

# Safety in road construction

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The present day media is inundated with news items pertaining to road accidents, traffic congestions etc. Reckless conduct of drivers is said to be the main cause for rapidly escalating road accidents. This allegation could be correct up to a certain extent even though no statistics are available to substantiate it.

However, it would be worthwhile to find out whether it is the errant and reckless behaviour of the driver that is solely and exclusively responsible for these accidents or are there other incidentals or attendant factors that contribute to these accidents.

It is also pertinent to note that in the wake of the rapid increase in road accidents, whether any significant contribution could be made by the construction and planning authorities to prevent and/or reduce road accidents. I would like to recall my experience in Australia with the Roads & Traffic Authority. When a road accident occurs, apart from the police, ambulance etc the other party who is called upon to the scene of the accident is the Road Authority. This might sound a little mysterious in the Sri Lankan context. But they have the responsibility of directing the traffic until the road is cleared. Subsequent to an accident, the road surface is immediately cleaned up facilitating the smooth flow of traffic.

It is indeed imperative that subsequent to a road accident the road surface is restored to its original condition. Furthermore, much emphasis should be placed on removing the debris from the scene and the road washed off to prevent skidding due to oil spills etc. It is indeed disheartening to note



that either due to sheer ignorance or negligence relevant authorities do not adhere to the above mentioned standard principles. Cleaning the road surface and clearing the debris is usually left for passing traffic, which consequently poses a great risk to motorists.

Yet another factor which warrants mentioning is that when road construction is in progress, proper traffic direction should be implemented by the relevant authorities. However in Sri Lanka it is not an uncommon sight to see broken concrete blocks being placed to direct traffic. Since this debris cannot be aligned properly, it projects unevenly to the travelling lanes causing a perilous and hazardous situation. This situation is further compounded by the fact that the passing traffic causes this debris to be pushed out of its original alignment.

Much talk, discussions and

seminars are being conducted by professionals on the very relevant and opportune subject of road safety. But what is the outcome of all these measures? Are we genuinely concerned about road safety or are these discussions, seminars etc., merely confined to the four walls in which they are held? Or perhaps do the proposals and suggestions by these skilled personnel fall on deaf ears?

It must be noted that the most prestigious driveways leading not only to Parliament but also to many government organisations amply demonstrates the aforementioned facts.

When plying along the said road, it doesn't take a safety-conscious professional to observe that no consideration is given to road safety measure especially the medians on this highway. It is indeed an eyesore to see all types of advertise-

ments placed on the medians. Concrete pieces, unstable steel fences with projecting steel pieces broken kerbstones etc., have been placed on the centre of the medians thereby affecting the visibility during day-time and imposing a great risk to the drivers at night. It must be noted that these bill boards lying on the centre of the road with the reflections of the oncoming vehicles is an obstruction to clear visibility and this matter is further complicated on rainy days where the drivers are subjected to severe hindrance.

It is pertinent to note that in developing countries, barriers are being built (commonly known in Sri Lanka as guardrails) to separate opposite running lanes. In those countries various speed tests are being carried out sometimes utilizing dummy vehicles and colossal sums of money are being spent to develop and

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design these barricades. The main objective of these exercises is to minimise the damage to the user during a collision. Since this information is publicised and are freely available to any person who is fervently conscious of road safety we can make use of this invaluable and inspirational data to construct and maintain our roads thereby facilitating the construction of roadworthy and safe roads.

Sadly, contrary to the very purpose for which barriers are being placed on the highways, they themselves have today become an additional hazard to motorists.

Reconstruction, repairing and widening of the road network is an inevitable exercise in any part of the world, but the cardinal principle underlying these construction activities is that in as much as these roads are subjected to construction, it also serves as a highway to motorist and as such stringent safety standards have to be maintained during construction processes. Since dust emanating from these construction sites is unavoidable which not only causes health hazards but is also attributable to the increase in motor traffic accidents especially to unprotected motorcyclist, constant watering of these sites could no doubt circumvent this problem.

Furthermore it is a common practice in road construction to change one-way road to a two-way lane. It must be emphasised that when such practices are adopted sufficient warning must be given to motorists driving in both directions, indicating that the road has been changed to a two-way lane. However, in contravention to the accepted norms and rules of road safety rules the practice adopted by the relevant authorities is to place traffic cones at one end of the road when the necessity arises for the authorities to change it to a two-way lane. This is also a common practice in most of the road construction sites.

Another factor which merits attention is the painting of curbs in black and white strips which are done very rarely and not being maintained. It goes without saying that after a few months the dust and mud causes these markings to get discoloured and partially invisible which consequently poses a great risk to motorists. In the said circumstances it is imperative that these curbs have to be painted regularly. It must be noted that in most developed countries these curbs are painted only in white for the sole purpose of providing greater visibility to motorists. Furthermore it is much easier to paint in one colour since it could even be spray painted.

Part II tomorrow

# Safety in road construction -II

Continued from yesterday

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Yet another glaring and most perilous situation observed on our roads is the uncovered man-holes. This factor has been completely overlooked in most of our roads. Apart from this when road levels are raised manholes too should be raised. However, more often than not they are not raised to the same level with the road. Therefore, in order to avoid an uneven bump, involuntarily motorists deviate from these obstructions, placing not only themselves but also other road users in great peril. Therefore prompt attention of the relevant authorities concerned is needed in this regard.

Furthermore in newly constructed roads, roundabouts are constructed and no proper sign posting is done. It is very important that roads should be line marked (white lines showing the directions, lanes etc). Where there is a crossing of roads there should be a white dotted line on the road surface to differentiate the main road from the by-road. Sign posting should be done when the road construction is progressing, so that motorist are aware where they are heading to. All changes in the road pattern should be sign posted properly. Organisations involved in

work in the public highways must bear in mind that although it is a construction site for them, it is also being used as highway by hundreds of thousands of motorists. Therefore when pits or trenches are being excavated, advanced sign posting should be made, giving an indication to the motorists to the effect that workmen are at work on the road. Parking a vehicle just before the excavations cannot be called advance warning. At least few yards ahead from the construction, there must be proper signs. All excavated material should be kept away from the road and if the work is not completed the excavated pit should be properly barricaded with luminous warning signs and preferably flickering lights during night time. Quite often I have observed that the workers place the excavated material as the barricade to the pit, which is hardly visible in the night. It must also be borne in mind that when a pit is excavated for some maintenance work the surface should be restored to its original condition once the work is completed.

Government spends large sums of money when acquisitions are done for the purpose of widening highways whilst the affected people lose their valuable land. This is done for a public purpose. Therefore, it is important to note that when maintaining roads it is not only the road pavement that has to be maintained but also the shoulders (area outside the



road pavement) have to be maintained. Road maintenance personnel must be made well aware of this fact. In most of the roads, the shoulder level is much below the road pavement level and therefore in case of an emergency, one cannot drive the vehicle to a side to keep away from the oncoming vehicle, because of this excessive level difference between the pavement and the shoulder. In some sections of roads a differ-

ence is in excess of one foot and this puts the motorists in great jeopardy.

Another important area which calls for attention is the pedestrian crossings. Whilst there should be advanced sign posting, the yellow line must be visible even at a distance. When painting the road surface, the authorities should ensure that they maintain a thickness of the paint to suit standard specifications, since

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unlike in cases of walls or boards, the wear and tear is extremely high on the road surfaces. Therefore the painted line will not last long unless high standards of painting are maintained.

With regard to road lanes it must be emphasised that there is a standard width for a road lane, the accepted being 3.6m. After new construction or any repaving operation, lanes should be properly line-marked. Quite often, even in our main roads no lanes are marked, even if the lanes are marked it is just a line dividing the road in to 2 lanes and no consideration is given to standard lane widths. This will

force one and half vehicles to run in one-lane causing confusion among motorists and also create escape route for smaller vehicles such as three wheelers and motorcycles. Bus stops are marked just at the centre of a lane obstructing the traffic abruptly. The lane lines should be marked in such a way that normal traffic should be able to maintain a smooth flow without any obstruction.

It is also of great importance that when roads are closed for construction purposes the general public should be intimated of such closure in advance by placing notices in the newspapers and also indicating alternative routes. Moreover such closure of roads should be sign-posted. Some times motorists are forced to use alternative routes to reach their destinations and quite often these routes are mere gravel roads and not proper for plying motor vehicles. In the said circumstances when traffic is diverted it is imperative that these alternative routes should be brought up to a motorable condition.

Finally construction equipment and material used at a construction site should be placed away from the traffic lane. Quite often construction materials are been unloaded blocking lanes. It must be emphasised that one has a duty to care not to commit offences but there are instances when omissions on the part of the person concerned could be interpreted as commissions. In developed countries, "duty of care" of the constructors had quite often been challenged. Constructors should not take it for granted that they are given a free licence to engage in construction activities in an arbitrary and erratic manner. They have to realize that work needs to be carried out in compliance with the universally accepted rules and procedures, with the primary concern of providing safe roads for road users minimising road traffic accidents and helping all citizens to have the privilege of having a stress-free drive. ■