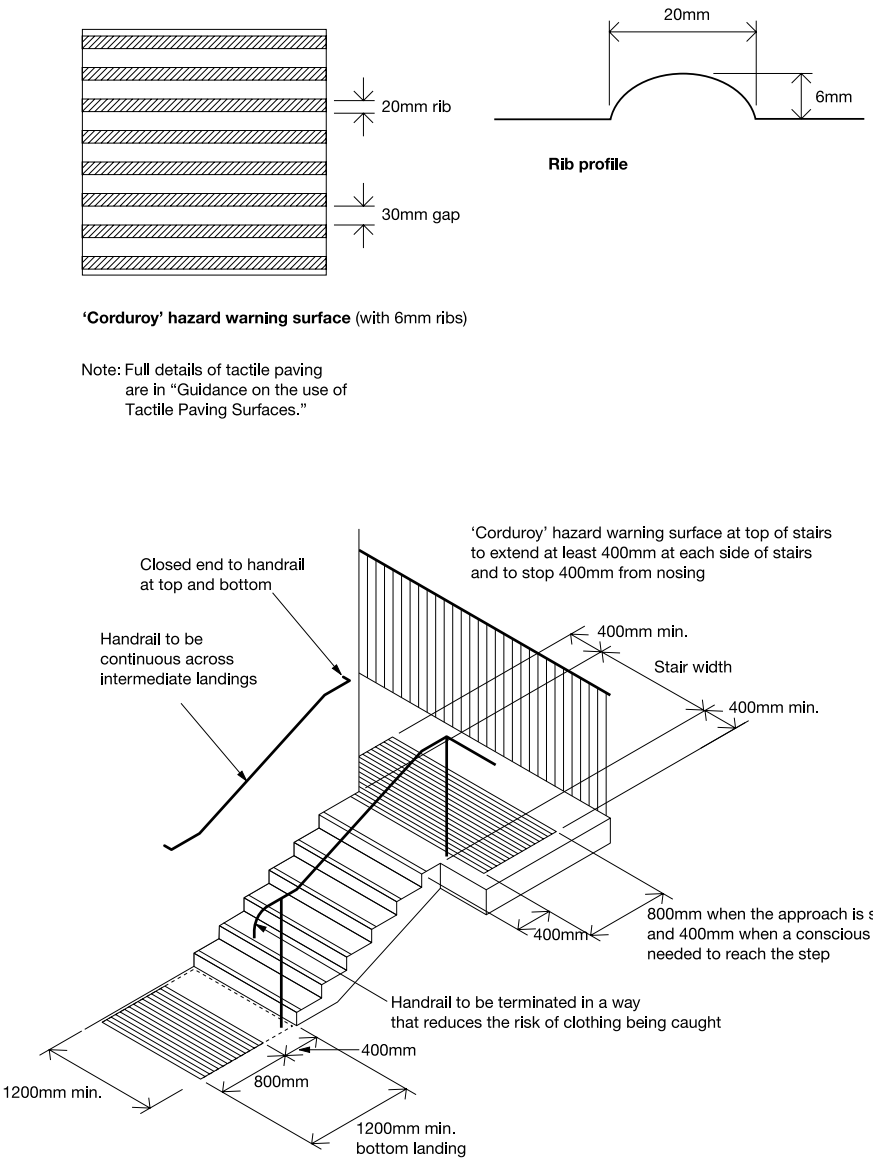
Diagram 4 **Stepped access – key dimensions and use of hazard warning surface**



d. where there is side access onto an intermediate landing, a 'corduroy' hazard warning surface 400mm deep is provided either on the intermediate landing 400mm from both upper and lower flights, if there is sufficient space to accommodate the surface outside the line of the side access, or within the side access 400mm from the intermediate landing if there is a continuous handrail opposite the side access;

e. no doors swing across landings;

f. it has flights whose surface width between enclosing walls, strings or upstands is not less than 1.2m;

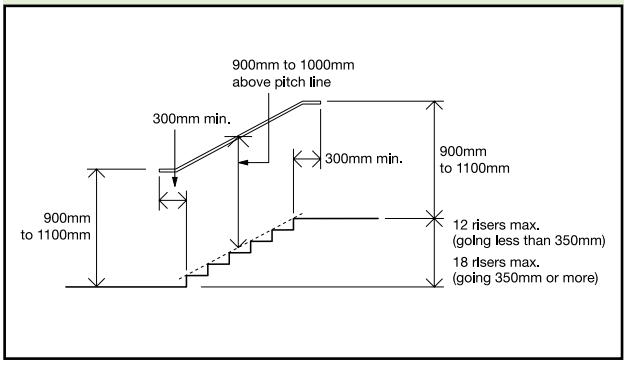
g. there are no single steps;

h. the rise of a flight between landings contains no more than 12 risers for a going of less than 350mm and no more than 18 risers for a going of 350mm or greater (see Diagram 5);

i. all nosings are made apparent by means of a permanently contrasting material 55mm wide on both the tread and the riser;

j. the projection of a step nosing over the tread below is avoided but, if necessary, not more than 25mm (see Diagram 6);

Diagram 5 **External steps and stairs – key dimensions**



k. the rise and going of each step is consistent throughout a flight;

l. the rise of each step is between 150mm and 170mm, except adjacent to existing buildings where, due to dimensional constraints, the case for a different rise is agreed with the building control body;

m. the going of each step is between 280mm and 425mm;

n. rises are not open;

o. there is a continuous handrail on each side of a flight and landings;

p. additional handrails divide the flight into channels not less than 1m wide and not more than 1.8m wide where the overall unobstructed width is more than 1.8m.

Note: In respect of 1.33(l) and (m), for school buildings, the preferred dimensions are a rise of 150mm, and a going of 280mm.

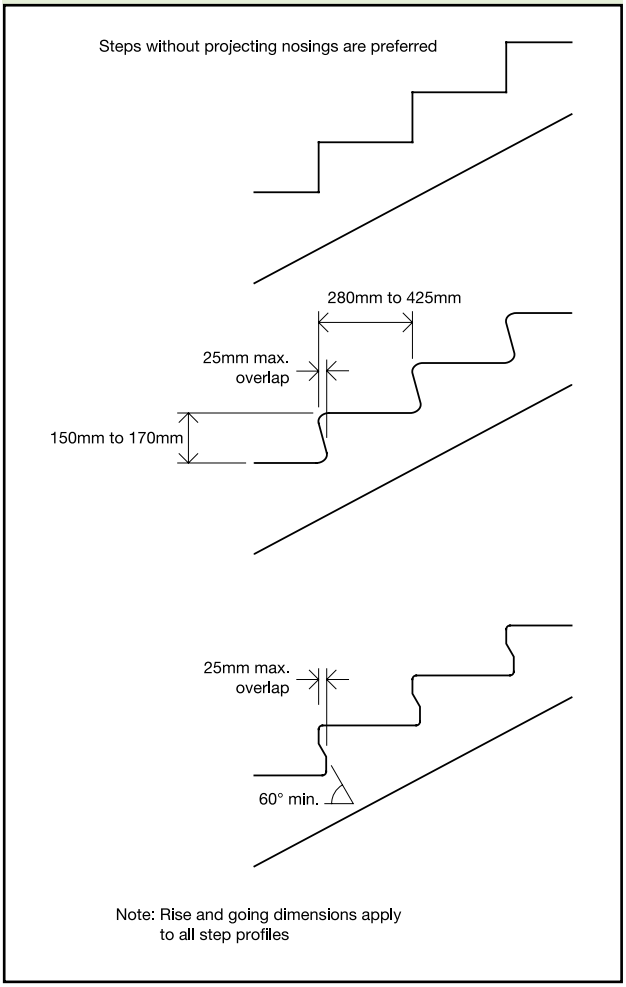
Handrails to external stepped and ramped access

Design considerations

1.34 People who have physical difficulty in negotiating changes of level need the help of a handrail that can be gripped easily, is comfortable to touch and, preferably, provides good forearm support.

1.35 Handrails should be spaced away from the wall and rigidly supported in a way that avoids impeding finger grip.

Diagram 6 **Examples of acceptable step profiles and key dimensions for external stairs**



1.36 Handrails should be set at heights that are convenient for all users of the building and should extend safely beyond the top and bottom of a flight of steps, or a ramp, to give both stability and warning of the presence of a change in level. Consideration should be given to the provision of a second handrail on stairs in a wide range of building types, and particularly in schools, for use by children and people of short stature.

Provisions

1.37 Handrailing to external ramped and stepped access will satisfy Requirement M1 or M2 if:

a. the vertical height to the top of the upper handrail from the pitch line of the surface of a ramp, or a flight of steps, is between 900mm and 1000mm, and from the surface of a landing is between 900 and 1100mm (see Diagram 5);

b. where there is full height structural guarding, the vertical height to the top of a second lower handrail from the pitch line of the surface of a ramp, or a flight of steps, is 600mm, where provided;

c. it is continuous across the flights and landings of ramped or stepped access;

d. it extends at least 300mm horizontally beyond the top and bottom of a ramped access, or the top and bottom nosing of a flight or flights of steps, while not projecting into an access route;

e. it contrasts visually with the background against which it is seen, without being highly reflective;

f. its surface is slip resistant and not cold to the touch, in areas where resistance to vandalism or low maintenance are key factors, use of metals with relatively low thermal conductivity may be appropriate;

g. it terminates in a way that reduces the risk of clothing being caught;

h. its profile is either circular with a diameter between 32 and 50mm, or non-circular, 50mm wide and 39 mm deep having rounded edges with a radius a minimum of 15mm (see Diagram 7);

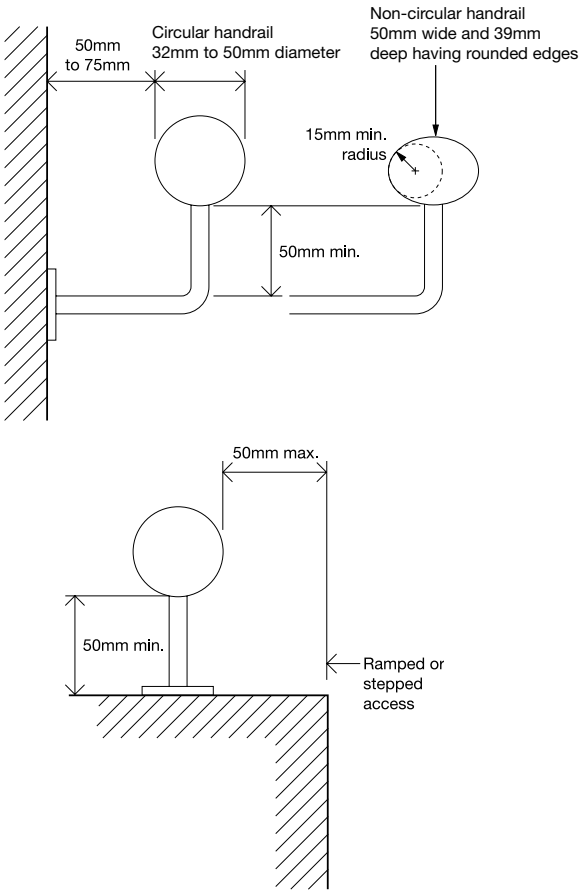
i. it protrudes no more than 100mm into the surface width of the ramped or stepped access where this would impinge on the stair width requirement of Part B1;

j. there is a clearance of between 50 and 75mm between the handrail and any adjacent wall surface;

k. there is a clearance of at least 50mm between a cranked support and the underside of the handrail;

l. its inner face is located no more than 50mm beyond the surface width of the ramped or stepped access.

Diagram 7 **Handrail design**



Hazards on access routes

Design considerations

1.38 Features of a building that occasionally obstruct an access route, particularly if they are partially transparent and therefore indistinct, or cause a danger overhead, should not present a hazard to building users.

Provisions

1.39 Requirement M1 or M2 will be satisfied in relation to hazards on access routes where Approved Document K, sections 6 and 10 are complied with.

Note: Diagram 8 has been moved to Approved Document K, Section 10, all other numbering remains the same.