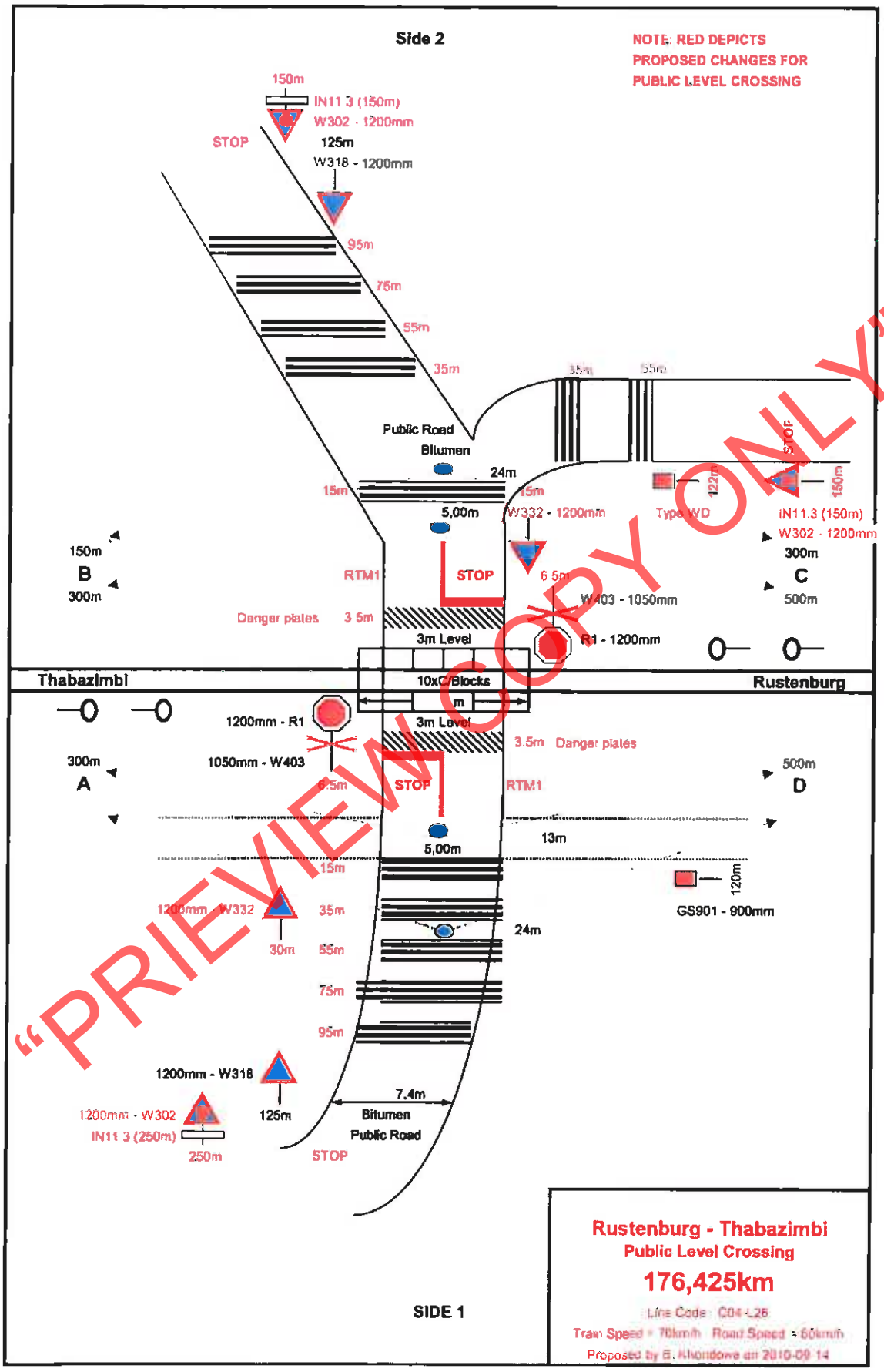
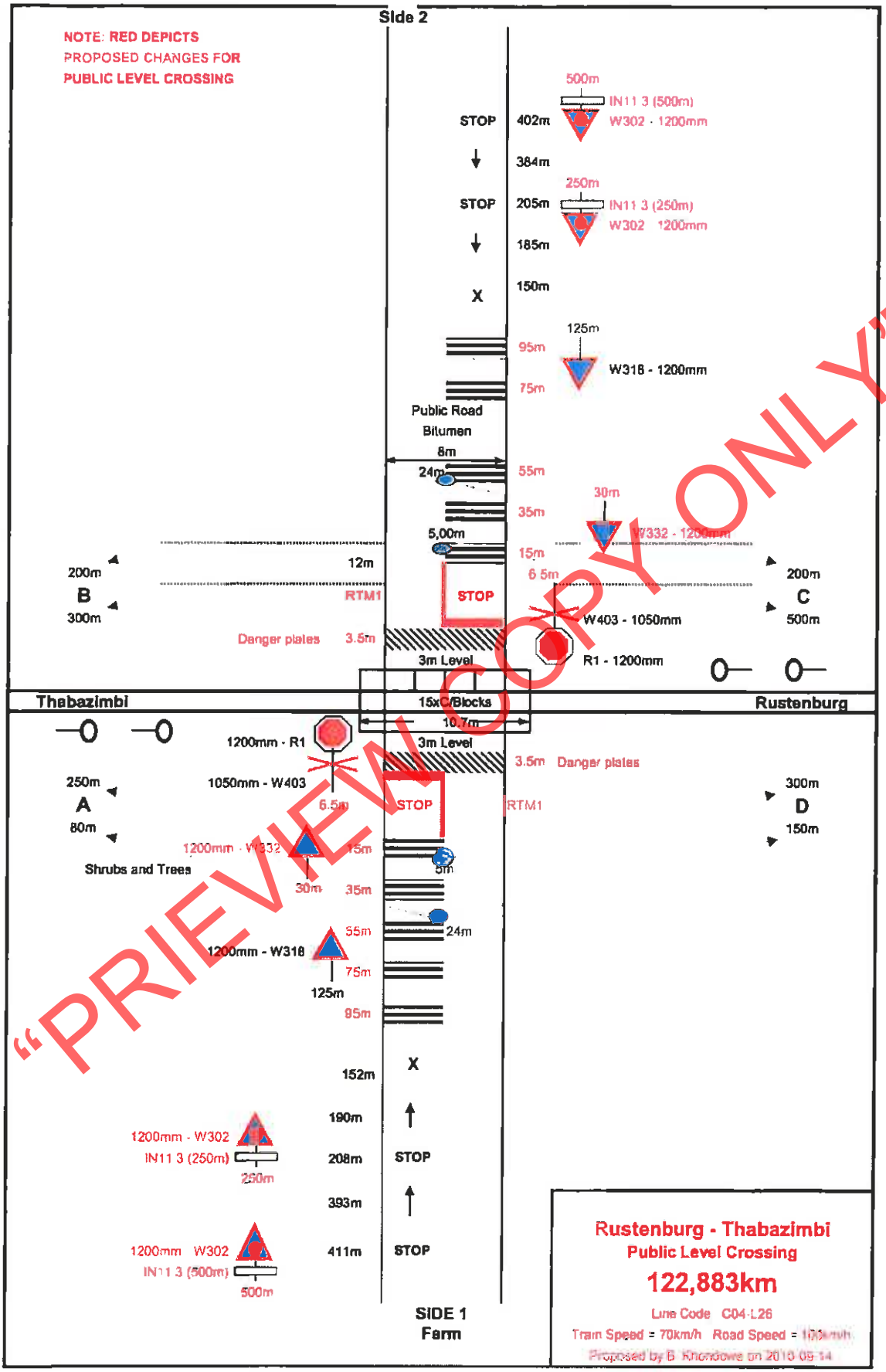
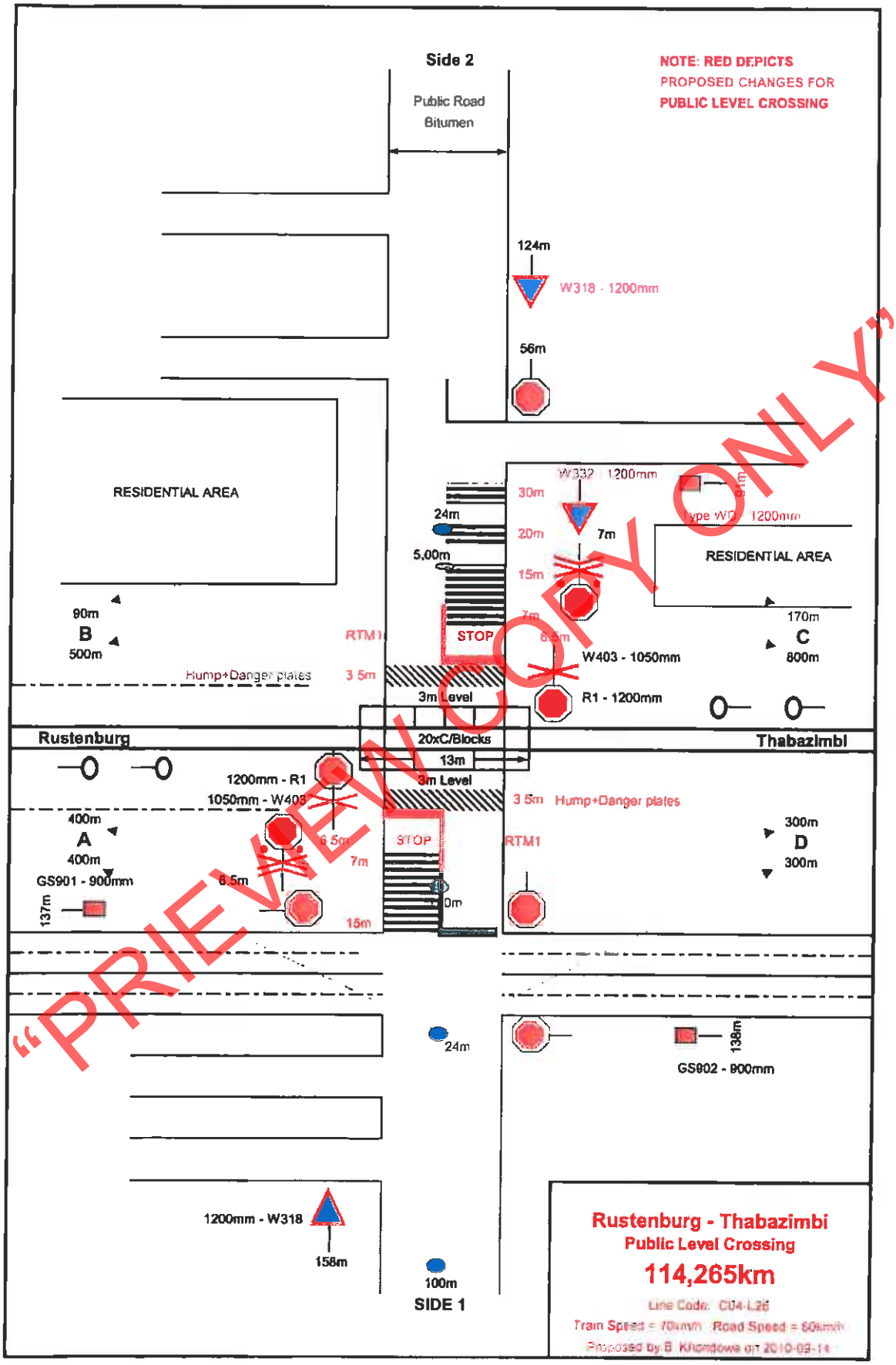
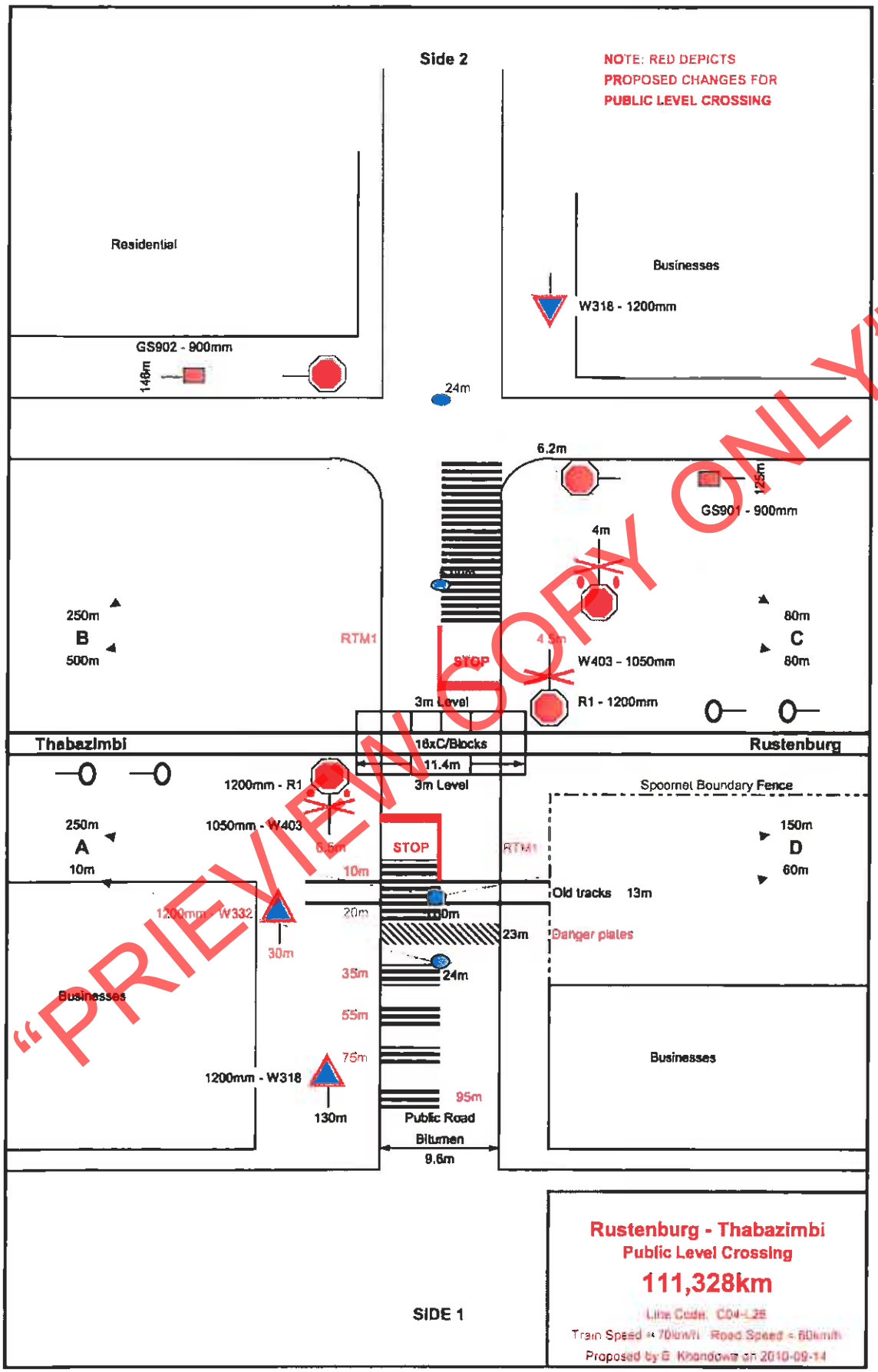
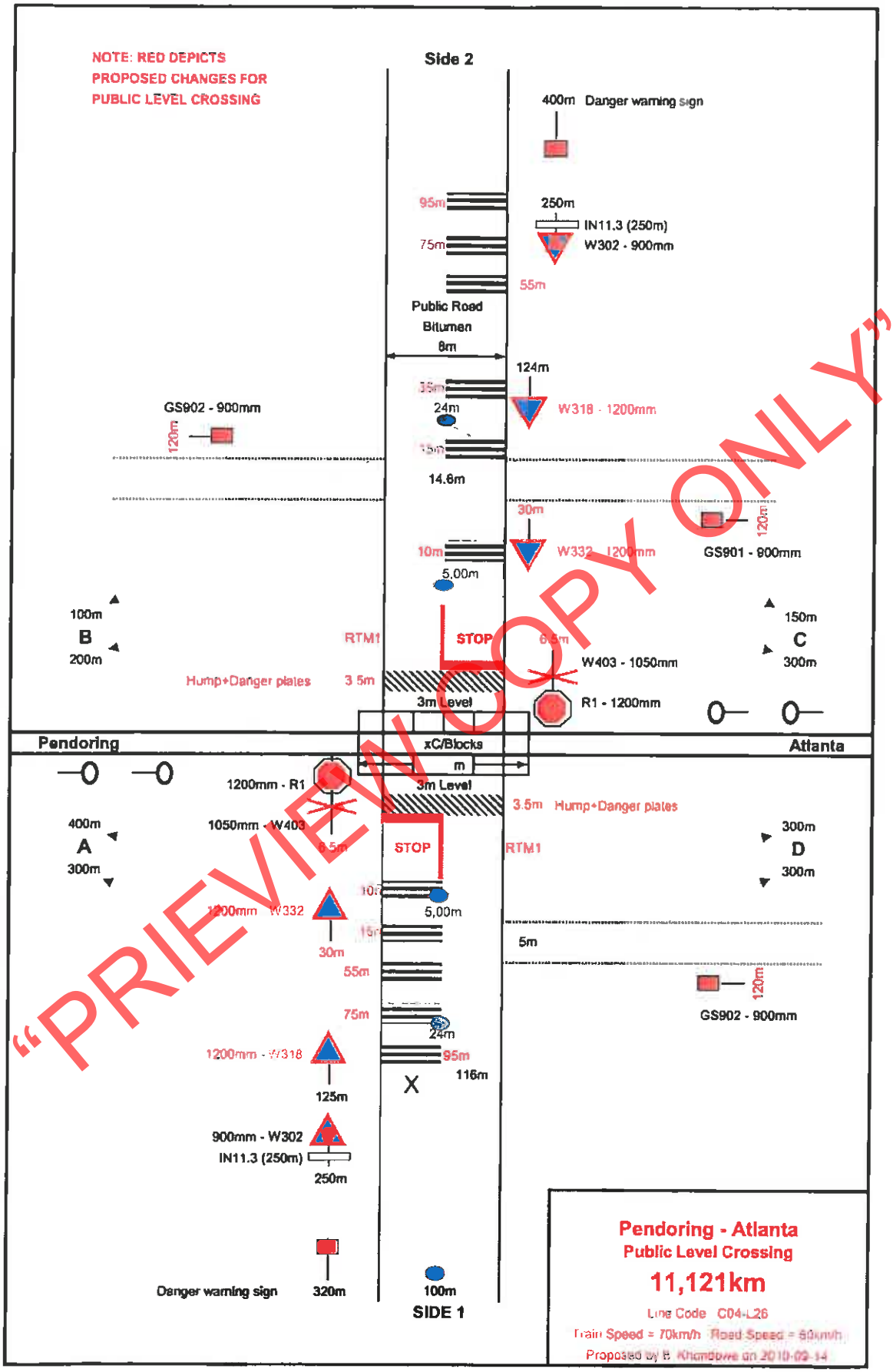










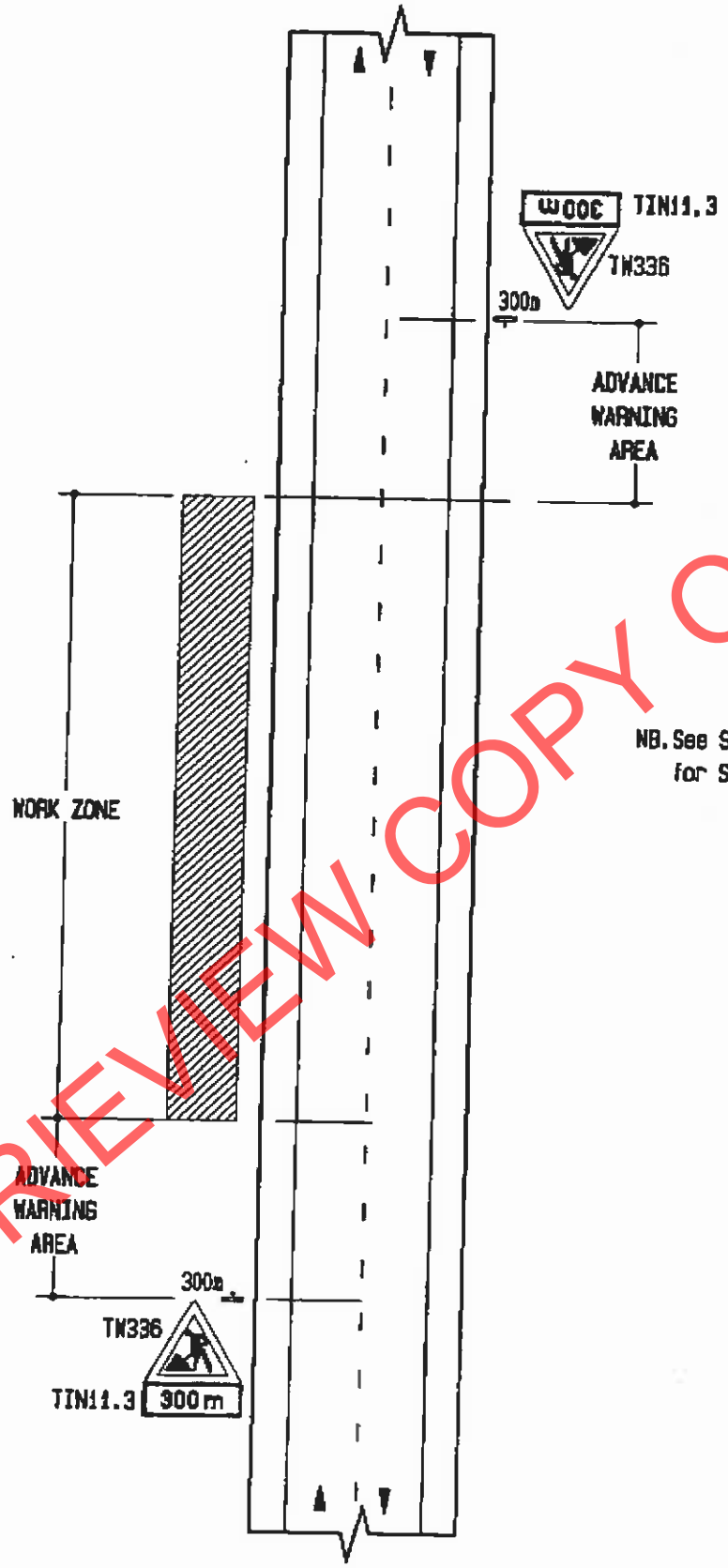


Fig. 13.32 Maintenance In Road Reserve (off the road)

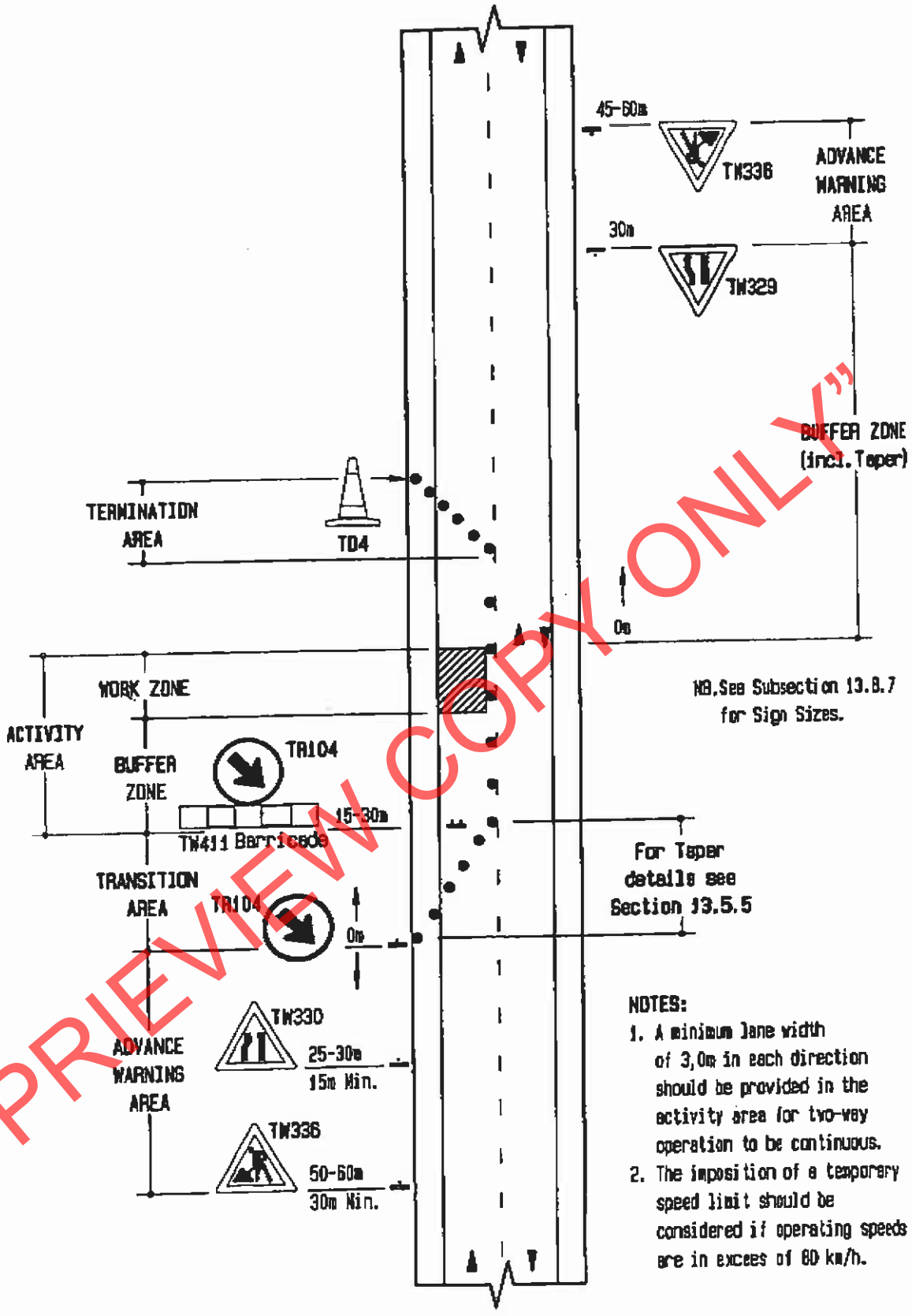
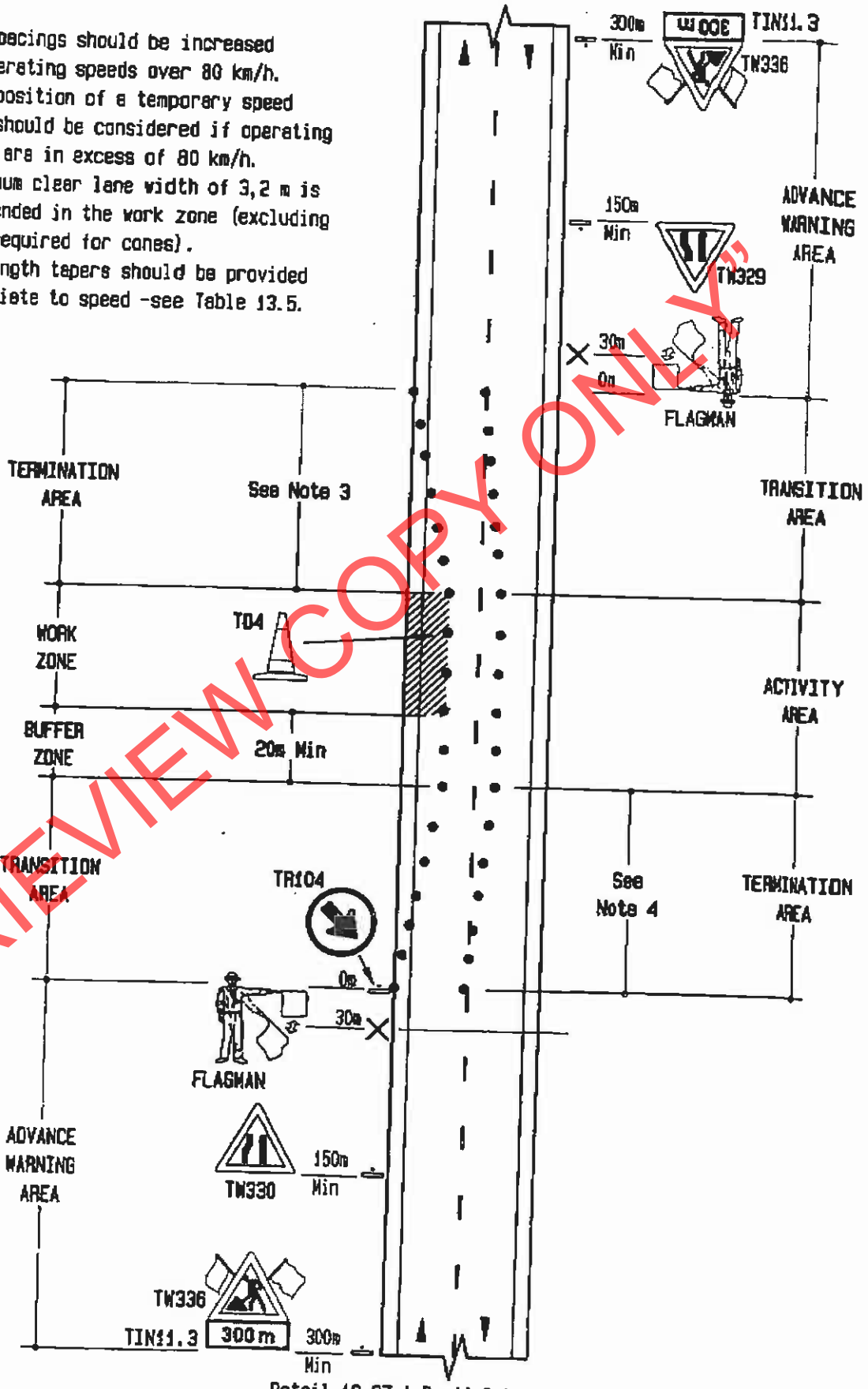


Fig. 13.36 Localised Small Work Site

NOTES:

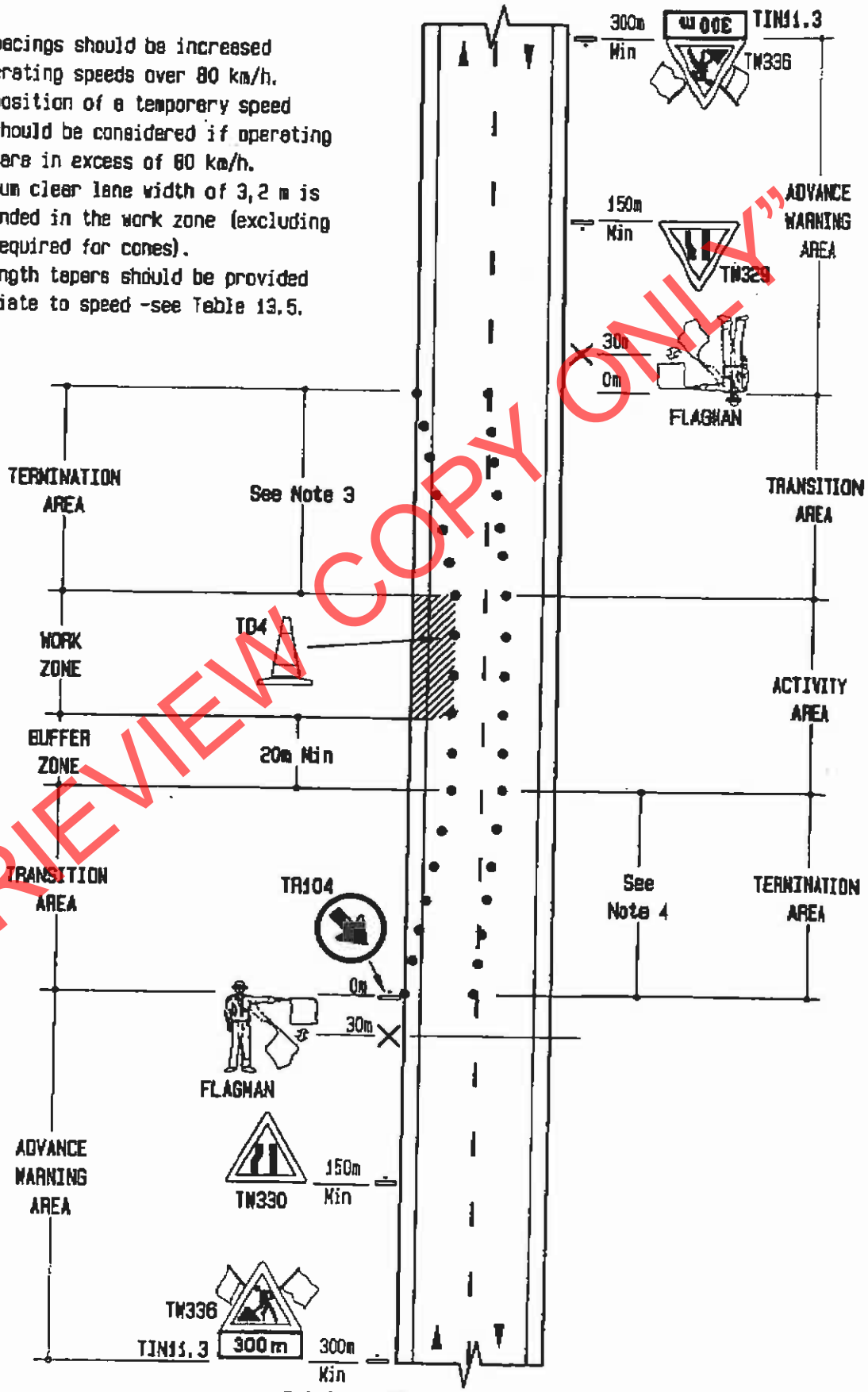
1. Sign spacings should be increased for operating speeds over 80 km/h.
2. The imposition of a temporary speed limit should be considered if operating speeds are in excess of 80 km/h.
3. A minimum clear lane width of 3,2 m is recommended in the work zone (excluding space required for cones).
4. Full length tapers should be provided appropriate to speed -see Table 13.5.



Detail 13.37.1 Partial Lane Closure

NOTES:

1. Sign spacings should be increased for operating speeds over 80 km/h.
2. The imposition of a temporary speed limit should be considered if operating speeds are in excess of 60 km/h.
3. A minimum clear lane width of 3,2 m is recommended in the work zone (excluding space required for cones).
4. Full length tapers should be provided appropriate to speed -see Table 13.5.



Detail 13.37.1 Partial Lane Closure

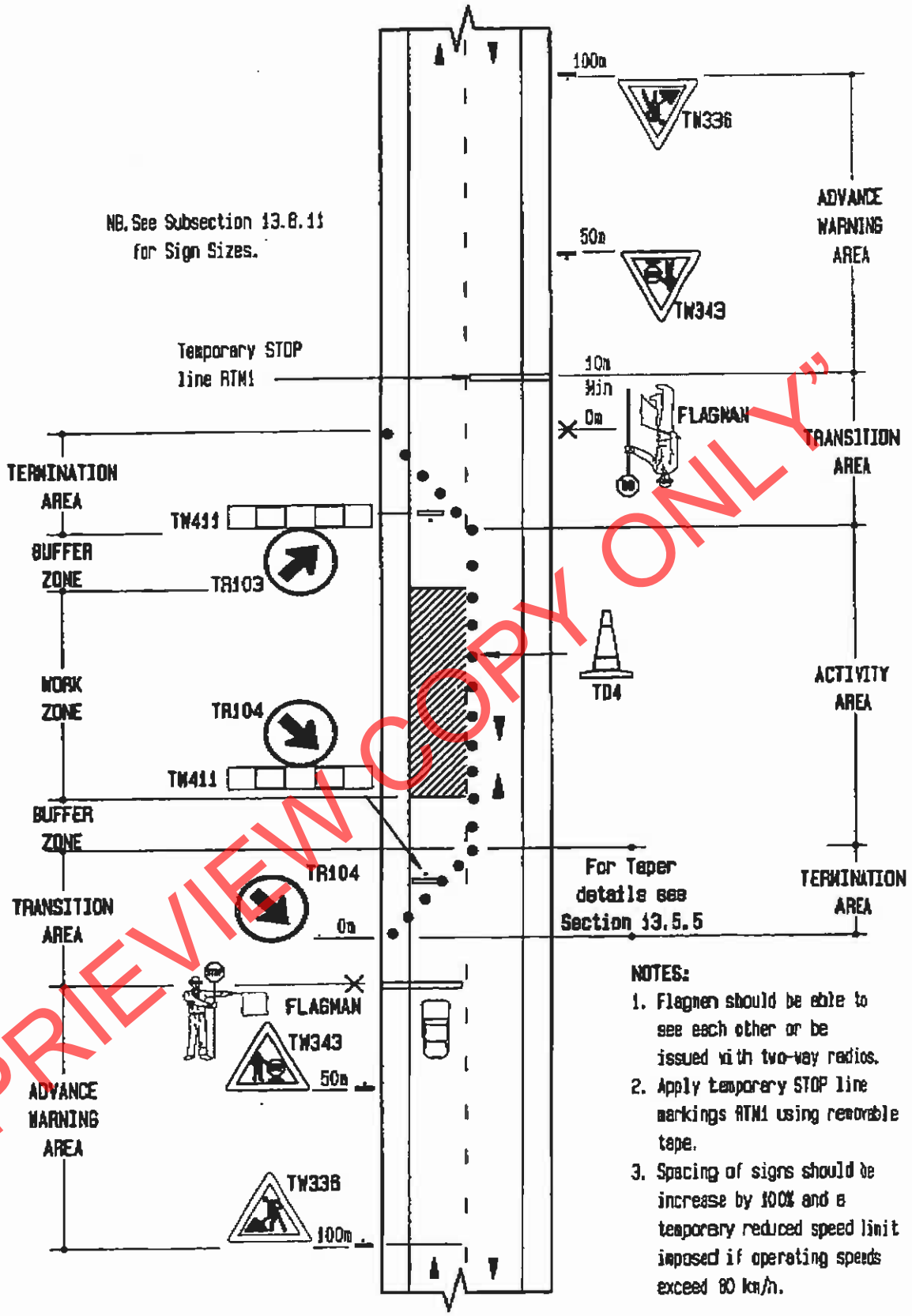


Fig. 13.40 STOP/RY-GO Traffic Control - Minor Works

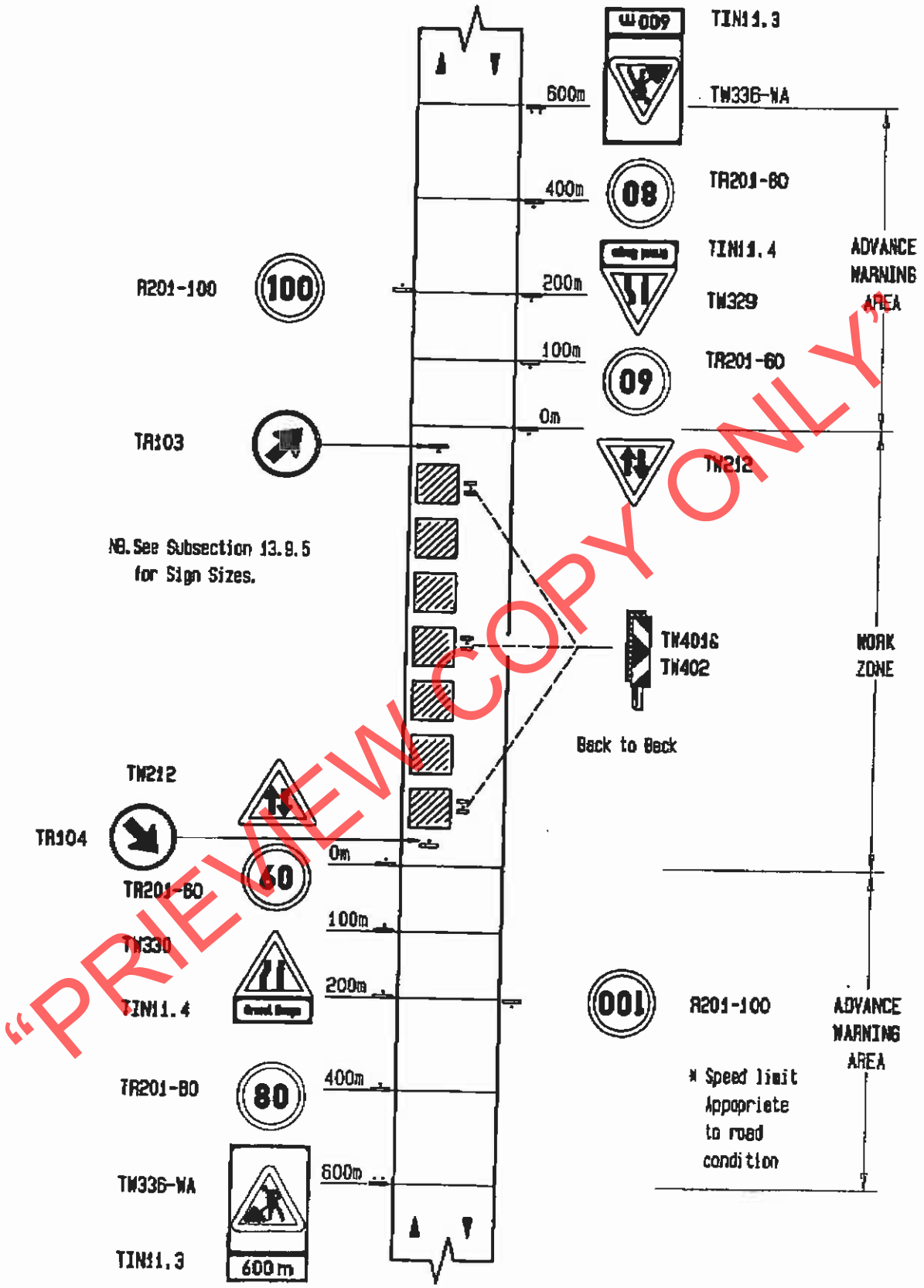


Fig. 13.46 Gravel Roads - Gravel Heaps

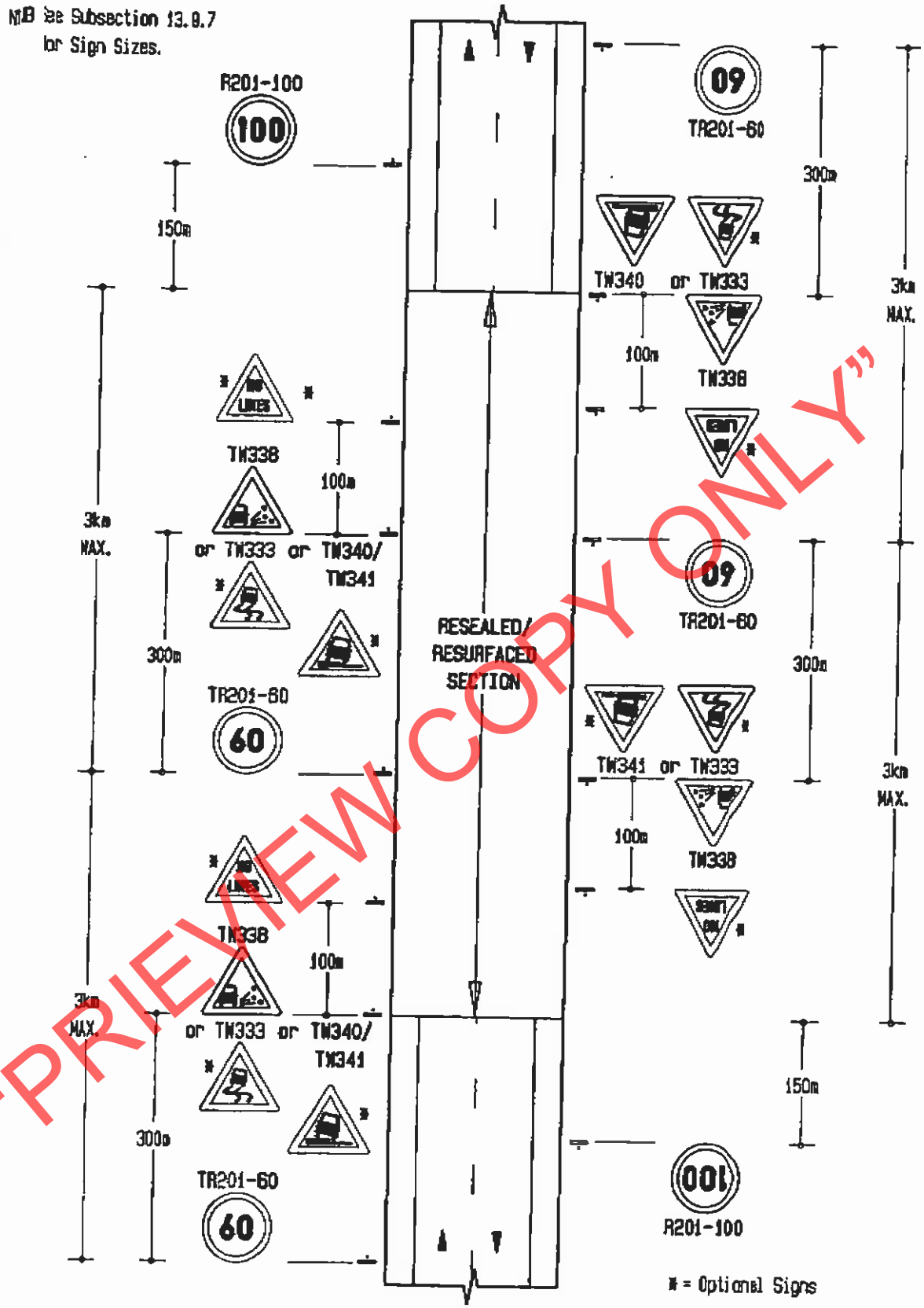


Fig. 13.48 Reseal/Resurfacing Work - Just Completed

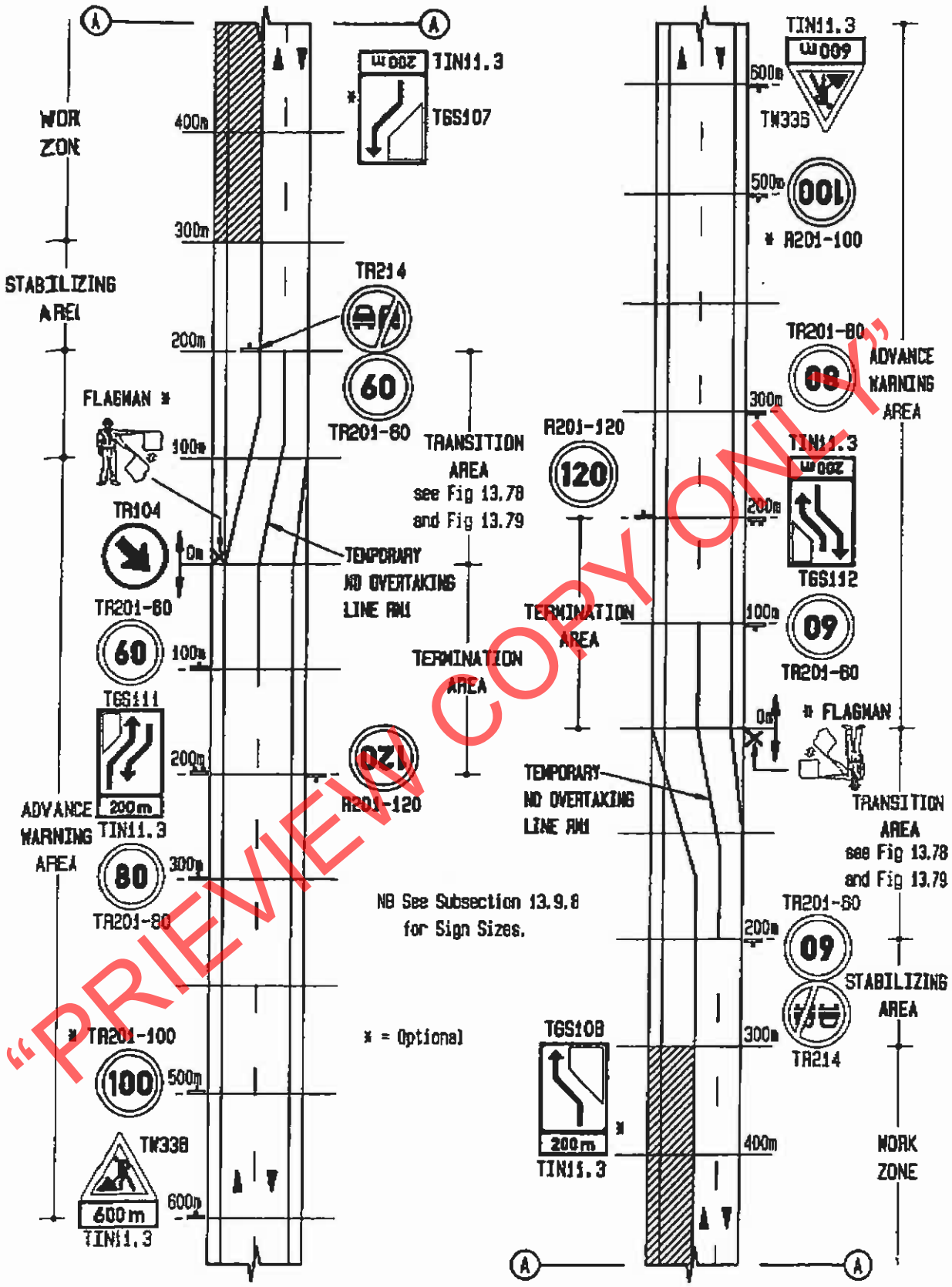


Fig. 13.49 Reduced Width Operation - 2-Way Traffic

NOTES:

1 For details of the use of letter markings to portray simple WORD MARKINGS see SARTSM VOL1, Chapter 7, page 7 4 9

2 STOP is the most commonly used WORD MARKING. As a typical example this word is detailed on pages 12.5.1 and 12 5.2

3 For normal applications word letters should be placed 300mm apart.

4 All letters are detailed at a scale of 1 in 50 for the 4.0m height on pages 12.5.3 to 12.5.7. These letters may be drawn on a grid background in the same way as the example on page 12 5.2 to facilitate the making of painting stencils. The detail on page 12.5.2 is drawn at a scale of 1 in 25 for a letter height of 5.5m.

OPMERKINGS:

1 Vir detail van die gebruik van lettermerke om eenvoudige WOORDMERKE uit te beeld, sien SAHPVT VOL1, Hoofstuk 7, bladsy 7.4.9.

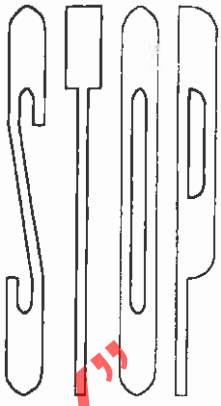
2 STOP is die mees gewone WOORDMERK wat gebruik word. As 'n tipiese voorbeeld, word hierdie woord op bladsye 12.5.1 en 12.5.2 gedetailleer

3 Vir normale aanwendings behoort letters 300mm uit mekaar geplaas te word.

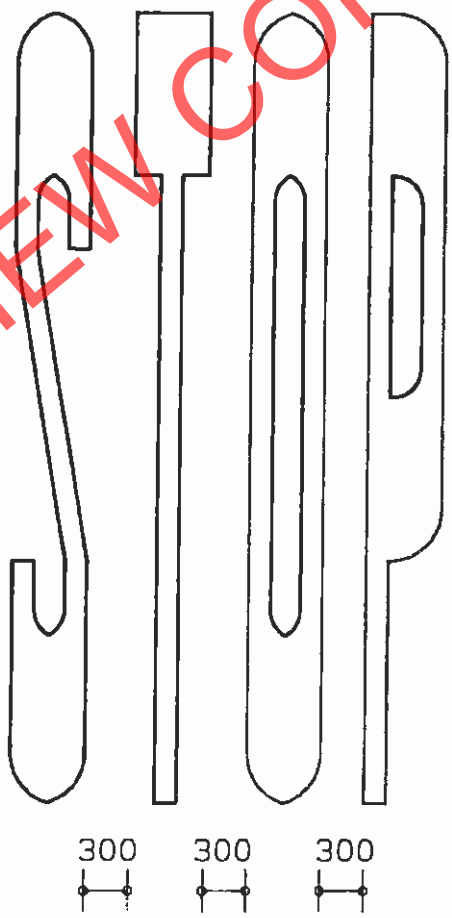
4 Alle letters word op 'n skaal van 1 in 50 vir die 4.0m hoogte op bladsye 12.5.3 tot 12.5.7 gedetailleer. Hierdie letter mag op dieselfde manier as die voorbeeld op bladsy 12.5.2 geteken word, ten einde die maak van verfsjambions te vergemaklik. Die detail op bladsy 12.5.2 word op 'n skaal van 1 in 25 vir 'n letterhoogte van 5.5m geteken.

COLOURS/KLEURE:

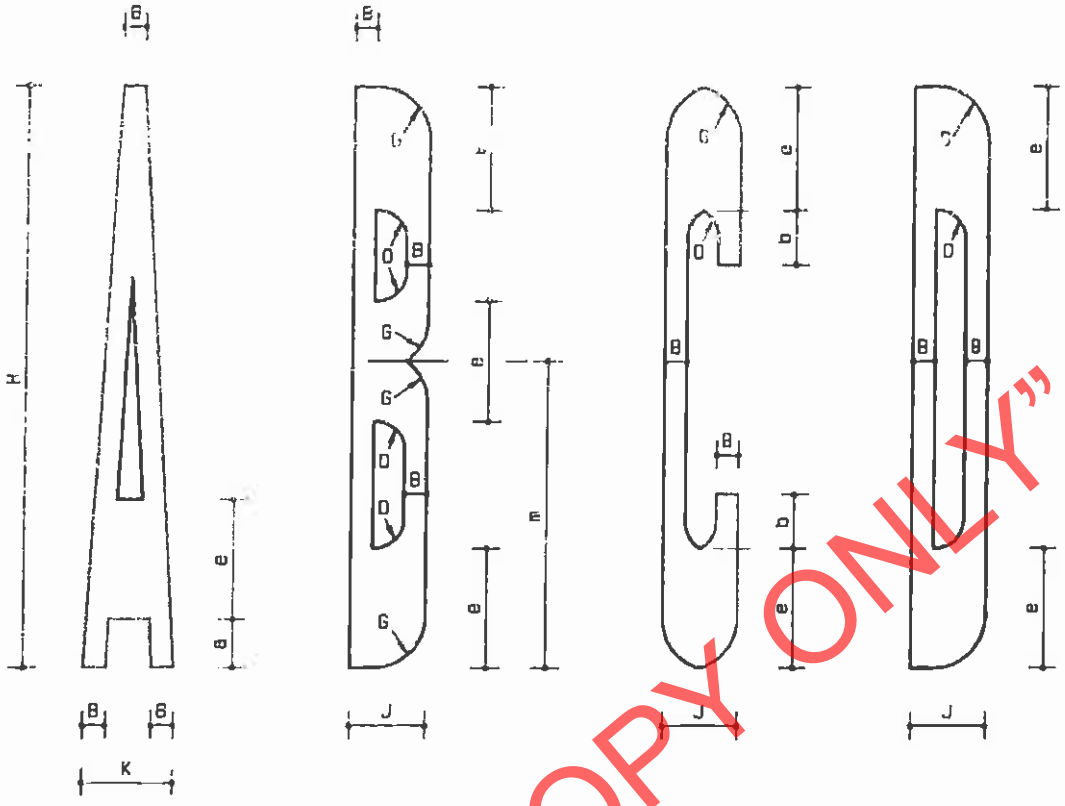
White or yellow
Wit of geel



GM7

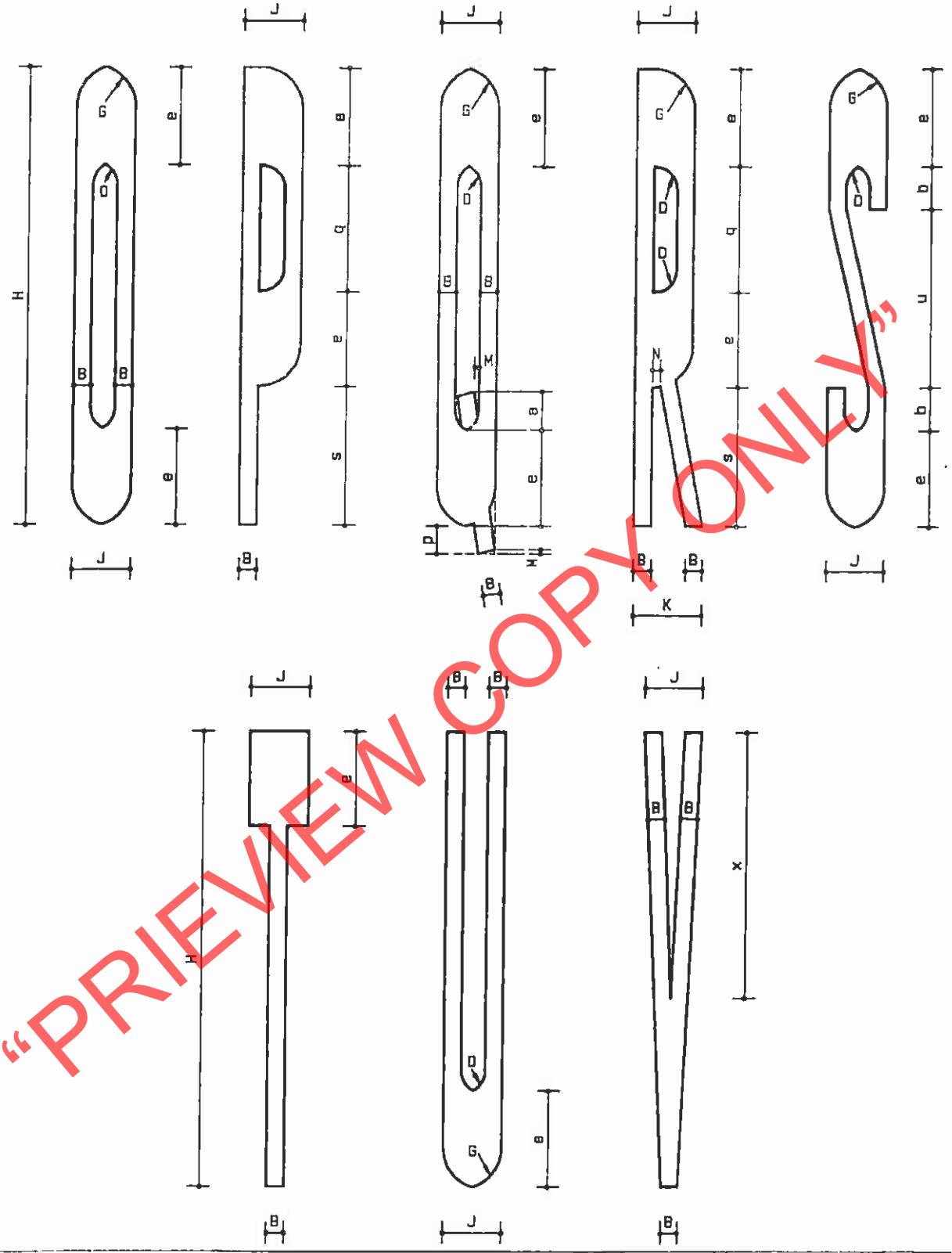


WORD MARKINGS/
WOORDMERKE

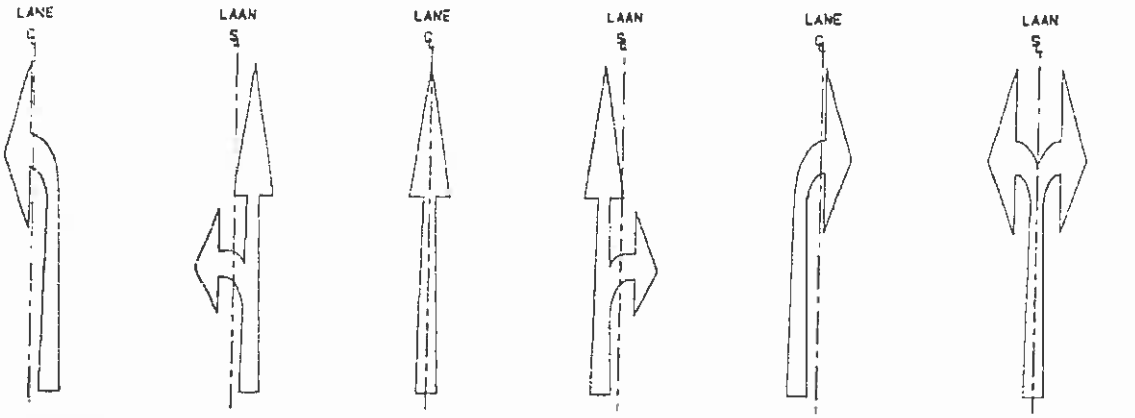


H	A	a	B	b	C	c	D	d	E	e	F	f	G	g	h	J	j	K	k	l	M
1250	100	150	150	120	180	155	200	195	230	260	250	275	355	310	405	510	465	610	535	585	40
2500	100	210	150	235	180	310	200	390	230	520	250	550	355	625	810	510	935	610	1070	1170	40
4000	100	335	150	375	180	500	200	625	230	835	250	870	355	1085	1290	510	1461	610	1710	1875	40
5500	100	460	150	515	180	685	200	860	230	1145	250	1205	355	1375	1775	510	2060	610	2350	2580	40
7500	100	630	150	710	180	935	200	1175	230	1560	250	1645	355	2050	2420	510	2760	610	3200	3520	40

H	m	N	n	o	p	q	r	s	t	u	v	w	x	y	z	zz
1250	665	75	715	90	100	350	365	380	420	495	560	130	575	140	730	170	650	180	610	210
2500	1330	75	1430	185	155	705	730	755	835	990	1120	260	1150	285	1460	340	1300	365	1225	420
4000	2125	75	2290	285	250	1120	1165	1210	1335	1580	1790	415	1835	460	2330	540	2085	580	1955	665
5500	2920	75	3150	405	345	1550	1605	1660	1835	2180	2465	580	2520	630	3210	745	2900	805	2695	905
7500	3980	75	4300	550	470	2115	2190	2265	2765	2960	3360	790	3440	850	4370	1015	3955	1095	3670	1240



H	m	N	n	o	p	q	r	s	t	u	v	vv	w	ww	x	xx	y	yy	z	zz
1250	665	75	715	90	100	350	365	380	420	495	560	130	575	140	730	170	650	180	610	210
2500	1330	75	1430	185	155	705	730	755	835	990	1120	260	1150	285	1460	340	1300	365	1225	420
4000	2125	75	2290	285	250	1120	1165	1210	1335	1580	1790	415	1835	460	2330	540	2085	580	1955	665
5500	2920	75	3150	405	345	1550	1605	1660	1835	2180	2465	580	2520	630	3210	745	2900	805	2695	905
7500	3980	75	4300	550	470	2115	2190	2265	2765	2960	3360	790	3440	850	4370	1015	3955	1095	3670	1240



(Yellow) RM8.1 (White) WM7.1 | RM8.2 WM7.2 | RM8.3 WM7.3 | RM8.4 WM7.4 | RM8.5 WM7.5 | RM8.6 (Geel) WM7.6 (Wit)

RM8 & WM7

COLOURS/KLEURE:

RM8
Yellow /Geel

WM7
White/Wit

NOTES:

1 For details of use of road marking RM8 refer to SARTSM VOL1, Chapter 7, page 7 2.33 and for road marking WM7 to page 7 3 13.

2 Dimensional details are given on pages 12 3.2 and 12.3.3. Values for all standard arrow lengths of all necessary dimensions are covered by two details on page 12.3.2. It should be noted that the arrow width does not vary with length. Alternative details are given on 12 3 3 for 5m long arrows on gridsquares. This detail can be redrawn for other sizes by retaining the 50mm grid width and by varying the 100mm grid length in proportion to arrow length eg. for a 4m arrow grid length should be 80mm.

OPMERKINGS:

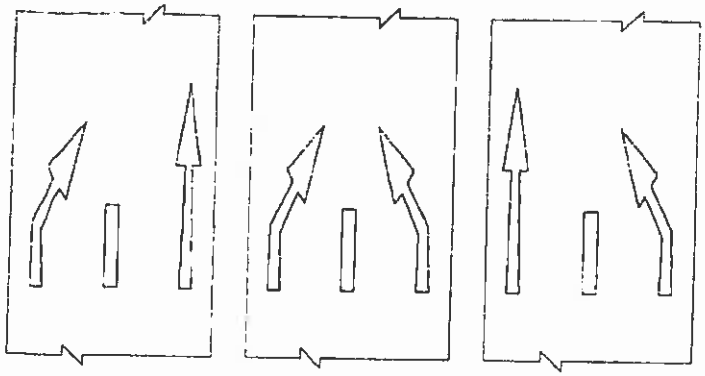
1 Vir detail van gebruik van padmerk RM8 verwys na SAHPVT VOL1, Hoofstuk 7, bladsy 7.2 33. en vir padmerk WM7 na bladsy 7.3 13

2 Afmetingsdetail word op bladsye 12.3.2 en 12.3.3 verskaf. Waardes vir alle standaard pyllengtes van alle nodige afmetings word deur twee details op bladsy 12.3.2 gedek. Daar behoort opgelet te word dat die pylbreedte nié saam met die lengte varieer nie. Alternatiewe detail word op bladsy 12.3.3 vir 5m lang pyle op rooster-vierkante. Hierdie detail kan vir ander groottes oorgeteken word, deur die 50mm roosterbreedte te behou, en die 100mm roosterlengte in verhouding met die pyllengte te varieer bv vir 'n 4m pyl behoort die roosterlengte 80mm te wees.

Arrow area m^2
Pyl oppervlak

a	RM8.1/RM8.5 WM7.1/WM7.5	RM8.2/RM8.4 WM7.2/WM7.4	RM8.3 WM7.3	RM8.6 WM7.6
2500	0.67	0.89	0.66	1.03
4000	1.14	1.43	1.06	1.68
5000	1.45	1.78	1.32	2.12
7500	2.23	2.66	1.98	3.20

MANDATORY DIRECTION ARROWS
MANDATORY DIRECTION ARROW AHEAD/
VERPLIGTENDE RIGTING PYLE
VERPLIGTENDE RIGTINGPYL VOOR



WM6.1 WM6.2 WM6.3

WM6

COLOURS/KLEURE:

White/Wit

NOTES:

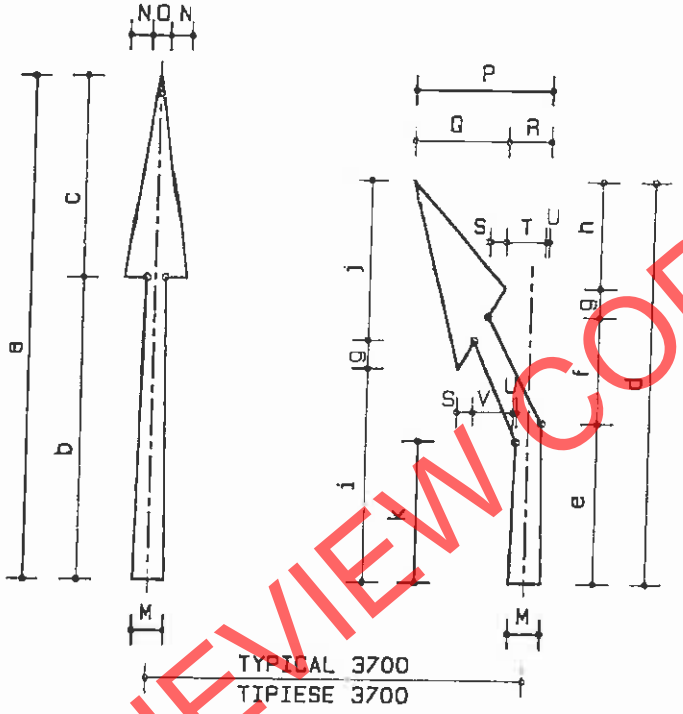
1 For details of the use of road marking WM6 refer to SARTSM VOL1 Chapter 7, page 7 3.10

2 Dimensional details are given on this page for a range of standard arrow lengths (the length refers to that of the longer of the two arrows) The detail on page 12 3 7 is for a 5m arrow and is drawn on grid squares to permit easy enlargement (See page 12 3 1 - note 2 also)

OPMERKINGS:

1 Vir detail van die gebruik van padmerk WM6 verwys na SAHPVT VOL1, Hoofstuk 7 bladsy 7 3.10

2 Afmetingsdetail word op hierdie bladsy vir 'n reeks standaard pyllengtes verskaf (die lengte verwys na die van die langer een van die twee pyle) Die detail op bladsy 12.3.7 is vir 'n 5m pyl. en word op roostervierkante geteken om vergroting te vergemaklik (Sien ook bladsy 12 3 1 - nota 2)



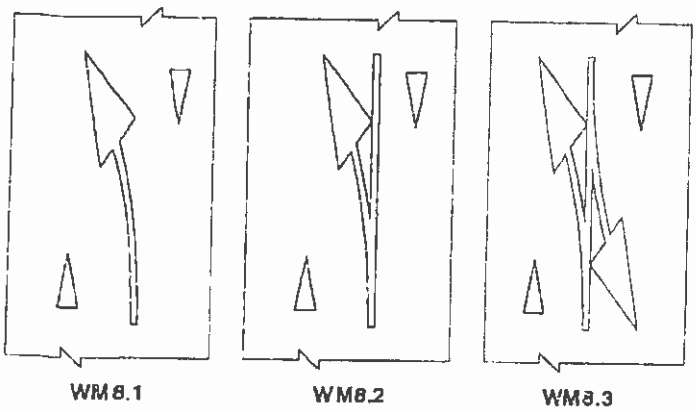
Arrow area Pyl oppervlak m²		
a	WM6.1/ WM6.3	WM6.2
4000	2.08	2.06
5000	2.61	2.58
7500	3.92	3.88
12000	6.56	6.20

DIMENSIONS/AFMETINGS (mm)

Operating speed km/h Bedryfspoed	Typical applications Tipiese toepassings	a	b	c	d	e	f	g	h	i	j	k
30 - 40	City centre Middestad	4000	2400	1600	3200	1271	847	227	855	1696	1277	1126
50 - 60	Urban roads Stedelike paaie	5000	3000	2000	4000	1589	1058	284	1069	2120	1596	1407
70 - 90	Urban arterial roads/ Rural expressways Stedelike verkeeraar paaie/Plattelandse snelweë	7500	4500	3000	6000	2384	1587	426	1603	3180	2394	2111
100 - 120	Rural roads and freeways Plattelandse paaie en deurpaaie	12000	7200	4800	9600	3814	2539	681	2566	5089	3830	3377

ALL operating speeds and applications ALLE bedryfspoede en toepassings	M	N	O	P	Q	R	S	T	U	V
	300	210	180	1300	698	402	155	370	32	390

LANE REDUCTION ARROWS/ LAANVERMINDERINGSPYLE



WM8

COLOURS/KLEURE.

White/Wit

NOTES:

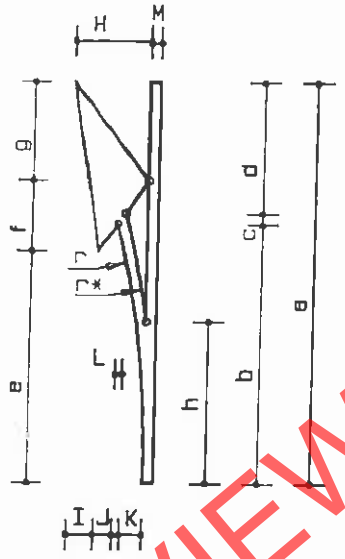
1 For details of the use of road marking WM8 refer to SARTSM VOL1, Chapter 7, page 7 3 14

2 Dimensional details are given for the urban and rural sizes of road marking WM8 which is matched to the length of DIVIDING LINE marking WM3

OPMERKINGS:

1 Vir detail van die gebruik van padmerk WM8 verwys na SAHPVT VOL1, Hoofstuk 7, bladsy 7 3 14

2 Afmetings detail word vir die stedelike en plattelandse padmerkgroottes verskaf wat aangepas word op die lengte van SKEISTREEPmerk WM3



Arrow area / Pyl oppervlak m^2	
a	Per arrow/ Elke pyl
3000	0.62
4000	0.82

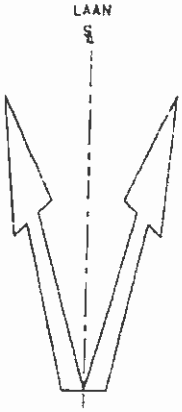
DIMENSIONS/AFMETINGS (mm)

Typical applications / Tipiese toepassings	a	b	c	d	e	f	g	h	r	r'
Urban / Stedelik	3000	1941	83	976	1741	528	731	1206	5620	5820
Rural / Plattelands	4000	2588	111	1301	2321	704	975	1608	9900	10000

ALL applications / ALLE toepassings	H	I	J	K	L	M
	735	260	181	219	75	100 or 150

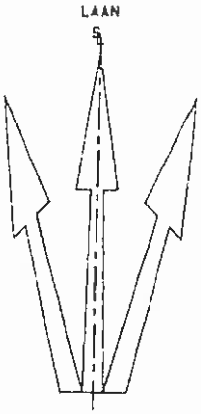
NO OVERTAKING LINE OR NO CROSSING LINE AHEAD/
VERBYSTEEKVERBODSTREEP OF OORSTEEKVERBODSTREEP VOOR

GM3.1



GM3.2

GM3.3

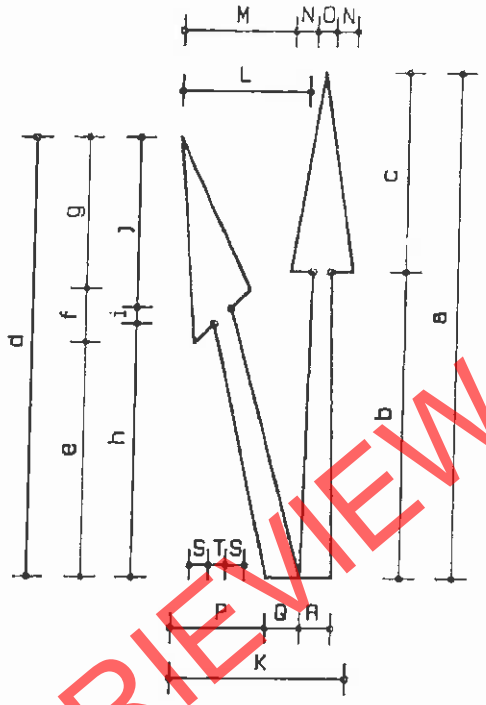


GM3.4

COLOURS/KLEURE:

White/Wit

GM3



NOTES:

1 For details of the use of road marking GM3 refer to SARTSM VOL1, Chapter 7 page 7.4.5

OPMERKINGS:

1 Vir details van die gebruik van padmerk GM3 verwys na SAHPVT VOL1, Hoofstuk 7, bladsy 7.4.5

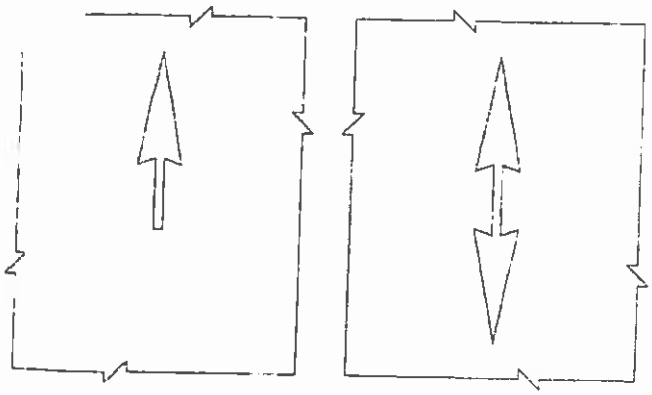
Arrow area m^2 / Pyl oppervlak			
a	GM3.1/GM3.3	GM3.2	GM3.4
2500	1.30	1.27	1.93
4000	2.07	2.04	3.09
5000	2.59	2.55	3.87
7500	3.89	3.82	5.80

DIMENSIONS/AFMETINGS (mm)

Operating speed / Bedryfspoed km/h	Typical applications / Tipiese toepassings	a	b	c	d	e	f	g	h	i	j
30 - 40	City centre / Middestad	2500	1500	1000	2170	1141	268	761	1235	81	855
50 - 60	Urban / Stedelik	4000	2400	1600	3472	1826	429	1218	1976	129	1367
70 - 90	Urban arterial/Rural expressway / Stedelike verkeersaar/Plattelandse snelweg	5000	3000	2000	4340	2282	536	1522	2470	161	1709
100 - 120	Rural and freeways / Plattelandse en deurpaaie	7500	4500	3000	6510	3423	804	2283	3705	242	2564

ALL operating speeds and applications / ALLE bedryfspoede en toepassings	K	L	M	N	O	P	Q	R	S	T
	1700	1250	1100	210	180	921	329	300	188	161

BIFURCATION ARROWS/ VURKPYLE



GM4

COLOURS/KLEURE:

White/Wit

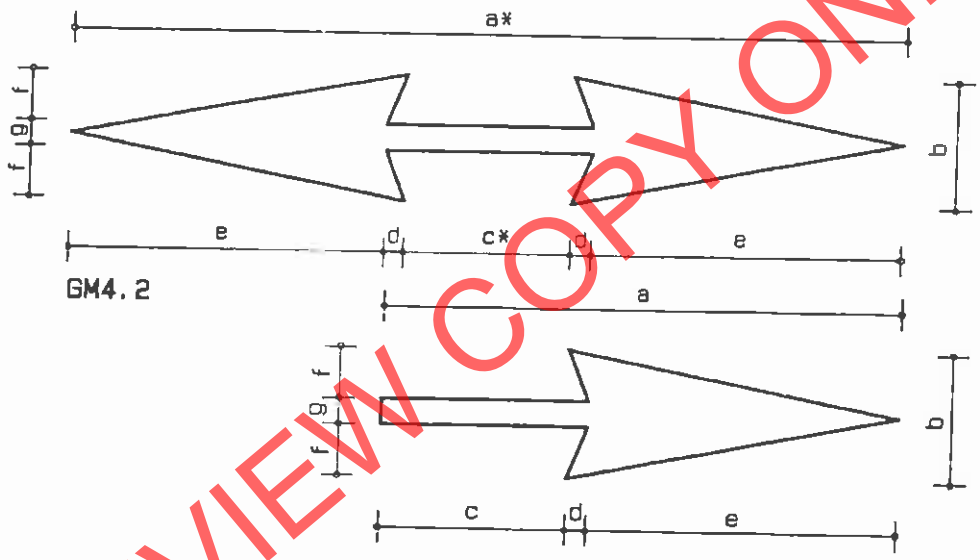
NOTES

1 For details of the use of road marking GM4 refer to SARTSM VOL 1, Chapter 7 page 7 4 6

OPMERKINGS:

1 Vir details van die gebruik van padmerk GM4 verwys na SAHPVT VOL 1 Hoofstuk 7 bladsy 7 4 6

Area / Oppervlak m^2				
GM4.1/ GM4.2(a*)	1250	0.59	2000	1 05
	2500	1 17	4000	2 10
	4000	1.88	6400	3.36
	5000	2.35	8000	4.20

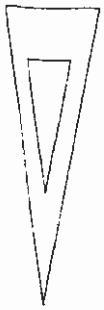


GM4. 2

DIMENSIONS/AFMETINGS (mm)

Operating speed / Bedryfspoed km/h	Typical applications / Tipiese toepassings	a	a*	b	c	c*	d	e	f	g
30 - 40	City centre / Middestad	1250	2000	1250	450	400	50	750	500	250
50 - 60	Urban / Stedelik	2500	4000	1250	900	800	100	1500	500	250
70 - 90	Urban arterial/Rural expressway / Stedelike verkeersaar/Plattelands snelweg	4000	6400	1250	1440	1280	160	2400	500	250
100 - 120	Rural and freeways / Plattelands en deurpaaie	5000	8000	1250	1800	1600	200	3000	500	250

INFORMATION ARROWS/ INLIGTINGSPYLE



WM5

COLOURS/KLEURE:

White/Wit

NOTES:

1 For details of use refer to SARTSM VOL1, Chapter 7, page 7 3 9

2 The symbol areas for the given values of width "a" are

(a) for a = 450 - area = 0 2m^2

(b) for a = 850 - area = 0 83m^2,

(c) for a = 1350 - area = 2 15m^2

OPMERKINGS:

1 Vir detail van gebruik verwys na SAHPVT VOL1, Hoofstuk 7 bladsy 7 3 9.

2 Die simboolareas vir die gegewe waardes van breedte "a" is

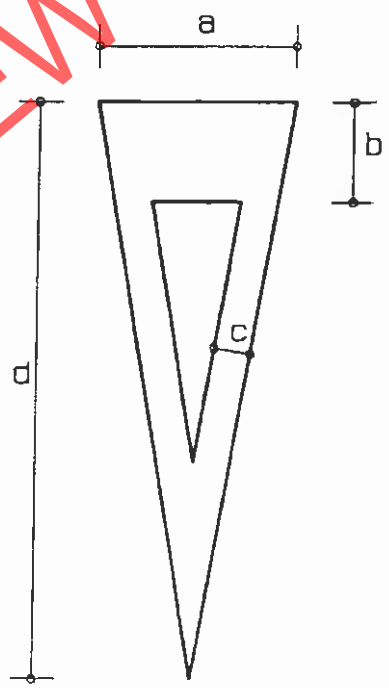
(a) vir a = 450 - area = 0 2m^2

(b) vir a = 850 - area = 0 83m^2,

(c) vir a = 1350 - area = 2 15m^2

DIMENSIONS/AFMETINGS (mm)

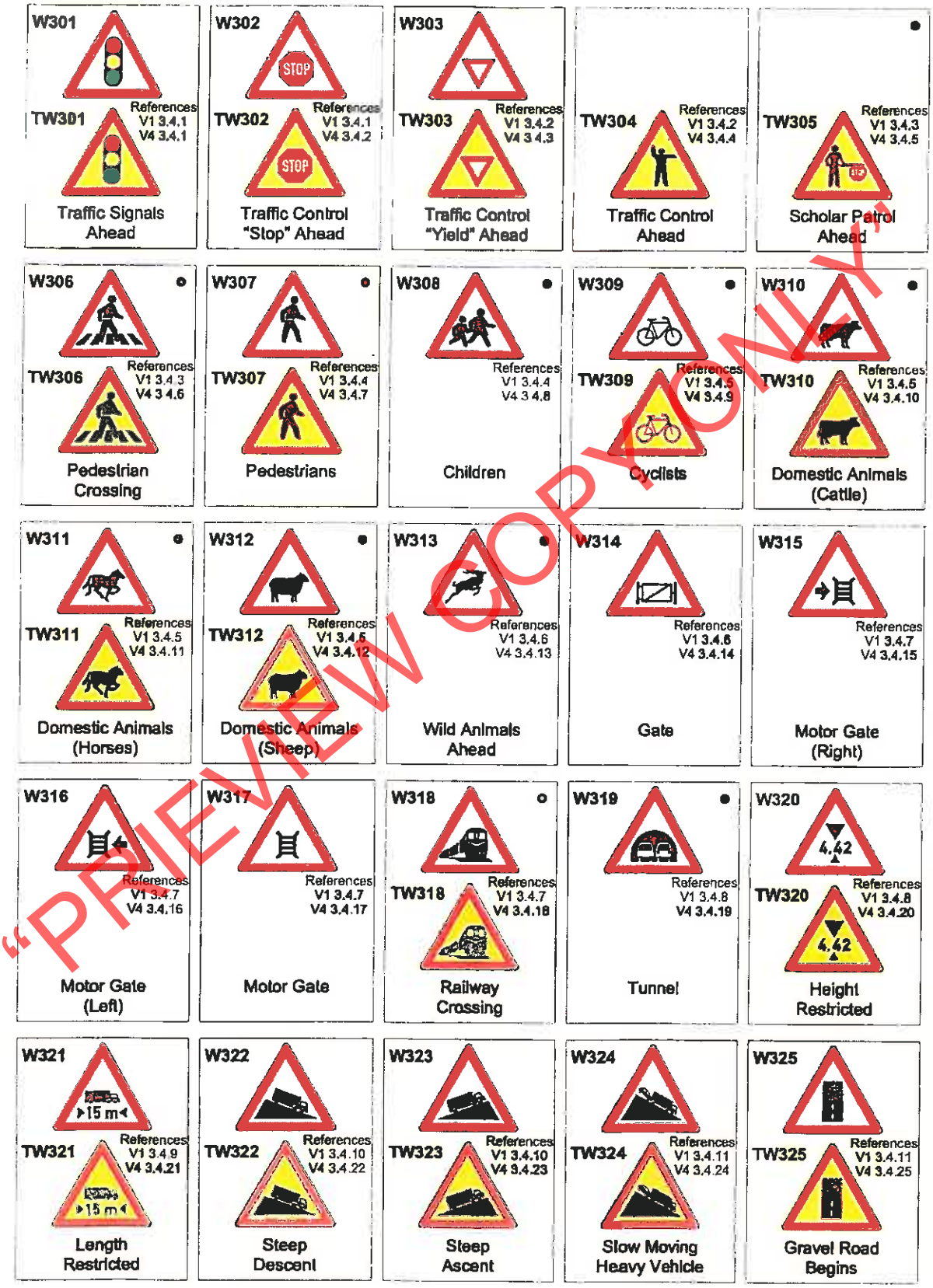
Operating speed km/h Bedryfspoed	Typical applications Tipiese toepassings	Distance from yield line Afstand vanaf toegeestreep	a	b	c	d
30 - 40	City centre Middestad	90m	450	250	100	1250
50 - 60	Urban Stedelik	120m	850	450	150	2500
70 - 120	Rural Plattelands	155m	1350	700	250	4000



YIELD CONTROL AHEAD/
TOEGEEBEHEER VOOR

Section 3.4 : SYMBOLIC - Advance Warning Signs

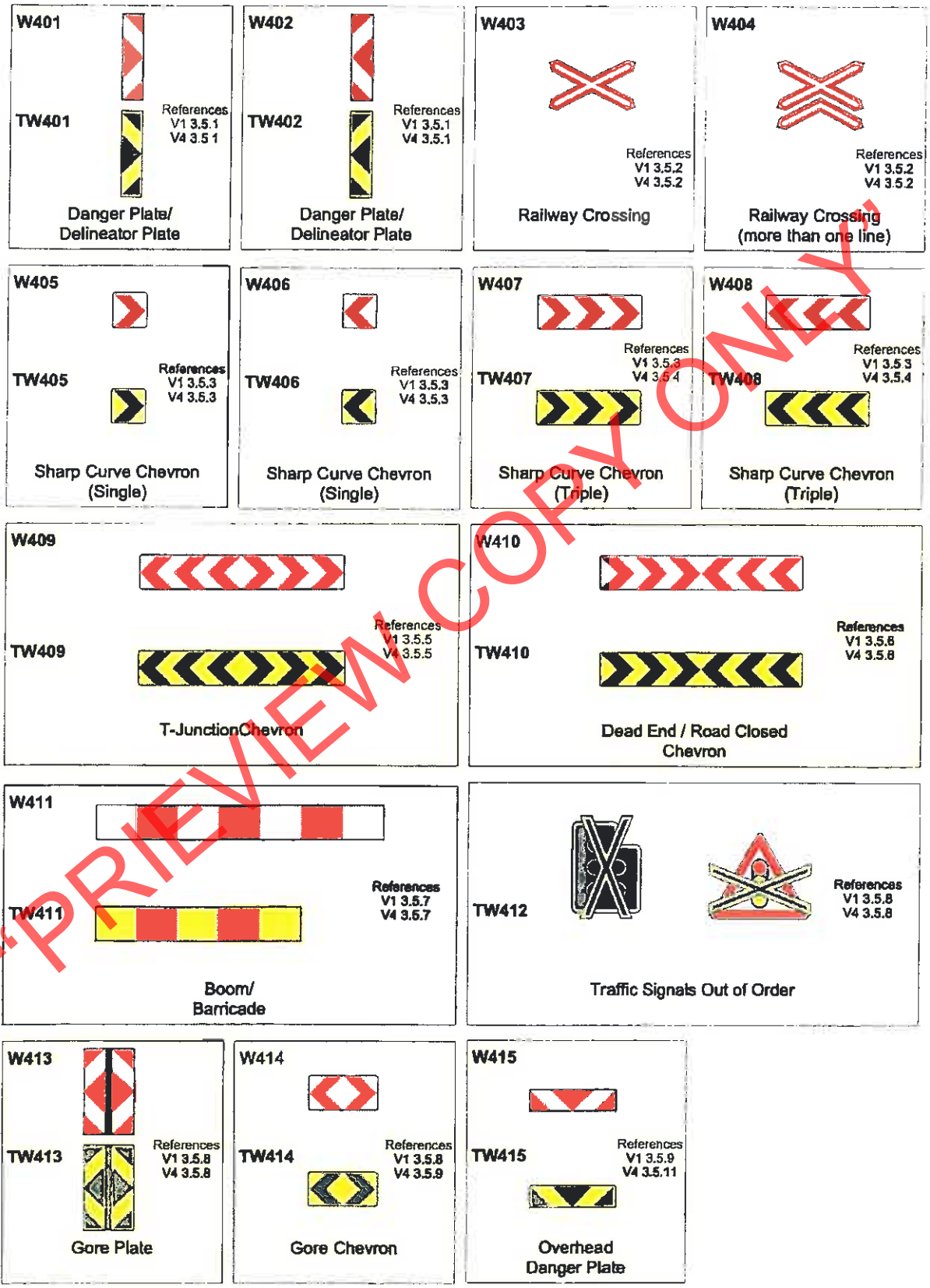
● = See Section 3.7 for variations appropriate to individual countries.



● = See Section 3.7 for variations appropriate to individual countries

Section 3.5 : HAZARD MARKER SIGNS

• = See Section 3.7 for variations appropriate to individual countries.



Section 3.6 : COMBINATION - Advance Warning Signs

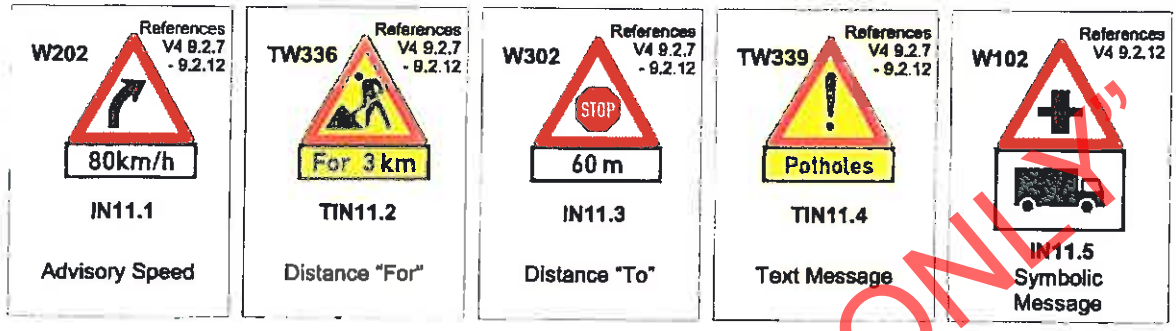
The effectiveness of advance warning signs may be enhanced by using them in combination with other road traffic signs such as :

(a) SUPPLEMENTARY PLATE information sign IN11;

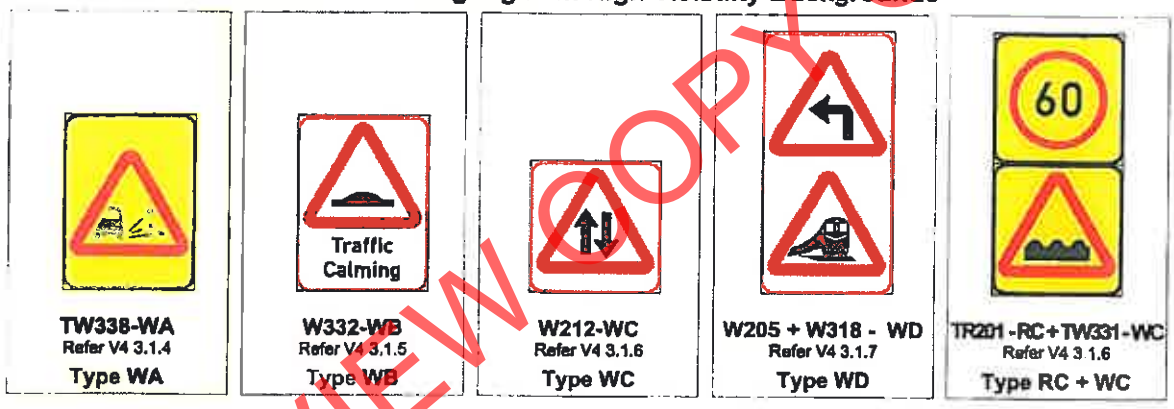
(b) HIGH VISIBILITY background signs;

(c) flashing yellow signals SS3; or combinations of several of these. Both permanent and temporary examples are shown.

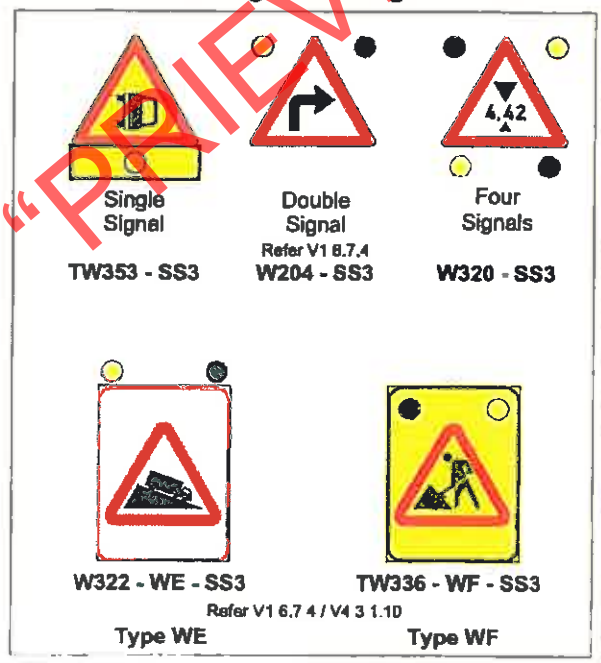
Advance Warning Signs with Supplementary Plates



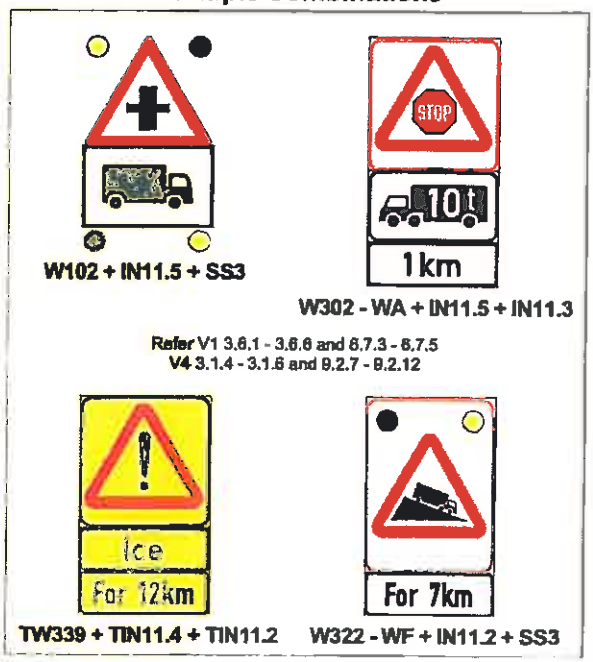
Advance Warning Signs in High Visibility Backgrounds



with Flashing Yellow Signals - SS3

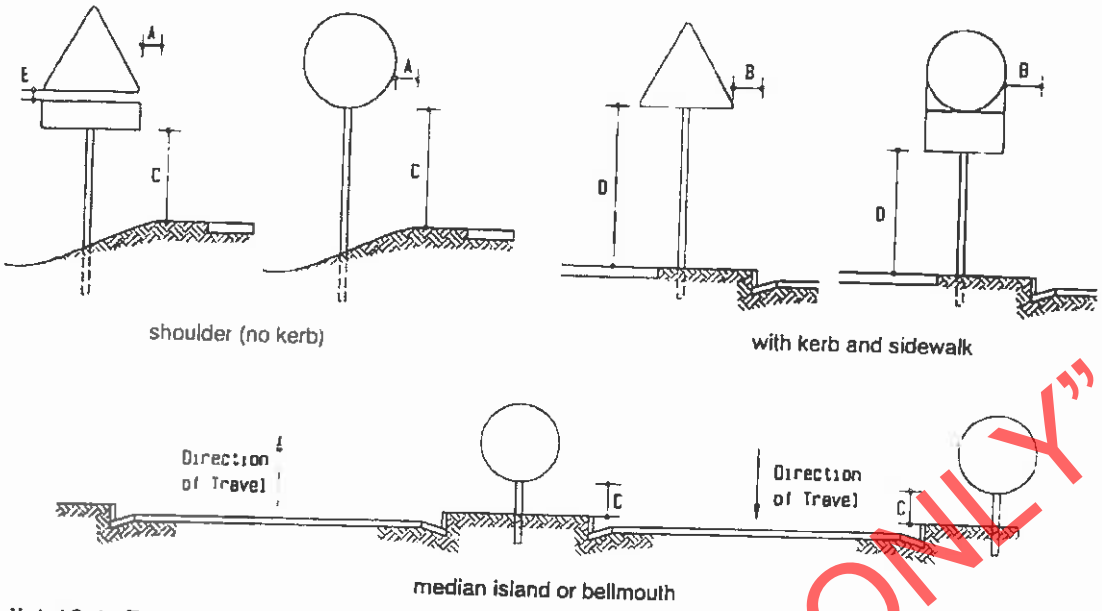


Multiple Combinations

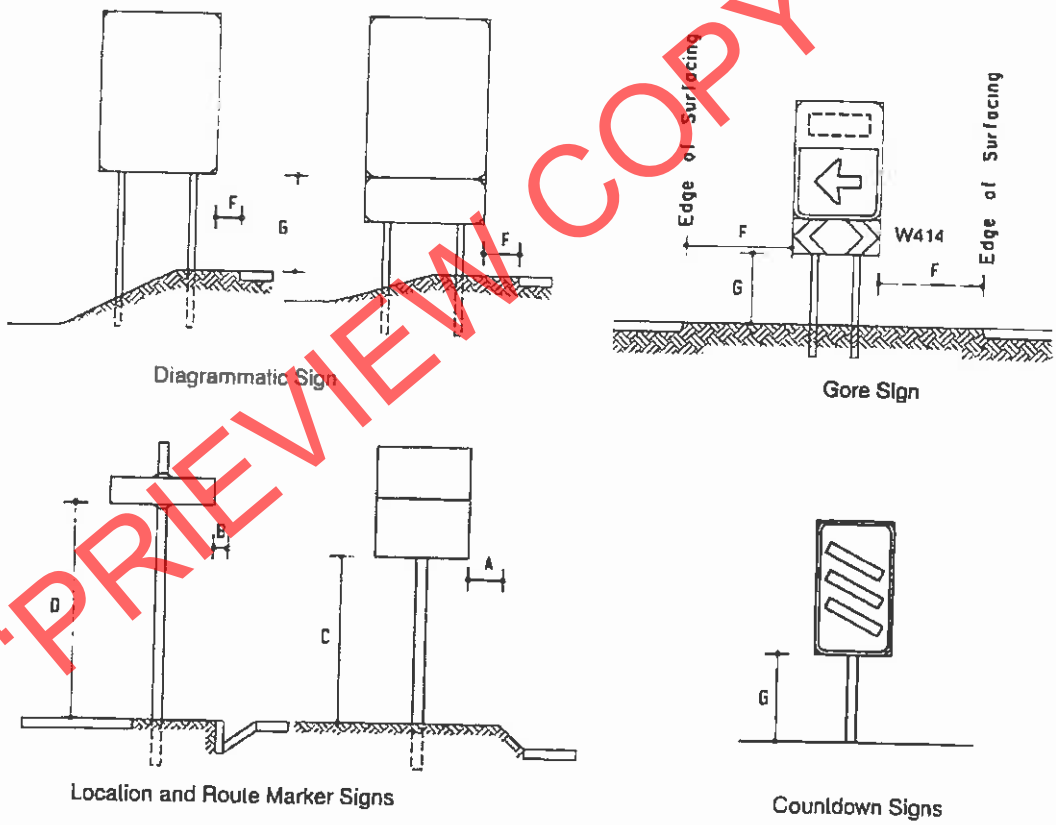


ANNEXURE E:

SIGN PLACEMENT



Detail 1.18.1 Regulatory and Warning Signs



Detail 1.18.2 Small to Medium Sized Guidance and Information Signs

Fig 1.18 Lateral and Vertical Positioning of Road Signs

TABLE 1.3 LATERAL AND VERTICAL PERMANENT SIGN PLACEMENT DIMENSIONS TABLE 1.3

Dimension	Minimum (mm)	Preferred (mm)	Maximum (mm)	Remarks
A	1200	1500	2000	See note (8)
B	500	750	-	See "R" and note (9)
C	600(300)	2100	2500	See note (10)
D	2100	2500	3000	See note (11)
E	0	0	200	See Chapter 3
F	600	1200	2000	
G	800	1200	1600	
H	-		6000	See note (12)
J	2000	4000	-	See note (13)
K	1600	2000	2400	See note (12) and (14)
L	750	-	-	
M	5200	5700	6200	
N	1000	1500	-	See "R" and note (9)
P	50	1000	-	
R	600	1500	-	See "B" , "N" and note (8)
T	1800	-	4200	See note (15)

NOTES

(Supplementary to Figures 1.17 and 1.18.)

(1) The minimum size of DANGER PLATE signs W401 and W402 is 600 mm x 150 mm and the maximum size 1200 mm x 300 mm. The maximum size should be used on roads with an operating speed of 100 km/h or more at all bridge abutments, piers or parapets not protected by a guardrail. (Figure 1.17.)

(2) A DANGER PLATE sign should not be used if is likely to represent a greater hazard than the hazard it is intended to mark e.g. cross-drain/culvert ends. (Figure 1.17.)

(3) Any dimension given in relation to guardrails presumes these are installed to correct safety standards (Figures 1.17 and 1.18.)

(4) SHARP CURVE CHEVRON signs W405 and W406 should only be displayed in minimum sets of three, either as a connected set pointed in one direction, or as a spaced set (see Table 3.5), also pointing in one direction. (Figure 1.17.)

(5) When SHARP CURVE CHEVRON signs are used on a long curve at least three signs must always be visible through vertical and horizontal curves. This requirement overrides any spacing recommendations given in Table 3.5. (Figure 1.17.)

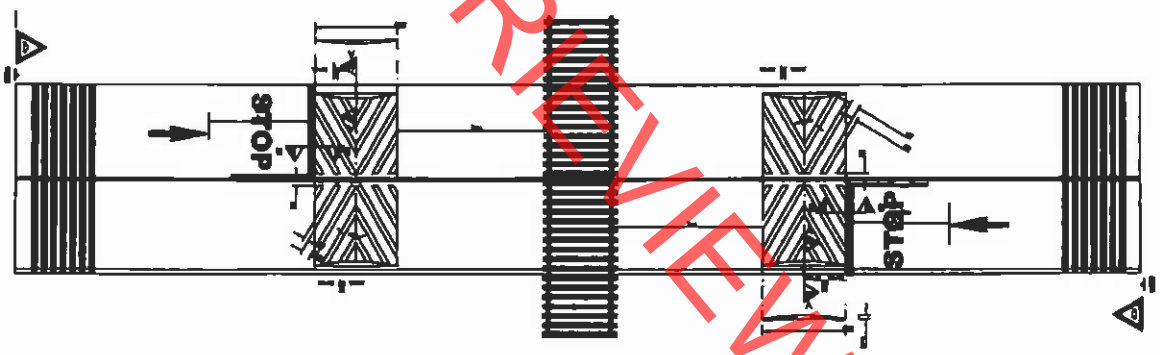
(6) In order to position SHARP CURVE CHEVRONS to best advantage on a long curve it is recommended that the first sign to be positioned should be placed on the approximate line of sight of drivers approaching on the tangent to the curve. Subsequent signs should then be spaced at a distance "S", backwards and forwards around the curve from this point (Table 3.5). For the purpose of such an exercise the value of the offset of the drivers' line of sight to the left of the road centre line can be assumed to be between 1200 mm and 1600 mm. (Figure 1.17.)

(7) Temporary SHARP CURVE CHEVRON signs may be used as an alternative to DELINEATOR signs for greater impact, in a similar manner, at roadworks sites and detours.

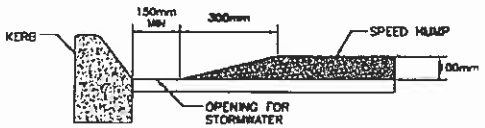
(8) Dimension "A" is measured from the shoulder break point (refer to Figure 1.18).

(9) In an urban environment, where signs are commonly located behind a kerb, dimension "B" is suitable for small signs. Dimension "R" is more appropriate for larger signs such as DIRECTION signs. On higher speed urban or peri-urban roads dimension "N" may be used in preference to "R" or "B". (Figure 1.18.)

(10) The range of mounting heights between 1500 mm and 2000 mm should be avoided for single pole mounted signs (Dimension "C") because there is a significant risk that, on impact by a motor car, the failure of a steel pole may result in such a sign penetrating the car windscreen. For a limited number

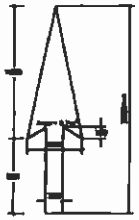


PLAN OF SPEED HUMP



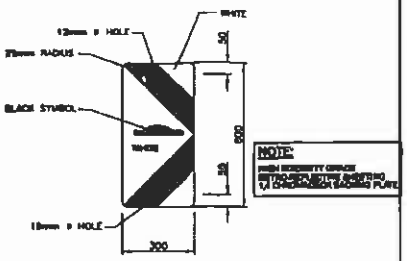
SECTION A-A:
CONSTRUCTION DETAIL OF SPEED HUMP

50/80 Km/h

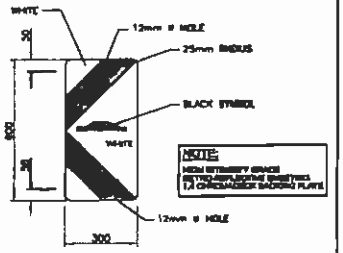


DETAIL OF SPEED HUMP ROAD MARKING

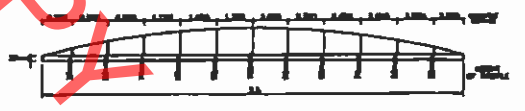
SECTION B-B:
CONSTRUCTION DETAIL OF SPEED HUMP



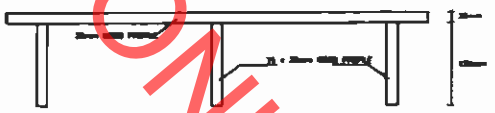
DANGER PLATE SPEEDHUMP (LEFT)
W416



DANGER PLATE SPEEDHUMP (RIGHT)
W417



SIDE ELEVATION



PLAN

TEMPLATE DETAIL FOR CONSTRUCTION OF SPEED HUMP

NOTES

CONSTRUCTION METHOD: SPEED HUMPS

1. Setting out of hump - few days before construction.
2. Saw cuts one to two days before construction.

ON CONSTRUCTION DAY:

3. Remove 500 mm asphalt strips.
4. Start erecting road signs and paint warning road marking.
5. Place asphalt in strips and compact with two passes without vibrator.
6. Place templates - both sides of one lane at a time.
7. Place asphalt and rake till slightly higher than templates.
8. Shape asphalt with straight edge (channel section 6 m long).
9. Remove templates and compact without vibrator (three passes)
10. Measure profile and rectify if necessary.
11. Final compaction with three to four passes with vibrator.

12. Paint speed hump the next day.

2. Traffic Signs:

2.1 Only galvanised bolts and nuts to be used on W and R series (no uni-struts)

2.2 All signs must be according to the Road Traffic Signs Manuals (60km/h zone)

2.3 All signs excluding R1 series must have rounded edges

3. ROADMARKINGS:
All new road markings in thermoplastic

Colour	Paint application rate (g/m²)	Retroreflective media rate (kg/l)	Initial coefficient of retro-reflection (millicandelas per square metre per lux)
WHITE	3.5	35	300
YELLOW	3.5	35	150

4. RUMBLE STRIPS
Installation of 19mm stones rumble strips * 100mm:

NOTE:

The Traffic Engineering and Operation section must always be consulted to assist with the setting out of speed humps.

NOT TO SCALE

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	INIT.

TRANSNET
freight rail

TRANSNET FREIGHT RAIL

KOEDOESPOORT DEPOT
INFRASTRUCTURE MAINTENANCE

KOEDOESPOORT DEPOT
INFRASTUCTURE MAINTENANCE

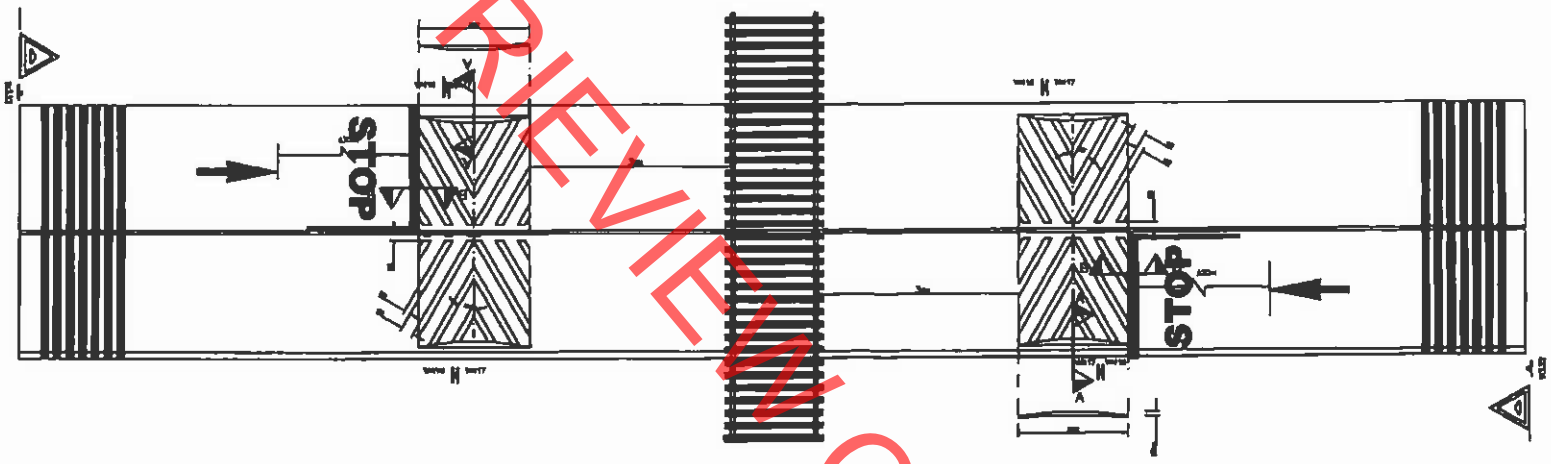
TRAFFIC CALMING MEASURES

TYPICAL SPEED HUMP AND ROADMARKINGS DETAIL

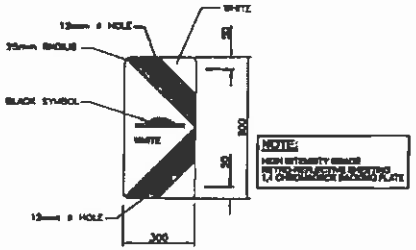
DATE
MARCH. 2010

DRAWING NUMBER
KDS01

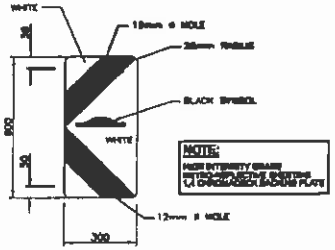
SHEET NUMBER
1



PLAN OF SPEED HUMP



DANGER PLATE SPEEDHUMP (LEFT)
W416



DANGER PLATE SPEEDHUMP (RIGHT)
W417

NOTES

CONSTRUCTION METHOD: SPEED HUMPS

1. Setting out of hump - five days before construction.
2. Saw cuts one to two days before construction.

ON CONSTRUCTION DAY:

3. Remove 500 mm asphalt strips.
4. Start erecting road signs and paint warning road marking.
5. Place asphalt in strips and compact with two passes without vibrator.
6. Place templates - both sides of one lane at a time.
7. Place asphalt and rake till slightly higher than templates.
8. Shape asphalt with straight edge (channel section 8 m long).
9. Remove templates and compact without vibrator (three passes)
10. Measure profile and rectify if necessary.
11. Final compaction with three to four passes with vibrator.

12. Paint speed hump the next day

2. Traffic Signs:

2.1 Only galvanised bolts and nuts to be used on W and R series (no unf-struts)

2.2 All signs must be according to the Road Traffic Signs Manuals (60km/h zone)

2.3 All signs excluding R1 series must have rounded edges

3. ROADMARKINGS:
All new road markings to thermoplastic

Colour	Paint application rate (mm)	Premix bead application rate (%)	Bead specification of non-reflectorised paint
WHITE	1.2	15	850
YELLOW	1.5	15	425

4. RUMBLE STRIPS
Installation of 19mm stones rumble strips * 100mmc

NOTE:

The Traffic Engineering and Operation section must always be consulted to assist with the setting out of speed humps.

NOT TO SCALE

AMENDMENTS				
NO.	DATE	APPROVED	DESCRIPTION	INIT.

TRANSNET
freight rail

TRANSNET FREIGHT RAIL

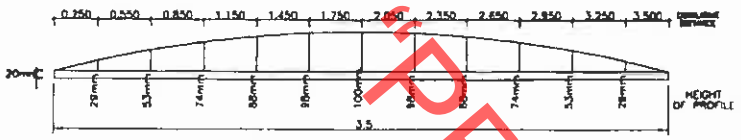
KOEDOESPOORT DEPOT
INFRASTRUCTURE MAINTENANCE

KOEDOESPOORT DEPOT
INFRASTUCTURE MAINTENANCE

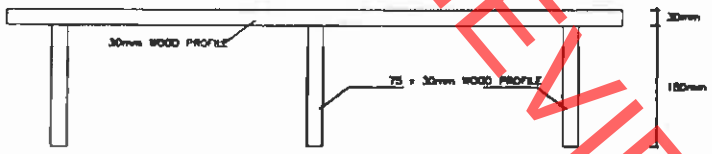
TRAFFIC CALMING MEASURES

TYPICAL SPEED HUMP AND ROADMARKINGS DETAIL

DATE
MARCH. 2010
DRAWING NUMBER
KDS01
SHEET NUMBER
2

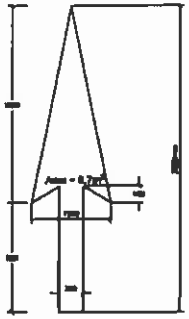


SIDE ELEVATION

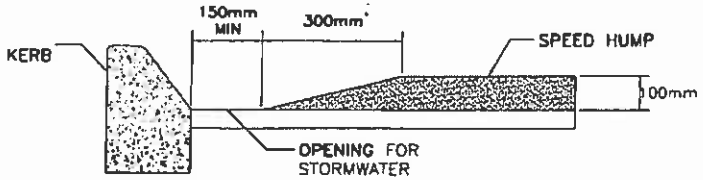


PLAN

TEMPLATE DETAIL FOR CONSTRUCTION OF SPEED HUMP

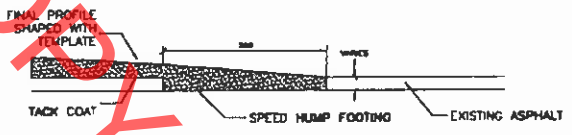


DETAIL OF SPEED HUMP ROAD MARKING



SECTION A-A:
CONSTRUCTION DETAIL OF SPEED HUMP

50/60 Km/h



SECTION B-B:
CONSTRUCTION DETAIL OF SPEED HUMP

NOTES

CONSTRUCTION METHOD: SPEED HUMPS

1. Setting out of hump - few days before construction.
2. Saw cuts one to two days before construction.

ON CONSTRUCTION DAY

3. Remove 600 mm asphalt strips.
4. Start erecting road signs and paint warning road marking.
5. Place asphalt in strips and compact with two passes without vibrator.
6. Place templates - both sides of one lane at a time.
7. Place asphalt and rake till slightly higher than templates.
8. Shape asphalt with straight edge (channel section 6 m long).
9. Remove templates and compact without vibrator (three passes)
10. Measure profile and rectify if necessary
11. Final compaction with three to four passes with vibrator

12. Paint speed hump the next day.

2. Traffic Signs:

2.1 Only galvanised bolts and nuts to be used on W and R series (no uni-struts)

2.2 All signs must be according to the Road Traffic Signs Manuals (60km/h zone)

2.3 All signs excluding R1 series must have rounded edges

3. ROADMARKINGS:
All new road markings in thermoplastic

4. RUMBLE STRIPS
Installation of 19mm stoned rumble strips * 100mm

NOTE:

The Traffic Engineering and Operation section must always be consulted to assist with the setting out of speed humps

NOT TO SCALE

AMENDMENTS				
NO.	DATE	APPROVED	DESCRIPTION	INIT.

TRANSNET freight rail

TRANSNET FREIGHT RAIL

KOEDOESPOORT DEPOT
INFRASTRUCTURE MAINTENANCE

KOEDOESPOORT DEPOT
INFRASTUCTURE MAINTENANCE

TRAFFIC CALMING MEASURES

TYPICAL SPEED HUMP AND ROADMARKINGS DETAIL

DATE
MARCH, 2010

DRAWING NUMBER
KDS01

SHEET NUMBER
3