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Persons with Reduced Mobility (PMR)

The purpose of this information sheet is to present the issues relating to the conformity of the design of urban amenities for making the town accessible to persons with reduced mobility (PMR).

After reviewing the scope of the problem of reduced mobility and the people it concerns, this information sheet identifies the main mobility problems encountered and the obligations of the authorities responsible for urban roads to provide access for all.

Persons with reduced mobility (PMR)

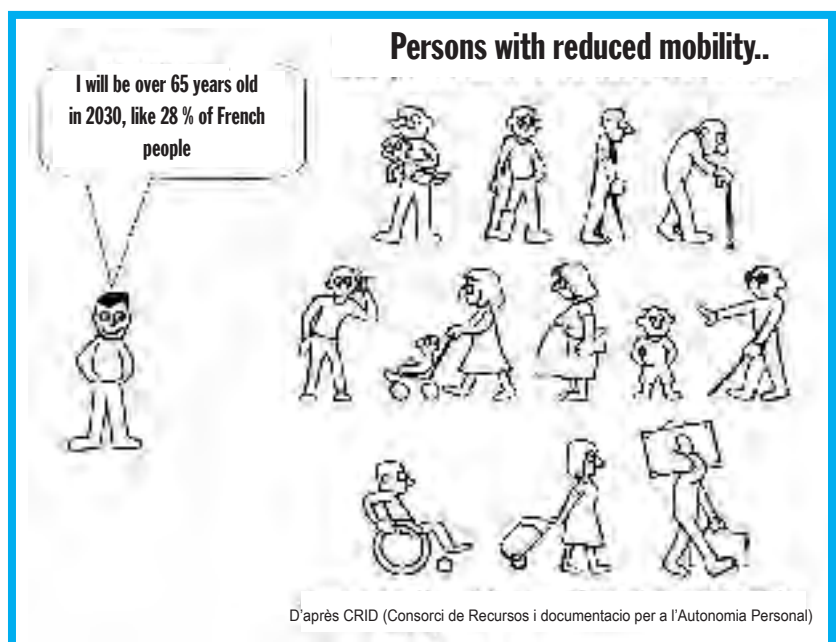
Article 45 of the Act of 11 February 2005 on equal rights and opportunities, participation and citizenship of persons with disabilities, provides that the travel chain, thus the roads and the amenities of urban public spaces, must be accessible to disabled persons and persons with reduced mobility.

Persons with Reduced Mobility include all those who have difficulty getting around, whether temporarily or permanently, such as disabled people (including those with sensorial or intellectual disabilities, those with motor disabilities and those in wheelchairs), small people, people with large or bulky baggage, the elderly, pregnant women, people with shopping trolleys and those with young children (including children in pushchairs).

40% OF THE POPULATION ANSWERS «YES»

to the question: «Do you sometimes experience discomfort or difficulty to move within your environment, to gain access to transport or to move within the built environment?».

The aging population and the grandadboom resulting from the baby boom at the end of the 1940s will see this number increase. The INSEE predicts that towards 2030, 28% of the population will be over 65 years of age and the number of people over 80 will double.



PMR and those who have difficulty getting around

Who?	What are their difficulties?
Wheelchair users	<ul style="list-style-type: none"> ⇨ Travelling over soft, slippery or uneven ground. ⇨ Negotiating obstacles and differences in level ⇨ Negotiating narrow passages ⇨ Reaching certain heights ⇨ Grasping and using objects or equipment ⇨ Seeing at certain heights
Motor impaired people	<ul style="list-style-type: none"> ⇨ Travelling over impassable or obstructed ground. ⇨ Travelling long distances without a place to rest. ⇨ Moving quickly. ⇨ Negotiating steps or differences in level ⇨ Negotiating narrow passages without support. ⇨ Standing for long periods
Visually handicapped people	<ul style="list-style-type: none"> ⇨ Seeing (understanding) «large shapes». ⇨ Reading small writing ⇨ Interpreting signs ⇨ Locating themselves in space ⇨ Taking their bearings ⇨ Moving safely (obstacles, other pedestrians, two wheeled vehicles and cars).
People with cognitive disabilities	<ul style="list-style-type: none"> ⇨ Understanding signs ⇨ Memorising a route. ⇨ Locating themselves in space
People with cardio-respiratory disabilities	<ul style="list-style-type: none"> ⇨ Travelling long distances without a place to rest. ⇨ Negotiating differences in level without resting. ⇨ Standing for long periods
Children	<ul style="list-style-type: none"> ⇨ Travelling long distances. ⇨ Reaching certain heights ⇨ Seeing at certain heights ⇨ Reading or understanding complex information.
People with hearing difficulties	<ul style="list-style-type: none"> ⇨ Identifying sound signals. ⇨ Interpreting significant environmental noises. ⇨ Communicating
The elderly and the tired	<ul style="list-style-type: none"> ⇨ Moving around with motor impairments ⇨ Moving around with reduced visual and memory capacities. ⇨ Adapting to changes in weather.

An urban road system accessible to all

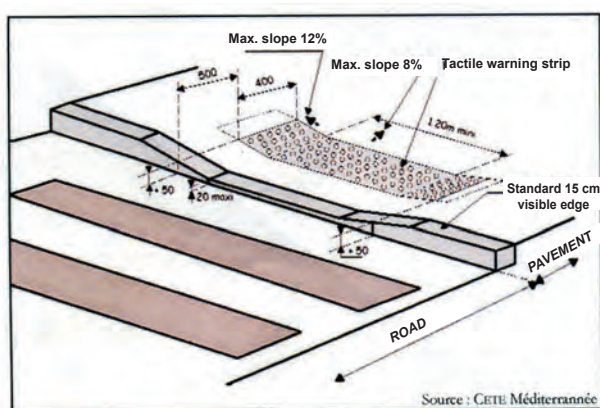
Decrees 99-756 and 99-757 of 31 August 1999, the order of 31 August 1999 (currently under revision to take account of all deficiencies, to be published between now and the end of 2006) and the circular of 23 June 2000 specifying exactly what has to be done, when and how, in order to make urban roads accessible to all.

These measures apply to new roads, to modifications to the base or the structure of the road, and to pavement repairs. The accessible town approach is necessarily permanent and global.

⇒ **Pathways - Pavements:** Recommended minimum clear width of 1.80 m. Clear width of 1.40 m defined by the regulations (1.20 m if no wall or obstacles on both side).



⇒ **Dropped kerbs:** Lowering of the pavement for pedestrian crossings; minimum 1.20 m horizontal section for the part situated behind the dropped kerb. For the ramps: maximum 12% slope and obligation to provide a pedotactile warning device (textured paving) over the full width of the dropped kerb and 0.50 m from the pavement edge



⇒ **Slopes:** Max. 5%, max. 8% tolerated over 2m length and max. 12% over 0.5 m length. Horizontal landings min. 1.40 long to be provided every 10 m for gradients exceeding 4%, at the top and bottom of each slope and at each change in direction. A railing must be installed at changes in level of more than 0.40 metres.



⇒ **Drops:** Max. 2 cm and max. 4 cm if chamfer with 1/3 gradient. Heavy steps are forbidden and a minimum distance of 2.5 metres is to be provided between successive drops.

⇒ **Cross falls:** Max. 2% within standard pathway.

⇒ **Ground:** holes and cracks in the ground must be less than 2 cm.

⇒ **Bollards and posts:** (AFNOR sheet P 98-350) sizing: width and height are combined to assist detection with a cane (detection cone). It is recommended to use colours that contrast with the surrounding environment.

⇒ **Cantilevering obstacles:** Cantilevering obstacles that project at a height of less than 2 m must be indicated by means of a marker on the ground immediately beneath the overhanging cantilever, with its bottom section preferably at a maximum height of 0.40 m.

⇒ **Parking:** Inside and outside towns, at least one parking space in every fifty reserved for and accessible to severely disabled persons (GIC* or GIG*). Width of the parking space: 2.50 m + 0.80 m (total 3.30 m) for exiting the vehicle from the left hand side. These spaces must be denoted on the ground and by signposting. Remember to provide dropped kerbs necessary for gaining access to the pavement nearby.

⇒ **Traffic lights:** Audible or tactile crossing signalling device in compliance with the standards allowing the blind and visually impaired to know when they can cross. Message imposed by the order of 08/04/2002.

* Seriously disabled war veterans (GIG) or civilians (GIC).

Emergency call stations: Inside and outside towns, these must be usable by people in wheelchairs. Their accessibility depends on that of the pathways and the car-parking.

Public or school transport stopping points: Inside and outside towns, these must help to board vehicles.

Associated subjects

- Pedestrians at the heart of urban public space planning
- School bus stops and road safety.
- Public transport.
- Parking.

Bibliographic references

- Recommandations pour l'implantation des dispositifs sonores ou tactiles pour répéteurs de feux de signalisation (Recommendations on use of audible signalling devices), Lyon Certu, (to be published).
- Cheminements des personnes aveugles ou malvoyantes: recommandations pour les surfaces tactiles au sol (Tactile surfaces on the ground for the blind and partially sighted), Lyon Certu, (to be published).
- Diagnostic d'accessibilité urbaine: exemples et éléments de bonnes pratiques (Accessibility in an urban environment: examples and good practice), Lyon Certu, 2006.
- Accessibilité de la voirie aux personnes handicapées: éléments pour l'élaboration d'un diagnostic dans les petites communes (Access to roads for PRM: assessment methods for small municipalities), Lyon Certu, 2006.
- Ville accessible à tous: Quels outils de diagnostic ? (Urban accessibility for all: assessment tools) Proceedings of the day of exchanges of 16 June 2005, Lyon Certu, November 2005
- loccace-cité, Multimedia tool for raising awareness of the quality of accessibility of the town and for a better understanding of the rules, CD-ROM, Centre Scientifique et Technique du Bâtiment (CSTB), 2005.
- Handicaps et ville, file updates, Techni.Cités, 2005.
- Accessibilité de la voirie aux personnes handicapées (Access to public roads for people with reduced mobility): Training slide presentations and documents. Teaching kit, CD-ROM, Lyon Certu, June 2004.

- Ville accessible à tous et activités commerciales (Urban accessibility for all and commercial activities). Proceedings of the day of exchanges of 21 May 2003, Lyon Certu, January 2004

- Concertation en matière d'accessibilité aux personnes à mobilité réduite, Éléments méthodologiques (Consultation on accessibility for people with reduced mobility), Lyon Certu, September 2004.

- Une voirie accessible (Accessible public roads), Certu/DR brochure, 2003.

- Recommandations pour les surfaces tactiles au sol pour personnes aveugles ou malvoyantes, rapport intermédiaire (Tactile surfaces on the ground for the blind and partially sighted), Lyon Certu, 2003.

- Guide pour l'aménagement de voiries et d'espaces publics accessibles (Planning accessible roads and public spaces), Paris DGUHC, 2002.

- Concept «Ville accessible à tous»(Urban accessibility for all), Lyon Certu, October 2002.

- Insécurité routière des piétons âgés à travers le système Mobilité Urbanisme Réseau (Road hazards for the elderly), Lyon Certu, December 2000.

- Act No. 2000-1208 of 13 December 2000 relating to *solidarity and urban renewal*, decrees 99-756 and 99-757 of 31 August 1999, order of 31 August 1999 and the circular of 23 June 2000 (modifications to be published at the end of 2006).

- Act No. 2005-102 of 11 February 2005 on *equal rights and opportunities, participation and citizenship of persons with disabilities*.

- AFNOR documentation sheet P 98-350, *Pathways – Integration of disabled people – Urban footpaths - Conditions of design and construction of paths for the integration of disabled persons*, February 1988.

- Standard NFP 98-351 (2006 revision to be published) *Pathways – Integration of disabled people – Warning devices – Characteristics and testing of pedotactile warning devices on the ground for blind or partially sighted people*.

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- Certu (<http://www.certu.fr>)
- DSCR road safety «job portal» (<http://securite-routiere.metier.i2>)
- Sétra (intranet: <http://catalogue.setra.i2> and website: <http://catalogue.setra.equipement.gouv.fr>).

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