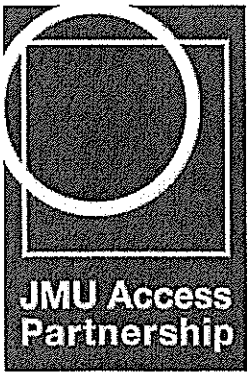
Designing for Disabled People in Home Zones



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Executive Summary

The concept of a Home Zone is one in which the design and layout of the road and pedestrian space within a residential area are designed and managed to be shared between pedestrians, vehicles and other road users. It is proposed that sharing a space in this way encourages motorists to drive with greater care and at lower speeds, whilst pedestrians, children and cyclists have greater choice of accessible areas in which to move, play and socialise.

A successful Home Zone should improve the quality of life for all residents and other users. What is paramount however is that all players using the environment should do so with respect and consideration to the needs of other people using the space.

In general, however, disabled people do experience difficulties when using Home Zones and, for some, those difficulties can significantly affect their frequency and independent use of the external environment. Design issues such as the lack of any traditional delineation within the space to identify the proposed uses for particular areas clearly has a negative effect on people's experiences. The lack of 'protection', whether perceived or real, that disabled people can feel within Home Zones is also clearly an issue.

In terms of design, there is no single 'blueprint' for a Home Zone and any guidance that can be offered to those designing Zones can never be prescriptive. However, there are clear issues for disabled people relating to the manner in which likely or preferred uses for different spaces within a Zone can be identified, and how their safety when using the Zone can be ensured.

Therefore, whilst the concept of a Home Zone is one of a shared area that incorporates little or no use of hard physical features to delineate space, users clearly prefer that the areas that represent the most likely routes to be used or followed by vehicles, pedestrians and cyclists are clearly identifiable, unambiguous, and, to some degree, offer a level of protection.

Understanding such issues and paying careful attention to the design, layout and management of features used within a Zone can go some way to addressing the concerns of disabled people. The data gathered in this study from a representative sample of site tests, focus groups and user questionnaires has contributed to our understanding of these issues. It has also identified how a generic approach to the provision of design features within a Home Zone can assist in making decisions and selections that will improve the quality of life for everyone.

Key Findings and Guidance

This project has identified several key areas that affect the use of Home Zones by disabled people, and the extent to which they feel comfortable and safe when doing so.

These can be summarised as follows:

- **Home Zones and similar shared areas can pose problems for disabled people. In general, disabled people prefer to have the option of using a complementary delineated pedestrian area that is clearly defined and unambiguous (7.1.1.4 and 7.1.1.5);**

- **Orientation is aided where there is a continuous building line or where there is a readily identifiable pedestrian pathway or route (7.1.3.4);**

- **Identifying the proposed uses of areas or routes to be used or followed by vehicles and pedestrians can be done by -**

    - **delineating space and activity at surface level (using, for example, visual contrast - although this will not be of benefit blind people with no remaining vision);**
    - **physical features at ground level (using, for example, tactile surface finishes);**
    - **intermittent physical features above surface level (using, for example, bollards, trees, individual planters, lampposts, and individual seats); or,**
    - **continuous physical features above surface level (using, for example, long planters, rows of seating and railings)**

    (7.1.1.4 and 7.1.2.4);

- **Any method used to delineate space should not unduly restrict the general freedom of movement of pedestrians (7.1.2.4);**

- **Whilst clearly identifiable pedestrian pathways benefit disabled people, attention is also needed to the siting and provision of appropriate crossing points or routes (7.1.4.4 and 7.2.7.5);**

- **The provision for disabled people to cross the paths of vehicles or to identify the preferred uses of different areas should be clearly identifiable and unambiguous for drivers, disabled pedestrians and cyclists (7.1.2.4 and 7.1.5.3);**

- **Pedestrians are more positive about using a Home Zone if it has identifiable pedestrian pathways and the speed of vehicles is kept below 20mph to aid detection (7.2.2.4, 7.2.3.5, 7.2.5.4 and 7.2.8.4);**

- **Freedom of movement is a positive factor within a Home Zone. However, safety and security are also important factors to be considered;**

- **Gateways to a Home Zone should be readily identifiable to all users. This can be done by the appropriate provision and positioning of signs,**

and by a tactile indicator incorporating the use of differing surface finishes (7.1.6.4);

- At gateways, care should always be taken that the design and extent of any tactile surfaces do not impede access and egress to the Zone by people using mobility aids. (7.1.6.4);

- The position of areas allocated for parking and the vehicle routes to those areas should be identifiable and predictable (7.1.7.5);

- Informing residents, motorists, cyclists and the wider community of what a Home Zone is and how it should be used will have an important and beneficial effect on how it is used (7.2.8.4, 7.2.9.4, and 7.10.5);

- Street furniture can be used to assist in identifying the preferred use of areas, provide protection, and influence the movement and flow of vehicles, pedestrians and cyclists (7.1.8.4);

- It is important that street furniture is only provided where it is necessary and it should always act as an integral part of the overall design (7.1.8.4);

- The potential for street furniture to present a tripping or collision hazard will be lessened if it:

    - is logically placed;
    - extends at least one metre above surface level;
    - is positioned such that any horizontal elements do not project into circulation routes (i.e. the horizontal section of a seat);
    - has its position identified by surface level visual contrast or a tactile area.
    - contrasts visually against the background against which it will be viewed in both natural day-light and artificially-lit situations (7.1.2.4 and 7.1.8.4);

- Good lighting is essential to enhance a feeling of personal safety, to identify routes and obstacles, and to gather information (for example, from signs and visual contrast) (7.1.10.4);

- Lighting should not cause undue or confusing shadows and be positioned to deliver a uniform distribution of lighting within the Zone (7.1.10.2);

- The recommended standard maintained illuminance within a Zone should be between 20 and 50 lux (7.1.10.4);

- **The selection of light sources (bulbs and lamps), should consider their effect (for example, colour rendering performance) on the visual contrast selected to identify features within the Zone. Management practices should be in place to ensure that lighting is appropriately maintained (7.1.2.5 and 7.1.10.3);**

- **Surface finishes should be smooth, level, and slip resistant in all weather conditions. Surfaces should always be appropriately managed to reduce seasonal hazards, such as ice and leaves (7.1.9.5);**

- **Surface gradients should be kept to a minimum but should always be designed to prevent standing water. Adverse cambers should be avoided (7.1.12.4);**

- **Drainage features should be located away from main pedestrian routes and any drainage covers and gratings used should have a maximum size of openings of 13mm (7.1.12.4);**

- **Obstructions overhanging circulation routes caused by projecting features such as seating, signs, trees and other vegetation etc, should be avoided. Where unavoidable, the obstruction should be protected with a barrier at low level and clearly identified using visual contrast (7.1.11.5);**

- **Overhanging trees and shrubs should not extend below 2.1m above surface level (7.1.11.5).**

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