

1 GENERAL

Any signs, signals, markings and devices placed on or adjacent to a street or highway to regulate, warn, guide or inform traffic can be described by the term 'traffic control devices'. Hence in the USA, they have a MUTCD; Southern Africa has the SADC RTSM.

Any traffic control device should meet the following elementary requirements,

- (a) It should be capable of fulfilling an important need.
- (b) It should command attention.
- (c) It should convey a clear, simple meaning.
- (d) It should command the respect of road users.
- (e) It should be located to give adequate time for response.
- (f) It must be sanctioned by law if it controls or regulates traffic.

2 PURPOSES

Traffic control devices provide essential visual guidance and instructions to the motorist. They should, however, only be used where warranted by facts and field studies. Also, they are easily damaged or defaced and become dirty. An adequate maintenance programme must be established if signs are to retain their authority as traffic control devices.

2.1 Regulation of Traffic

Regulatory devices are used in order that the motorist can be,

- (a) Informed of regulations that are in force - these include speed limits, parking restrictions, one-way operation, no overtaking and load limits.
- (b) Instructed to take some action - stop, yield, right lane must turn right.
- (c) Prohibited from making certain manoeuvres - turn prohibitions, no entry, road closed.
- (d) Assigned right of way - traffic signals, channelisation.

2.2 Warnings to Traffic

Warning devices are used to,

- (a) Indicate the presence of geometric features with potential hazards - curves, intersections, gradients.
- (b) Define major changes in roadway character - road narrows, single lane road, divided highway ends, surfaced pavement ends.
- (c) Mark obstructions or other physical hazards in or near the roadway - uneven surface, concealed entrance, low headroom.
- (d) Locate areas where hazards may exist under certain conditions - schools, falling rocks, slippery when wet, railroad crossing.
- (e) Inform motorists of regulatory control ahead - traffic signal ahead, stop ahead.
- (f) Advise drivers of appropriate action - advisory speed signs, traffic signal progression speed sign, merging traffic.

2.3 Guidance

Guide signs are used to provide,

- (a) Route identification - highway route number markers, street name signs, detours.
- (b) Directions to travellers - destination and distance signs, intersection and interchange signing.
- (c) Delineation of the roadway - delineators, pavement edge markings.
- (d) Information - rest areas, services signs, parking area signs, hospital signs, city boundary signs and other political boundaries, stream names, elevations, landmarks, scenic views.

3 UNIFORMITY

3.1 Types of Uniformity

3.1.1 Uniformity of Design

This aids the motorist in instant recognition and comprehension. Traffic sign design includes shape, colour, size, symbol, wording, letter style, illumination and reflectorisation. Non-standard signs provide excuses for violations and cannot be enforced.

3.1.2 **Uniformity of Meaning**

This aids the motorist in complying with the regulations. Most traffic signs have at least general uniformity of meaning, but local driver behaviour and enforcement practices may distort this meaning.

3.1.3 **Uniformity of Application**

This promotes driver observance and avoids excessive or unwarranted use of traffic signs. Such uniformity ensures that similar conditions are controlled by the same type of sign. Unfortunately, signs can be installed under political or public pressure at locations where they are not warranted. These signs lead to driver apathy and disrespect for such types of control.

3.1.4 **Uniformity of Location**

This reduces the possibility of the motorist not seeing a sign. Standard sign locations may assist the driver in determining where the directed action is to take place, eg position to stop at STOP signs and traffic signals, location of ramps with respect to freeway direction signing. Uniform location cannot always be achieved in practice. In such instances, the general rule is to install the sign as near to the standard location as possible, ensuring that it is placed where the motorist or pedestrian can be expected to see it in his normal line of vision.

3.2 **Importance of Uniformity**

The need for uniformity in traffic signing is becoming more and more important as the use of vehicles increases.

- (a) Present day driving conditions including high speeds, complex intersections and interchanges, increased volumes and roadside distractions, require signage that a driver can see, recognise and understand quickly. The driver must have time to make his decision and take appropriate action safely, thereby reducing the necessity for last-minute, hazardous manoeuvres.
- (b) Increased travel has resulted in more inter-city and inter-provincial trips. Uniform signage reduces motorist confusion when driving in an unfamiliar area.
- (c) Traffic engineering operations are simplified through economy in manufacture, installation, maintenance, and administration of traffic signs.

4 **NATIONAL UNIFORMITY**

This is achieved in southern Africa by the use of the SADC Road Traffic Signs Manual (SADC-RTSM).