Michael Slattery Associates
Fire Safety Engineers

The Arboury, Belgard Road, Tallaght

Outline Access & Use Strategy©

Project Number > 20367
Reference > 20367R002c

For Landmarque Belgard Development Company Ltd.

Michael Slattery Associates
19 Windsor Place
Lower Pembroke Street
Dublin 2
t: +353 (0)1 6765713
f: +353 (0)1 6785274

The Arboury, Belgard Road

20367

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Initials: MS: Michael Slattery, BF: Brendan Finlay, GH: Graeme Hansell, MG: Mark Gavin, TS: Tony Slattery, DS: David Slattery, MQ: Michael Quinn, MJG: Michael Green, NMG: Niall McGuinness, NM Nicola Meadows, DF Darren Faulkner, KS Kate Solarz-Sadowy, CMN Conor McNulty, MR Michael Reilly, RM Ross Mckenna

Author Details: Michael Slattery, email: mslattery@msa.ie.

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/1 INTRODUCTION

1.1 SCOPE OF REPORT

This report is being submitted with drawings and other documentation in support of an application for a Disability Access Certificate under Part IIIB of the Building Control Regulations 1997-2020 for Residential Blocks located at the former ABB Site, Belgard Road, Tallaght, Dublin 24 on behalf of Landmarque Belgard Development Company Ltd.

In this report, it is demonstrated that the proposed works, if constructed in accordance with the drawings and design details submitted with this application, together with the performance requirements prescribed in this report, will comply with the requirements of Part M 2010 of the Building Regulations as described below;

Part M of the Second Schedule to the Building regulations requires:		
Access and Use	M1	Adequate provision shall be made for people to access and use a building, its facilities and its environs.
Application of the Part:	M2	Adequate provision shall be made for people to approach and access an extension to a building
	M3	If sanitary facilities are provided to a building that is to be extended, adequate sanitary facilities shall be provided for people within the extension.
	M4	Part M does not apply to works in connection with extensions to and the material alterations of existing dwellings, provided that such works do not create a new dwelling

It is noted that in accordance with Article 20D (DAC) of the Building Control Regulations 1997-2020 only a certificate of compliance with respect to the requirements under Part M of the Second Schedule of the Building Regulations shall be required in respect of all works or a building to which the regulations apply.

This Disability Access Certificate application (as denoted on plans and within this Report accompanying the application) - is limited to area described.

This report is a performance specification to show compliance with Part M and the information contained within it will be incorporated in the specification for construction. This report should not be used as a standalone specification for works.

1.2 KEY PROJECT AND APPLICANT DETAILS

Table 1: Applicant details

Applicant Details:	
Applicant	Landmarque Belgard Development Company Ltd
Architect	C+W O'Brien Architects
Description	The construction of a mixed-use residential development set out in 3 No. blocks above a podium, ranging in height from 2 to 13 storeys over basement
Site Name and Location	Arboury Road, Belgard Road, Tallaght, Dublin 24, D24 KD78
Classification	Residential Apartments
Existing Use	Demolition of former ABB buildings
Proposed Use	Residential building with Commercial Units

Table 2: Relevant Application Details

Relevant Building Details:	
Site Area	See application form
No. of Basement Storeys	1
No. of floors above ground level	13
Floor Area of Building	See application form
Existing (Retained)	N/A
New	All
Floor area of entrance level	See application form
Floor area of Extension	N/A
Floor area of Material Alteration	N/A
Planning Permission Ref. No.	S99A/0453 & S01A/0509 are alterations to the existing building. No Planning Ref for proposed scheme yet
Fire Safety Certificate Ref. No.	No FSC for proposed scheme yet.
Access and Use Certificate (Disability Access Certificate) Ref. No.	This is the first application.

1.3 SITE LOCATION

The Arboury, (Former ABB Site), Belgard Road, Tallaght, Dublin 24, D24 KD78.

1.4 OUTLINE DESCRIPTION OF THE DEVELOPMENT

The site of c.0.898 ha is located at the former ABB Site, Belgard Road, Tallaght, Dublin 24, D24 KD78. The site is bound by Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.

The proposed development will consist of:

1. Demolition of all existing structures on site (with a combined gross floor area of c. 3625 sqm)
2. The construction of a mixed-use residential development set out in 3 No. blocks including a podium over a basement, ranging in height from 2 to 13 storeys (with core access above to roof terrace), comprising:
    - 334 no. residential units of which 118 No. will be Build to Rent (BTR) residential units, with associated amenities and facilities across the development,
    - 4 No. retail/café/restaurant units and 3 no. commercial spaces associated with the 3 no. live-work units (723 sqm combined),
    - Childcare facility (144 sq.m.),
    - 670 No. bicycle parking spaces including 186 visitor spaces; 117 car parking spaces (including 6 disabled spaces) are provided at ground floor and basement level.
    - The overall development has a Gross Floor Area of 29,784 sq.m.
    - Two (2) podium residential courtyards and three (3) public accessible pocket parks, two (2) to the North & one (1) to the South.
    - Linear Park (as a provision of the Tallaght Town Centre LAP) providing safe public pedestrian and cycling access between Belgard Rd and Belgard Square East
3. Of the total 334 residential units proposed, unit types comprise:

Block A (Build-to-Rent)	Blocks B & C
• 91 no. 1 bed units • 1 no. 2 bed 3 person units • 26 no. 2 bed 4 person units	• 2 no. live-work studio units • 102 no. 1-bed units • 12 no. 2-bed 3 person units • 88 no. 2-bed 4 person units including 5 no. duplex units • 1 no. 2-bed 4 person live-work unit • 11 no. 3-bed units

4. All associated works, plant, services, utilities, PV panels and site hoarding during construction.

1.5 SCHEDULE OF DRAWINGS

Table 4: Schedule of Drawings

Drawing Title	Number	Prepared by[1]
Site Location Map	Refer to CWOB schedule of drawings	CWOB
Site Plan	"	CWOB
Basement Floor Plan	"	CWOB
Ground Floor Plan	"	CWOB
First Floor Plan	"	CWOB
Second Floor Plan	"	CWOB
Third Floor Plan	"	CWOB
Fourth Floor Plan	"	CWOB
Fifth Floor Plan	"	CWOB
Sixth Floor Plan	"	CWOB
Seventh Floor Plan	"	CWOB
Eight Floor Plan	"	CWOB
Ninth Floor Plan	"	CWOB
Tenth Floor Plan	"	CWOB
Eleventh Floor Plan	"	CWOB
Twelveth Floor Plan	"	CWOB
Elevations	"	CWOB
Sections	"	CWOB

1. *C+W O'Brien, 1 Sarsfield Quay, Arbour Hill, Dublin 7*

It is to be noted that the objectives of the performance standards as set out in this Report are to satisfy the functional outcomes of the Building Regulations, which are concerned with health, safety and welfare of persons in and about the proposed building; and to the special needs of disabled persons in relation to buildings.

Additional measures, as may be recommended beyond the scope of the mandatory regulation requirements of Part M are viewed to be a specific Client focused matter.

/2 REQUIREMENT M1: ACCESS & USE - COMMON AREAS

2.1 BASIS FOR COMPLIANCE

The relevant recommendations in the following design guidance:

Location	Design Basis [1]
Common Areas	Relevant recommendations of Section 1 "Access and Use of buildings other than dwellings" in Technical Guidance Document Part M 2010 - Access and Use

Note:

1. *Where practical and appropriate reference will be given to BS8300:2009+A1:2010 Design of buildings and their approaches to meet the needs of disabled people – Code of Practice*

2.2 SITE ACCESS POINTS

The site is bound by Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south. An additional pedestrian road is provided on the south.

The new Residential Blocks A, B & C will be accessed directly by pedestrians from public footpaths on the three roads mentioned above and from the new southern pedestrian route.

Access for vehicles will be provided via a vehicular entrance to an internal car-park, located at ground/access level, which will be accessed from Belgard Square East (West side of the development)

Setting down areas will be provided as indicated on the accompanying Site Plan. (Under review).

A total of 117 car parking space are provided including 6 disabled parking spaces. These are located under a podium which provides added security and enhances the landscape.

A total of 670 bicycle parking spaces, including 186 visitor spaces, are provided within the development for the residents.

Dedicated residents bicycle parking spaces are covered and secure as required by the Sustainable Urban Housing - Design Standards for New Apartments (Dec 2020), with the remaining bicycle parking integrated within the landscape strategy for use by visitors to the development.

2.3 APPROACH TO THE BUILDING

The new Blocks A, B & C will be accessed from core entrances from footpaths on Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west, with additional entrances to the cores from the internal car-park at ground floor/access level. The new pedestrian route at the south will provide access to Core B2 & C2.

The proposed primary residential access points for the development have been positioned to the north east, north and north west of the site. This allows for connectivity to the town centre, bus stops and the Tallaght Luas stop.

A creche will be accessed from the southern pedestrian route.

Commercial units will be accessed from Belgard Square East.

The Residential Amenities area which will include a gym, games room, Café, lounge and bookable space will be accessed from Belgard Square North.

All new entrances at access level (Other than service/plant/maintenance area) will be designed to be accessible in accordance with Section 1 of TGD(M)2010.

“Egress only” fire escape doors shall not be designed for access inwards in accordance with Part M, but will be provided with a level exit route and an effective clear width on the exit door in accordance with Table 2 of TGD(M)2010.

Independent units will be accessed from the Belgard road pedestrian footpath and the southern pedestrian area.

2.4 ACCESS ROUTES

2.4.1 Access Routes: General

The access route from the accessible roadway access points described above to the main building entrances is provided with accessible footpaths within the site, which shall be in compliance with the recommendations in TGD M, in that:

a) There are no projecting features to present hazards along the aforementioned access routes.

b) The headroom along all access routes is in excess of 2100mm.

c) The access routes are free of street furniture, signposts, bins, seats etc. Bollard will be at least 1000mm high and bollards linked with chains have been avoided.

d) There are no drainage gratings, dished channels or drainage channels within any of the designated access routes leading to the building. Where this is not possible they should be flush with the surrounding surface;

e) Where possible, pedestrian routes have been separated from vehicular routes.

f) Where these do cross over, tactile paving and dropped kerbs have been employed.

g) The access routes are clearly identifiable and well-lit.

h) The surfaces of the access routes are firm, smooth and durable.

i) the surface should be slip resistant, especially when wet and the PTV’s (slip ratings) shall be in compliance with BS 8300-1:2018.

j) the frictional characteristics of the surface materials used along the access route should be similar to prevent tripping and falling at interfaces between different materials.

Note: any doors access or egress doors that open into the external access routes to accessible entrances should be provided with hazard protection as per Diagram 1 and 2 of TGDM.

2.4.2 Level Access Routes to the external areas

In addition to the guidance noted at Section 2.4.1 above, level access routes will comply with the guidance given in Sections 1.1.3.2 of TGD-M 2010 in that the access routes shall be a minimum of 1800mm wide as shown on the accompanying Site Plan drawing.

Further pinch points which might arise from the detailed construction plans will be designed in compliance with Section 1 of TGD(M)2010 using further guidance from BS8300-1:2018 (eg. bins/ trees/ bollards) where necessary.

2.4.3 Gently Sloped Access Routes (i.e. gradient between 1:20 and 1:50)

Gently sloped access routes are not currently proposed, but should gradients in excess of 1:50 arise during the further development of the construction drawings and details, in addition to the guidance noted at Section 2.4.1 above, level access routes will comply with the guidance given in Sections 1.1.3.3 of TGD-M 2010 in that the access routes shall be a minimum of 1800mm wide and shall be designed as follows.

(a) where the gradient or part of the gradient is steeper than 1:50 and less steep than 1:20, level landings should be provided at each rise of 500 mm;

(b) a landing should be provided at the top and bottom of the slope. The top and bottom landings should be at least 1800 mm wide and 1800mm long and be clear of any door swings or other obstructions;

(c) intermediate landings should be at least 1500 mm long and clear of any door wings or other obstructions. Intermediate landings should be at least 1800 mm wide and 1800mm long to act as passing places when it is not possible for a wheelchair user to see from one end of the slope to the other or the slope has three flights or more;

(d) the landings should be level. A level landing is considered to include gradients of 1:50 or less steep.

2.4.4 Ramped Access Routes

None proposed.

2.4.5 Stepped Access Routes

The stepped access route to the podium will be designed in accordance with 1.1.3.5 of TGD(M)2010.

2.4.6 On-site Car parking

The building will be provided with designated accessible car parking spaces at the ground floor level/ access level car-park (Beneath the podium).

Car-parking will be designed in accordance with 1.1.5 of TGD(M)2010.

Note: 2600mm clear head-height to be confirmed, can be achieved throughout the car-park route, entrance and designated spaces at surface level car-parking only.

2.4.7 Pedestrian Crossings

No external pedestrian crossings are proposed.

The vehicular entrance will be designed in accordance with “Good Practice Guidelines on Accessibility of Streetscapes”.

Note: To be confirmed if this will be the case, or if the Planning Authority wish to provide a pedestrian footpath across the vehicular entrance.

2.4.8 On-Site Setting Down Areas

Setting down areas will be provided as indicated on the Site Plan. The setting down area will be in accordance with the guidance provided within Section 1.1.6 of TGD(M)2010.

- Signage will be provided to identify the setting-down point from the vehicular approach.
- It is located on firm level ground and does not form an obstruction to through traffic.
- The surface of the access route alongside the setting-down area is level with the carriageway where passengers alight from the vehicles.

2.5 ACCESS TO THE BUILDING

2.5.1 Accessible Entrances to Common Areas

The main entrances at ground/access level will be designed as accessible entrances in accordance with the following guidance as listed in TGD M:2010:

a) The accessible entrances shall be easily identifiable among the other elements of the building under all lighting conditions, shadows or strong sunlight e.g. by lighting and/or visual contrast. Glare and reflection from lighting or materials shall be avoided.

b) A level landing of at least 1800mm x 1800mm clear of any door or gate swing shall be provided immediately in front of the entrance.

c) The surface of the landing shall not impede the movement of wheelchairs or other mobility aids.

d) The threshold shall be level, i.e. with a maximum threshold height of 15mm with exposed edges chamfered or pencil rounded.

e) Any door entry system shall be accessible to people with a wide range of abilities. Particular attention shall be paid to the needs of people with hearing, vision, speech or mobility impairment including wheelchair users.

f) Any structural supports at entrances shall not present a hazard for people with vision impairment.

g) Internal floor surfaces adjacent to the threshold shall not impede the movement of wheelchairs or other mobility aids.

h) Changes in floor materials adjacent to thresholds shall not create a potential trip hazard.

i) Where mat wells are provided the surface of the mat shall be level with the surface of the adjacent floor finish and the material shall be firm.

2.5.2 Accessible Entrance Doors in Common Areas

All accessible common doors will be designed to be in accordance with the guidance in 1.2.4 of TGD M referenced as follows.

a) They will have an effective clear width through a single door as set out in Table 2 of TGD M:2010.

- 800mm for a straight on approach

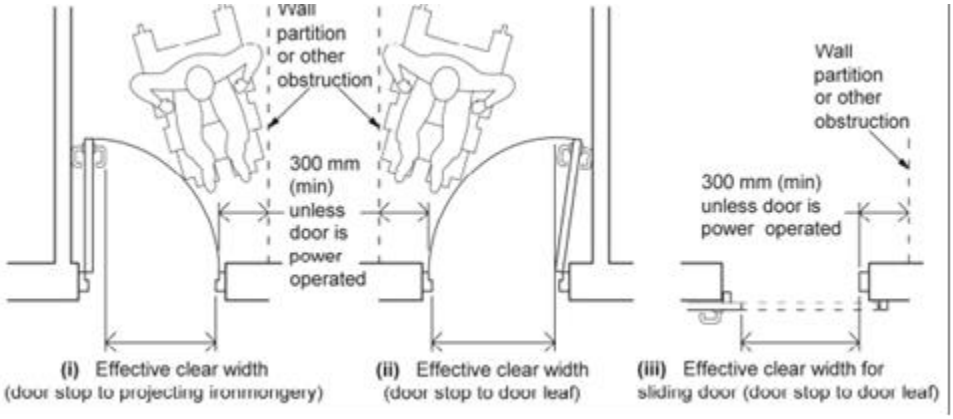
- 800mm for a right angled approach in an access route at least 1500mm wide
- 825mm for a right angled approach in an access route at least 1200mm wide

  In this instance it is noted that the building is not used by the general public and the requirement for a 1000mm opening width in doors to such buildings does not apply.

b) Door handles shall be located at a height of between 800mm and 1050mm (900mm preferred) above finished floor level. Where a pull handle is provided the available grip zone of the pull handle shall be between 700mm to 1000mm above finished floor level. The top end of the pull handle shall be 1300mm (min) above floor level.

c) Entrance and lobby leaves and side panels wider than 450mm shall have vision panels towards the leading edge of the door. The minimum vertical zone of visibility shall be between 500mm and 1500mm from the floor. If a door has multiple viewing panels, the minimum zone of visibility shall not be interrupted by opaque areas that obstruct more than 350mm of the vertical height of the zone.

The effective clear width of a door is measured as shown on the diagram below.



Additional design measures for external accessible doors that are either glazed, manually operated or power-operated are noted in the following sections of this report.

2.5.2.1 Accessible Glass Doors in Common Areas

Should any of the accessible entrance doors noted in 2.3.2 of this report consist of frameless glass or be a fully glazed framed door with a narrow stile the following guidance, as listed in TGD M:2010 shall be followed

a) The doors shall be clearly defined with permanent manifestation on the glass, within two zones, from 850mm to 1000mm and from 1400mm to 1600mm above the floor, contrasting visually with the background seen through the glass in all lighting conditions. The edges of the doors shall also be apparent when the door is open.

b) Where the manifestation takes the form of a logo or sign, it shall be at least 150mm high or at least 50mm high if it takes the form of a decorative feature such as broken lines or continuous bands.

c) If a glass door is adjacent to, or is incorporated within, a fully glazed wall or glazed screen, the door and wall or screen shall be clearly differentiated

from one another, with the door being more prominent e.g. the door may be framed on both sides and on the top by an opaque high-contrast strip at least 25mm wide.

d) The door, where it is capable of being held open, shall be protected by guarding to prevent the leading edge constituting a hazard.

2.5.2.2 Accessible Manual Doors in Common Areas

Where accessible entrance doors are manually operated the following additional recommendations as noted in Section 1.2.4.2 of TGD M will be followed.

a) When measured from the leading edge of the door, the opening force shall be not more than 30N from 0^o (closed position) to 30^o open, and not more than 22.5N from 30^o to 60^o of the opening cycle.

b) There shall be an unobstructed space of at least 300mm between the leading edge of a single leaf door and a return wall, unless the door is opened by remote automatic control.

c) Where fitted with a latch, the door opening furniture shall be operable with one hand, without the need to grab and twist (i.e. using a closed fist) e.g. a lever handle.

d) All door opening furniture shall contrast visually with the surface of the door to assist those with vision impairment.

2.5.2.3 Accessible Power Operated Doors in Common Areas

Where accessible entrance doors are power-operated the following additional recommendations as noted in Section 1.2.4.3 of TGD M will be followed.

a) Sensors shall be set so that automatically operated doors open early enough and stay open long enough to maintain safe entry and exit. The activation device shall be positioned to detect traffic at a suitable distance, taking account of the width, mass and operating speed of the door. Detection by presence and motion sensing devices shall be incorporated into all power-operated door installations.

b) Manual activation controls shall be located between 750mm and 1000mm above the finished floor level and be operable with a closed fist.

c) Manual activation controls shall contrast visually with the surrounding background so they are readily distinguishable by people with vision impairment.

d) Doors that have a swinging action and open towards the approach should be provided with clearly visible signs to warn people of their automatic operation when both opening and closing.

e) Control systems shall incorporate a safety stop that activates if the doors begin to close when a person is passing through.

f) Control systems shall revert to manual control or fail safe in the open position in the event of a power failure.

g) Doors shall not project into any adjacent access route when open.

2.5.3 Entrance Lobbies in Common Areas

All entrance lobbies will be designed in accordance with the guidance 1.2.5 of TGD M:2010 as noted below:

a) The length and width shall be in accordance with Diagram 11 in TGD M:2010 for single swing doors.

b) Areas of full height glazing, glazed curtain walling or glazed screens surrounding a lobby shall display the manifestations as required for glass doors in 1.2.4.1 of TGD M:2010.

c) The floor surface shall not impede the movement of wheelchairs or other mobility aids.

d) Changes in floor materials shall not create a potential trip hazard

e) Any columns, ducts or similar full height elements that project into the lobbies by more than 100mm shall be protected by a visually contrasting guard rail.

f) The floor surface shall help remove rainwater from shoes and wheelchairs.

g) Where mat wells are provided the surface of the mats shall be level with the surface of the adjacent floor finish and the material shall be firm.

2.6 CIRCULATION WITHIN THE COMMON AREAS

2.6.1 Concierge / Reception Area

The reception areas will be designed in accordance with 1.3.3.1 of TGD(M)2010.

2.6.2 Internal Doors in Common Areas

All new internal swing doors, in the common areas of the apartment block that are also areas that are accessible wheelchair users, shall be designed in accordance with the following guidance in section 1.3.3.2 in TGD M:2010.

a) The opening force when measured from the leading edge of the door, will be not more than 30N from 0° (the door in the closed position) to 30° open, and not more than 22.5N from 30° to 60°degrees of the opening cycle. It is noted that any door that may have a requirement to self-close for reasons of fire and smoke control, privacy, or acoustics, will have their closing devices fitted and adjusted so that the opening forces are below the limits set above, consistent with the door functioning as intended. Care will also be taken to ensure that controlled door closing devices allow the door to open to provide the required effective clear width.

b) The minimum effective clear width through a new single leaf door or one leaf of a double leaf door will be either 800mm or 825mm in accordance with the recommendations of Table 2 and Diagram 10 in TGD M:2010. The minimum effective clear width is measured as shown in the diagram below.

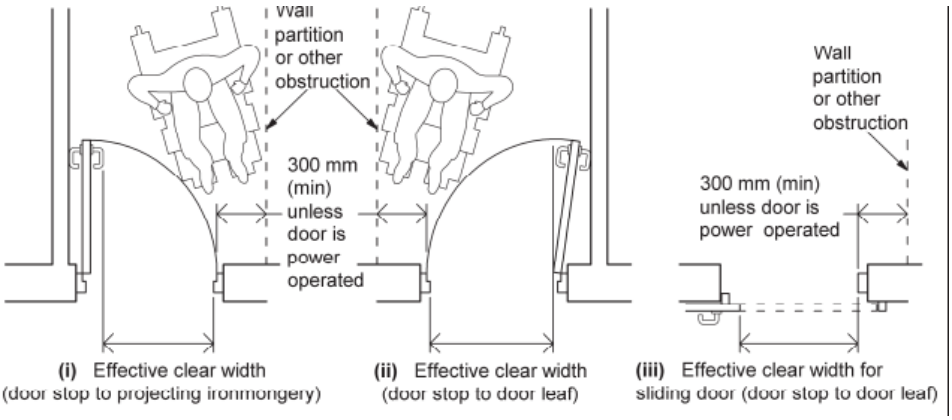


Figure 1: Effective clear width

c) There will be an unobstructed space of at least 300mm on the pull side of the door between the leading edge of the door (when it opens towards you) and a return wall.

d) Door handles will be located at a height of between 800mm and 1050mm above finished floor level. Where a pull handle is provided the available grip zone of the pull handle will be between 700mm (min) to 1000mm (max) above finished floor level. The top end of the pull handle will be 1300mm (min) above finished floor level. Where a door is fitted with a latch, the door opening furniture will be operable with the closed fist of one hand or an elbow e.g. a lever handle.

e) All door opening furniture will contrast visually with the surface of the door. (refer to 1.6.4 of TGD M:2010)

f) The doors, door frames or architrave will contrast visually with the surrounding wall. (refer to 1.6.4 of TGD M:2010)

g) The surface of the leading edge of any door that is not self-closing, or is likely to be held open, will contrast visually with the other door surfaces and its surroundings so it does not create a hazard.

h) Where possible, unless for reasons of security or privacy, any door leaves and side panels wider than 450mm will have vision panels towards the leading edge of the door whose vertical dimensions include at least the minimum zone or zones of visibility between 500mm and 1500mm from the floor.

i) Any frameless glass doors or fully glazed framed doors with a narrow stile, will comply with guidance given in Section 1.2.4.1 in TGD M:2010 for glazed doors.

j) Any low energy powered swing door systems shall comply with 1.2.4.4 in TGD M:2010.

It is noted that internal doors relevant to escape routes will be based on guidance given in Technical Guidance Document B (Fire Safety) 2006-2020 and open in the direction of escape if required under TGD-B:2006-2020.

2.6.3 Corridors and Passageways in Common Areas

The corridors and passageways within the common areas of the apartment block as shown on drawings will be designed in accordance with the following recommendations in Section 1.3.3.3 of TGD-M 2010:

a) There will be an unobstructed clear width of at least 1200mm. Elements such as columns and radiators shall not project into this corridor width.

b) The sections of corridor leading to the lifts will be a minimum of 1800mm wide to facilitate passing of two wheelchair users.

c) The floor will be level and slip resistant.

d) Any door opening towards a corridor that is a major access route or an escape route shall be recessed so that when fully open, it does not project into the corridor space except where the doors are minor utility facilities such as small store rooms and locked cupboard doors.

e) There are no doors from unisex WCs opening into the corridors.

f) On a major access route or an escape route, the wider leaf of any series of double doors placed across the route, having leaves of unequal width, shall be on the same side of the corridor throughout the length of the corridor.

g) Any full height glazed screens will be clearly defined with manifestation on the glass at two levels, 850mm to 1000mm and 1400mm to 1600mm contrasting visually with the background seen through the glass in all lighting conditions.

h) Clear unobstructed headroom of 2100mm (except for any door frame) will be provided to prevent people colliding with projecting edges at head height.

i) Corridors and passageways shall be adequately lit. Artificial lighting for corridors and passageways that receive no daylight shall be designed to achieve an illuminance at floor level of at least 100 lux.

j) There are no long corridors (i.e. over 20m) where seating or handrails are provided that would intrude upon the corridor width.

k) Compliance with Figure 8 and Section 9.1.1 BS8300-2:2018, as described in Appendix A under Diagram 12 for “damage protection” (skirtings and architraves) and local obstructions (fire extinguishers), are to be considered accessible for the purposes of this application.

2.6.4 Internal Lobbies in Common Areas

Where lobbies are to be wheelchair accessible they will comply with Section 1.2.5 of TGD M in that:

a) The length and width of lobbies will comply with Diagram 11 of TGD M as shown at Appendix A.

b) The floor surfaces within the lobby will not impede the movement of wheelchairs.

c) Changes in floor materials will not create a trip hazard.

d) The columns which protrude into the lobby by more than 100mm will be protected by a visually contrasting guard rail.

2.6.5 Lifts in Common Areas

Section 1.3.4.1.1 of TGD M: 2010 sets out that passenger lifts should be provided in all multi-storey buildings to serve all storeys (and separated parts as applicable).

Section 1.3.4.2 (i) of TGDM recommends that the minimum internal dimensions of a lift car should be 1100mm wide by 1400mm deep.

It is proposed to provide wheelchair accessible lifts as shown on the floor plans which shall comply with TGD(M)2010 as follows:

a) The lifts shall conform to I.S. EN 81-20; I.S. EN 81-50 and I.S. EN 81-70;

b) They shall be approached via an accessible horizontal circulation route in accordance with Section 1.3;

c) Signs shall be provided to facilitate finding the lift;

d) Lift landing and lift car doors shall contrast visually with the adjoining walls;

e) There shall be a clear unobstructed space for manoeuvring at least 1800mm wide and at least 1800 mm deep in front of every entrance door to the lift(s);

f) Lift car doors shall be power operated horizontal sliding doors;

g) Lift car doors shall have a clear opening width of at least 800 mm;

h) Lift car doors shall be fitted with timing devices and re-opening activators allowing the doors to stay open for at least 8 seconds. In addition a device shall

be provided both within the lift car and on the landing to enable the door to be kept open for longer if necessary;

i) The controls in the lift car shall be positioned at a height of not less than 900 mm, not more than 1200mm above the car floor and at least 500 mm from any return wall;

j) The call buttons at each landing shall be not less than 900 mm and not more than 1100 mm above the landing. Controls are not located in corners and are at least 500mm from any wall or projecting surface.

k) Suitable tactile indicators for floor numbers shall be provided on or adjacent to lift buttons within the lift car and on the landing;

l) The landing call button symbols and control button symbols shall be raised to facilitate tactile reading;

m) All call and control buttons shall contrast visually with the surrounding face plate and similarly, the face plate shall contrast visually with the surface on which it is mounted;

n) The floor of the lifting device shall not be a dark colour.

o) The lifting device floor shall be slip resistant and have frictional qualities similar to or higher than the floor finish of the landing;

p) The lift car and lift lobby provide both visual and auditory warning of the lift cars arrival and the number of the floor level reached prior to the doors opening;

q) A half-length mirror shall be installed.

r) A handrail of contrasting colour with its surroundings shall be provided on at least one wall with its top surface at 900 mm above the floor and located so that it does not obstruct the controls or the mirror. Handrails shall be terminated in such a way that reduces the risk of clothing being caught;

s) A suitable emergency communication system shall be installed. Systems shall be easy to use for example intercom and push button activation and contain inductive couplers.

t) The illumination in the lift car shall minimise glare, reflection, confusing shadows or pools of light and dark.

In the case of places of work, designers should have regard to the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007) which requires testing, examination, certification and regular inspection of lifts. Passenger lifts shall comply with the Lift Directive 95/16/EC.

2.6.5.1 Stairs in Common Areas

An ambulant accessible stairs shall be provided to the north of each block, providing access to at least one ambulant accessible stair to each accessible area.

These stairs will be designed to be suitable for ambulant disabled people and will be in accordance with the following guidance listed in 1.3.4.3 of TGD M:2010

a) the minimum clear width shall be 1200 mm.

b) a landing shall be provided at the top and bottom of each flight;

c) the landings shall be level and have an unobstructed length (clear of any door swing) of at least 1200mm or the width of the flight whichever is greater), where an arc is used to measure these landing dimensions as indicated on the accompanying floor plans.

d) there shall be no single steps;

e) the rise of a flight between landings shall not exceed 1800 mm; [Final stairs sections are under review - This can be changed to 12 risers if required to retain dogleg design (with reference to UK regulations and BS 8300-2:2018)]

f) All step nosings shall incorporate a permanently contrasting continuous material on the tread. The material shall be between 50 mm and 65 mm wide on the tread and should visually contrast with the remainder of the tread;

g) Projecting or overhanging step nosings shall be avoided;

h) The rise and going of each step shall be consistent throughout a flight;

i) The rise of each step shall be between 150 mm and 180 mm and have a going of at least 300 mm;

j) Tapered treads and open risers shall not be used as they create a sense of insecurity for people with vision impairment;

k) There shall be a continuous handrail on each side of flights and landings in accordance with 1.1.3.6 of TGD M: 2010. The minimum unobstructed width between handrails shall be not less than 1000 mm;

l) The surface of the treads shall be slip resistant, especially when wet;

m) The illuminance at tread level shall be at least 100 lux;

n) The stairs will not be directly in line with an access route;

o) Where the area beneath a stairs has a soffit height less than 2100 mm above floor level, it shall be enclosed or guarded to prevent access.

2.6.5.2 Ramps in Common Areas

There are no ramps proposed within the common accessible areas of the proposed building.

2.6.5.3 Handrails in Common Areas

A handrail will be provided on each side of the flights and landings of the ambulant accessible stairways. These handrails will be designed in accordance with the following guidance in 1.1.3.6 of TGD M:2010:

a) The vertical height to the top of the upper handrail from the pitch line of the surface of a flight shall be between 900mm and 1000mm and from the surface of a landing shall be between 900mm and 1100mm;

b) Where there are two or more flights separated by a landing or landings, the handrails shall be continuous across flights and landings, except where broken by side access routes on landings;

c) Where the handrail is not continuous it shall extend at least 300mm beyond the top and bottom risers of a stepped approach, and terminate in a closed end that does not project into the route of the travel. The handrails shall be terminated in such a way that reduces the risk of clothing being caught;

d) The background against which the handrails are seen should contrast visually without being highly reflective;

e) The profile shall be either circular with diameter of between 40mm to 50mm or oval with a width of 50mm as per Diagram 7 in TGD M:2010;

f) The handrails shall not protrude more than 100mm into the surface width of the access route where this would impinge on the stair width requirement of TGD B – Methods of Measurement;

g) There shall be a clearance of at least 50mm to 60mm between the handrail and any adjacent wall surface;

h) There shall be a clearance of at least 50mm between a cranked support and the underside of the handrail. The handrail support shall meet the handrail centrally on its underside;

i) The handrail's inner face shall be located no more than 50mm beyond the surface width of the access route as shown in Diagram 7 in TGD M:2010;

j) Handrail fixings shall be designed to meet the loading recommendations of I.S. EN 1991-1-1:2002.

/3 FACILITIES IN COMMON AREAS- RESIDENTIAL

The relevant recommendations in the following design guidance:

Location	Design Basis[1]
Common areas	Relevant recommendations of Section 1 - Access and Use of buildings other than dwellings (M1) of the Technical Guidance Document Part M 2010 - Access in Use (Building Regulations 2010 - Department of Environment, Heritage & Local Government) *Section 1.4 - Sanitary facilities in buildings other than dwellings*

1. *Where practical and appropriate reference will be been given to BS8300:2009+A1:2010 Design of buildings and their approaches to meet the needs of disabled people – Code of Practice.*

3.1 ACCESSIBLE SANITARY FACILITIES

Accessible sanitary facilities will be provided in the residential amenities area at ground floor level in accordance with Section 1 of TGD(M)2010.

3.2 USE OF FACILITIES IN COMMON AREAS

3.2.1 Audience and Spectator Facilities in Common Areas

None proposed.

3.2.2 Refreshment Facilities in Common Areas

A self-service Café will be provided in accordance with Section 1.5.5 of TGD(M)2010 and Diagram 28.

3.2.3 Accessible Sleeping Accommodation

None proposed. The apartments are designed in accordance with Section 3 (i.e.visitable)

3.2.4 Switches, Outlets & Controls in Common Areas

The design of all new switches, outlets and controls in common areas will be in accordance with the recommendations of paragraph 1.5.7 of TGD-M 2010 as detailed below. *(Note that the following allowances are not intended to apply to switches, outlets and controls which are intended to be used by maintenance personnel only)*

a) Socket outlets will be located between 400mm and 1200mm above the floor, with a preference for the lower end of the range. These height requirements apply only to convenience socket-outlets used for general purposes and do not apply to dedicated socket-outlets not readily accessible and used for appliances that are intended to be continuously connected in normal use.

b) Switches for lighting and permanently wired appliances will be located between 400mm and 1200mm above the floor, unless needed at a higher level for particular appliances. The height requirements will apply to all control devices, except where the manufacturer's instructions specify otherwise.

c) All switches and controls that require precise hand movements will be located between 750-1200mm above the floor.

d) Simple push button controls that require limited dexterity will be used and will not to be located more than 1200 above the floor.

e) Controls that need close vision, e.g. meters or heating controls shall be located between 1200mm and 1400mm above the floor so that readings may be taken by a person sitting or standing (with thermostats at the top of the range). This does not apply to electricity meters or distribution/fuse boards.

f) Pull cords for emergency alarm systems shall be coloured red, located as close to a wall as possible and have two red 50mm diameter bangles one set at 100mm and the other set between 800mm and 1000mm above floor level.

g) Socket outlets shall be located consistently in relation to doorways and room corners, but in any case no nearer than 350mm from room corners.

h) The light switches provided will not be for use by the general public therefore the requirements for large push pads does not apply.

i) The operation of switches, socket outlets and controls shall not require the simultaneous use of both hands except where this mode of operation is necessary for safety reasons

j) Switched socket outlets shall indicate visually whether they are on or off.

k) Mains and circuit isolator switches shall clearly indicate whether they are on or off.

l) Controls shall visually contrast with their backgrounds to facilitate people with vision impairment locating controls.

m) Switches on controls e.g. switched sockets shall be adequately separated to allow selection of one at a time and avoid unintended selection of adjacent switches.

3.3 AIDS TO COMMUNICATIONS IN COMMON AREAS

3.3.1 Signage in Common Areas

External signage will be provided at appropriate locations within Residential complex to aid wayfinding to the entrances of the proposed apartment Blocks. Similarly such signage will be provided in the basement car park for both motorists and pedestrians.

Throughout the common areas of the Residential Development information and directional signs will be included at appropriate locations, e.g. at junctions of circulation routes and key destinations such as the entrance area.

In general the following will apply to all new signage which has been based on guidance from Clause 9.2 of BS8300 and Section 1.6.3 of TGD-M 2010 (amongst other guidance documents such as BS8501 and also the NHS Wayfinding documents);

a) Signs will be clear, short and concise as practicable

b) A sans serif typeface text (sample text names i.e. Frutiger, Franklin Gothic, Helvetica) will be used and also in bold letters (as they provide optimum legibility and contrast and can be read from a distance).

c) Text on signs will not be set entirely in capital letters with a combination of capital and lower case letters to be used as word shape is easier to recognize, making text easier for many people to read.

d) Visual signs will be designed with due consideration given to the height of sign, layout of sign, font size, font type, use of symbols. The colour selected for the text and background of the sign will contrast with the surroundings/environment so they are clearly visible. Directional arrows will be incorporated where appropriate.

e) Where appropriate symbols / pictograms will be incorporated into the sign.

f) All key location information will be visual and in tactile form when low enough to be touched. Tactile signs will be designed using embossed text, symbols and/ or Braille.

g) The International Symbol for Access will be provided, where necessary, on signs to features and facilities that are accessible such as entrances, routes and lifts.

h) Standard symbols in accordance with BS 8501:2002 will be used to indicate the presence of an induction loop or an infrared hearing enhancement system if there is one present within the centre.

i) The position of the signage will not create a hazard within a circulation route.

3.3.2 Colour and Contrast in Common Areas

Good practice shall be followed in the selection of all surface finishes in common areas. The colour scheme to be used throughout the common areas of the building will be such that they assist people with an impairment of vision to safely and independently access and use those areas. Visual contrasts will be located between building elements to define the boundaries of rooms and spaces, to locate facilities and to highlight hazards.

Whilst it is not practical to provide detailed information at this stage, it is noted that the development of the interior design shall comply with the following recommendations in particular.

a) Wall finishes shall be selected so as to contrast visually from the floor as to give a light reflect value (LRV) difference of 30 points, which may be reduced to 20

points for large areas of wall/floors provided the illuminance on the surfaces is not less than 200 lux, in areas required by TGD(M)2010.

b) The selection of finishing colours shall consider the guidance in BS8300:2018-2 in relation to the same.

3.3.3 Lighting

All common areas of the proposed building will be adequately lit. Artificial lighting shall be designed in accordance with the relevant provisions of the CIBSE such that it will give good colour rendering on all surfaces and not give rise to pools of bright light and dark shadows and avoid excessive glare. The minimum level of illumination at specific access and facilities for people with disabilities shall be as follows;

- Internal corridors / circulation routes = 100 lux.
- Surfaces having a LRV difference between 20 and 30 points = 200 lux.

For the public realm, and areas not adjacent to the building entrances, lighting in accordance with BS 8300-1:2018 will be deemed adequate, to reduce glare where necessary.

3.3.4 Audible Aids

Each reception will be provided with an audible aid in accordance with 1.3.3.1 and 1.6.6 of TGD(M)2010.

/4 REQUIREMENT M1 ACCESS & USE: APARTMENTS

4.1 BASIS FOR COMPLIANCE

The relevant recommendations in the following design guidance:

Location	Design Basis [(1)]
Apartments in all Blocks	Relevant recommendations of "*Section 3 Access and Use of Dwellings"* of the Technical Guidance Document M 2010

Note: Where practical and appropriate reference will be given to BS8300-2:2018

4.2 APPROACH TO APARTMENTS

The approach routes to the majority of the apartments are along common routes as described in 2.3 and 2.4 of this report.

Own door apartments/duplexes will be provided access in accordance with Section 3 of the TGD(M)2010.

4.3 ACCESS TO APARTMENTS

The entrance to each apartment will be accessed via shared common areas. Each entrance will be designed to be accessible in accordance with the guidance listed in 3.2.2 of TGD M:2010 as follows

a) There shall be a clear level area at least 1200mm wide and at least 1200mm deep in front of every accessible entrance;

b) The entrance shall be provided with a level entry i.e. with maximum threshold height of 15mm with exposed edges chamfered or pencil rounded;

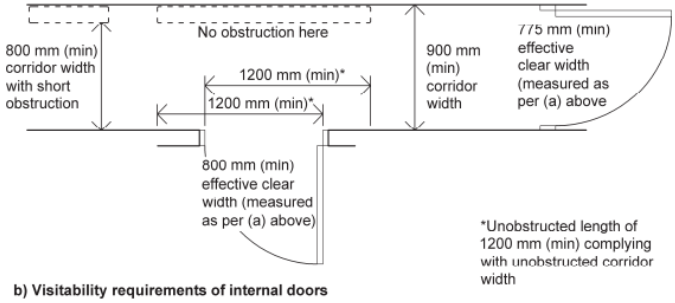
c) The minimum effective clear width of the entrance door shall be 800mm

4.4 CIRCULATION WITHIN APARTMENTS

4.4.1 Horizontal Circulation Within Apartments

Apartments: The single storey apartments within the proposed apartment blocks will be free from stepped changes in level. The corridors, passageways and doors to the habitable rooms shall be designed in accordance with the guidance listed in 3.3.2.1 of TGD M:2010 as listed below.

a) Corridors and passageways shall have a minimum unobstructed width of not less than 900mm. Where localised permanent obstructions occur, the unobstructed width in those areas will be at least 800mm and such obstructions shall not occur opposite a door as shown in the diagram below. (Effective clear width is measured as shown in the diagram in 2.4.2 of this report)



b) Visitability requirements of internal doors

b) The doors to accessible habitable rooms shall have a minimum effective width of 800mm which may be reduced to 775mm where the minimum unobstructed width of the corridor is 1050mm or the door may be approached head on.

c) Saddle boards, where provided, shall be bevelled with a maximum upstand of 10mm.

d) Door handles shall be located at a height of between 800mm and 1200mm above floor level.

4.4.2 Vertical Circulation within Apartments

None proposed. All apartments are single storey, accessed directly from a common area designed in accordance with Section 1 of TGD(M)2010.

4.4.3 Visitable Sanitary Facilities

Each apartment will include a bathroom that will be accessed from a passageway that is in accordance with the guidance in 3.4.1 of this report. The bathroom in each apartment (at the accessible level which is the level with the main sitting room) will accommodate a WC that will be designed in accordance with the guidance in 3.4.2 and Diagram 34 in TGD M:2010. As such the bathroom shall include a clear space of 1200mm x 750mm located such that the bathroom door can be closed when the wheelchair is inside.

The above guidance does not apply to the additional en-suite bathrooms in the apartments.

4.4.4 Switches and Sockets in Apartments

The design and location of switches and sockets in the apartments will be in accordance with the following guidance in 3.5.2 of TGD M:2010

a) Electric light switches in accessible areas shall be located at a height between 900mm to 1200mm above floor level.

b) Equipment adjacent to the entrance intended to assist in gaining entry, e.g. doorbells, entry phones, intercoms, shall be located at a height between 900mm and 1200mm above floor level.

c) Switches and socket outlets for lighting and other equipment in accessible areas shall be located at appropriate heights between 400mm and 1200mm from finished floor level.

The above guidance in relation to sockets are restricted to convenience socket-outlets used for general purposes and does not apply to dedicated socket outlets not readily accessible and used for appliances that are intended to be continuously connected in normal use. The above height requirements apply for all control devices in accessible areas except where the manufacturer's instructions specify otherwise.

Appendix A

Diagrams from TGD M 2010

Common areas

Diagram 1 Avoiding hazards on access routes

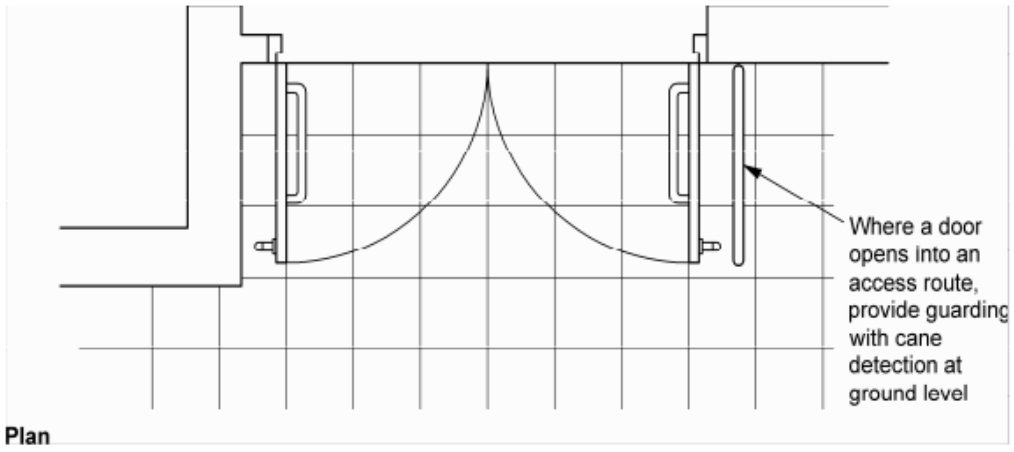


Diagram 1 to be used where doors open outwards to a footpath where they might cause a hazard

Diagram 2 Hazard protection on access routes

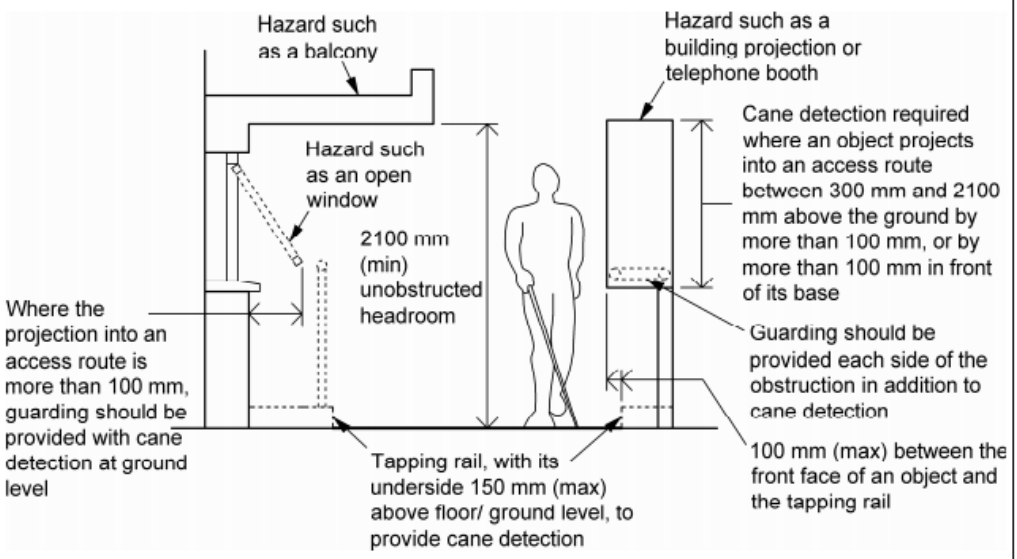
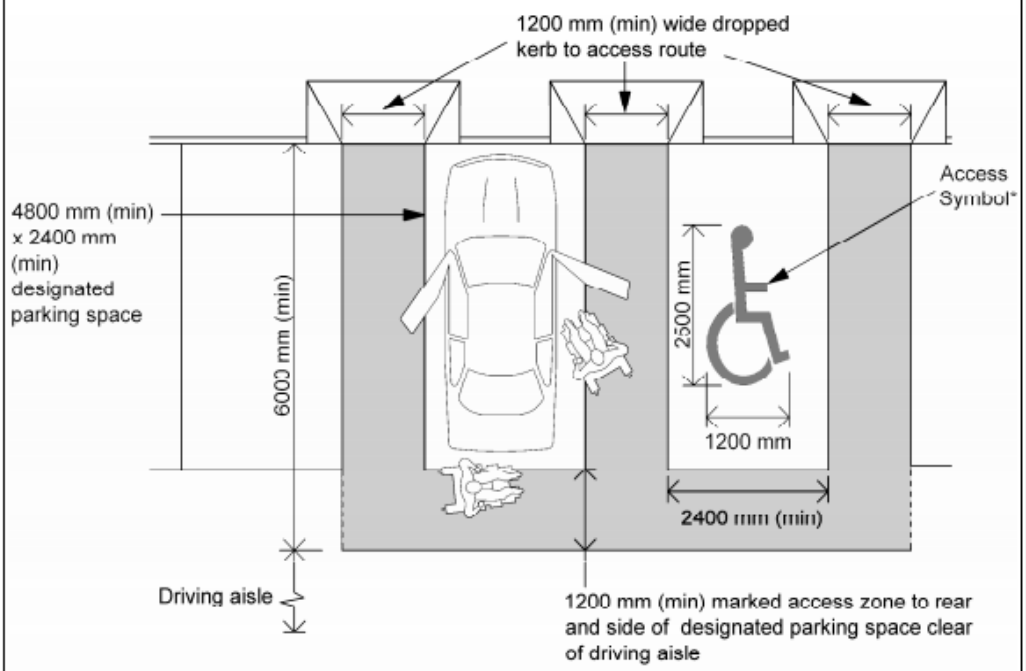


Diagram 2 to be used where any hazards may be present

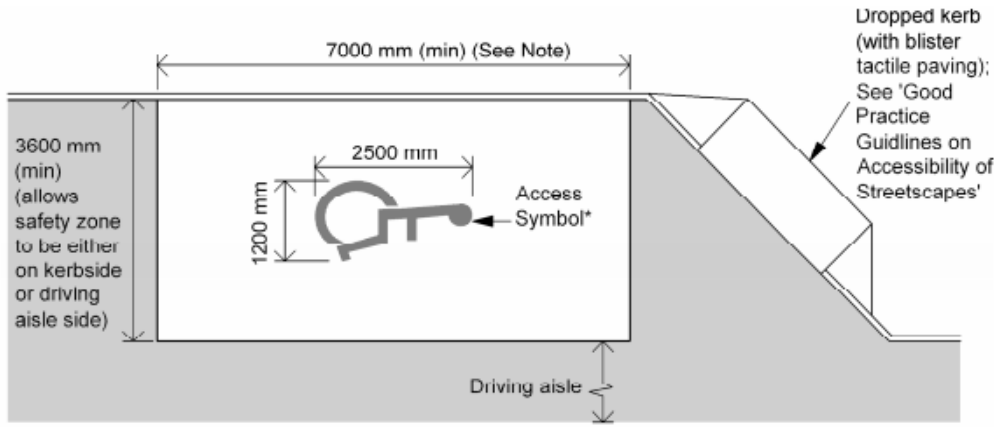
Diagram 8 Access around designated on-site perpendicular parking bay



* Extract from the 'Traffic Signs Manual'

Diagram 8 to be used for all accessible parking spaces

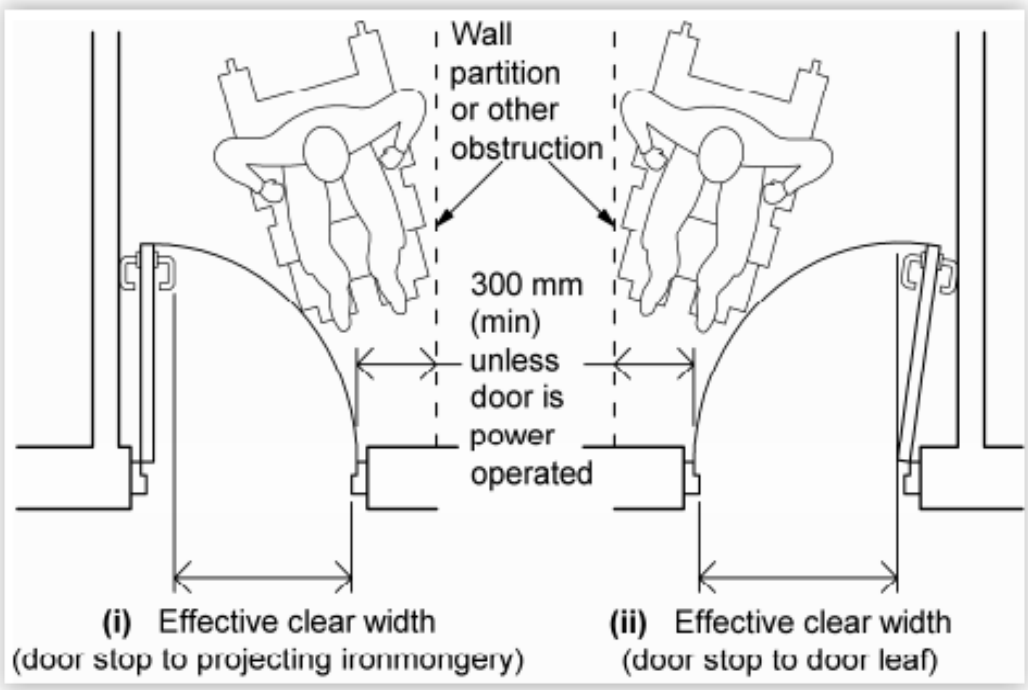
Diagram 9 Example of a designated on-site parallel parking bay



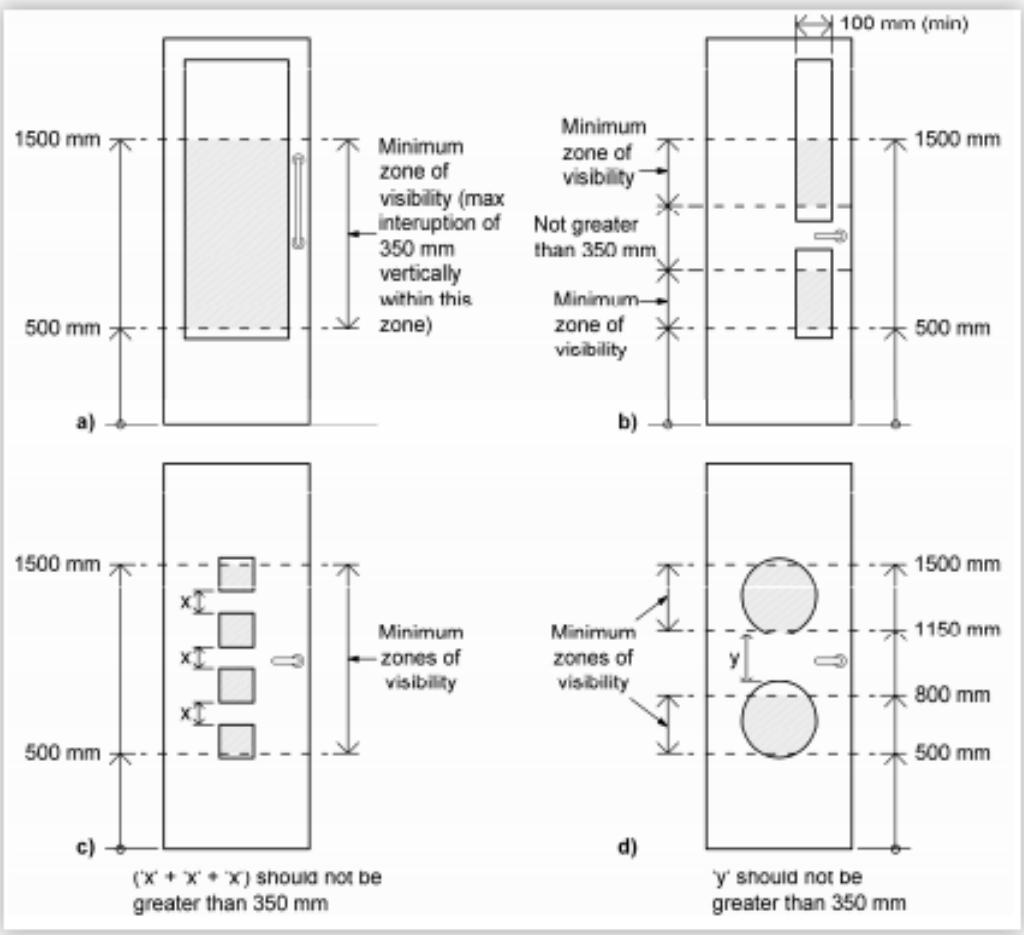
NOTE: Where designated parallel parking bays are provided in series, or in combination with standard parking bays, an additional 2000 mm buffer zone should be provided at the rear of the designated space. The length of the designated parking bay may be reduced to 5800 mm long in this instance.

* Extract from the 'Traffic Signs Manual'

Diagram 9 to be used for all accessible parking spaces, where flush level setting down areas may be incorporated into the wider area.

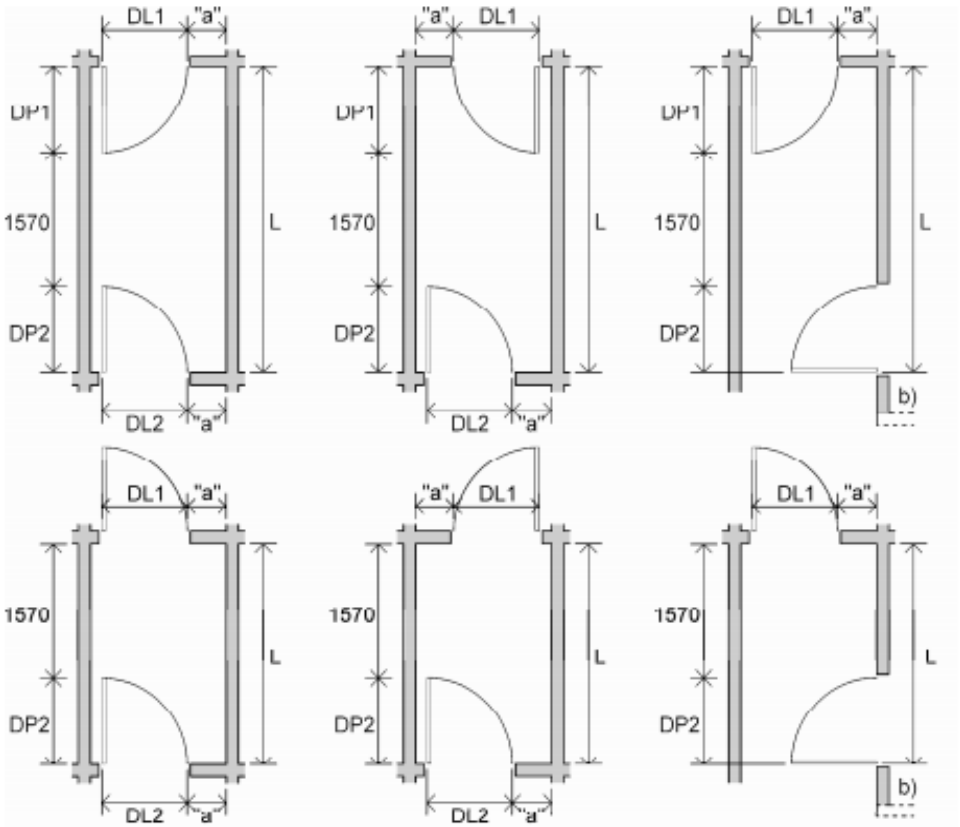


Extract from Diagram 10 above shows the method of measurement used to measure doors.



Extract from Diagram 10 above shows the options for Vision Panels

Diagram 11 Key dimensions for lobbies with single leaf doors



DL1 and DL2 = door leaf dimensions of the doors to the lobby

DP1 and DP2 = door projection into the lobby (normally door leaf size)

L = minimum length of lobby, or length up to door leaf for side entry lobby

"a" = at least 300 mm wheelchair access space (can be increased to reduce L)
1570 mm = length of occupied wheelchair with a companion pushing (or a large scooter).

b) No return wall within 600 mm of the doorway to enable a wheelchair user to manoeuvre into a position straight onto the door.

NB: For every 100 mm increase above 300 mm in the dimension "a" (which gives a greater overlap of the wheelchair footprint over the door swing), there can be a corresponding reduction of 100 mm in the dimension L, up to a maximum of 600 mm reduction.

Lobby dimensions should be clear of any elements that project into the lobby

Diagram 11 above shows the minimum dimensions for lobbies

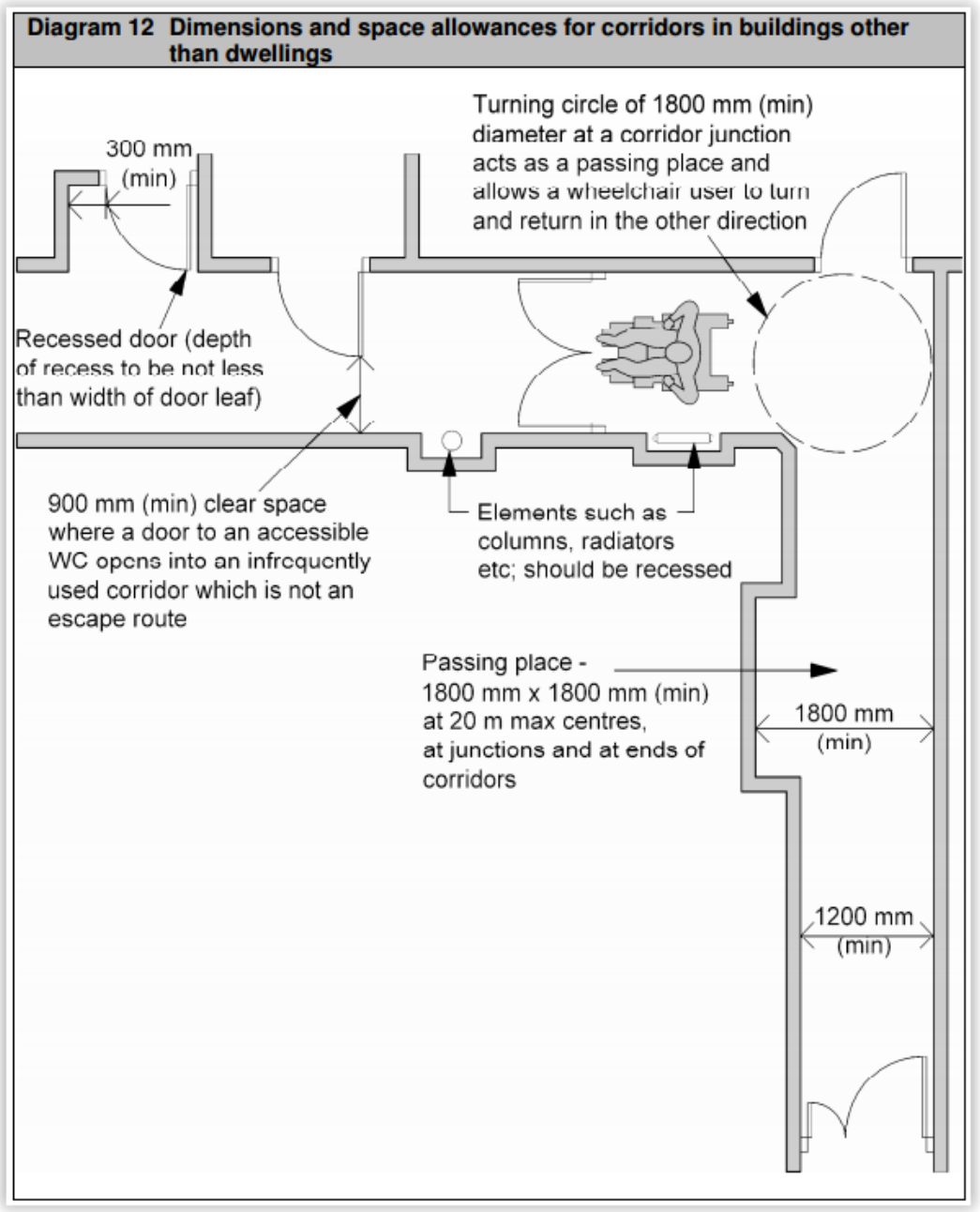


Diagram 12 shows how radiators and obstructions should be recessed from passageways

It is noted that in accordance with BS 8300-2:2018, Section 9.1.1, it is intended that skirtings and shallow architraves provided for "damage protection" to wall edges may be excluded from the surface width of the corridor.

It is noted that in accordance with BS 8300-2:2018, Figure 8, a localised fire extinguisher which does not reduce the corridor width below 1000mm is considered accessible.

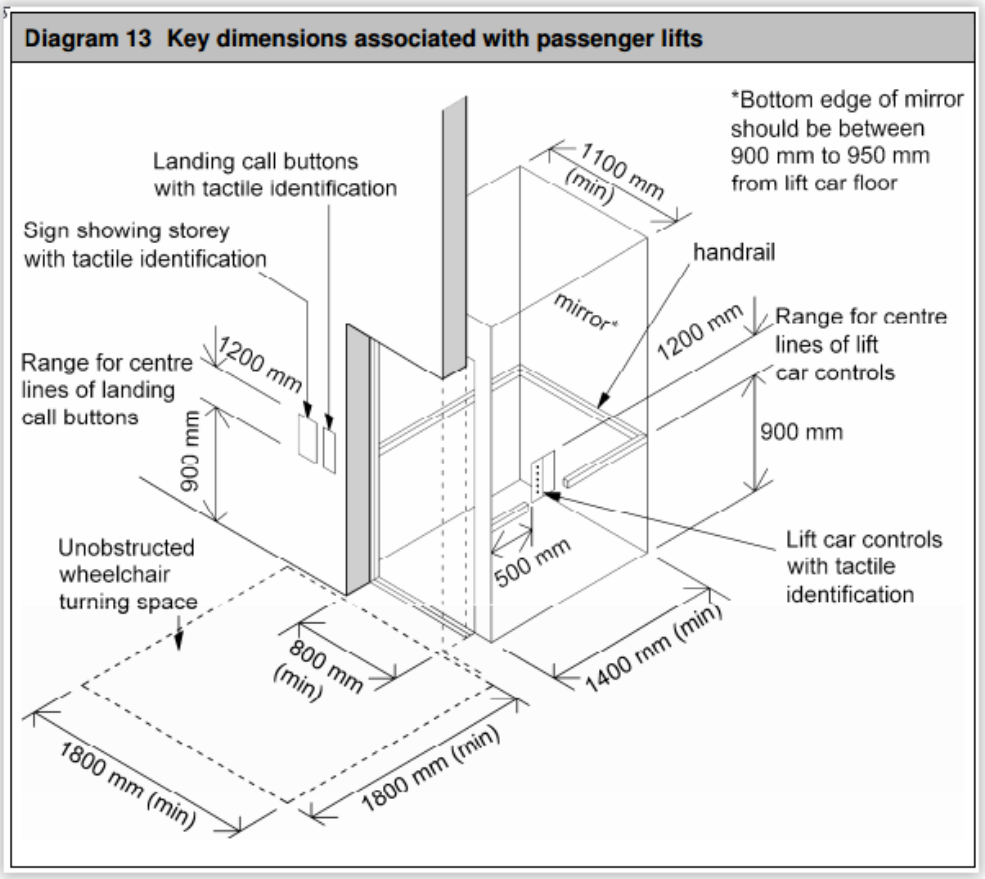


Diagram 13 illustrates the requirements for the accessible wheelchair lift

SITE SPECIFIC NOTES: Every lift in the building shall be designed in accordance with this part.

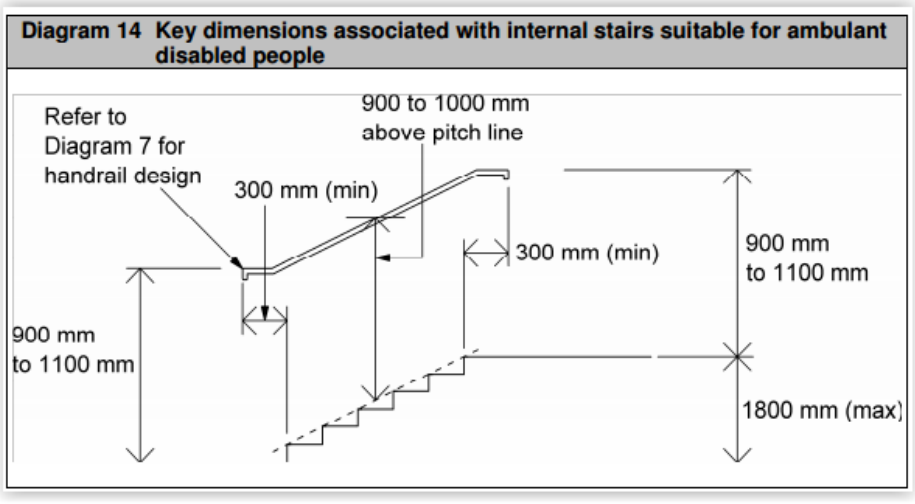


Diagram 14 illustrates the design parameters for the ambulant accessible stairs

SITE SPECIFIC NOTES:

- **Every internal stairs in the upper part of the building shall be designed in accordance with this part. It is noted that the Basement to Ground level stairs are outside the scope of this application. The accessible stairs are clearly indicated on the accompanying drawings.**

Diagram 30 Heights to the centre of socket-outlets, switches and controls

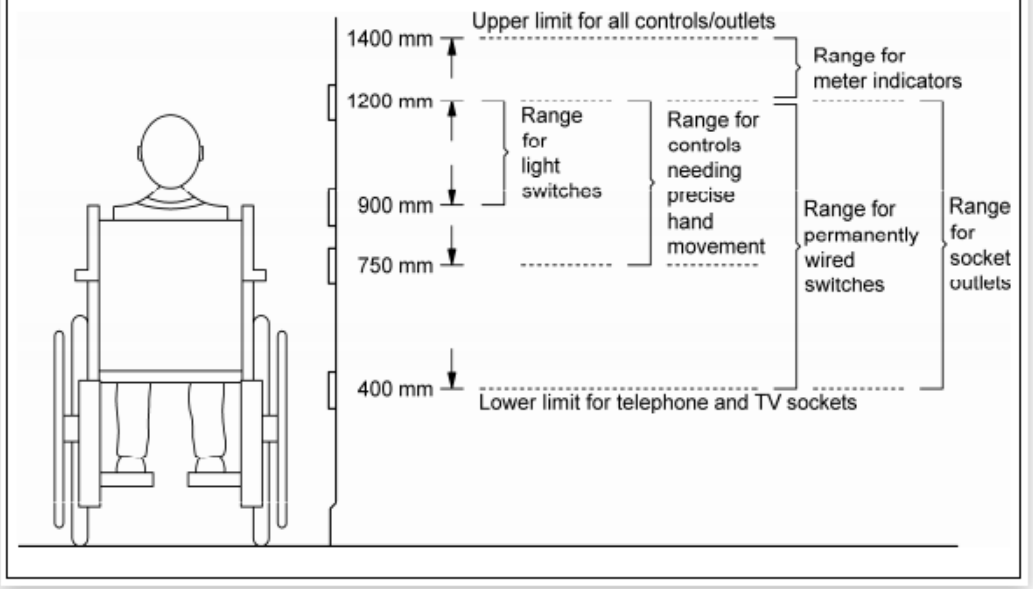


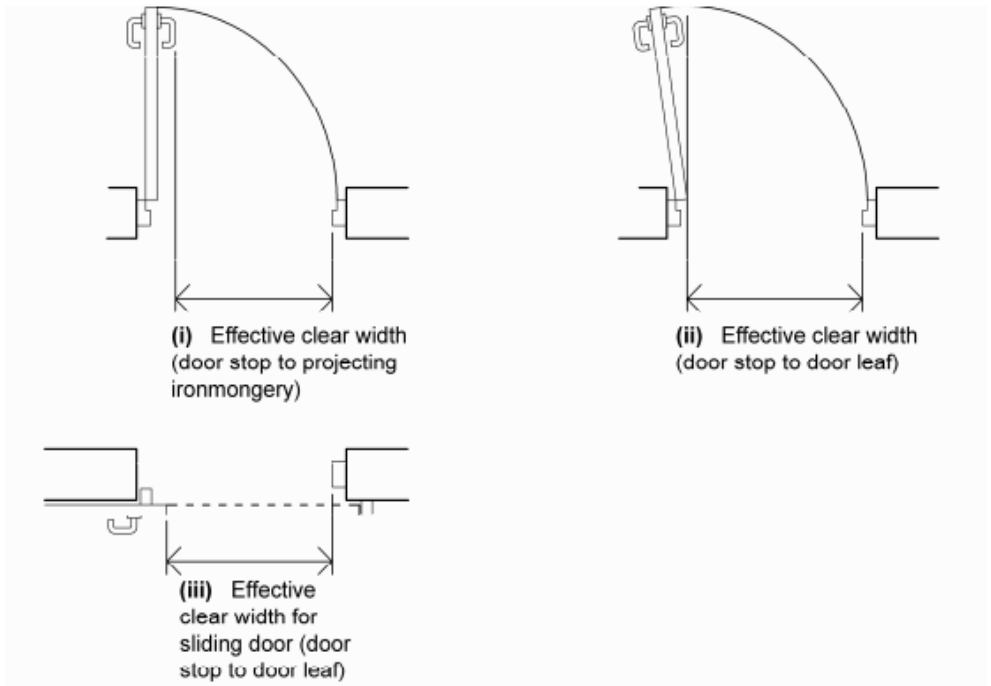
Diagram 30 illustrates the requirements for heights of switches and controls in common areas, excluding any switches, sockets or controls intended exclusively for the use by maintenance personnel.

Appendix B

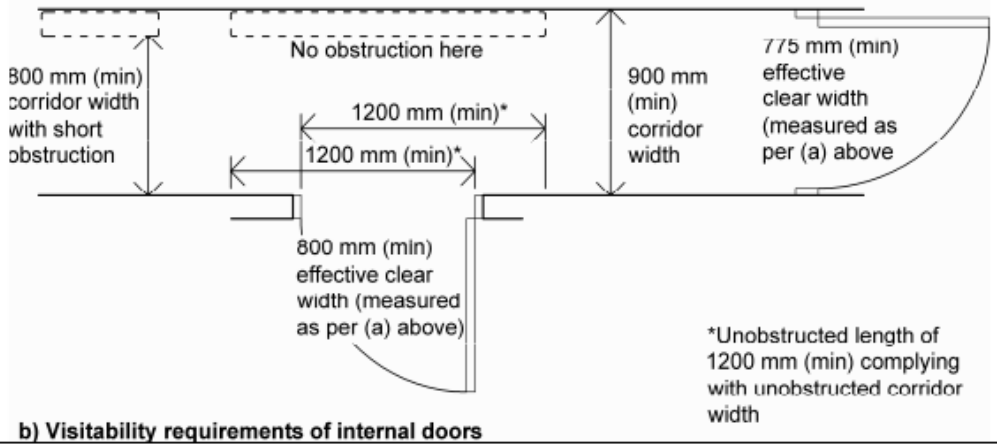
Diagrams from TGD M 2010

Apartment areas

Diagram 33 Corridors, passageways and internal doors to dwellings (showing measurement of effective clear width)



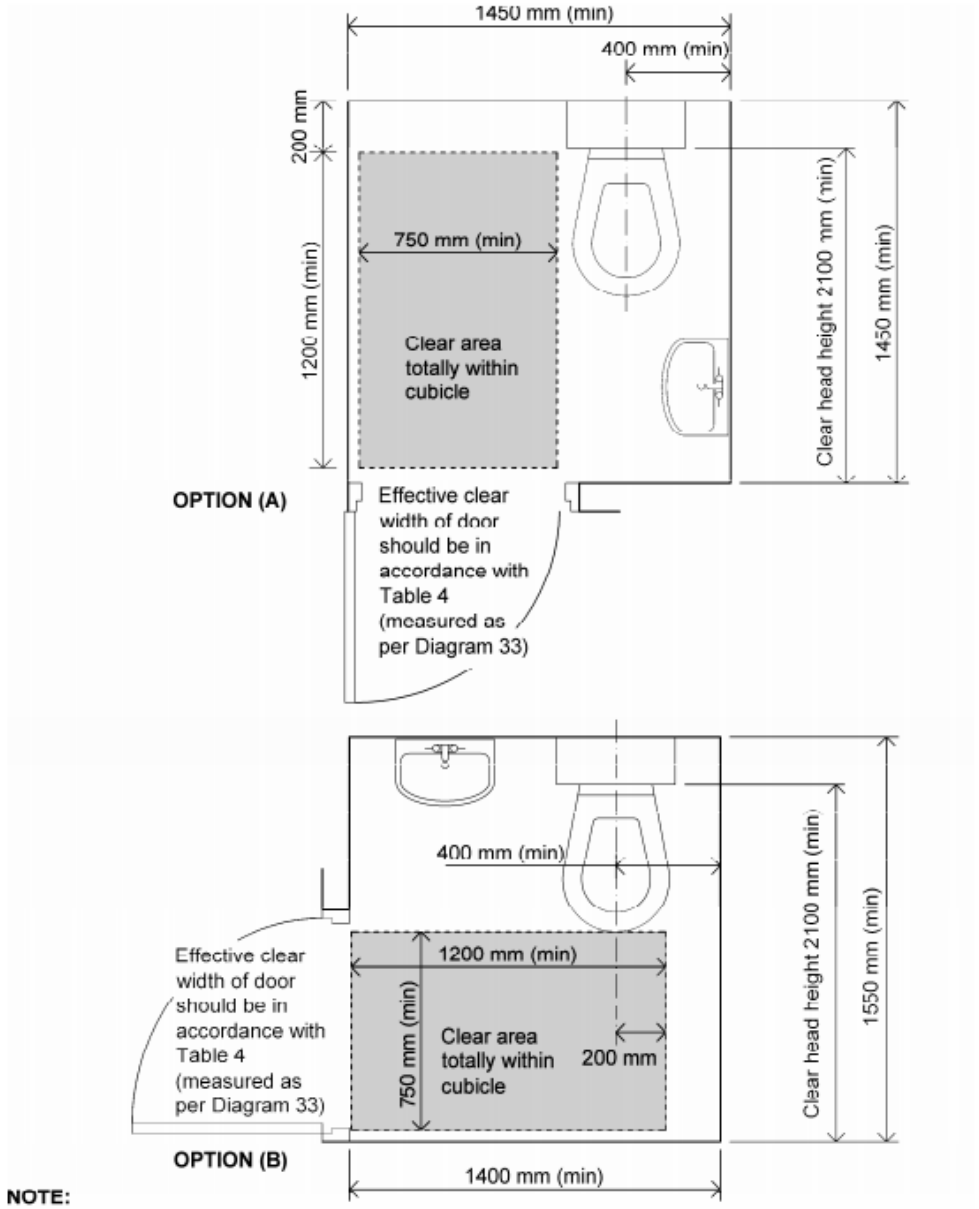
a) Determination of effective clear width through a doorway



b) Visitability requirements of internal doors

Diagram 30 illustrates the requirements for corridors, passageways and internal doors to apartments

Diagram 34 Examples of WC cubicles for visitable housing



NOTE:
Washbasin may be located either within the space containing the WC or in an area adjacent to that space (Refer to Technical Guidance Document G).
The washbasin should be located so as not to impede access.
The overall dimensions should exclude such items as heat emitters, radiators, skirting boards, tiles and boxing in of pipework. Adjustments in room sizes may be needed to accommodate these items.

Diagram 34 illustrates the requirements for the accessible WC's in the apartments

SITE SPECIFIC NOTES: It is noted that where the rectangle is not directly in line with the door as illustrated above, that the bathrooms have been oversized to allow the 750x1200mm rectangular space to twist easily into the spaces which are illustrated on the accompanying DAC drawings. For detail clarity- it is noted that in some rectangles, these may overlap with a sink by 200mm /300mm so long as there is a suitable knee recess zone, in accordance with detail clarifications from Diagram 2.5 of Approved Document M (UK).