| Chairman: | Mr P du Verster | Free State Department of Public Transport and Roads |
| Mr D Bain | De Leuw Cather (North) (Pty) Ltd-Consultant |
| Mr GWT Behrens | FEDHASA |
| Mr GW Botha | Free State Department of Public Transport and Roads |
| Ms D Briesch | National Department of Transport |
| Mr JN Coetzee | Cape Provincial Administration – Roads Branch |
| Mr RB Dryden | National Department of Transport |
| Mr DJ Eadie | Cape Town Metropolitan Transport Planning |
| Mr JS Falkner | National Department of Transport |
| Mr FJ Fick | Eastern Cape Provincial Administration |
| Mr WEW Hahn | Gauteng Department of Public Transport, Roads and Public Works |
| Mr PF Jordaan | National Department of Environmental Affairs and Tourism |
| Mr IJG Kriel | Northern Province Department of Public Works and Roads |
| Mr FJJ Labuschagne | CSIR-Roads and Transport Technology |
| Capt. R Askew | South African Police Services |
| Insp. S McIntosh | South African Police Services |
| Mr AA Meiring | Northern Cape Department of Public Works and Roads |
| Mr A Muhajer | North West Department of Public Works and Roads |
| Mr EH Lowe | Department of Transport Namibia |
| Mr M Meijer | Gauteng Department of Public Transport, Roads and Public Works |
| Mr R Otford | Eastern Cape Department of Transport |
| Mr JJA Prinsloo | Stanway Edwards Ngomane Ass - Consultant |
| Mr MJ Raborifi | National Department of Transport |
| Prof. JD Sampson | South Africa Institute of Engineers |
| Mr WHJ Sator | CSIR- Roads and Transport Technology |
| Mr AL Sharples | KwaZulu-Natal Department of Transport |
| Mr RJV Slater | National Department of Transport |
| Ms A Swanepoel | Stanway Edwards Ngomane Ass - Consultant |
| Mr H Switala | Mpumalanga Department of Public Works, Roads and Transport |
| Mr V Trumper | Department of Transport Namibia |
| Insp. LA van Heerden | Institute of Traffic Officers |
| Mr B yan Oort | Automobile Association of South Africa |
| Mr R Scholtz | Automobile Association of South Africa |
| Mr SJC Venter | Human Sciences Research Council |
| Mr H Visser | United Municipal Executive |

* Alternate Representatives
* Observers
**CONTENTS:**

**MAY 2012**

**SADC – RTSM – VOL 4**

<table>
<thead>
<tr>
<th>List of Contents</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.1.1 – 0.1.3</td>
</tr>
</tbody>
</table>

### CHAPTER 1: INTRODUCTION

**Contents**

- General 1.1.1 – 1.1.5
- Road Traffic Sign Sizes 1.2.1 – 1.2.2
- Dimensional Details 1.3.1 – 1.3.5
- Arrows and Letters on Signs 1.4.1
- Specification and Manufacture 1.5.1

### CHAPTER 2: REGULATORY SIGNS

**Contents (with all regulatory signs in colour)**

- Introduction 2.0.1 – 2.0.22
- Control Signs 2.1.1 – 2.1.14
- Command Signs 2.2.1 – 2.2.11
- Prohibition Signs 2.3.1 – 2.3.40
- Reservation Signs 2.4.1 – 2.4.43
- Comprehensive Signs 2.5.1 – 2.5.54
- De-Restriction Signs 2.6.1 – 2.6.3
- Selective Restriction Signs 2.7.1 – 2.7.43
- De-Restriction Signs 2.8.1 – 2.8.9
- National Variants 2.9.1 – 2.9.15

### CHAPTER 3: WARNING SIGNS

**Contents (with all warning signs in colour)**

- Introduction 3.0.1 – 3.0.8
- Road Layout Signs 3.1.1 – 3.1.12
- Direction of Movement Signs 3.2.1 – 3.2.19
- Symbolic Signs 3.3.1 – 3.3.18
- Hazard Marker Signs 3.4.1 – 3.4.63

### CHAPTER 4: GUIDANCE SIGNS-1: LOCATION SIGNS AND ROUTE MARKER SIGNS

**Contents (with signs and symbols in colour)**

- Introduction 4.0.1 – 4.0.6
- Location Signs 4.1.1 – 4.1.12
- Route Marker Signs 4.2.1 – 4.2.14
- Location Sign Symbols 4.3.1 – 4.3.48

### CHAPTER 5: GUIDANCE SIGNS-2: DIRECTION SIGNS

**Contents (with signs and symbols in colour)**

- Introduction 5.0.1 – 5.0.7
- Ground-Mounted Direction Signs 5.1.1 – 5.1.14
- Overhead Direction Signs 5.2.1 – 5.2.41
- Symbols 5.3.1 – 5.3.11
- Stack-Type Arrows 5.4.1 – 5.4.14
- Map-Type Arrows 5.5.1 – 5.5.5

### CHAPTER 6: GUIDANCE SIGNS-3: FREEWAY DIRECTION SIGNS

**Contents (with signs and symbols in colour)**

- Introduction 6.0.1 – 6.0.6
- Ground-Mounted Freeway Direction Signs 6.1.1 – 6.1.19
- Crossroad Direction Signs 6.2.1 – 6.2.25
- Overhead Freeway Direction Signs 6.3.1 – 6.3.5
- Overhead Arrows 6.4.1 – 6.4.25
## CHAPTER 7: GUIDANCE SIGNS-4: TOURISM SIGNS

<table>
<thead>
<tr>
<th>Contents (with signs and symbols in colour)</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>7.0.1 – 7.0.13</td>
</tr>
<tr>
<td>Signs</td>
<td>7.1.1 – 7.1.18</td>
</tr>
<tr>
<td>Symbols — National Parks</td>
<td>7.2.1 – 7.2.63</td>
</tr>
<tr>
<td>Symbols — Provincial Parks</td>
<td>7.3.1 – 7.3.2</td>
</tr>
<tr>
<td>Symbols — Resort Attractions</td>
<td>7.4.1 – 7.4.4</td>
</tr>
<tr>
<td>Symbols — Scenic Attractions</td>
<td>7.5.1 – 7.5.5</td>
</tr>
<tr>
<td>Symbols — Sports Attractions</td>
<td>7.6.1 – 7.6.9</td>
</tr>
<tr>
<td>Symbols — Wildlife Attractions</td>
<td>7.7.1 – 7.7.8</td>
</tr>
<tr>
<td>Symbols — Historical Attractions</td>
<td>7.8.1 – 7.8.5</td>
</tr>
<tr>
<td>Symbols — Coastal Attractions</td>
<td>7.9.1 – 7.9.6</td>
</tr>
<tr>
<td>Symbols — Arts &amp; Crafts Attractions</td>
<td>7.10.1 – 7.10.11</td>
</tr>
<tr>
<td>Symbols — Cultural Attractions</td>
<td>7.11.1 – 7.11.10</td>
</tr>
<tr>
<td>Symbols — Farming Attractions</td>
<td>7.12.1 – 7.12.2</td>
</tr>
<tr>
<td>Symbols — General Attractions</td>
<td>7.13.1 – 7.13.5</td>
</tr>
<tr>
<td>Symbols — Light Vehicle Services</td>
<td>7.15.1 – 7.15.1</td>
</tr>
<tr>
<td>Symbols — Truck Rest &amp; Services</td>
<td>7.16.1 – 7.16.8</td>
</tr>
<tr>
<td>Symbols — Food Services</td>
<td>7.17.1 – 7.17.3</td>
</tr>
<tr>
<td>Symbols — General Services</td>
<td>7.18.1</td>
</tr>
<tr>
<td>Symbols — Rest &amp; Service Areas</td>
<td>7.19.1 – 7.19.2</td>
</tr>
<tr>
<td>Symbols — Vehicle Class</td>
<td>7.20.1 – 7.20.6</td>
</tr>
<tr>
<td>Symbols — Accommodation</td>
<td>7.21.1 – 7.21.3</td>
</tr>
<tr>
<td>Symbols — “Totem” Signs</td>
<td>7.22.1 – 7.22.6</td>
</tr>
<tr>
<td>Symbols — Off-Road Signs</td>
<td>7.23.1 – 7.23.10</td>
</tr>
<tr>
<td>“Totem” Signs</td>
<td>7.24.1 – 7.24.14</td>
</tr>
<tr>
<td>Off-Road Signs</td>
<td>7.25.1 – 7.25.3</td>
</tr>
</tbody>
</table>

## CHAPTER 8: GUIDANCE SIGNS-5: DIAGRAMMATIC SIGNS

<table>
<thead>
<tr>
<th>Contents (with signs and symbols in colour)</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>8.0.1 – 8.0.11</td>
</tr>
<tr>
<td>Traffic Movement Affected by Obstruction Signs</td>
<td>8.1.1 – 8.1.12</td>
</tr>
<tr>
<td>Additional Lane Signs</td>
<td>8.2.1 – 8.2.58</td>
</tr>
<tr>
<td>Lane Use Control by Regulatory Signs</td>
<td>8.3.1 – 8.3.11</td>
</tr>
<tr>
<td>Lanes Merge Signs</td>
<td>8.4.1 – 8.4.13</td>
</tr>
<tr>
<td>Lanes Converge Signs</td>
<td>8.5.1 – 8.5.7</td>
</tr>
<tr>
<td>Heavy Vehicle Control Signs</td>
<td>8.6.1 – 8.6.3</td>
</tr>
<tr>
<td>Overhead Signs</td>
<td>8.7.1 – 8.7.4</td>
</tr>
<tr>
<td>Public Transport Signs</td>
<td>8.8.1 – 8.8.19</td>
</tr>
<tr>
<td>At-Grade Lane Layout Signs</td>
<td>8.9.1 – 8.9.5</td>
</tr>
<tr>
<td>Junction – with Warning Signs</td>
<td>8.10.1 – 8.10.13</td>
</tr>
<tr>
<td>Symbols</td>
<td>8.11.1</td>
</tr>
<tr>
<td>National Variants</td>
<td>8.12.1 – 8.12.5</td>
</tr>
</tbody>
</table>

## CHAPTER 9: INFORMATION SIGNS

<table>
<thead>
<tr>
<th>Contents (with all information signs in colour)</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>9.0.1 – 9.0.5</td>
</tr>
<tr>
<td>Signs</td>
<td>9.1.1 – 9.1.2</td>
</tr>
<tr>
<td>Symbols</td>
<td>9.2.1 – 9.2.28</td>
</tr>
<tr>
<td>National Variants</td>
<td>9.3.1 – 9.3.31</td>
</tr>
<tr>
<td></td>
<td>9.4.1 – 9.4.4</td>
</tr>
</tbody>
</table>

## CHAPTER 10: TRAFFIC SIGNALS

| Introduction | 10.1.1 |
| Standard Signal Faces                            | 10.2.1 – 10.2.7 |
| Lane Direction Control                            | 10.3.1 – 10.3.2 |
| Standard Traffic Signal Arrow Signs               | 10.4.1 – 10.4.2 |
| Signal Face Symbols                               | 10.5.1 – 10.5.5 |
| Background Screens                                | 10.6.1 – 10.6.2 |
| Railway Crossings                                 | 10.7.1 – 10.7.2 |
LIST OF CONTENTS

CHAPTER 11: LETTERING FOR ROAD TRAFFIC SIGNS

Contents
Introduction
DIN 1451 Style "A"
DIN 1451 Style "B"
"B" Modified
Cardinal Direction

Page Numbers
11.0.1
11.1.1 – 11.1.19
11.2.1 – 11.2.74
11.3.1 – 11.3.74
11.4.1 – 11.4.37
11.5.1 – 11.5.3

CHAPTER 12: ROAD MARKINGS

Contents (with all road markings in colour)
Introduction
General Details
Arrows
Symbols
Letters
Delineation Devices

Page Numbers
12.0.1 – 12.0.10
12.1.1 – 12.1.7
12.2.1 – 12.2.16
12.3.1 – 12.3.15
12.4.1 – 12.4.15
12.5.1 – 12.5.9
12.6.1

CHAPTER 13: GUIDANCE SIGNS-6: LOCAL DIRECTION SIGNS

Contents (with all local direction signs in colour)
Introduction
Signs
Symbols – Major Traffic Generator (High Use)
Symbols – Major Traffic Generator (Regular Use)
Symbols – Minor Traffic Generator (Irregular Use)
Symbols – Minor Traffic Generator (Low Use)

Page Numbers
13.0.1 – 13.0.5
13.1.1 – 13.1.8
13.2.1 – 13.2.20
13.3.1 – 13.3.7
13.4.1 – 13.4.8
13.5.1 – 13.5.6
13.6.1 – 13.6.3

CHAPTER 14: GUIDANCE SIGNS-7: PEDESTRIAN DIRECTION SIGNS

Contents
Introduction
Signs

Page Numbers
14.0.1 – 14.0.4
14.1.1 – 14.1.5
14.2.1 – 14.2.25

CHAPTER 15: GUIDANCE SIGNS-8: TOLL DIRECTION SIGNS

Contents
Introduction
Toll Signface Details
Stack Type Arrows
Other Arrows

Page Numbers
15.0.1 – 15.0.3
15.1.1
15.2.1 – 15.2.9
15.3.1 – 15.3.6
15.4.1 – 15.4.5
<table>
<thead>
<tr>
<th>ISBN</th>
<th>STATUS</th>
<th>DOT FILE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Draft</td>
<td>000/0/0/0</td>
<td>Digitised May 2012</td>
</tr>
</tbody>
</table>

**CARRIED OUT BY**

Transport and Traffic Technology Africa (Pty) Ltd
P O Box 1109
SUNNINGHILL
2157

**COMMISSIONED BY**

Department of Transport
Private Bag X193
PRETORIA
0001

**ORIGINAL AUTHOR**

D Bain

**PUBLISHER ENQUIRIES**

Director-General: Transport
Department of Transport
Infrastructure Network Management
Private Bag X193
PRETORIA
0001

It is impossible for a publication of this nature to be error-free. It would be appreciated if errors be brought to the notice of:

Director-General: Transport
Department of Transport
Infrastructure Network Management
Private Bag X193
PRETORIA
0001

**COPYRIGHT**

This publication is protected by copyright under the Bern Convention. In terms of the Copyright Act No. 98 of 1978, no part of this publication may be produced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage or retrieval system, without permission in writing from the publisher.


**KEYWORDS**

ROAD SIGN, TRAFFIC SIGNAL, ROAD MARKING

**COST**

<table>
<thead>
<tr>
<th>SET</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume 1</td>
<td></td>
</tr>
<tr>
<td>Volume 2</td>
<td></td>
</tr>
<tr>
<td>Volume 3</td>
<td></td>
</tr>
<tr>
<td>Volume 4</td>
<td></td>
</tr>
</tbody>
</table>
Chairman: Mr E H Lowe
Department of Transport, Namibia
Mr M Matela
Ministry of Transport and Communications, Lesotho
Mr J M Ramashamole
Ministry of Transport and Communications, Lesotho
Mr S J Mkandawire
Ministry of Transport and Communications, Malawi
Mr R B Dryden *
Department of Transport, South Africa
Mr J S Falkner *
Department of Transport, South Africa
Ms L B Johnson *
Department of Transport, South Africa
Mr R J V Slater *
Department of Transport, South Africa
Mr L Mudaly *
Department of Transport, South Africa

Secretary: Mr D Bain
Consulting Engineer
Ms A Swanepoel
Consulting Engineer

* Alternate representatives (not present at all meetings)
PREFACE

Southern African Development Community (SADC) member states decided, at their meeting in Lusaka in June 1995, to enter into a Protocol Agreement to expand and deepen their co-operation in the areas of infrastructure and services. An important component of this Protocol Agreement is the intention to harmonize road traffic signs and their supporting regulations throughout member states.

South Africa offered to undertake the work required for this harmonization process. The first phase of the work involved an assessment of any differences existing between the current systems, as documented in the Southern Africa Transport and Communications Commission (SATCC) Road Traffic Signs Manual, published in November 1990, and the South African Road Traffic Signs Manual, published in January 1993. This assessment showed that the two systems are very similar, both being based on the European road traffic sign system. The South African system, having recently been developed to conform to European signing principles, but also to satisfy African requirements, contained a significantly greater number of road traffic sign types. These findings were considered by SATCC in September 1995. The Commission appointed a sub-committee comprising members from Lesotho, Malawi, Namibia and South Africa to monitor the work of the South African team in the preparation of the new harmonized Manual and model road traffic sign regulations.

This Third Edition of the SADC Road Traffic Signs Manual is structured to ultimately appear in four volumes. However at present, at the request of the sub-committee, only Volumes 1 and 4 have been prepared. A decision will be taken in the future on the need to adapt Volumes 2 and 3 of the South African Manual to SADC requirements.

Volume 1 of the Manual contains detailed signing policy and design principles. The text covering each sign, marking and signal starts with a statement regarding the meaning, or significance, of the device. These statements are essentially the same as those given in the harmonized model road traffic sign regulations, prepared at the same time as Volume 1. The content of Volume 1 provides an in depth description of the road traffic sign system and working detail on the use of each individual component of the system.

Volume 2, if required, will deal with the collective application of signs, markings, and signals for specific subject areas such as traffic accommodation at roadworks, tourism signing, public transport signing and signing for the control of heavy vehicles.

Volume 3, if required, will provide in depth detail on the selection, installation, operation and control methods for traffic signals.

Volume 4 gives complete dimensional details, together with accurate scalable drawings, of all signs, markings and signals, including details of all letter types used on direction signs.

Absolute harmonization of all aspects of the previous road traffic signs systems is not possible for a number of reasons. In order to accommodate specific needs of member states several chapters in Volume 1 have a final section dealing with what have been termed "national variants". Typical examples of "national variants" are:

(i) "mirror" image signs for use in states where vehicles are required to travel on the right hand side of the road;

(ii) examples of standard text signs in Portuguese - this type of sign has been kept to an absolute minimum by a strong reliance on the use of pictographs or symbols, inherited from the South African system;

(iii) provision for specific member state symbols for such facilities as police services, national monuments etc.
In addition, several significant differences have been noted between the two traffic signal systems as documented in the manuals existing prior to harmonization. The cost implications of total harmonization of the traffic signal systems have been considered unaffordable. Volume 1, Chapter 6: Traffic Signals, therefore covers the differences between the two systems in parallel. One system, considered to be used by a majority of member states, is recommended, and the other system is recorded as an alternative system.

Typical of these differences are:

(i) in the recommended system the primary traffic signals are positioned on the far side of junctions, whilst in the alternative system the primary traffic signals are positioned on the near side of the junction;

(ii) in the recommended system the basic traffic signal sequence is red, green, yellow, red, whereas in the alternative system the basic traffic signal sequence is red, red plus yellow, green, yellow, red.
Due to the size of the Manual, the cost of printing all pages in full colour would have been considerable. To minimise this cost all colour pages have been concentrated at the beginning of each relevant chapter in Volume 1. In this way the whole sign system and each individual sign, marking and signal is illustrated in colour. A reference is also given in these sections to where each individual sign, marking and signal is dealt with in detail in Volume 1, and to where they are dimensioned in Volume 4. Throughout the rest of Volumes 1 and 4 a coded form of black and white shading is used to represent the sign colours.

Finally, acknowledgements are due to the members of the various committees whose work has led to the publication of this Manual, to South Africa for funding the work, and to the Chief Directorate: Roads in the South African Department of Transport for making this possible.
<table>
<thead>
<tr>
<th>UPDATE NO.</th>
<th>UPDATES</th>
<th>VOLUME NO. PART NO.</th>
<th>DESCRIPTION OF THE UPDATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4.01 to</td>
<td>18.04.2012</td>
<td>4</td>
<td>Refer to Digitising Project</td>
</tr>
<tr>
<td>V4.03</td>
<td></td>
<td></td>
<td>SMC 01/2011/INM</td>
</tr>
<tr>
<td>V4.1 to</td>
<td>18.04.2012</td>
<td>4</td>
<td>Volume 1 Error/Correction Record</td>
</tr>
<tr>
<td>V4.157</td>
<td>18 April 2012</td>
<td></td>
<td>18 April 2012</td>
</tr>
</tbody>
</table>
INWITNESS WHEREOF, WE, the Ministers of Transport and Road Traffic affairs have signed this Manual.

DONE AT .................................., on this ........................ Day of ................................., 1999.

<table>
<thead>
<tr>
<th>For and on behalf of the Republic of Angola</th>
</tr>
</thead>
<tbody>
<tr>
<td>For and on behalf of the Republic of Botswana</td>
</tr>
<tr>
<td>For and on behalf of the Democratic Republic of Congo</td>
</tr>
<tr>
<td>For and on behalf of the Kingdom of Lesotho</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Malawi</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Mauritius</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Mozambique</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Namibia</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Seychelles</td>
</tr>
<tr>
<td>For and on behalf of the Republic of South Africa</td>
</tr>
<tr>
<td>For and on behalf of the Kingdom of Swaziland</td>
</tr>
<tr>
<td>For and on behalf of the United Republic of Tanzania</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Zambia</td>
</tr>
<tr>
<td>For and on behalf of the Republic of Zimbabwe</td>
</tr>
</tbody>
</table>
INTRODUCTION

SECTIONS

1.0 Contents
1.1 General
1.2 Road Traffic Sign Sizes
1.3 Dimensional Details
1.4 Arrows and Letters on Road Signs
1.5 Specification and Manufacture
CHAPTER 1:
INTRODUCTION

LIST OF TABLES AND FIGURES FOR CONTENTS

Section 1.1 GENERAL
Figure 1.1 Key to Colour Coding page 1.1.2
Figure 1.2 Typical Page Layout and Text Conventions page 1.1.3
Figure 1.3 Typical Sign Dimension Page Layout page 1.1.4
Figure 1.4 Road Traffic Signs Classification page 1.1.5

Section 1.2 ROAD TRAFFIC SIGN SIZES
Table 1.1 Minimum Road Traffic Sign Sizes page 1.2.2

Section 1.3: DIMENSIONAL DETAILS
Figure 1.5 Typical Dimensional Layout Diagram for Regulatory and Warning Signs page 1.3.2
Figure 1.6 Typical Warning (or Regulatory) Sign Page page 1.3.3
Figure 1.7 Typical Signface Layout Rules Including Dimensional Criteria page 1.3.4
Figure 1.8 Typical Dimensional Details Given on a Guidance Sign Detail Page page 1.3.5

Section 1.4: ARROWS AND LETTERS ON ROAD SIGNS
NO FIGURES OR TABLES

Section 1.5: SPECIFICATION AND MANUFACTURE
Table 1.2 Retroreflective Materials for Road Signs page 1.5.2
CHAPTER 1: INTRODUCTION

1.1 GENERAL

1.1.1 Manual Structure, Layout and Coverage

1. The Third Edition of the Southern African Development Community Road Traffic Signs Manual comprises four volumes:

Volume 1: Uniform Traffic Control Devices: Detailing signing policies and design principles together with specific information on the meaning and individual application of all traffic control devices.

Volume 2: Traffic Control Device Applications: This volume covers the use of sets of signs, markings and signals for specific applications.

Volume 3: Traffic Signal Design: Detailing in depth requirements for the selection and installation of traffic signals and their methods of control.

Volume 4: Traffic Signs Design: Dimensional detail for all road signs and their signface components.

2. This Third Edition has been developed from a harmonization of the earlier SATCC Road Traffic Signs Manual, and the Third Edition of the South African Road Traffic Signs Manual which contained a wider range of signs. Initially only Volumes 1 and 4 will be published. Volumes 2 and 3 may be published at a later stage. In a relatively small number of instances it has been necessary to deal with one or more signs specifically for one member country. Primarily this need arises from the fact that in Angola drivers travel on the right-hand side of the road, and from the occasional need to display Portuguese text for Angolan or Mozambican conditions. Any such signs are identified in the chapter contents section and are then described at the end of the chapter in a section called "National Variants".

3. For convenience of binding on a loose leaf basis Volumes 1 and 4 have been subdivided into separate Parts.

4. This Volume gives sufficient dimensional information for every numbered road traffic sign to be specified for manufacture and to be subsequently manufactured accurately, or marked on the road surface in the case of road markings.

5. Road traffic signs, by legal definition, include all prescribed road signs, road markings and traffic signals and are to be used solely for the purpose of traffic control and not as an advertising medium.

6. The text is subdivided into the following numbered components (the examples indicate Chapter 3):

(a) Chapters - 3;
(b) Sections - 3.1;
(c) Subsections - 3.1.1;
(d) Paragraphs - 3.1.1.1;
(e) Figures - 3.1;
(f) Details (within Figures) - 3.1.1;
(g) Tables - 3.1.

These numbers should be used for reference purposes. They are used as such throughout the text.

7. In this volume, in the majority of cases, the information on specific road traffic signs is contained on a single page. A cross reference is given on every such page to the corresponding page in Volume 1 where details of the meanings and applications of individual signs are covered.

8. The page layout includes a "header" at the top in which the section name and page number are indicated. Page numbers are restarted each section e.g. 3.1.1, 3.2.1, 3.3.1 etc. A "footer" is located at the bottom of the page and this indicates the date of publication (or re-publication in the case of future amendments), the name of the manual and the volume number, and the chapter name. Figures 1.1 and 1.2 illustrate the above elements.

9. At the front of each part a basic list of contents for the volume is included. At the front of those chapters which deal with numbered road traffic signs a chapter index is included for convenience. Each such index lists the included road traffic signs in numerical order together with references to subsection and page numbers.

10. A range of text conventions are used to place emphasis where this has been deemed necessary. The conventions used and their functions are as follows:

- **bold italic** - to indicate the meaning of a specific road traffic sign;
- **bold** - to place particular emphasis on a word or section of text, including titles and section headings;
- **italic** - to indicate the name of a chapter or other document referred to in the text AND to indicate foreign terms used in the text;
- UPPERCASE (or CAPITAL) letters - as a lower level of emphasis, but particularly to indicate the specific names given to road traffic signs.

The use of CAPITAL letters may be superimposed in the **BOLD ITALIC** or **BOLD** conventions (see Figures 1.2 and 1.3).

11. The dimensional detail given on specific types of signs in subsequent chapters is provided in one of three ways:

(a) in the form of a pictogram of the sign or a symbol, on a background grid of squares which will allow the sign or symbol to be enlarged to the required standard size (see Figure 1.6);

(b) as a generally dimensioned drawing capable of being reproduced in a range of sizes on which all dimensions are given in terms of a factor "d" (see Figure 1.8);

(c) as a single sized fully dimensioned drawing (see Chapter 4).

During the period in which this Edition of the Manual has been prepared there have been considerable advances in the availability and power of personal computers. It is therefore probable that all symbolic signs may become available in a digital storage form in the not too distant future. This will facilitate the reproduction of such symbols for the preparation of drawings, specifications and for sign manufacture by
those with appropriate equipment.

12. This Edition introduces a wide range of new symbols for use on regulatory, warning, guidance and information signs, markings and signals. The provision of these symbols is based on expected future requirements.

13. A number of rules apply to the design of symbols to make them effective at high traffic approach speeds. These rules differ for different sign types.

14. In terms of Section 82 of the Act the Minister may authorise the use of an experimental sign for a limited period of time so that the suitability and effectiveness may be determined. No new sign or symbol shall be used without prior approval. A draft sign or symbol design may be submitted, but should not be used until it has been refined and approved in terms of the standard design rules.

15. It is desirable, in the interests of uniformity, that the need for a new symbol or sign be submitted, with motivation to:

The Secretary
Route Numbering and Road Traffic Signs Sub-Committee
c/o Department of Transport
Private Bag X193
Pretoria
0001

1.1.2 Terminology

1. There are three words used throughout the Manual dealing with the function, design and application of road traffic signs, the interpretation of which is fundamental to the use of the Manual. These words are the very common words "SHALL", "SHOULD" and "MAY". These words are used in two ways, namely:

(a) to refer to actions required of road users, as a result of the presence of a road traffic sign, and

(b) to refer to the actions required of designers, manufacturers and authorities with regard to the manufacture and use of road traffic signs.

The meanings of these words, as it applies to their use in the Manual are given in Volume 1, Chapter 1, and their relevance is perhaps greatest in the context of Volumes 1 and 3. However, they are used in Volume 4, and their significance in this volume remains as important as in the other volumes.

1.1.3 Road Traffic Sign Classification

1. Full details of the manner in which road traffic signs are classified and sub-classified, together with their numbering structure are given in Volume 1, Chapter 1.

2. The great majority of road signs may be used in a PERMANENT or TEMPORARY form, although there are a few road signs which shall only be used in one or other form. This is made obvious on the individual sign pages in later chapters and at the time of order temporary sign numbers should always include the first letter "T". Manufacturers in particular, however, should ensure that their orders are sufficiently clear in this regard prior to manufacture.

3. To assist users of Volume 4, the basic road traffic sign classification is illustrated in Figure 1.4.

1.1.4 Road Traffic Sign Colour Indication

1. This volume of the Manual is not printed in colour. It is important however, that designers and manufacturers are aware of the correct colours for signs, signals and markings. All road traffic sign examples used to illustrate the various types of sign, signal and marking have therefore been shaded in a black and white coding of the required colours. This colour coding is illustrated in Figure 1.1.

2. The basic principles of the road traffic sign colour coding system are shown in colour in Volume 1, Chapter 1, Section 1.4, where a limited number of colour pages are included, and in the Contents sections of several Volume 1 chapters.

Fig 1.1 Key to Colour Coding

INTRODUCTION SADC - RTSM - VOL 4 MAY 2012
CHAPTER 7: GUIDANCE SIGNS - 4 TOURISM SIGNS

1. INTRODUCTION

1.1 General

1. Due to the number of signs involved, the contents of Volume 1, Chapter 4, Guidance Signs have been split into eight chapters for coverage in this Volume. The coverage of these eight chapters is as follows:

Chapter 1 - Location Signs
Chapter 2 - Motorway Signs
Chapter 3 - Freeway Direction Signs
Chapter 4 - Tourist Information Signs
Chapter 5 - Direction Signs
Chapter 6 - Diagrammatic Signs
Chapter 7 - Local Direction Signs
Chapter 8 - Pedestrian Signs

2. This Chapter therefore details the dimensions of tourism direction signs and the symbols used on them so that they may be accurately specified and manufactured. The most important sign dimensions, identified as ‘Basic Rules’, are detailed in Figures 7.2 and 7.3. In addition further ‘Display Rules’ are illustrated in Figures 7.4 to 7.7.

3. Tourism direction signs conform to the basic rectangular shape code of the guidance signs class but are unique in that all turn signs shall have the arrow side edge cut back from top to bottom at a slope of 2 in 5 to create a trapezoidal shape. They are also unique in the use of a brown background colour. Colour details are given in Section 7.3. Other tourism signs, such as straight on, confirmation signs, exit sequence signs, information centre identification signs and information boards and parking signs are not rectangular, whilst ‘Floor’ signed walls and service areas are square.

4. Tourism signs are STACK-TYPE signs and a separate STACK shall be provided for each direction which requires a tourist sign at the junction ahead. In this context the exit point of a freeway on-ramp is considered as one junction, and the ramp terminal with the interacting carriageway as a second junction/parking junction. A freeway exit tourist sign shall therefore only comprise one STACK orientated to the left.

5. A tourist STACK-TYPE sign may be arranged in up to three PANELS, each separated from the other by an internal border line. When a tourism sign cluster comprises more than one STACK the total number of STACKS and/or PANELS shall be limited to three.

6. The sign examples shown in Section 7.2 cover a wide range of specific single application signs in addition to variations of the following tourism sign applications:

(a) heavy vehicle exit sign;
(b) heavy vehicle direct access service facility only;
(c) high speed exit sign;
(d) advance turn sign;
(e) final turn sign;
(f) confirmation sign;
(g) service exit sequence sign;
(h) rest and service exit sequence sign.

7. Tourism signs may be manufactured to display tourist information related to the following types of tourist facilities:

(a) tourist attraction facilities in through sub-groups;
(b) service facilities in seven sub-groups;
(c) accommodation facilities;
(d) rest and service internal facilities;
(e) information boards;
(f) special event facilities.

8. Tourism information may be displayed on a direction sign under certain circumstances, either as an inset panel or as a full STACK. Under these conditions the brown tourism background colour shall be retained behind the tourist information.

9. Tourism signage design is based on a high reliance on bold SYMBOLS to transfer the required message to road users. Designers and manufacturers should refer to Figures 7.2 to 7.7 and to Volume 1, Chapter 4 for rules relating to tourism sign design principles, restrictions and limitations.

10. Symbols other than those detailed in this Manual shall not be used without the prior consent of the Road Traffic Sign Technical Committee. If the need arises for a symbol which is not detailed in this Chapter, or cannot be covered by the principle indicated above, the designer or manufacturer shall make this need known to the Secretary, Road Traffic Sign Technical Committee, on Department of Transport, P.O. Box 412, Pretoria, 0001.

7.1.2 Sign Sizing

1. The majority of dimensional details given in this Chapter are based on the factor ‘D’. This factor represents one seventh (1/7) of the height of the upper case DIN 1451 Part 2 lettering specified for the principle message on the signface and is equal to the stroke width of the lettering. Once this factor height appropriate to the amount of message to be displayed has been selected the sign height can be determined, and the length may be found from a combination of spacings based on the factor D/7 plus the length of the message to be displayed. Sign sizes for the full range of letter sizes available may thus be determined from one detail.
Fig 1.4  Road Traffic Sign Classification
1.2 ROAD TRAFFIC SIGN SIZES

1.2.1 Minimum Sizes

1 Minimum sizes for various road traffic sign types are prescribed in Legislation. In the case of regulatory and warning road signs the minimum sizes are linked to increments in speed limit.

2 The minimum size prescribed in Legislation normally refers to the overall size of the road traffic sign in the form of a height, length or diameter. In some cases the minimum dimension applies to one component (a traffic signal aspect), or to only one of the dimensions (the width of a road marking line).

3 Authorities shall not use signs of sizes less than those prescribed. To facilitate awareness of these sizes the minimum dimensions are listed in Table 1.1.

1.2.2 Dimensional Tolerances

1 Legislation specifies certain dimensional tolerances applicable to road traffic sign manufacture, while others are given in South African SANS 1519-1:2006 and 1519-2:2004: Road Signs and SANS 1459:2004 Traffic Lights.

2 SANS1519 refers to this Manual stating that “the layout of the message on the signface shall conform to the layout, given in the applicable drawings of the Manual, so that no deviation exceeds 5% of the layout of the applicable drawings.” Legislation also permits a tolerance of 5% below the minimum dimensions for certain signs. The effect of these requirements, from a manufacturing and checking point of view, is that the following elements of a regulatory, warning, guidance or information sign shall not be more than 5% under the stated dimensions nor more than 5% over the stated dimensions:
   (a) the overall height, length or diameter of a sign;
   (b) any border;
   (c) any internal space;
   (d) the height, length or diameter of any arrow, symbol, numeral or letter;
   (e) any internal part of any arrow, symbol, numeral or letter.

3 In terms of the provisions of paragraph 1.2.22 the internal part of any arrow, symbol, numeral, or letter shall, in addition, not deviate BOTH over AND under the stated dimensions so that the total deviation exceeds 5% (for example, one part shall not be more than 2.5% under dimension if another part is 2.5% over dimension). (See Volume 1, Chapter 1, Section 1.5.)
### Table 1.1: Minimum Road Traffic Sign Sizes

<table>
<thead>
<tr>
<th>Road Traffic Sign (mm) Type</th>
<th>Function</th>
<th>Min. External Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td><strong>Road Signs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circular Regulatory (Diameter)</td>
<td>General</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>Overhead</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>Parking/Stopping</td>
<td>450</td>
</tr>
<tr>
<td>Rectangular Regulatory (Height x Width)</td>
<td>General</td>
<td>600 x</td>
</tr>
<tr>
<td></td>
<td>Overhead</td>
<td>900 x</td>
</tr>
<tr>
<td></td>
<td>Parking</td>
<td>675</td>
</tr>
<tr>
<td></td>
<td>Stopping</td>
<td>445 x</td>
</tr>
<tr>
<td></td>
<td>Bus &amp; Minibus Stop</td>
<td>338</td>
</tr>
<tr>
<td></td>
<td></td>
<td>450 x</td>
</tr>
<tr>
<td>Triangular Regulatory and Warning (Side Length)</td>
<td></td>
<td>225</td>
</tr>
<tr>
<td>Sign R2.1 - plate (Height x Width)</td>
<td>Yield to Pedestrians</td>
<td>300 x</td>
</tr>
<tr>
<td>Signs W401 and W402 (Height x Width)</td>
<td>Hazard Marker/Delineator</td>
<td>600 x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>450</td>
</tr>
<tr>
<td>Signs W403 and W404 (Diagonal)</td>
<td>Railway Crossing</td>
<td>800</td>
</tr>
<tr>
<td>Signs W405 to W410 (Height)</td>
<td>Hazard Marker</td>
<td>450</td>
</tr>
<tr>
<td>Sign TW 411 (Height x Width)</td>
<td>Barricade</td>
<td>200 x</td>
</tr>
<tr>
<td>Traffic Signals</td>
<td></td>
<td>1200</td>
</tr>
<tr>
<td>Circular Disc Aspect</td>
<td>Signal Indications (including symbols)</td>
<td>210</td>
</tr>
<tr>
<td><strong>Road Markings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal (Width)</td>
<td>Regulatory, Warning and Guidance</td>
<td>100</td>
</tr>
<tr>
<td>Longitudinal (Length)</td>
<td>Regulatory</td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural</td>
</tr>
</tbody>
</table>

**Notes:**

1. A tolerance of 5% below all minimum external road sign dimensions is permitted.
2. A tolerance of 10% below the minimum width of a longitudinal road marking is permitted.
3. A tolerance of 10% below the minimum diameter of a traffic signal disc is permitted.
4. A STOP sign R1 or any of its derivatives shall conform to the minimum external dimensions given for the same size of circular regulatory sign, except that such a sign used for a scholar patrol may have a minimum diameter of 450 mm. Signs R1.3 and R1.4 shall be of the same size as one side of the STOP sign R1 with which they are used.
5. A sign for pedestrians and/or cyclists may have a minimum diameter of 300 mm.
6. A KEEP LEFT sign R103 used on the vertical face of a bollard may have a minimum diameter of 300 mm.
7. A ONE-WAY ROADWAY sign R4.1, R4.2 or R4.3 shall have a minimum height of 450 mm and a minimum length of 600 mm.
8. A PEDESTRIAN PRIORITY sign R5 shall have a minimum side length of 450 mm.
9. An exclusive secondary message sign shall have the same length as the diameter or width of the upper sign with which it is used.
1.3 DIMENSIONAL DETAILS

1.3.1 Regulatory and Warning Signs

1 The majority of REGULATORY and WARNING signs are detailed in the form of a pictogram of the sign on a grid background. In some instances the symbol to be used on such a sign type is indicated. A limited number, mainly the hazard marker warning signs, are detailed as dimensioned line drawings on which the different dimensions are indicated by letters, the values of which are tabulated on the sign page for each standard sign size.

2 Signs or symbols detailed on a grid may be reproduced at the correct size by one of two methods (see Figures 1.5 and 1.6):
   (a) by optical enlargement of the grid so that the size of each grid square is equal to that given in the dimension table for enlargement factor “a” for the required standard sign size;
   (b) by drawing to the appropriate dimensions given in the table on the sign page (these dimensions are keyed to a figure in the first section of the relevant chapters) (see Figure 1.5 and Chapters 2 and 3).

1.3.2 Guidance Signs

1 This class of sign includes a wide range of sign types which in turn may vary widely in size from type to type, or within the range of sizes of a specific type, normally due to the amount of information given on the signface.

2 The smaller guidance signs such as ROUTE MARKER signs and TRAILBLAZER signs are single sized signs. The dimensional details for such signs are given in the form of a fully dimensioned scaled drawing for each sign.

3 The majority of other guidance signs, including LOCATION, DIRECTION, FREEWAY DIRECTION, TOURISM DIRECTION and LOCAL DIRECTION signs are detailed in the form of a drawing in which all fixed dimensions are given in terms of a factor “d” (this factor is equal to the stroke width of the size of DIN 1451 Part 2 lettering to be used on the sign). This detailing method normally results in the height of the sign being fixed for a given size of lettering. The width or length of the sign is, however, dependent on the text message appearing on the sign (see Figures 1.7 and 1.8).

4 A number of symbols are available for use on guidance signs, particularly TOURISM DIRECTION and LOCAL DIRECTION signs. These symbols are detailed on a grid background in a similar manner to the symbolic regulatory and warning signs. The enlargement factor, however, remains the same value of “d” used on the rest of the sign (see Chapters 4 to 7, Chapter 9 and Chapter 13).

5 DIAGRAMMATIC signs are detailed somewhat differently. These signs should only be specified in one of three standard pairs of height and width (an additional two standard widths are available for certain examples). The internal dimensions are indicated by letters which are keyed to values given in tables for the standard range of overall sizes. To reduce the number of pages in the relevant chapter, and to minimise the level of repetition of detail, several signs of similar layout may be keyed to one table (see Chapter 8).

1.3.3 Traffic Signals

1 The details given in Chapter 10 include all the dimensions necessary to manufacture standard traffic signal face types in accordance with the requirements of the Legislation. These details include the arrows and symbols approved for use as traffic signal displays.

1.3.4 Road Markings

The detailing of road markings is somewhat different to other traffic control devices in that the dimensions of all line markings are given in Volume 1, Chapter 7. Certain minimum lengths are required for longitudinal regulatory road markings. These are given in Table 1.1. The basic dimensions of line markings are covered in Chapter 12.

2 Chapter 12 also covers dimensional details suitable for the manufacture of masks or stencils for arrow, letter and symbol road markings for a range of standard lengths.
Basic sign dimensions indicated by letters. Values for letters for each size tabulated on sign pages.

NOTES:
1. The sign dimensions indicated by letter in the diagram above are tabulated for each standard sign size on individual sign pages.
2. All dimensions are given in millimetres.
3. Border width *A* is increased for the 1235mm and 1835mm warning signs used with HIGH VISIBILITY backgrounds. (See Figures 3.2 to 3.5.)
4. Radius *y* is increased for the 900mm, 1235mm and 1835mm warning signs used with HIGH VISIBILITY backgrounds. (See Figures 3.3 to 3.5.)
5. Refer to individual sign pages for details of sign colours.

Fig 3.1  Dimension Layout

MAY 2012  SADC - RTSM - VOL 4  WARNING

Fig 1.5  Typical Dimensional Layout Diagram for Regulatory and Warning Signs
Fig 1.6  Typical  Warning (or Regulatory) Sign Page
Notes on Figures 7.2 and 7.3
The details in Figures 7.2 and 7.3 illustrate BASIC RULES applying universally to TOURISM signs. Other RULES dealing with text, symbols, and sign dimensions, are covered on following pages.

Rule F1:
Tourist facilities shall be classified for signage design into one of the following groups:
(a) tourist attraction;
(b) tourism service;
(c) accommodation;
(d) off-road;
(e) park; and
(f) temporary.

Rule F2:
The background colour of TOURISM signs shall be BROWN, and text and symbols shall follow normal DIRECTION sign conventions.

Rule F3:
TOURISM Direction signs for full-time facilities shall be stack-type signs, and for part-time facilities shall be fingerboard signs.

Rule F4:
TOURISM signs shall be rectangular in shape and all signs indicating a turn to the right or left shall have a sloping side ‘pointing’ in the direction of turn.

Rule F5:
TOURISM Direction sign stacks shall not consist of more than three panels.

Rule F6:
A TOURISM sign board shall not comprise more than three signs. SUBJECT to an overall height of 1.8 metres and/or panels.

AND:
PL.1 right turn stacks shall be placed above left turn stacks;
PL.2 a straight on stack shall be placed above any left and/or right turn stacks;
PL.3 multi-stack signs shall be mounted on common supports with a small vertical separation and should preferably be of equal length even if this increases the length of one or more stacks.

Rule F7:
Due to the sloping side shape, stack-type TOURISM Direction signs need not display an arrow. FREESTYLE TOURISM signs (GF) shall have only one stack and shall not display an arrow. It is, however, recommended that arrows be used on ADVANCE TURN GF2 signs and final Twin GF5 signs.

Rule F8:
In the context of all other signage rules, all aspects of signage design shall be undertaken so as to minimise the areas of TOURISM signs.

Rule F9:
Basic internal signage spacing standards shall be at least 20% less than for DIRECTION signage design.

Fig 7.2
Illustration of Basic Tourism Signface Rules - 1

GUIDANCE - 4
SADC - RTSM - VOL 4
MAY 2012

Fig 1.7
Typical Tourism Signface Layout Rules Including Dimensional Criteria

INTRODUCTION
SADC - RTSM - VOL 4
MAY 2012
**Fig 1.8**

Typical Dimensional Details Given on a Guidance Sign Detail Page
1.4 ARROWS AND LETTERS ON ROAD SIGNS

1.4.1 General

1 Each main class of road sign utilizes arrows, either as part of a symbolic message (regulatory and warning signs) or to impart a sense of direction in respect of the text or symbolic message on the sign (guidance signs).

2 It should be noted that, although sometimes similar in appearance, the arrows used on regulatory and warning signs are different to those used on guidance signs. Regulatory and warning sign arrows are specified in Chapters 2 and 3, whereas the full range of those for guidance signs are detailed in Chapters 5, 6 and 8.

3 This Edition uses DIN (Standard) 1451 Part 2, Styles "A" and "B", lettering on all signs. All letter dimensions and spacings are fully proportional for all sizes. This simplifies sign design and results in a general reduction in the size of direction signs.

4 Details of all letters, numerals and punctuation marks are reproduced in Chapter 11 by permission of "DIN - Deutsches Institut für Normung e.V. The definitive version for the implementation of the standard is the edition of this standard bearing the most recent date of issue, obtainable from Beuth Verlag GmbH, Burggrafenstrasse 6, D-1000 Berlin 30".
1.5 SPECIFICATION AND MANUFACTURE

1.5.1 General

1 For full details relating to specification and manufacture of road traffic signs refer to Volume 1, Chapter 1, Section 1.5. A limited amount of the material given in that section is repeated here.

1.5.2 Colour Specification

1 In South Africa the Bureau of Standards has a number of "Specifications" (CKS) and "Standard Specifications" (SANS) which are relevant to the manufacture and appearance of road traffic signs. The most relevant of these are:
   (a) SANS 1519-1:2006 and 1519-2:2004: Road Signs;
   (b) SANS 731-1:2006 and 731-2:2006: Road Marking Paint;
   (c) CKS 192-1981: Drop-on Type Reflectorised Road-Marking Paint;
   (d) CKS 501-1981: Road Marking Paint, High Build, Non-Skid;
   (e) SANS 1442-2008: Roadstuds;
   (f) SANS 1459-2004: Traffic Lights.

Where these specifications do not include a colour specification, such as for paints, this is covered by:
   (a) SANS 1091-2004: National Colour Standards for Paint; or
   (b) CKS 279-1971: Colours for Paints.

2 Designers, authorities and manufacturers must ensure that their specifications and manufacturing methods result in road traffic signs which comply with the SABS colour specifications, or similar specifications, and that they remain within accepted tolerance levels for the expected life of the sign. Authorities in particular should monitor performance in this regard since early colour failure could have serious cost implications.

1.5.3 Retroreflective Materials

1 Many road signs and road markings are specified with retroreflective materials. Certain parts of some road signs shall be retroreflective and for others the use of retroreflective materials is optional. These requirements are summarised in Table 1.2.

2 Retroreflective material is available in many grades of quality. Three of these grades are specified in SANS 1519 for use on road signs, namely Class I, Class II and Class III. Whilst there are obvious initial cost implications to the use of Class I, II or III materials in preference to materials with a shorter life and poorer retroreflective properties, it is strongly recommended that purchasers of road signs specify at least Class I materials, even for temporary signs. This will almost certainly result in a sign life which is cost effective over time.

3 When specifying the manufacture of a road sign which requires the superimposition of one colour of retroreflective material on another, care must be taken to ensure that adequate luminance and contrast rates are achieved from the sign for the message to be legible. As a general rule a contrast ratio of the coefficients of retroreflection of colours placed on each other is recommended as follows:
   (a) for small finely detailed areas (letters and symbols) - a minimum ratio for light-to-dark of 7 to 1, with a preference for 10 to 1 or more;
   (b) for large areas (arrows or blocks) a minimum ratio of 3.5 to 1, with a preference for 5 to 1.

Recommended retroreflective material class combinations are given in Table 1.2.
### TABLE 1.2 RETROREFLECTIVE MATERIALS FOR ROAD SIGNS

<table>
<thead>
<tr>
<th>Permanent Road Signs (^{(1)})</th>
<th>Sign Segment</th>
<th>Recommended Class of Retroreflective Material</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Border</td>
<td>Symbols</td>
</tr>
</tbody>
</table>

**REGULATORY**

- **Control**
  - Border: 4
  - Symbols: 4
  - Letters: 4
  - Background: 4

- **Command**
  - Border: 4
  - Symbols: 4
  - Letters: 4
  - Background: 4

- **Prohibition**
  - Border: 4
  - Symbols: 8
  - Letters: 4
  - Background: 4

- **Reservation**
  - Border: 4
  - Symbols: 4
  - Letters: 84
  - Background: 4

- **Comprehensive**
  - Border: 4
  - Symbols: 4
  - Letters: 4
  - Background: 4

- **De-restriction**
  - Border: 4
  - Symbols: 4
  - Letters: 4
  - Background: 4

**WARNING**

- **Advance**
  - Border: 4
  - Symbols: 8
  - Letters: 4

- **Hazard**
  - Border: 4
  - Symbols: 4

**GUIDANCE**

- **Location**
  - Border: 8
  - Symbols: 84
  - Letters: 8
  - Background: 8

- **Route Marker**
  - Border: 4
  - Symbols: 4
  - Letters: 4

- **Trailblazer**
  - Border: 4
  - Symbols: 4
  - Letters: 4

- **Direction**
  - Border: 4
  - Symbols: 4
  - Letters: 84 \(^{(3)}\)

- **Freeway Direction**
  - Border: 4
  - Symbols: 4
  - Letters: 4
  - Background: III

- **Tourism**
  - Border: 4
  - Symbols: 4
  - Letters: 84 \(^{(3)}\)

- **Local Direction**
  - Border: 4
  - Symbols: 8
  - Letters: 84
  - Background: 8

- **Diagrammatic**
  - Border: 4+block
  - Symbols: 8
  - Letters: 8
  - Background: 8

- **Pedestrian**
  - Border: 8
  - Symbols: 8
  - Letters: 84
  - Background: 8

- **INFORMATION**
  - Border: 4
  - Symbols: 4
  - Letters: 84

**KEY**

- 4: Retroreflective
- 8: Semi-matt
- 84: Optional

**NOTES:**

1. All temporary road signs shall have a retroreflective background, and semi-matt border, symbol, arrows or letters.

2. Check luminance factor before specifying higher than Class I.

3. Certain signs are specified as retroreflective (see Volume 4 Chapters 2, 3, 5, 6, 7 and 13).
REGULARITY SIGNS

SECTIONS

2.0 Contents
2.1 Introduction
2.2 Control Signs
2.3 Command Signs
2.4 Prohibition Signs
2.5 Reservation Signs
2.6 Comprehensive Signs
2.7 Selective Restriction Signs
2.8 De-Restriction Signs
2.9 National Variants

MAY 2012
CHAPTER 2: REGULATORY SIGNS

2.0 CONTENTS

This contents listing illustrates each officially approved sign in the regulatory sign class with the sign number and name. A page reference is given within this chapter where each sign is discussed and a cross reference is given to Volume 1 where the symbol and other data are detailed.

REGULATORY SIGN CLASSIFICATION AND COLOUR CODE

The front page of the Contents gives an overview of the regulatory sign class and its subdivisions which are explained in more detail on the following pages and in Section 2.1.
The front page of the Contents gives an overview of the Regulatory sign class and its subdivision using actual sign examples. Figures 2.1 to 2.3 expand upon this illustration to show how the shape and colour of signs have significance. The Regulatory sign class is a relatively complex grouping of signs, not least for the reason that these signs, more than any others, have legal significance both for road users and for authorities erecting the signs. It is important therefore that the applicability of each type of sign is clearly understood by all. In Figures 2.1 and 2.2 the system is progressively built up without symbols in a generic way to emphasise the importance of sign shape and sign colour. Regulatory sign messages can generally be grouped into messages given by NUMBERS (LIMITS), ARROWS (ACTIONS) and most commonly BY symbols (objects), although in a limited number of cases, for instance an ACTION can be illustrated by a SYMBOL. Regulatory signs are grouped into six different numbered series – R1, R100, R200, R300, R400 and (R)500 with a small number of specific de-restriction signs in a R600 series.

Detail 2.01.1  Basic Regulatory Sign Class Subdivisions

Detail 2.01.2  Development of Shape and Colour

Fig 2.01  Regulatory Sign Classification
Fig 2.02  Regulatory Sign Shape and Colour Code
NOTE:
The figure shows permanent signs and sign numbers. The system is equally applicable to temporary signs.

Fig 2.03
Road User Symbols as Used on Regulatory Signs
Section 2.1: INTRODUCTION

Figure 2.01 Regulatory Sign Classification page 2.0.2
Figure 2.02 Regulatory Sign Shape and Colour Code page 2.0.3
Figure 2.03 Road User Symbols as Used on Regulatory Signs page 2.0.4
Figure 2.04 SELECTIVE RESTRICTION Regulatory Signs – SYSTEMS and EXAMPLES page 2.0.18-19
Figure 2.1 Dimension Layout: Command Signs page 2.1.3
Figure 2.2 Dimension Layout: Prohibition Signs (without a Diagonal) page 2.1.4
Figure 2.3 Dimension Layout: Prohibition Signs (with a Symmetrical Diagonal) page 2.1.5
Figure 2.4 Dimension Layout: Prohibition Signs (with an Asymmetrical Diagonal) page 2.1.6
Figure 2.5 Dimension Layout: Reservation Signs page 2.1.7
Figure 2.6 Dimension Layout: Parking Reservation Signs page 2.1.8
Figure 2.7 Primary Letter Symbols for Reservation Signs page 2.1.9
Figure 2.8 Dimension Layout: Public Transport “Stop” Reservation Signs page 2.1.10
Figure 2.9 Dimension Layout: Comprehensive and De-Restriction Signs page 2.1.11
Figure 2.10 Dimension Layout: Selective Restriction Signs (Circular Primary Sign) page 2.1.12
Figure 2.11 Dimension Layout: Selective Restriction Signs (Rectangular Primary Sign) page 2.1.13
Figure 2.12 High Visibility Background Sign – Type RA-A page 2.1.14
Figure 2.13 High Visibility Background Sign – Type RA-B page 2.1.15
Figure 2.14 High Visibility Background Sign with Text – Type RB-A page 2.1.16
Figure 2.15 High Visibility Background Sign with Text – Type RB-B page 2.1.17
Figure 2.16 High Visibility Background Sign – Type RB-A Circular Based Selective Restriction Sign page 2.1.18
Figure 2.17 High Visibility Background Sign – Type RB-B Rectangular Based Selective Restriction Sign page 2.1.19
Figure 2.18 High Visibility Background Sign – Regulatory/Warning Combination – Type RC page 2.1.20
Figure 2.19 High Visibility Background Sign – 2 x Regulatory – Type RD page 2.1.21
Figure 2.20 Arrows for Use on Regulatory Signs page 2.1.22
Figure 2.21 High Visibility Background Signs – Use with Flashing Yellow Warning Signals – Types RE & RF page 2.1.23
Figure 2.22 Dimension Details for Text Messages page 2.1.24
Figure 2.23 High Visibility Background Signs – Type RG page 2.1.25
Section 2.2: CONTROL – Regulatory Signs

- = See Section 2.10 for variations appropriate to individual countries.
Section 2.3: COMMAND – Mandatory Regulatory Signs

- See Section 2.10 for variations appropriate to individual countries.
● = See Section 2.10 for variations appropriate to individual countries.
Section 2.4: PROHIBITION – Mandatory Regulatory Signs

- See Section 2.10 for variations appropriate to individual countries.

R201
TR201
Speed Limit
Ref. V1 2.4.1
V4 2.4.2

R202
TR202
Mass Limit
Ref. V1 2.4.2
V4 2.4.4

R203
TR203
Axle Massload Limit
Ref. V1 2.4.3
V4 2.4.5

R204
TR204
Height Limit
Ref. V1 2.4.4
V4 2.4.6

R205
TR205
Length Limit
Ref. V1 2.4.5
V4 2.4.7

R206
TR206
No Excessive Noise
Ref. V1 2.4.6
V4 2.4.8

R207
TR207
No Hitch-hiking
Ref. V1 2.4.6
V4 2.4.9

R208
TR208
No Unauthorized Vehicles
Ref. V1 2.4.7
V4 2.4.10

R209
TR209
No Left Turn Ahead
Ref. V1 2.4.8
V4 2.4.11

R210
TR210
No Right Turn Ahead
Ref. V1 2.4.8
V4 2.4.12

R211
TR211
No Left Turn
Ref. V1 2.4.9
V4 2.4.13

R212
TR212
No Right Turn
Ref. V1 2.4.9
V4 2.4.14

R213
TR213
No U-Turn
Ref. V1 2.4.9
V4 2.4.15

R214
TR214
No Overtaking - All Vehicles
Ref. V1 2.4.10
V4 2.4.16

R215
TR215
No Overtaking - Goods Vehicles
Ref. V1 2.4.10
V4 2.4.17

R216
TR216
No Parking
Ref. V1 2.4.11
V4 2.4.18

R217
TR217
No Stopping
Ref. V1 2.4.12
V4 2.4.19

R218
TR218
No Pedestrians
Ref. V1 2.4.13
V4 2.4.20

R219
TR219
No Cyclists
Ref. V1 2.4.14
V4 2.4.21

R220
TR220
No Cyclists and Pedestrians
Ref. V1 2.4.15
V4 2.4.22

R221/TrTR221
Numbers not allocated

R222
TR222
No Motor Cycles
Ref. V1 2.4.17
V4 2.4.23

R223
TR223
No Motor Cars
Ref. V1 2.4.17
V4 2.4.24

R224
TR224
No Taxi’s
Ref. V1 2.4.17
V4 2.4.25

R225
TR225
No Minibuses
Ref. V1 2.4.17
V4 2.4.26
● = See Section 2.10 for variations appropriate to individual countries.
Section 2.5: RESERVATION – Conditional Regulatory Signs

NOTE: “Reservation” has been omitted from all names due to space constraints

= See Section 2.10 for variations appropriate to individual countries.
= See Section 2.10 for variations appropriate to individual countries.
<table>
<thead>
<tr>
<th>Reference Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R330 TR330</td>
<td>References V1.2.5.15 V4.2.5.30 Bus and Midi-bus</td>
</tr>
<tr>
<td>R330-P TR330-P</td>
<td>References V1.2.5.15 V4.2.5.30 Bus and Midi-bus Parking</td>
</tr>
<tr>
<td>R331 TR331</td>
<td>References V1.2.5.15 V4.2.5.31 Bus and Midi-bus Lane</td>
</tr>
<tr>
<td>R332 TR332</td>
<td>References V1.2.5.15 V4.2.5.32 Begin Bus and Midi-bus Lane</td>
</tr>
<tr>
<td>R333 TR333</td>
<td>References V1.2.5.15 V4.2.5.33 Bus, Midi-bus and Minibus</td>
</tr>
<tr>
<td>R333-P TR333-P</td>
<td>References V1.2.5.15 V4.2.5.34 Bus, Midi-bus and Minibus Parking</td>
</tr>
<tr>
<td>R334 TR334</td>
<td>References V1.2.5.16 V4.2.5.35 Begin Bus, Midi-bus and Minibus Lane Right</td>
</tr>
<tr>
<td>R335 TR335</td>
<td>References V1.2.5.16 V4.2.5.36 High Occupancy Vehicle Lane</td>
</tr>
<tr>
<td>R336 TR336</td>
<td>References V1.2.5.16 V4.2.5.37 Begin High Occupancy Vehicle Lane</td>
</tr>
<tr>
<td>R337 TR337</td>
<td>References V1.2.5.16 V4.2.5.38</td>
</tr>
<tr>
<td>R338 TR338</td>
<td>References V1.2.5.17 V4.2.5.39 Tram</td>
</tr>
<tr>
<td>R339 TR339</td>
<td>References V1.2.5.17 V4.2.5.40 Begin Tram Lane</td>
</tr>
<tr>
<td>R340 TR340</td>
<td>References V1.2.5.18 V4.2.5.41 Tram Stop</td>
</tr>
<tr>
<td>R341 TR341</td>
<td>References V1.2.5.18 V4.2.5.42 Bus and Tram</td>
</tr>
<tr>
<td>R342 TR342</td>
<td>References V1.2.5.19 V4.2.5.43 Bus and Tram Lane</td>
</tr>
<tr>
<td>R343 TR343</td>
<td>References V1.2.5.19 V4.2.5.44 Begin Bus and Tram Lane</td>
</tr>
<tr>
<td>R344 TR344</td>
<td>References V1.2.5.19 V4.2.5.45 Bus, Minibus and Tram</td>
</tr>
<tr>
<td>R345 TR345</td>
<td>References V1.2.5.19 V4.2.5.46 Bus, Minibus and Tram Lane</td>
</tr>
<tr>
<td>R346 TR346</td>
<td>References V1.2.5.19 V4.2.5.47 Begin Bus, Minibus and Tram Lane</td>
</tr>
<tr>
<td>R347 TR347</td>
<td>References V1.2.5.19 V4.2.5.48</td>
</tr>
<tr>
<td>R348 TR348</td>
<td>References V1.2.5.19 V4.2.5.49 Bus Lane - Right</td>
</tr>
<tr>
<td>R349 TR349</td>
<td>References V1.2.5.19 V4.2.5.50 Bus and Minibus Lane - Right</td>
</tr>
<tr>
<td>R350 TR350</td>
<td>References V1.2.5.19 V4.2.5.51 Bus and Tram Lane - Right</td>
</tr>
<tr>
<td>R351 TR351</td>
<td>References V1.2.5.19 V4.2.5.52 High Occupancy Vehicle Lane - Right</td>
</tr>
<tr>
<td>R352 TR352</td>
<td>References V1.2.5.19 V4.2.5.53</td>
</tr>
</tbody>
</table>

**CONTENTS**

MAY 2012 SADC – RTSM – VOL 4 REGULATORY
Section 2.6: COMPREHENSIVE – Conditional Regulatory Signs

Section 2.7: SELECTIVE RESTRICTION – Regulatory Signs

EXCLUSIVE SECONDARY MESSAGE – Regulatory Signs

NOTE: (1) Exclusive Secondary Message signs shall ONLY be used with another REGULATORY sign.
(2) An Exclusive Secondary Message sign uses the same colours as that REGULATORY sign.

TIME LIMIT Sub - Group

= See Section 2.10 for variations appropriate to individual countries.
NOTE : Numbers (R)507 to (R)510 not allocated.

NOTE : Numbers (R)513 to (R)519 not allocated.

ACTION Sub - Group

NOTE : Numbers (R)524 to (R)529 not allocated.
See Section 2.10 for variations appropriate to individual countries.

NOTE: Numbers (R)536 to (R)539 not allocated.

NOTE: Numbers (R)541 to (R)559 not allocated.
SYMBOL MESSAGE Sub – Group (Objects Category)

- = See Section 2.10 for variations appropriate to individual countries.
See Section 2.10 for variations appropriate to individual countries.
In principle SELECTIVE RESTRICTION signs may be created by combining any R1, R100, R200 or R300 series sign with any sign in the (R)500 series. In practice the vast majority of possible combinations are never likely to be used. Signs used are likely to fall into two groups – those used commonly, and those required rarely for specialised applications.

SELECTIVE RESTRICTION signs comprise two component parts. The upper part is a PRIMARY MESSAGE sign from one of the R1, R100, R200 or R300 series which is displayed with a lower component SECONDARY MESSAGE sign from the (R)500 series. The function of the secondary message is that it changes the applicability of the primary message. Primary and secondary message components ALWAYS use the same colour code. (R)500 signs shall not be used on their own.

All MANDATORY, COMPREHENSIVE and SECONDARY MESSAGE signs can be categorised as representing a restriction in some way, as a LIMIT, as an ACTION, or as an OBJECT.

Fig 2.04  SELECTIVE RESTRICTION Regulatory Signs - SYSTEM and EXAMPLES
Section 2.9: DE-RESTRICTION Signs

Regulatory signs may be enhanced, without affecting their legal meaning, by 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.
Section 2.9: DE-RESTRICTION Signs

All MANDATORY and CONDITIONAL regulatory signs impose some form of restriction on some, or all, road users. A restriction, once applied, normally remains in force until it is changed. A restriction may be changed by removal, or DE-RESTRICTION, or by application of another different restriction. DE-RESTRICTION is achieved by displaying the original sign with a RED CROSS (R)600 superimposed on the face of the sign.

This option may be used with almost any COMMAND, PROHIBITION, RESERVATION or COMPREHENSIVE sign but is most common with the latter. SPEED LIMIT restrictions shall only be changed by display of a new SPEED LIMIT sign. In general the use of a (R)600 element with PROHIBITION signs using a diagonal slash is not recommended.
CHAPTER 2: REGULATORY SIGNS

2.1 INTRODUCTION

2.1.1 General

1 This chapter details the dimensions of REGULATORY signs so that they can be accurately specified and manufactured. The chapter is subdivided into the same sections as used in Volume 1 with the exception of DE-RESTRICTION signs and regulatory sign combinations. DE-RESTRICTION signs are covered with COMPREHENSIVE signs, and regulatory sign combinations are covered as follows:
   (a) high visibility - Subsection 2.1.5;
   (b) guidance signs - Chapters 5, 6 and 8;
   (c) supplementary plates - Chapter 9.

2 Dimensional details for CONTROL signs, which all have individual shapes, are not given collectively in this Section but are generally given in a tabular form, related to letters allocated to the various dimensions required for each specific sign, in Section 2.2. In some instances if a symbol is used this symbol is superimposed on a background of grid squares.

3 The standard method of presentation for circular regulatory signs gives the symbol and the circular border superimposed on a background of grid squares. (The scale is 1/10 for the 1200 mm sign size.) The COMMAND sign details illustrate the PERMANENT and TEMPORARY borders on the one diagram, and those PROHIBITION signs with a diagonal slash include dimensional details to locate the slash.

4 The standard method of presentation for rectangular regulatory signs gives only the relevant symbol superimposed on a background of grid squares. (The scale is 1/5 for the 1200 mm x 900 mm sign size.) Locational detail for the symbols within the signface of RESERVATION, COMPREHENSIVE and DE-RESTRICTION signs is covered in Figures 2.9, 2.10, 2.13 and 2.15 of this section. Details of Public Transport Stop Reservation signs are given in Figure 2.12.

5 The signface layout and symbol location for each sub-class of regulatory sign is specified by a number of dimensions. These dimensions have been allocated letters as shown in Figures 2.2 to 2.15. The values of these dimensions, for each of the standard sizes, are given in a dimensions table on each sign detail page in subsequent Sections.

6 Dimensional details covering the incorporation of regulatory signs into a HIGH VISIBILITY background are also given in this Chapter.

7 If a regulatory sign is ordered which is not specified in this Chapter the manufacturer is requested to advise:

   The Secretary,
   Route Numbering and Road Traffic Signs Sub-Committee,
   c/o Department of Transport,
   Private Bag X193,
   PRETORIA,
   0001.

2.1.2 Sign Sizes

1 A range of standard sign sizes is catered for. These have been rationalised to rounded metric dimensions, e.g. 610 mm to 600 mm, 914 mm to 900 mm, 1220 mm to 1200 mm etc.

2 Recommended sign sizes for specific applications are given in Volume 1 (see Table 2.4).

3 From time to time minimum sizes may be covered by Regulation(s). Care should therefore be exercised at the time of ordering that the required legal minimum size is being complied with.

4 If it is required to display any regulatory sign which normally has a white border, on a white HIGH VISIBILITY background, a black supplementary border shall be provided outside the standard circular or rectangular shape so that if the size is a minimum size this is not reduced by the provision of the black border.

5 Sizing of the triangular YIELD sign R2 shall conform generally to the provisions of Chapter 3 with respect to triangular advance warning signs.

2.1.3 Symbols

1 The majority of regulatory signs, whether circular or rectangular, incorporate a symbol. SELECTIVE RESTRICTION signs may incorporate two symbols. The range of symbols available for use on regulatory signs has been increased significantly with this edition of the Manual. The shapes and sizes of circular and rectangular regulatory signs are not significantly different to those used in the past. The symbols used in the two basic shapes are, size for size, differently proportioned within the sign. Therefore, although the same symbol may be used on a circular and on a rectangular sign and in order to keep the system of tabulating dimensions as simple as possible, symbols are repeated in each appropriate section for clarity.

2 All symbols are detailed on a grid square background to facilitate enlargement to any one of the standard sizes. This enlargement can be carried out by drawing, photographing or projecting (using an epidiascope or slide projector). The image of the symbol and squares should be enlarged until the size of two squares equals the value of the enlargement factor "a" given in the dimensions table for the required sign size. Overall dimensions and locating dimensions are also given for each symbol in the dimensions table (see Figures 2.5 to 2.15).

3 All letters or numerals which form part of a regulatory sign symbol, with the exception of the Primary Letter Symbols for RESERVATION signs, shall be manufactured to the DIN 1451 letter style. Details of this letter style are given in Chapter 11. Wherever possible, standard letter sizes have been specified by symbol height in the dimensions table. This may result in a minor lack of true proportionality from one sign size to another which can be ignored.

4 Various regulatory signs incorporate an arrow as the symbol or part of the symbol. These arrows are unique to the regulatory and warning sign classes and are NOT the same in dimensional details as guidance signs arrows. Dimensional details are given in Figure 2.24. Arrow sizes and dimensions are related to the arrow shaft width "s", which is specified in the relevant sign dimensions tables.

2.1.4 Selective Restriction Signs

1 SELECTIVE RESTRICTION signs comprise a special sub-class of regulatory signs in that they are made up of PRIMARY and SECONDARY message components which are almost always derived from standard signs from other regulatory sign sub-classes. Dimensional details for individual examples of such signs are therefore not covered in this Chapter.

2 There are, however, a number of exclusive SECONDARY message signs which are for use ONLY as part of SELECTIVE RESTRICTION signs. Details of these are covered in Section 2.7. The basic dimensional layout of SELECTIVE RESTRICTION signs are given in Figures 2.14 and 2.15.

3 For a full description of the function of SELECTIVE RESTRICTION signs refer to Volume 1, Chapter 2, and in particular to Subsection 2.1.4 and Section 2.7 in that Chapter.