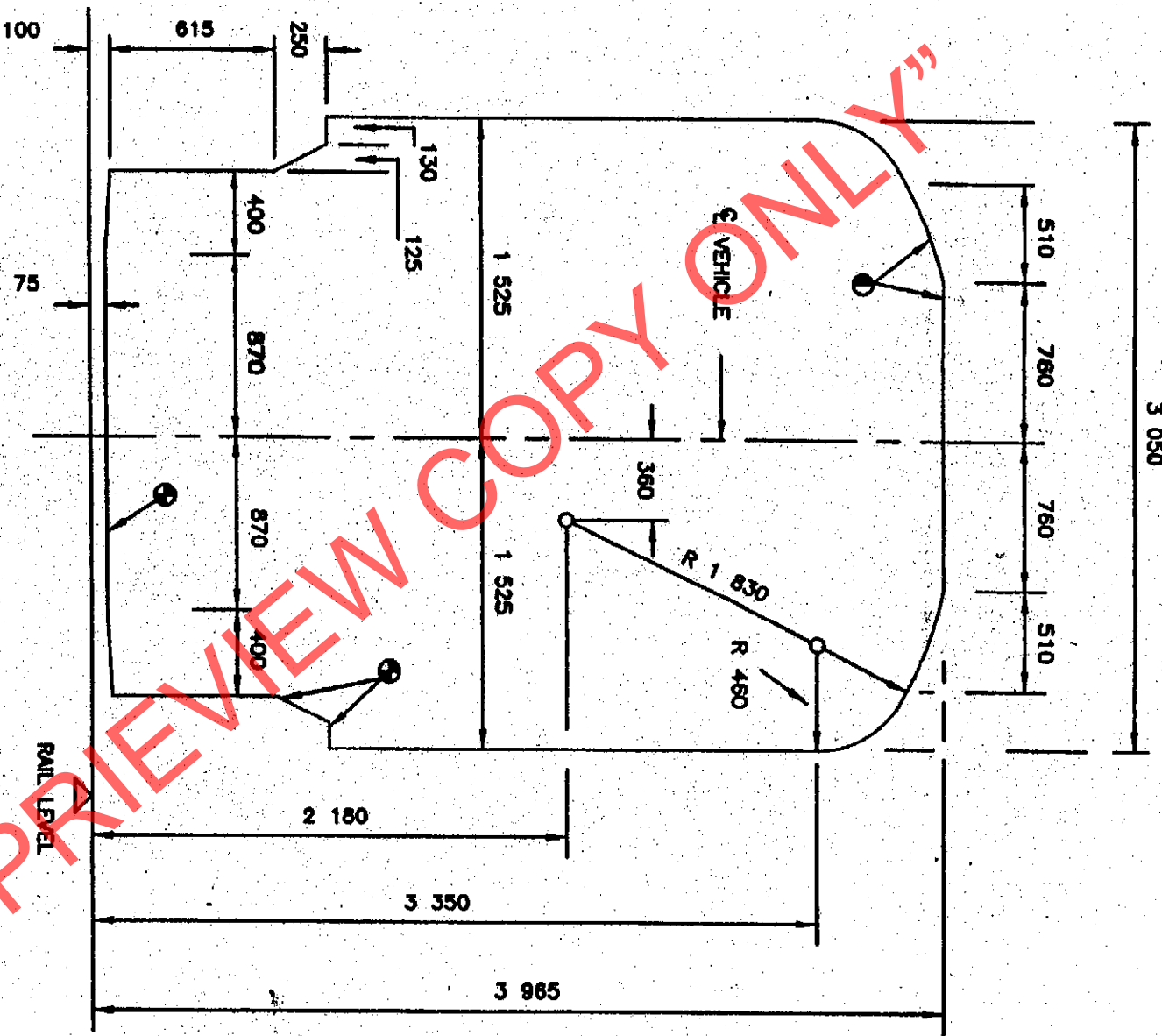


RADIUS (m)	F (mm)
50	1 550
60	1 510
80	1 480
100	1 430
120	1 410
140	1 390
170	1 380
200	1 370
250	1 360
300	1 350
600	1 330
1 000	1 320
>2 000	1 320
STRAIGHT	1 310

REMARKS:

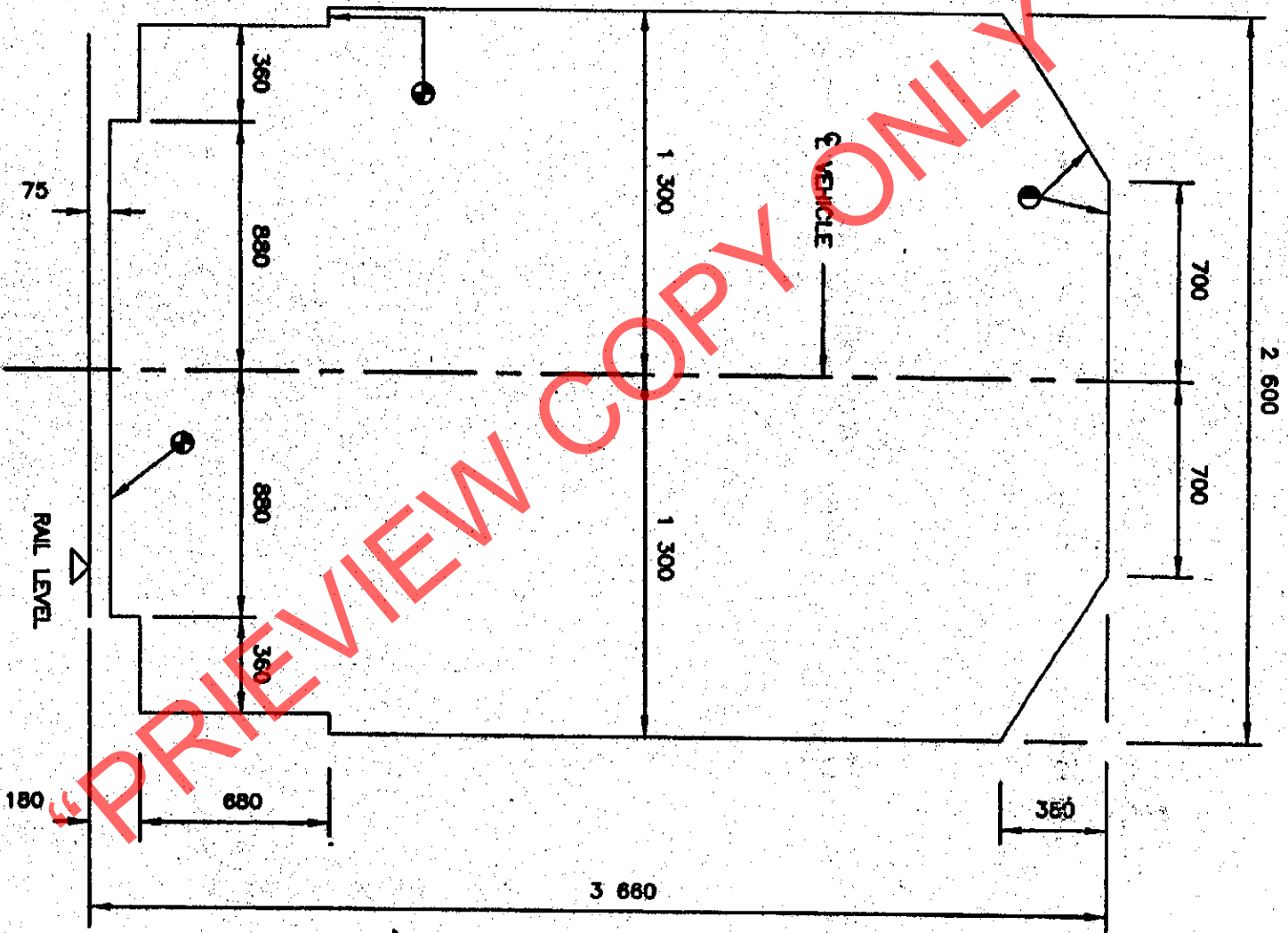
- H IS THE MINIMUM HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
- L IS THE MINIMUM HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
- V IS THE MINIMUM VERTICAL CLEARANCE.
- FOR APPLICATION AT CURVES:
 - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 2m BEYOND THE ENDS OF THE CIRCULAR CURVE.
 - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
 - 4.3 FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 18m ALONG STRAIGHTS.
- INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
- ALSO REFER TO REMARKS 5, 6 AND 7 OF ANNEXURE 1 SHEET 2.
- CLEARANCES ARE BASED ON 9 700mm BOGIE CENTRES AND 13 700mm VEHICLE BODY LENGTH.
- SEE ANNEXURE 1 SHEET 3 FOR STRUCTURES ON PLATFORMS.

VEHICLE GAUGE :
1 065mm TRACK GAUGE



REMARKS:

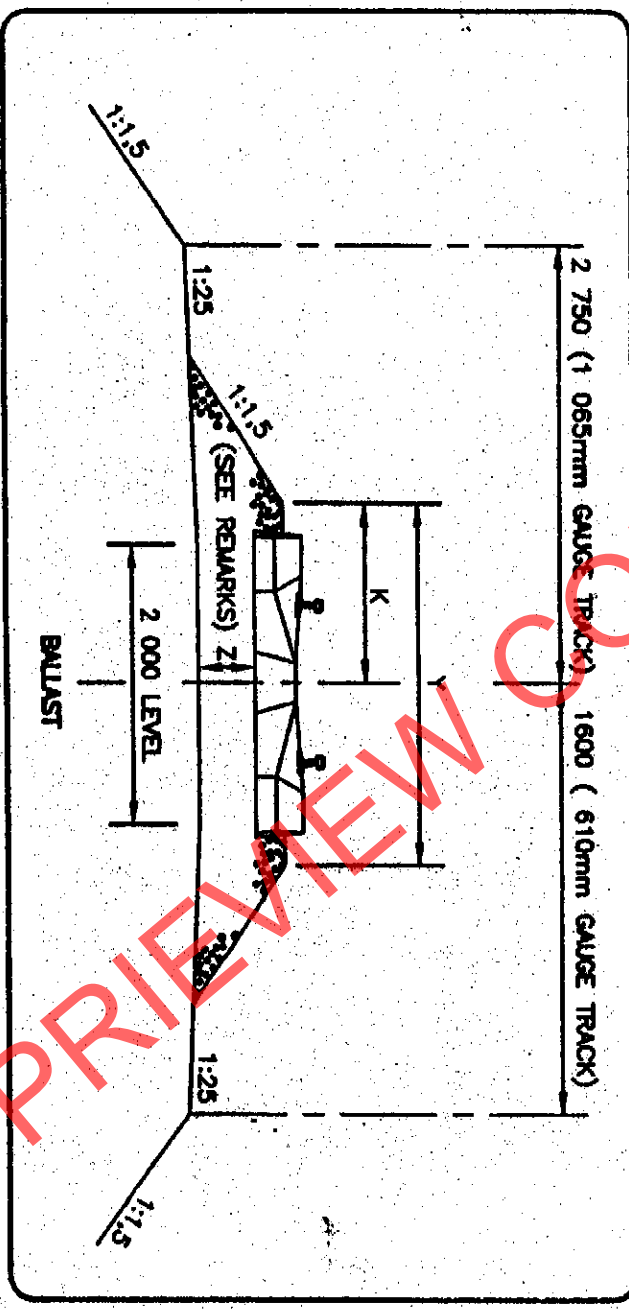
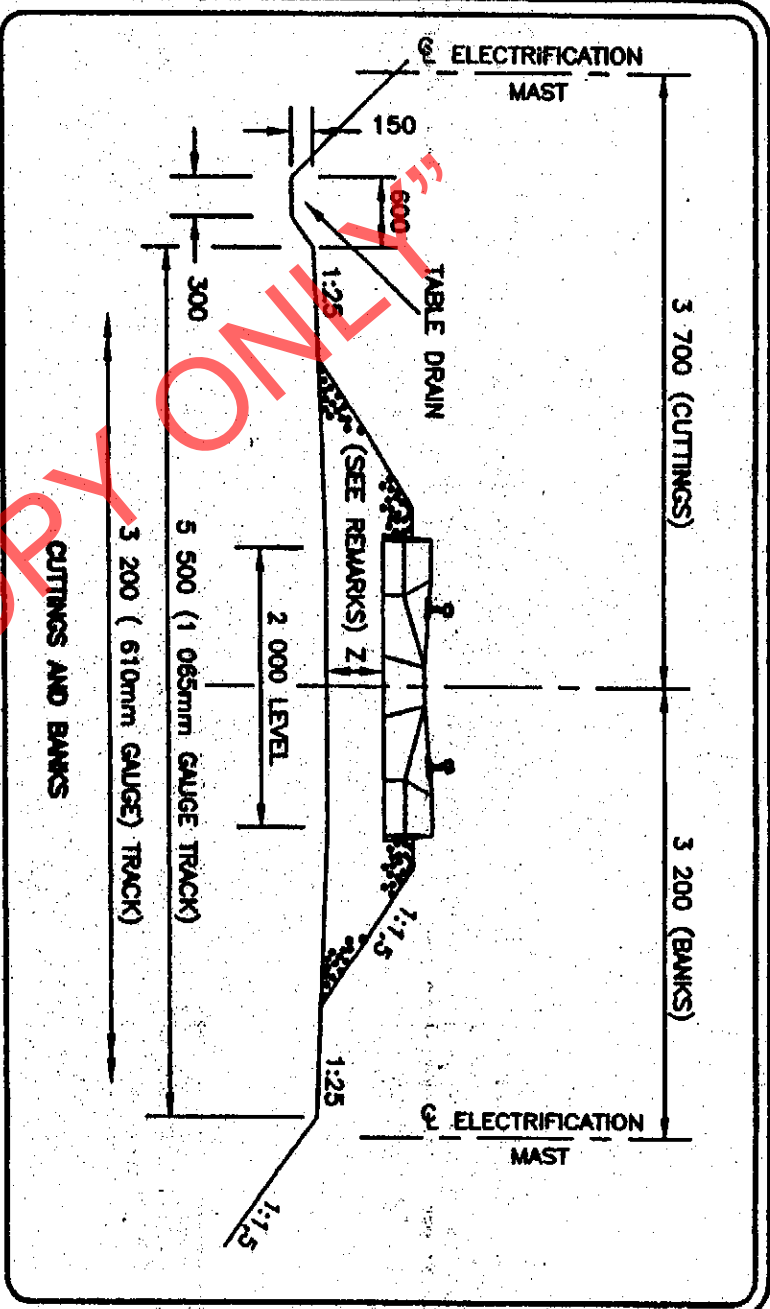
1. ○ WITHOUT LOAD AND WITH NEW TYRES, VEHICLE MUST NOT BE HIGHER THAN THIS OUTLINE.
2. ● WITH FULL LOAD AND WORN TYRES, VEHICLE MUST NOT BE LOWER THAN THIS OUTLINE.



REMARKS:

1. ⓪ WITHOUT LOAD AND WITH NEW TYRES, VEHICLE MUST NOT BE HIGHER THAN THIS OUTLINE.
2. ⊕ WITH FULL LOAD AND WORN TYRES, VEHICLE MUST NOT BE LOWER THAN THIS OUTLINE.

FORMATION AND BALLAST :
MINIMUM REQUIREMENTS



CLASS OF LINE	Z (mm)	Y (mm)	K (mm)	QUANTITY (m ³ /km)		WOOD
				P1/P1	P2/P4	
S	300	2 800	1 400	1 600	-	-
N1	280	2 700	1 350	1 500	1 400	-
N2	200	2 700	1 350	-	1 200	1 100

REMARKS:

- Z TO BE MEASURED UNDER THE LOW LEG RAIL ON CURVES.
- DEPTH OF BALLAST (Z) ARE TO BE MEASURED IN THE CONSOLIDATED STATE, THAT IS AFTER 100 000 GROSS TON TRAIN TRAFFIC.

DESTRESSING AND WORKING
TEMPERATURE RANGES

SECTION	DESTRESSING RANGES		WORKING RANGES FOR PAIL LAYING		
	THROUGH LINES	YARD TRACKS	A	B	C
CAPE TOWN - BELLVILLE * BELLVILLE - WORCESTER * WORCESTER - DE AAR HUTCHINSON - CALVINA KOOTJIESKOLK - SAKRIMER KRAALFOONTEN - BITTERFONTEIN KALBASRAAL - SALDANHA HERMON - PORTERVILLE WOLSELEY - PRINCE ALFRED HAVELT PAARL - FRANCHHOEK EERSTERMER - BREDAASDORP VAN DER STEL - STRAND KILFDALE - PROTLEM EERSTERMER - MULDERSDIJK * WORCESTER - RIVERSDALE KENTENMADE - ATLANTS TABLE BAY HARBOUR - SIMONSTOWN	20 - 50 25 - 45 25 - 40 25 - 35 25 - 35 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45	25 - 45 30 - 40 25 - 35 25 - 30 25 - 30 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40	15 - 55 20 - 50 20 - 50 20 - 40 20 - 40 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50	15 - 60 20 - 60 20 - 55 20 - 50 20 - 50 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60	
CAPE TOWN CENTRAL METRO AREA	20 - 50	25 - 45	15 - 55	15 - 60	
* DE AAR - * KIMBERLEY * KIMBERLEY - MAKWASSE * MAKWASSE - * KLERKSDORP * KIMBERLEY - * POSTMAJSBURG POSTMAJSBURG - HOTAZEL DE AAR - NAKOP GROVEPUT - COPPERTON LIPINGTON - KAKEJAS BELMONT - DOUGELAS VEERTENSTROME - MARKENS PUDMOE - COLIGNIE * MAKWASSE - VERMAAS OTTOSDAL - * KLERKSDORP LICHTENBURG - WELVERDIEDIJD	25 - 35 25 - 40 20 - 40 25 - 35 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40	25 - 30 30 - 35 30 - 35 25 - 30 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35	20 - 40 20 - 50 15 - 50 20 - 40 20 - 45 25 - 45 25 - 45 20 - 45 20 - 45 20 - 45 20 - 45 15 - 45 15 - 45 15 - 45 15 - 45 15 - 45 15 - 45 15 - 45	20 - 50 20 - 55 15 - 55 20 - 50 20 - 55 20 - 55 25 - 55 20 - 55 20 - 55 20 - 55 20 - 55 15 - 55 15 - 55 15 - 55 15 - 55 15 - 55 15 - 55 15 - 55	
PORT ELIZABETH - ALCEDALE * ALCEDALE - NOLUPOORT NOLUPOORT - DE AAR SWARTKOP - KLIPPLAAT KLIPPLAAT - ROSMEAD ADDO - KIRKWOOD RIVERSDALE - * MOSSELBAW MOSSLERBAW - GEORGE * GEORGE - OUDTSHOORN * OUDTSHOORN - * KLIPPLAAT * OUDTSHOORN - CALITZDORP * GEORGE - KNYSNA * PORT ELIZABETH - AVONTUR GAUTOOS - PATENSIE COOKHOUSE - SOMERSET EAST * ALCEDALE - PORT ALFRED BARKLEY BRIDGE - ALEXANDRIA	25 - 45 25 - 40 25 - 40 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45 25 - 45	30 - 40 30 - 35 30 - 35 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40 30 - 40	20 - 50 20 - 45 20 - 45 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50 20 - 50	20 - 60 20 - 55 20 - 55 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60	
EAST LONDON - DOHNE * DOHNE - QUEENSTOWN * QUEENSTOWN - BURGERSDORP * BURGERSDORP - SPRINGFONTEIN COOKHOUSE - BLANEY MAABELLE - UMTATA HAWA - QAWATA * ROSMEAD - STORBERG SCHOOBBEE - HOFMEYR STERSTROOM - MACLAER MOLTENO - JAMESTOWN BURGERSDORP - BARKLEY EAST	20 - 45 25 - 40 20 - 35 20 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40 25 - 40	25 - 40 30 - 35 25 - 30 25 - 40 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35 30 - 35	15 - 50 20 - 50 15 - 45 15 - 50 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45 20 - 45	15 - 60 20 - 55 15 - 50 15 - 55 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60 20 - 60	

REMARKS:
1. FOR REMARKS SEE ANNEXURE 16 SHEET 5.

DESTRESSING AND WORKING
TEMPERATURE RANGES

SECTION	DESTRESSING RANGES		WORKING RANGES FOR RAIL LAYING	
	THROUGH LINES	YARD TRACKS	A	B
NOUPOORT - SPRANGFONTEIN	20 - 40	25 - 35	15 - 45	15 - 55
* SPRANGFONTEIN - BLOEFONTEIN	20 - 35	25 - 30	15 - 40	15 - 50
BLOEFONTEIN - THEUNISSEN	20 - 35	25 - 30	15 - 40	15 - 50
* THEUNISSEN - KROONSTAD	20 - 40	25 - 35	15 - 45	15 - 55
KROONSTAD - VEREENIGING	20 - 40	25 - 35	15 - 45	15 - 55
BETHLEHEM - ARLINGTON	15 - 35	20 - 30	10 - 40	10 - 50
* ARLINGTON - * KROONSTAD	15 - 40	20 - 35	10 - 45	10 - 55
KIMBERLEY - EMALUS	25 - 40	25 - 35	20 - 45	20 - 55
* EMALUS - BLOEFONTEIN	20 - 35	25 - 30	15 - 40	15 - 50
SPRANGFONTEIN - KOFFIEFONTEIN	25 - 40	30 - 35	20 - 45	20 - 55
ALMAL NORTH - SANWATJOS	20 - 40	25 - 35	15 - 45	15 - 55
GROOTLEI - * BETHLEHEM	20 - 35	25 - 30	15 - 40	15 - 50
* BETHLEHEM - BLOEFONTEIN	20 - 35	25 - 30	15 - 40	15 - 50
HARRISMITH - BETHLEHEM	15 - 35	20 - 30	10 - 40	10 - 50
VREDEFORT - DOVER	20 - 40	25 - 35	15 - 45	15 - 55
WOLWEHOEK - ARLINGTON	20 - 40	25 - 35	15 - 45	15 - 55
* ARLINGTON - MAROLAUD	20 - 40	25 - 35	15 - 45	15 - 55
ORKNEY - WESLEIGH	20 - 40	25 - 35	15 - 45	15 - 55
VERFONTEIN - BULTFONTEIN	20 - 40	25 - 35	15 - 45	15 - 55
AMCONA - WHITES	20 - 40	25 - 35	15 - 45	15 - 55
THEUNISSEN - VANBURG	20 - 40	25 - 35	15 - 45	15 - 55
WARDEN - * HARRISMITH	20 - 40	25 - 35	15 - 45	15 - 55
MASERU - MARSALLEES	20 - 40	25 - 35	15 - 45	15 - 55
LADYBRAND - MODDERPOORT	20 - 40	25 - 35	15 - 45	15 - 55
VIRGINIA - GLEN HARMONY	20 - 40	25 - 35	15 - 45	15 - 55
WONDERFONTEIN - BROODSNIERSFLAAS	15 - 40	20 - 35	10 - 45	10 - 55
EMFIELD - WAGHADOOROP	20 - 40	25 - 35	15 - 45	15 - 55
BUHRAUNSKOP - LOTHAR	15 - 35	20 - 30	10 - 40	10 - 50
ROSSBURG - * DASSENHOEK	20 - 45	25 - 40	15 - 50	15 - 60
DASSENHOEK - CATO RIDGE	25 - 40	30 - 35	20 - 45	20 - 55
CATO RIDGE - PIETERMARITZBURG	25 - 40	30 - 35	20 - 45	20 - 55
* PIETERMARITZBURG - * VOLKSRUST	20 - 40	25 - 35	15 - 45	15 - 55
ROSSBURG - HILLCREST	20 - 45	25 - 40	15 - 50	15 - 60
* HILLCREST - CATO RIDGE	25 - 40	30 - 35	20 - 45	20 - 55
DURBAN - PORT SHEPSTONE	20 - 50	25 - 45	15 - 60	15 - 65
KELSO - UMZINTO	20 - 50	25 - 45	15 - 60	15 - 65
DURBAN - HILHLIWE	20 - 45	25 - 40	15 - 50	15 - 60
* HILHLIWE - GOELA	25 - 50	30 - 45	20 - 55	20 - 60
EMFANGEN - NKWALINI	25 - 50	30 - 45	20 - 55	20 - 60
DUFFSRoad - KWALASHU	25 - 50	30 - 45	20 - 55	20 - 60
THORNHILL - RICHMOND	25 - 40	30 - 35	20 - 45	20 - 55
THORNHILL - PENTRICH	25 - 40	30 - 35	20 - 45	20 - 55
* PIETERMARITZBURG - KOKSTAD	25 - 35	25 - 30	20 - 40	20 - 50
DONNIBROOK - UNDERBERG	20 - 35	25 - 30	15 - 40	15 - 50
FRANKLIN - MATATJE	20 - 35	25 - 30	15 - 40	15 - 50
PIETERMARITZBURG - DALTON	25 - 40	30 - 35	20 - 45	20 - 55
* DALTON - KRANSKOP	20 - 40	25 - 35	15 - 45	15 - 55
SCHROEDERS - BRUNSHILL	25 - 40	30 - 35	20 - 45	20 - 55
* DALTON - GLENSIDE	20 - 40	25 - 35	15 - 45	15 - 55
GREYTON - MOUNT ALIDA	20 - 40	25 - 35	15 - 45	15 - 55
ENNERSDALE - BERGALLE	25 - 40	30 - 35	20 - 45	20 - 55
GLENGOE - VRYHEID	20 - 40	25 - 35	15 - 45	15 - 55
NEWCASTLE - UTRECHT	20 - 40	25 - 35	15 - 45	15 - 55
LADYSMITH - HARRISMITH	20 - 40	25 - 35	15 - 45	15 - 55

REMARKS:
1. FOR REMARKS SEE ANNEXURE 16 SHEET 5.

DESTRESSING AND WORKING
TEMPERATURE RANGES

SECTION	DESTRESSING RANGES		WORKING RANGES FOR RAIL LAYING		
	THROUGH LINES	YARD TRACKS	A	B	C
KLERKSDORP - * POTCHERSTROOM	20 - 35	25 - 30	20 - 40	15 - 50	15 - 55
POTCHERSTROOM - * KRUGERSDORP	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
KRUGERSDORP - JOHANNESBURG	15 - 40	20 - 35	10 - 45	10 - 55	10 - 55
JOHANNESBURG - OLFANTSFONTEIN	15 - 40	20 - 35	15 - 45	15 - 55	15 - 55
POTCHERSTROOM - VERENIGING	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
VERENIGING - GERALSTON	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
VOLKSRUST - * STANDERTON	15 - 35	20 - 30	10 - 40	10 - 50	10 - 50
STANDERTON - * HEIDELBERG	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
HEIDELBERG - GERALSTON	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
BALFOUR NORTH - * GROOTVLEI	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
GROOTVLEI - REDAN	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
FIRHAM - VREDE	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
VOLKSRUST - BREITEN	15 - 40	25 - 35	10 - 45	10 - 55	10 - 55
BETHAL - SPRINGS	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
SPRINGS - KATDLE	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
MIDWAY - HOUTHELMEL	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
BANK - LANGLAAGTE	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
MARKENG - * KRUGERSDORP	25 - 40	30 - 35	20 - 45	20 - 55	20 - 55
APEX - WITBANK	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
DELMAS - HANDEKIP	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
SENTRARAAND AREA	15 - 35	20 - 30	10 - 40	10 - 50	10 - 50
JOHANNESBURG CENTRAL METRO AREA	15 - 40	20 - 35	10 - 45	10 - 55	10 - 55
OLIFANTSFONTEIN - * PREJE	15 - 40	20 - 35	10 - 45	10 - 55	10 - 55
RENE - PRETORIA	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
PRETORIA - * WARABATHS	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
WARABATHS - * POTJETERSRUS	20 - 45	25 - 40	15 - 55	15 - 60	15 - 60
POTJETERSRUS - BETERIDGE	20 - 45	25 - 40	15 - 50	15 - 55	15 - 55
* PRETORIA - * WATERVAL BOVEN	20 - 40	25 - 35	15 - 50	15 - 60	15 - 60
WATERVAL BOVEN - * NELSPRUIT	20 - 45	25 - 40	15 - 55	15 - 60	15 - 60
NELSPRUIT - KOMATPOORT	25 - 45	30 - 40	20 - 55	20 - 60	20 - 60
HERCULES - MAGALESBURG	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
PRETORIA - BRITS	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
RUSTENBURG - * THABAZIMBI	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
THABAZIMBI - ELSRUS	25 - 40	30 - 35	20 - 45	20 - 55	20 - 55
BRITS - ATLANTA	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
NLSTROOM - VALLWATER	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
MABOKSPRUIT - ZEBEDELA	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
PENWANSRIVER - IANBELE HALL	25 - 40	30 - 35	20 - 45	20 - 55	20 - 55
RAYTON - CILLMAN	25 - 45	30 - 40	20 - 50	20 - 60	20 - 60
GROENBURG - KAAPLUIDEN	25 - 45	30 - 40	20 - 50	20 - 60	20 - 60
HOTSPRUIT - PHALABORWA	20 - 45	25 - 40	15 - 50	15 - 60	15 - 60
* KAAPLUIDEN - BARBERTON	20 - 35	25 - 30	15 - 40	15 - 50	15 - 50
* NELSPRUIT - GIVSKOP	20 - 45	25 - 40	15 - 45	15 - 60	15 - 60
CIRUS - PLUSTON	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
BELFAST - STELPOORT	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
DERVENT - ROOSSENEK	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
PRETORIA CENTRAL METRO AREA	20 - 40	25 - 35	15 - 45	15 - 55	15 - 55
SALDANHA - BAMBOESBAAI	20 - 50	25 - 45	15 - 55	15 - 60	15 - 60
* BAMBOESBAAI - SISHEN	25 - 40	30 - 35	20 - 45	20 - 55	20 - 55
RICHARDSBAY - ULUNDI	20 - 45	-	20 - 55	-	15 - 55
* ULUNDI - PET RETEF	20 - 40	25 - 35	20 - 50	15 - 55	15 - 55
PET RETEF - * SHEEPMORE	20 - 40	25 - 35	20 - 50	15 - 55	15 - 55
SHEEPMORE - ERAMELO	15 - 35	20 - 30	15 - 45	10 - 50	10 - 50
* ERAMELO - BROODSNIERSPLAAS	15 - 40	20 - 35	15 - 50	10 - 55	10 - 55
BROODSNIERSPLAAS - OGIES	15 - 40	20 - 35	15 - 50	10 - 55	10 - 55

REMARKS:

1. RAIL TEMPERATURES IN DEGREE CELSIUS.
2. USE A RAIL TENSOR WHEN THE DIFFERENCE IN THE 'A' RANGE IS 10° CELSIUS OR SMALLER.
3. * DENOTES "EXCLUDED".