



CI-0404

TAB 4: STATION & TERMINAL BUILDING INFRASTRUCTURE
Stairs & Stair Enclosures

DESIGN REQUIREMENTS

The following requirements pertain to tunnel and exterior stairs, including stairs remote from buildings):

FEATURE	DESCRIPTION
Risers & Treads	<ul style="list-style-type: none">> Risers: 150 mm preferred.> Treads: 305 mm preferred.> The design shall not incorporate open risers; be slip resistant; have uniform treads and risers in any one flight and shall not alter significantly in run and rise in successive flights in any stair system.
Nosing's	<ul style="list-style-type: none">> Stair nosing's shall project not more than 38 mm and have no abrupt undersides.> Where projecting, be sloped to the riser at an angle greater than 60° to the horizontal; and the radius of curvature at the leading edge of the tread not more than 13 mm.> Nosing's shall have a cast-in safety insert on an extruded aluminum or carborundum base with epoxy or abrasive filler that is minimum 40 mm +/- 10 mm deep and which:<ul style="list-style-type: none">• Is located at the leading edge of the tread;• Is tonal contrasted with the tread and riser; and• Extends the full width of the tread.
Tactile Attention Indicators	<ul style="list-style-type: none">> Tactile Attention Indicators at the top of stairs shall be provided:<ul style="list-style-type: none">• At each landing incorporating an entrance into a stair system;• Where the regular pattern of a stairway is broken; and• Where the run of a landing not having a continuous handrail is greater than 2100 mm.> The tactile attention indicators shall:



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FEATURE	DESCRIPTION
	<ul style="list-style-type: none"> • Extend the full width of the stair; • Have a depth of 610 mm (24 in) commencing one tread depth from the edge of the stair; and • The cane-detectable warnings on this surface shall be colour and texture contrasted with the adjacent surfaces.
Edge Drain	<ul style="list-style-type: none"> > Tunnel stairs shall have concrete drainage side-gutters 40 mm deep by 80 mm wide, continuous with the tunnel floor gutters. > Gutter drains shall not be located at the bottom of tunnel stairs or in front of service doors or elevator doors.
Handrails	<ul style="list-style-type: none"> > Handrails shall be provided on both sides of all stairs. > Exterior stair and ramp handrails shall be smooth galvanized steel pipe, minimum 30 mm, and maximum 43 mm diameter, 915 mm above nosing's or ramps. > All anchorage and fittings shall also be galvanized. > Tunnel stair or bridge stair handrails to be stainless steel 38 mm diameter, be mounted not less than 865 mm and not more than 965 mm high, measured vertically from a line drawn through the outside edges of the stair nosing's. > All anchorage and fittings shall also be stainless steel. Handrail ends shall extend in accordance with the OBC and the OBC Illustrated Guide, also for exterior stairs. > Handrails shall be continuous around landings less than 2100 mm in length and placed on the inside edge of stairs; and <ul style="list-style-type: none"> • Have the rail extension return to the post, floor or wall; • At the top of stairs, extend at least 300 mm (12 in) parallel to the floor surface; • At the bottom of the stairs, continue to slope for a distance equal to the depth of one tread and then extend at least 300