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REVISION OF THE CONSOLIDATED RESOLUTION R.E.1

Safety of pedestrians

Note by the secretariat

Members of WP.1 will find below a revision of the recommendation on the safety of pedestrians prepared by the small group made up of Denmark, Israel, Netherlands, FIP and GRSP, under the chairmanship of FIP. The revision is based on the recommendation adopted at the 36th session of the Working Party (TRANS/WP.1/76). Modifications appear in bold.

Safety of pedestrians

Pedestrians still account for a substantial proportion of road accident victims in a large number of countries. Pedestrian safety requires a comprehensive and coherent approach to ensure real interaction between the various road users. The aim of these recommendations is **an improvement of road safety and thus a reduction of the dangers of the road.** Because pedestrians as a diverse group have widely different capabilities and as individuals are especially vulnerable, the strategies for adapting pedestrian behaviour to current road structures are limited. Therefore, legal provisions, **recommendations and other approaches** regarding infrastructure, vehicle standards and road user behaviour are necessary.

1. Facilities for pedestrians

Facilities and infrastructure should be designed to ensure pedestrian mobility, reduce the dangers of the road and foster in all traffic participants safe and responsible behaviour. The following provisions regarding pedestrians are recommended:

(a) *Pavements and footpaths*

In every town and city, a network of continuous walkways (including pavements etc.) should be established. They should provide safe, direct links between homes, shops, schools, access to public transport and other vital services and facilities. Pavements and footpaths should be well lit and well maintained. Their width should be determined by their function (as school paths or through shopping areas etc.). The pavement should in general not be used for parking of vehicles. If this is not avoidable, sufficient space for the movement of pedestrians should be left, **and the exceptions should be marked on the ground.** Signs and other equipment should not obstruct the movement of pedestrians.

Vehicles powered by motors of any kind except those used by handicapped persons must not be allowed to circulate on footpaths and pavements.

(b) *Pedestrian crossings*

Pedestrian crossings should allow users to cross the roadway in safety. They cannot therefore be considered simply as a road marking, but have to be considered as a built traffic layout component (including the arrival areas and possibly a central island) forming part of the whole road design. Thus, their location and layout should always be integrated with the planning, design and construction of the road as a whole. Generally speaking, the objective should be, where possible, to ensure that pedestrians can cross roads in safety without change of level **such as a footbridge or tunnel.**

Provision for a sufficient number of pedestrian crossings should be made **to make walking without long detours possible.** The utmost importance should be attached to visibility. Pedestrians must be able to see oncoming vehicles at a sufficient distance if they are to cross safely. Crossings should be carefully planned and in the area leading to the crossing, there should be nothing to interfere with visibility, such as cars parked in non parking areas, containers etc. If cars are parked along the roadside where there is a pedestrian crossing, pavements should preferably be enlarged to the point that the curb is in line with the roadside limit of the parking spaces.

Pedestrian crossings should always be equipped with the sign E 12, and in case of visibility from a distance of less than 50m with an additional sign A 12 at a distance of

200m. Pedestrian crossings should be illuminated distinctively brighter than other parts of the road. A central island should be built wherever possible, in particular on the first crossing when entering a built-up area, and if there is more than one lane in each direction and no traffic light.

At unsignalled crossings, the speed of vehicular traffic should be adapted to enable safe crossing for pedestrians. A central island, and/or other provisions together with good lighting, can help to make crossings safer, especially for children and elderly people.

Pedestrian crossings at traffic lights should be signalled so that turning vehicles do not endanger pedestrians. Signal phases should be timed so as to give slow pedestrians enough time to cross safely. Intelligent technology may be used, **where appropriate**, to minimize waiting times for pedestrians.

(c) Pedestrian subways and footbridges

Where a large number of pedestrians have to cross a road with dense fast moving traffic of more than two lanes, footbridges and subways, if properly maintained, lighted and accessible to all users, including those with reduced mobility, can provide a good solution.

(d) Pedestrian areas and pedestrian zones

Pedestrian areas are intended **and should be designed** for the use of pedestrians. National legislation should give clear prescriptions **on the conditions under which** certain categories of vehicles and users **are** permitted to enter them **as well as** on signs, speeds and permitted times applying to such areas. Special care should be given to the access walkways leading to and from pedestrian areas.

(e) Traffic calming areas

Low speeds within built-up areas are crucial for the safety of pedestrians. **For this purpose it is usually not sufficient to place traffic signs at the start of a zone with lower speed. These zones should also be set up with support in terms of built infrastructure, to reduce speed and in particular where pedestrians cross. With regard to signing the following are recommended:**

(i) zones in residential, shopping and other heavily used areas with speed limits below those generally applied in built-up areas, using road signs E, 9d and E, 10d of the Vienna Convention on Road Signs and Signals;

(ii) “residential areas”, using road signs E, 17a and E, 17b of the Vienna Convention on Road Signs and Signals.

(f) School zones

Special attention should be given to school zones (a radius of about 300m around schools) and the routes taken by schoolchildren should be planned at a high level of safety when new schools are to be constructed or existing schools are modified.

(g) Infrastructure provisions for pedestrians in rural areas

Footways in rural areas should be either established completely independently from the road or separated physically by an elevated kerb, grass band or a wide shoulder. Pavement markings or narrow shoulders are often not sufficient to provide adequate safety. **Black spots should be eliminated.**

(h) Direction and information signs for pedestrians

Good orientation based on direction and information signs can contribute to greater safety for pedestrians. These signs may prevent pedestrians from getting lost or disoriented in traffic and enable them to give full attention to the traffic situation, **and be used to indicate safe routes**

(i) Provisions for other non-motorized road users

Facilities designed for improving the safety and convenience of cyclists and other non-motorized travellers (skaters, etc.) should not compromise pedestrian safety. Where no separation of these road users is possible or desirable, the road **infrastructure** should be **designed** in such a way that it can safely accommodate cyclists and other non-motorized road users.

(j) Comfort provisions for the safety of pedestrians

Comfort provisions such as even pavement surfaces, provision of seating and shelter **play a role in the safety of pedestrians. This is especially true for the elderly and handicapped, and may prevent accidents caused by falling.**

(k) Maintenance of pavements for pedestrians

Pavements should be designed and maintained to ensure evenness and skid-resistance. No obstacles should hinder the mobility of pedestrians. De-icing **and clearing the pavements of snow** in the winter is important.

2. Campaigns to promote pedestrian safety

It is recommended that road users should be made more aware of **traffic** rules and safe behaviour. The following points - especially with regard to campaigns and driving courses - should be stressed:

(a) Campaigns on pedestrian safety should project not simply an image of pedestrians as vulnerable road users, but as actors in their own right.

(b) Campaigns should inform all road users about the physical and psychological capabilities and limits of human beings in traffic thereby helping to understand the behaviour of each road user group, **including the need for interaction among road users.**

(c) Special attention should be given to training and educational aspects, beginning with young children. Parents have a special responsibility to teach children how to cross a road.

(d) Driving courses and campaigns should encourage non-aggressive conduct towards pedestrians.

3. The role of public authorities

Public authorities should take more account of the vulnerability of pedestrians and contribute actively to reducing the dangers to which they are exposed by taking the following measures:

(a) giving pedestrian safety an important role in their national road safety policies; ensuring, to this end, that measures concerning pedestrian safety are given due weight in their legislation, regulations and national programmes of action.

(b) taking pedestrians into account, giving them the same importance as users of other means of transport when transport and traffic plans are being drawn up. When building new infrastructures, or changing existing infrastructures, **safety audits** should be carried out *inter alia* to determine and to alleviate possible negative effects on the safety and mobility of pedestrians.

(c) enlisting the participation of residents of the neighbourhoods involved, so that they may contribute **with** suggestions to the improvement of pedestrian safety.

4. Research and statistics on pedestrian safety

In the field of pedestrian safety there is a need **to collect data to assess the safety of pedestrians in road traffic more effectively and more regularly in order to refine the knowledge of the problem** through *inter alia*, the following:

(a) ensuring that pedestrian **collisions** are recorded and that the quality of the recording is optimised **to make in depth analyses of collisions possible if needed**.

(b) research into the relationship between **the number of pedestrian collisions** and **changes** in pedestrian activity (**like** children being brought to school by car instead of walking, or old people not leaving their homes due to fear of increased vehicular traffic).

(c) further research to determine the positive and negative effects of the increasing use of advanced technologies in vehicles and the design of the latter on the safety of the most vulnerable road users, and pedestrians in particular.”
