



Determination 2013/014

The compliance of a stair to proposed alterations to a cattery at 160 Main North Road, Papanui, Christchurch

1. The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.

1.2 The parties to the determination are:

- E Purdie, the owner of the property (“the applicant”)
- Christchurch City Council, carrying out its duties as a territorial authority or building consent authority (“the authority”).

1.3 The matter to be determined² is whether the proposed stair to the upper level of a cattery will comply with Clause D1 Access routes of the Building Code³ (First Schedule, Building Regulations 1992). The authority is of the opinion that the stair as proposed will not meet the access requirements of the Act and the Building Code.

1.4 In making my decision, I have considered the submissions of the parties and the other evidence in this matter.

1.5 The relevant sections of the Act, clauses of the Building Code, and Acceptable Solutions are set out Appendix. A

1.6 A copy of this determination has been forwarded to the Office for Disability Issues (“the ODI”) at the Ministry of Social Development by way of consultation under section 170 of the Act.

2. The building work

2.1 The building work in question is included in an alteration to an existing single storey veterinary clinic (“the alteration”), which includes the addition of an upper floor that will serve as a boarding cattery. The upper floor, which has an area of approximately 73 m², contains a total of 37 cattery cubicles situated along both side walls of the area, with a 2000mm wide passage between, together with a small kitchen/laundry/store area at one end of the floor. The existing ground floor layout is largely unchanged as a result of the alterations.

¹ The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Ministry are all available at www.dbh.govt.nz or by contacting the Ministry on 0800 242 243.

² Under section 177(1)(a) of the Act

³ In this determination, unless otherwise stated, references are to sections of the Act and references to clauses are references to the Building Code

- 2.2 The proposed access to the upper floor is by means of a U-shaped stair, which is the subject of this determination. The stair, which is 1000mm wide, has a rise of 2924mm and consists of ten treads, two sets of three winders, and a total of 17 risers. The treads are 285mm deep, the risers are 172mm high and the going is 260mm. The stair pitch is 33.5°. It is not clear from information provided whether a handrail was proposed to be installed to just one or to both sides of the stair.
- 2.3 The applicant has advised that there are two cattery cubicles on the ground floor that are accessible to persons unable to use stairs if they wish to view their pets, and that the public will not be admitted to the upper floor level.

3. Background

- 3.1 In late 2012 the applicant applied for a building consent for the alteration. This application was declined by the authority on the grounds that the stair was non-compliant in terms of access for ambulant people with disabilities.
- 3.2 On 7 November 2012, the applicant emailed the authority noting that ‘from a health and safety perspective’ if there was a staff member who had to use a wheelchair they would not be agile enough to catch cats that had escaped from their enclosures or to move away from ‘a stropky patient’, which were regular occurrences. The applicant also referred to two other veterinary practices with two-storey catteries that had been granted building consents without having to provide access for people with ambulatory disabilities to the upper level.
- 3.3 Following discussions with the designer of the alteration, the authority emailed the applicant on 9 November 2012, stating that ‘the NZ Building Code (D1/AS1) (*sic*) requires the stair to be accessible’. The authority noted that it was unable to ‘discriminate against ambulant disabled persons’ and that each consent application was a ‘stand-alone’ situation.
- 3.4 The Ministry received an application for a determination on 11 December 2012.

4. The submissions

4.1 The initial submissions

- 4.1.1 In a covering letter dated 6 December 2012 forwarded with the application, the applicant noted that

The nature of servicing a boarding cattery and daily cleaning of narrow cubicles containing cats is completely unsuitable for wheelchair bound staff to function.

We have two cattery cubicles on the lower floor level if wheelchair bound owners wish to view their pets.

There are two recent consented catteries in veterinary hospitals in Christchurch that have first floor catteries that have not had to provide wheelchair access.

The applicant attached copies of the following:

- Some of the building plans.
- The correspondence with the authority.

- 4.1.2 In an email dated 19 December 2012, the applicant stated that the veterinary staff consisted of two full-time vets and four full-time nurses. In addition, cattery caregivers were employed for a 50% equivalent of a full-time staff member. The

applicant noted that the upper floor will have no access for members of the public. The applicant also provided a copy of the ground floor plan showing areas to which the public would be admitted – these areas included entry, reception, waiting, a retail space, and two consulting rooms.

- 4.1.3 In an email to the Ministry dated 17 December 2012, the authority stated that the new work ‘must comply with section 17 of [the Act] and fully comply with the current Building code.’ The authority had applied the functional requirements of Clause D1.2.1 and the performance criteria of Clauses D1.3.2(b) and (c). As the altered building ‘was subject to section 118’, the authority considered that ‘staff carrying out their normal duties would be frequently using the new stair on what is deemed as accessible route (*sic*)⁴ and therefore requires an accessible stair’. The authority also noted that section 112 ‘could apply if [the applicant was] altering an existing stair, however this is not the case with this consent application.’
- 4.1.4 Copies of a draft determination were issued to the parties and the ODI for comment on 24 January 2013. The applicant accepted the draft without comment. The ODI advised that it wished to make no comment.

4.2 Responses to the draft determination

- 4.2.1 The authority did not accept the draft setting out its position in a submission dated 8 February 2013. In summary the submission stated that:

(With respect to compliance)

- the Appendix to the draft should include other relevant sections of the Act and Building Code including reference to section 17, the requirements for an ‘access route’ and an ‘accessible route’, and references to curved and spiral stairs
- the authority was yet to ‘formally make a decision on whether to grant or refuse the building consent application’
- ‘winders are not included in the design of accessible stairs as they are intended for private and service stairways only.’ ... D1/AS1 [allows] curved stairs with tapered treads when designed in accordance with D1/AS1 fig 17(b)’. The ‘pitch line should be measured at 300mm from the internal diameter of the stairway not the centre. This further reduces the intended tread of 285mm’
- ‘the design as proposed does not establish a uniform tread, due to the inclusion of the curved portions (winders) at an insufficient angle’
- ‘the stair ... does not satisfy ... D1.3.3 or D1.3.4, and therefore [the authority] does not believe the stairs are safe and easily negotiated by persons with disabilities

(With respect to section 112)

- reference was made to previous determinations (2008/004, 2011/093 and 2009/60) that considered section 112, and guidance issued by the Ministry on the repair of existing buildings

⁴ An accessible route is defined as one that can be negotiated unaided by a wheelchair user, refer Appendix. It is agreed that wheelchair access to the upper level is not required in this case, refer paragraph 5.1.2.

- there is ‘no alteration to the existing internal wall layout or construction of the ground floor for the new stairs. The proposal includes the addition of new walls for new offices under the new stairs’
- the discussion on section 112 ‘would only be applicable if the determination was in regard to an existing stair being upgraded and not the construction of new stairs’
- ‘the test for “near as reasonably practicable” only applies to the existing building required to be upgraded and not to the building work which is being carried out’ and ‘the test for “[as] near as reasonably practicable” does not apply to new building work’.

4.2.2 The authority concluded by saying the applicant was entitled to present the stairs as an alternative solution but to do this he was required to:

- confirm the tread uniformity and justification for any reduction in tread depth
- include ‘appropriate handrails’
- ‘justify the reduction/increase in pitch of the stairs’
- verify ‘how the stair edges are to be easily seen’

4.2.3 The applicant responded to the authority’s submission in an email dated 12 February 2013. The applicant said that a second handrail and curved and contrasting stair nosings would be provided, and that with these changes he believed the proposed stairs would meet the requirements of the Building Code. The requirements for a curved stair referred to by the authority could not be applied in this situation.

4.2.4 The applicant described the practical constraints to providing more space for the proposed stair, including the increased area of reduced ceiling height to the office under the stair, and the hazards associated with extending the stair into the existing ground floor corridor. The owner disputed that the proposed work would not meet the intention of the Act with respect to the health and safety of staff.

4.3 My response to the authority’s submission

4.3.1 The authority made submissions in relation to section 112 as it was referred to in the draft determination. It is my view that the proposed stair is clearly an alteration to the existing ground floor layout; and the applicant has outlined the impact of the proposed stair on the existing adjacent spaces. In my view there is no doubt that the stair is a building element to which section 112 applies.

4.3.2 The authority cited previous determinations in support of its position (2008/004⁵, 2009/060⁶ and 2011/093⁷). I do not believe those determination are fully relevant to this situation as, respectively, they considered:

- the application of section 112(1)(b) to existing building elements that were being altered
- the compliance of existing building elements that did not come within the scope of proposed remedial work

⁵ Determination 2008/4 Relocating and re-using safety barriers in the alteration of existing bridges

⁶ Determination 2009/60 Refusal to issue a building consent that incorporates the re-use of existing barriers for a house

⁷ Determination 2011/093 The issuing of a code compliance certificate for a relocated house and associated alterations

- the response to an authority's argument that a fully replaced element to an altered building did not need to comply fully with the Building Code because the original building element also did not comply.

4.3.3 I also note the following:

- The proposed Level 1 is new building work that, as an alteration, must comply fully with the requirements of the Building Code. The new Level 1 is required to meet the relevant provisions of the Building Code, for example E2 External Moisture and B1 Structure.
- In addition to assessing the compliance of the Level 1 alteration in relation to the matter in dispute, section 112(1)(a) requires an authority to consider whether the building as a whole complies 'as nearly as is reasonably practicable' in respect of access and facilities for people with disabilities.
- In this case this requires consideration of the facilities in the existing building as well as the means of access to Level 1. Both aspects must be viewed in terms of an alteration to the existing building and what would be considered reasonably practicable given the nature of the existing building. If the accessible facilities to the existing building were deficient, the provisions of 112(1)(a) could be applied to upgrade those facilities.
- Previous determinations have considered access in relation to alterations to existing buildings. For example Determination 2009/029⁸ considered the compliance of new stairs to a classroom block, where compliance was found to be achieved through the application of section 112 to the building⁹ as a whole.

5. Discussion

5.1 General

5.1.1 There is no dispute that:

- the building is one to which section 118 applies, and in accordance with Schedule 2 of the Act, the stair is within a building which requires the provision of access and facilities for persons with disabilities
- the ground floor of the building, as existing and as proposed, meets the requirements of Clause D1 in terms of access and facilities for people with disabilities
- the design occupancy and floor area of the proposed upper level is such that a lift is not required by Clause D1.3.4(c).

5.1.2 While some correspondence between the parties refers to wheelchair access to the upper level, the matter in dispute is whether the proposed stair is an accessible stair.

5.2 Comparison of the stair with the Acceptable Solution D1/AS1

5.2.1 The stair is required to be an 'accessible stairway' as it is defined in the compliance document for Clause D1. Paragraph 3.3 of Determination 2005/144¹⁰ also makes the following observations on stairs:

⁸ 2009/027 Access for people with disabilities to a relocatable classroom

⁹ In this case 'the building' was considered to be the school complex.

¹⁰ Determination 2005/144 Stairs to a raised storage area in the alteration of an equipment maintenance and sale building

- (a) The acceptable solution distinguishes between on the one hand, “accessible stairways” and on the other “common stairways” ...
- (b) An accessible stairway is less steep than the others, must have handrails on both sides, must not have open risers, and therefore takes up significantly more space than the others.

5.2.2 As described in paragraph 2.2, the proposed stair has a tread depth of 285mm and risers that are 172mm high with a pitch of 33.5°. In this respect, a comparison with Figure 11 of D1/AS1 indicates that the stair meets the requirements for a common stair. However, while the stair riser height of 172mm is less than the 180 maximum shown in Figure 11 for an accessible stair, the tread depth does not meet the minimum 310mm requirement. The maximum pitch of an accessible stair is 32°; the maximum pitch of a common and private stair is 37°.

| Stair features | Accessible stairs (as described in D1/AS1) | The proposed stair |
|---------------------------|--|--------------------|
| Maximum pitch (degrees) | 32 | 33.5 |
| Maximum riser height (mm) | 180 | 172 |
| Minimum tread depth (mm) | 310 | 285 |

- 5.2.3 The stair contains six winders, and in terms of Clause 4.5 of D1/AS1, winders are acceptable only on private and service stairs.
- 5.2.4 However, I note that the requirements of D1/AS1 are not the only means of establishing compliance with the Building Code. Apart from the tread depth, the stair fails to meet the requirements for an accessible stair as it is described in D1/AS1 by only a small margin (namely tread depths are 25mm less than required, and the pitch is 1.5° greater than required). However, the riser at 172mm is less than the 180mm maximum. On balance, I accept that the reduced tread depth would not pose an undue hazard or difficulty to all stair users.
- 5.2.5 The proposed winders are a more significant departure from D1/AS1 as their inclusion means that the stair does not comply with either the accessible stair or the common stair requirements as described in D1/AS1. D1/AS1 says that BS585: Part 1¹¹ is an acceptable solution for winders on stairways of this width. It is noted that Figure 7 of that standard (refer Appendix) requires a minimum going which is described in Clause B1.3 of BS585 as not less than 75mm.
- 5.2.6 I consider this minimum dimension should be applied in this instance to ensure that the winder treads are a safe depth, and the winders will meet the minimum requirements for winders as they are described in Figure 18 and Clause 4.5 of D1/AS1.
- 5.2.7 The authority has submitted that the winders should be compared with figure 17(b) in D1/AS1 which is for a curved stairway clear width between handrails of 1000mm or greater which is acceptable as an accessible stairway.

¹¹ British Standards Institution BS 585:Part 1 1989 Specification for stairs with closed risers for domestic use ...

- 5.2.8 Curved and spiral stairs are considered in paragraph 4.4 and described in figure 17 of D1/AS1: the comment on paragraph 4.4 says '[the] dimensions of Figure 17 are based on the assumption that people walk up and down only on the outside of a narrow stairway, but both the inside and outside of wider stairways'.
- 5.2.9 The proposed stair has a clear width less than 1000mm and given the comment on paragraph 4.4 of D1/AS1, I consider figure 17(b) is more appropriate for considering the point on the stair where the pitch line should be considered
- 5.2.10 I consider the proposed stair has the design features of a 'common stair' and would be as safe and easy to use as an accessible stair provided a handrail to comply with figure 26(b) of D1/AS1 was installed both sides of the stair. I note that the applicant has agreed to provide a second handrail, and curved and contrasting nosings to the stair treads (refer paragraph 4.2.3).
- 5.2.11 In addition to the above, the compliance of this particular stair must be viewed against the nature of the floor it is serving. In this instance the stair is serving a floor that has a limited area with a limited number of users. In terms of its intended use, the upper floor is not an area to which the public can be expected to be admitted and the stair is therefore unlikely to be used by people who are unfamiliar with it.

5.3 Conclusion

- 5.3.1 I consider the proposed stair will be able to be used in a safe and easy manner, subject to the stair having the features noted in paragraphs 5.2.10 and 5.2.6 (second handrail, curved and contrasting stair nosings, minimum tread depth to the winders), and the stair would meet Building Code Clause D1 Access with these modifications.
- 5.3.2 I emphasise that determinations are considered on a case-by-case basis. I note that what may be considered acceptable in this situation may not be acceptable in other circumstances.

6. The Decision

- 6.1 In accordance with section 188 of the Building Act 2004, I determine that the stair as proposed in the application for building consent does not comply with Building Code Clause D1 Access routes.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 15 March 2013.

John Gardiner
Manager Determinations and Assurance

Appendix A: the Legislation

A.1 The relevant sections of the Building Act 2004 include:

118 Access and facilities for persons with disabilities to and within buildings

- (1) If provision is being made for the construction or alteration of any building to which members of the public are to be admitted, whether for free or on payment of a charge, reasonable and adequate provision by way of access, parking provisions, and sanitary facilities must be made for persons with disabilities who may be expected to—
- (a) visit or work in that building; and
 - (b) carry out normal activities and processes in that building.
- (2) ...

Schedule 2: Buildings in respect of which requirement for provision of access and facilities for persons with disabilities applies

The buildings in respect of which the requirement for the provision of access and facilities for persons with disabilities apply are, without limitation, as follows:

...

- (f) commercial buildings and premises for business and professional purposes, including computer centres:

A2 The relevant sections from the Building Code include:

Clause A2: Interpretation

accessible route an access route usable by people with disabilities. It shall be a continuous route that can be negotiated unaided by a wheelchair user. The route shall extend from street boundary or carparking area to those spaces within the building required to be accessible to enable people with disabilities to carry out normal activities and processes within the building

access route a continuous route that permits people and goods to move between the apron or construction edge of the building to spaces within a building, and between spaces within a building

Clause D1—Access routes

D1.2.1 Buildings shall be provided with reasonable and adequate access to enable safe and easy movement of people.

D1.3.2 At least one access route shall enable people with disabilities to:

- (c) Have access to and within those spaces where they may be expected to work or visit or which contain facilities for personal hygiene ...

D1.3.3 Access routes shall:

- (a) have *adequate* activity space,
- (c) have a safe cross fall, and safe slope in the direction of travel,
- (d) have adequate slip-resistant walking surfaces under all conditions of normal use,
- (e) include stairs to allow access to upper floors irrespective of whether an escalator or lift has been provided,

- (f) have stair treads, and ladder treads or rungs which:
 - (i) provide *adequate* footing, and
 - (ii) have uniform rise within each flight and for consecutive flights,
- (g) have stair treads with a leading edge that can be easily seen,
- (j) have smooth, reachable and graspable handrails to provide support and to assist with movement along a stair or ladder,
- (m) have landings of appropriate dimensions where a door opens from or onto a stair, ramp or ladder so that the door does not create a hazard, and

D1.3.4 An accessible route, in addition to the requirement of Clause D1.3.3, shall:

- (g) not include spiral stairs, or stairs having open risers,
- (h) have stair treads with leading edge which is rounded, and
- (i) have handrails on both sides of the accessible route ... The handrails shall be continuous along both sides of the stair ...

A3 The relevant section from Acceptable Solution for D1 Access, D1/AS1 includes:

Excerpt from Figure 11

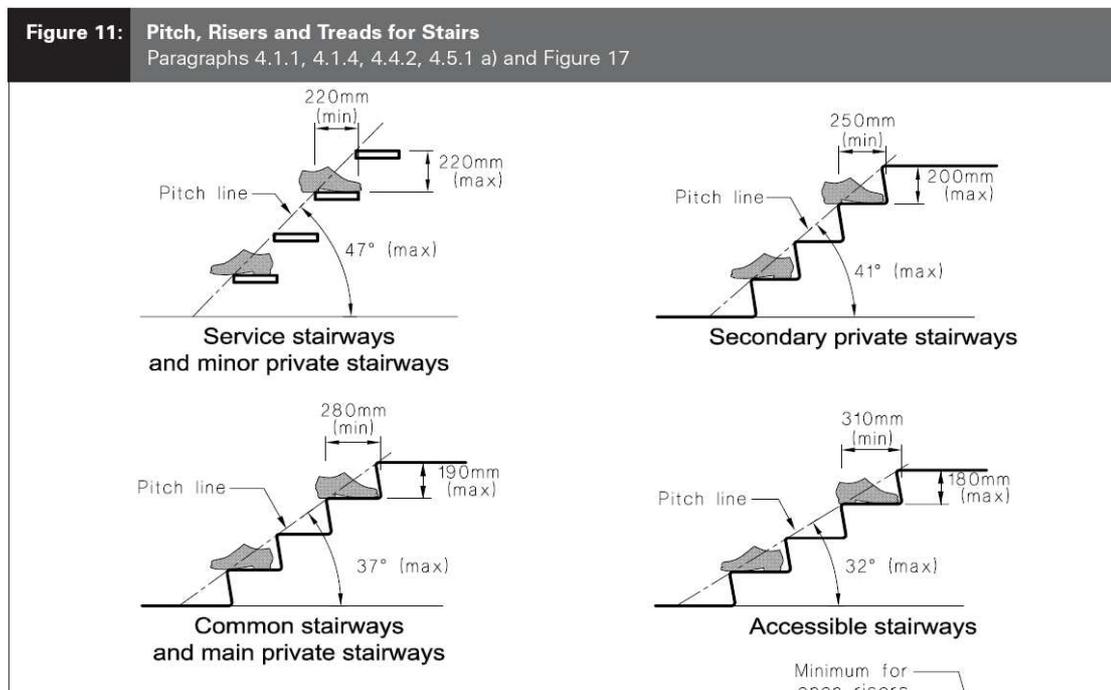
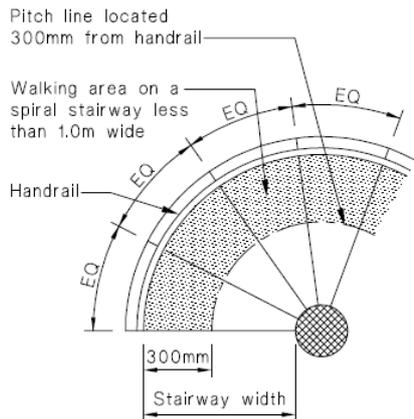


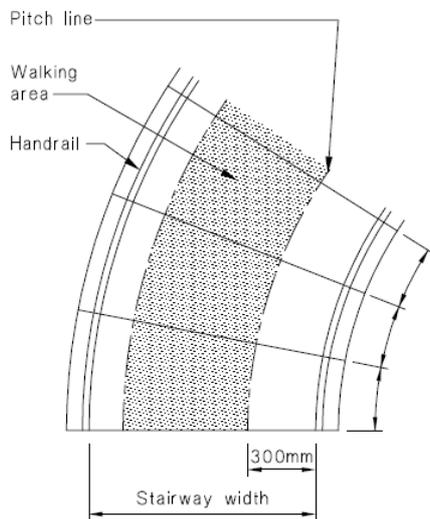
Figure 17 and 18

Figure 17: Curved Stairway with Tapered Treads
Paragraphs 4.4.1 a) and b) and 4.5.2

Note: Tread depth and riser height measured on the pitch line shall comply with Table 6 and Figure 11.

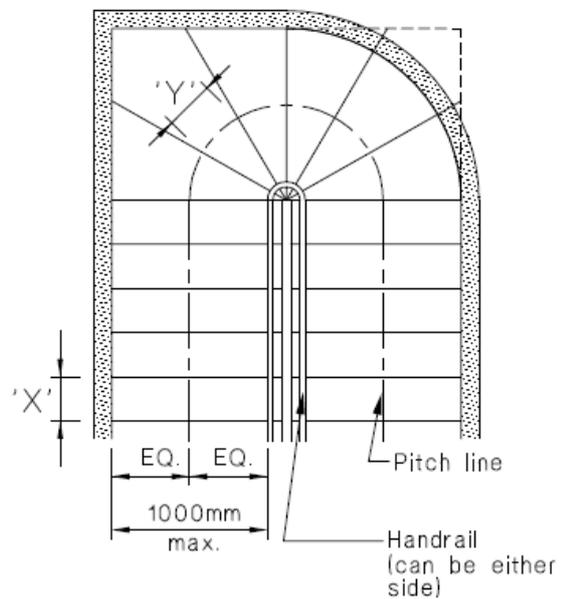
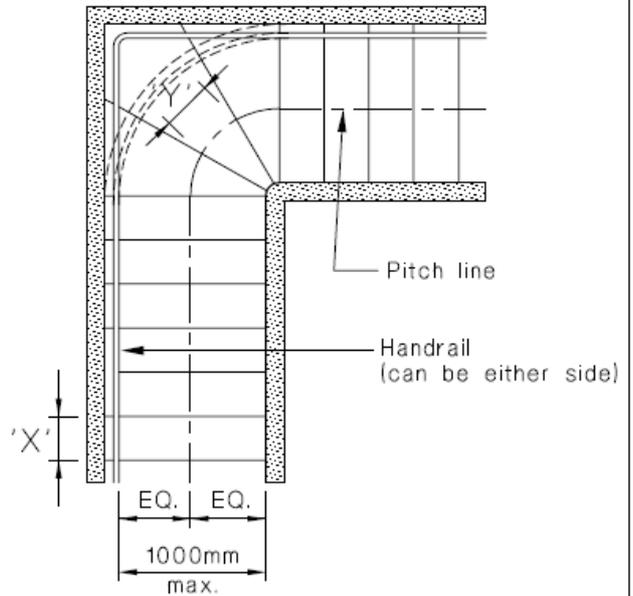


(a) Spiral stairway width less than 1000mm
(Private and service stairway only)



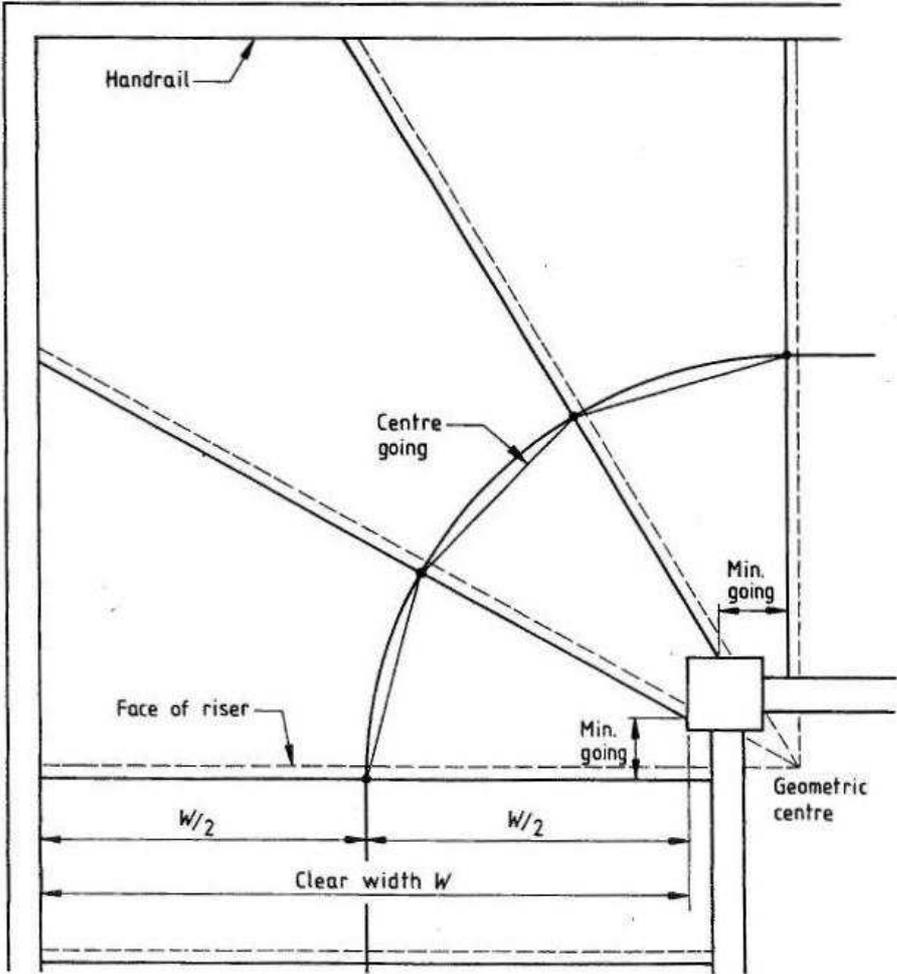
(b) Curved stairway width 1000mm or greater
(Acceptable as an accessible stairway where handrails are installed on both sides as shown)

Figure 18: Stair Winders
Paragraphs 4.5.1 and 4.5.2



Length 'Y' shall be no less than length "X"

A3 The relevant section from BS585: Part 1 includes:



(a) Winder flight with three treads
Figure 7. Clear width and going on winder flights