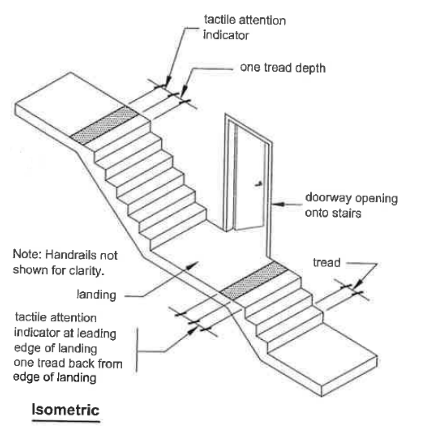


3.4.6.1. Surface Finish of Ramps and Stairs.
Figure 3.4.6.1. Tactile walking surface indicators can alert persons with little or no vision. The surface provides a change in texture and colour contrast. However, the walking surface should not present a tripping hazard. Therefore, a tactile attention indicator, conforming to Article 3.8.3.18. should be installed;

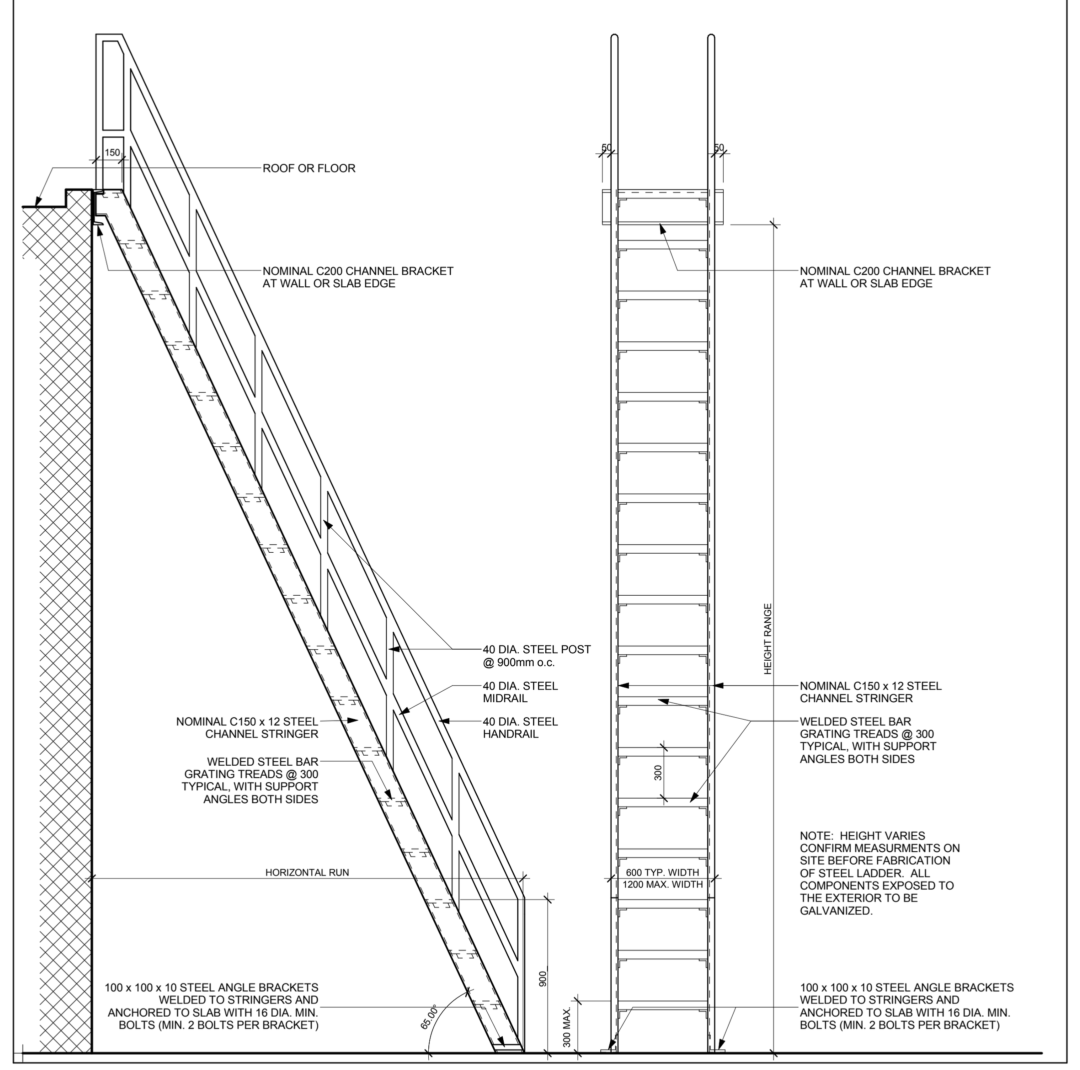
- at the top of the starting one tread depth back from the edge of the top of the stair, and
- at the leading edge of landings where a doorway opens onto stair, starting one tread depth back from the edge of the landing.

3.4.6. Types of Exit Facilities
3.4.6.1 Surface Finish of Ramps and Stairs
(1) The surfaces of ramps, landings and treads shall,
(a) have a finish that is slip-resistant, and
(b) if accessible to the public, have a colour contrast or a distinctive visual pattern to demarcate,
(i) the leading edge of the tread,
(ii) the leading edge of the landing, and
(iii) the beginning and end of a ramp.
(2) A tactile attention indicator conforming to Article 3.8.3.18. shall be installed,
(a) at the top of the stairs, starting one tread depth back from the edge of the top stair, and
(b) at the leading edge of landing where a doorway opens onto stairs, starting one tread depth back from the edge of the landing.
(3) Treads and landings of exterior *exit* stairs shall be designed to be free of ice and snow accumulations if the stairs,
(a) are more than 10 m high, or
(b) serve a *hotel*.

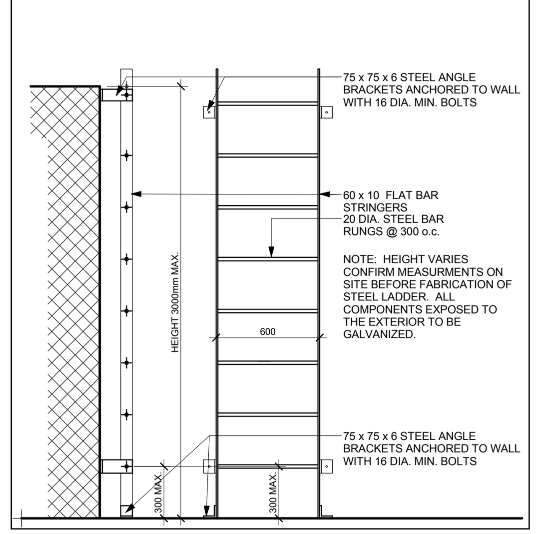
3.8.3.17. Platforms
(1) A tactile attention indicator conforming to Article 3.8.3.18. shall be installed along any edge of a platform that is,
(a) not protected by a *guard*, and
(b) higher than 250mm above the finished floor or ground or sloped steeper than 1 in 3.
(2) Sentence (1) does not apply to the front edges of *stages*.

3.8.3.18 Tactile Attention Indicators
(1) Where a tactile attention indicator is required, it shall conform to Sentence (2) and Clauses 4.1.1. and 4.1.2. of ISO 23599. "Assistive Products for Blind and Vision-Impaired Persons - Tactile Walking Surface Indicators"
(2) The depth of the tactile attention indicator shall be not less than 300 mm and not more than 610 mm.

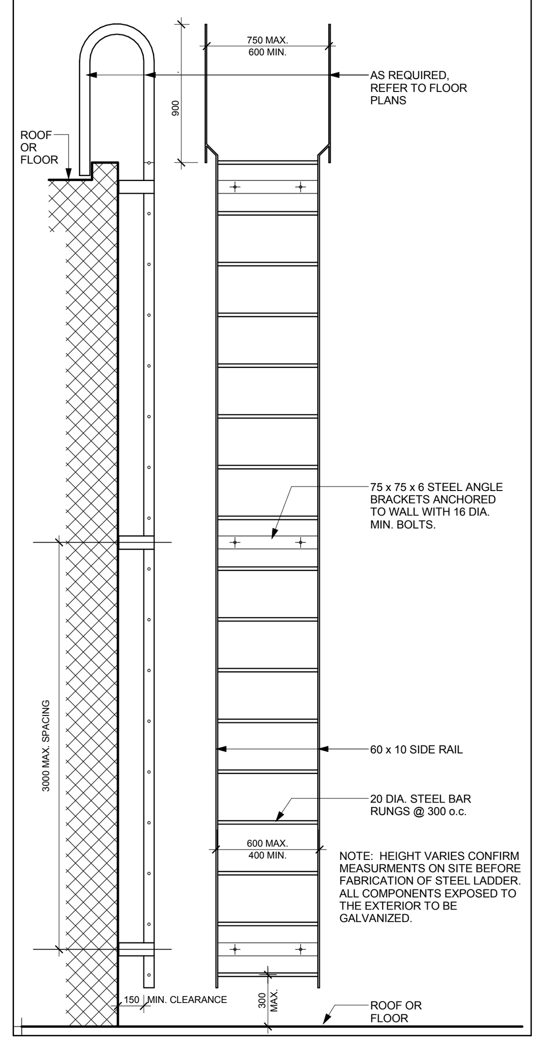
Tactile Finish of Ramps, Stairs, Exit Facilities and Platforms. 8 / A6-00
NTS



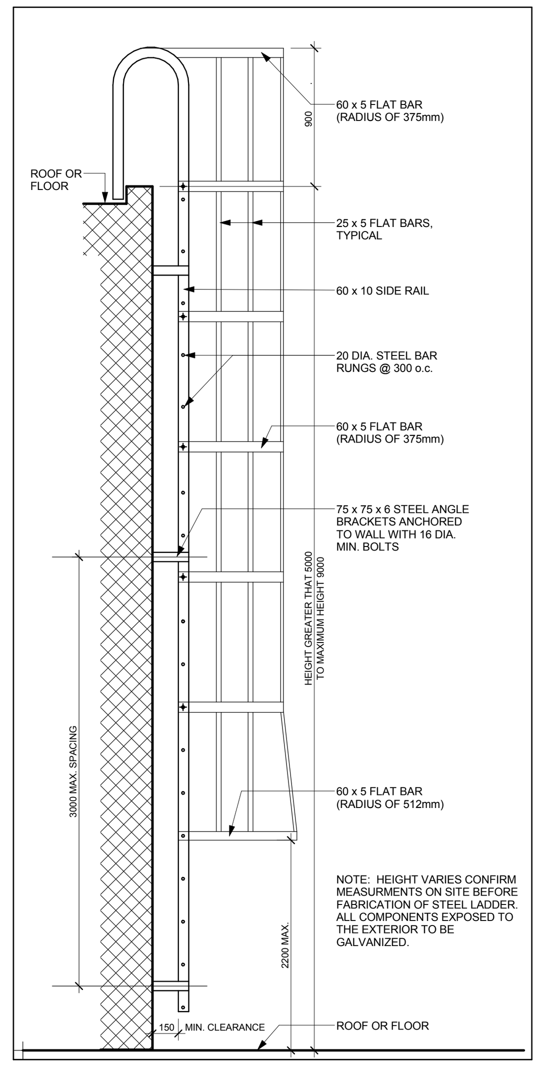
Typical Ladder, Ships Ladder 4 / A6-00
NTS



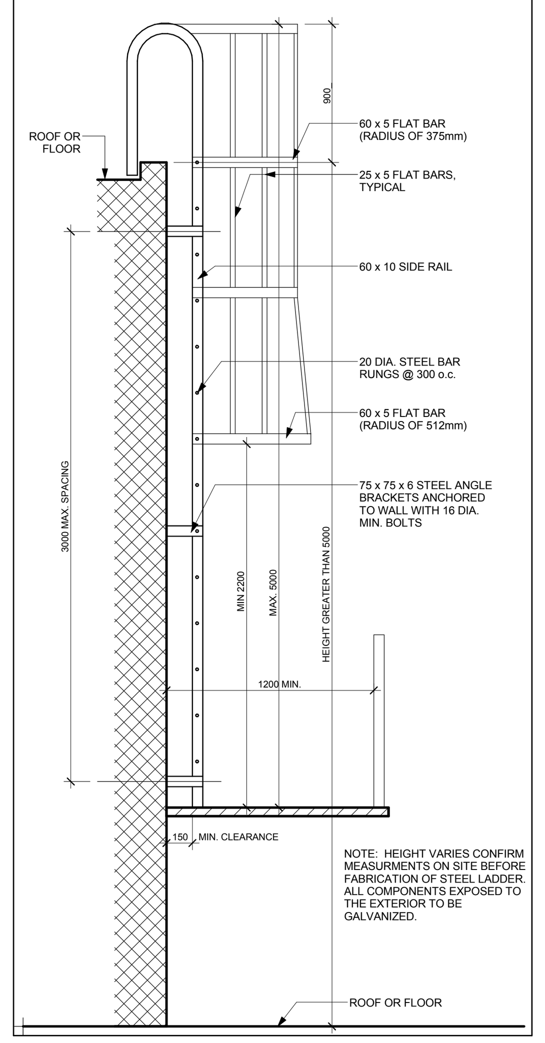
Typical Ladder, 3000mm High 7 / A6-00
NTS



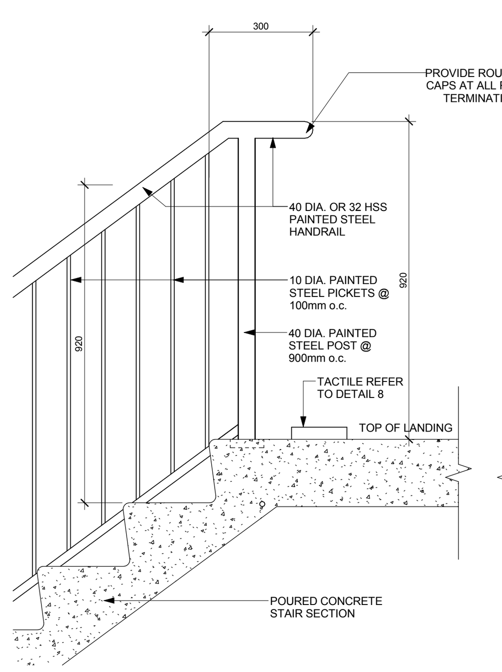
Typical Ladder, 5000mm High 6 / A6-00
NTS



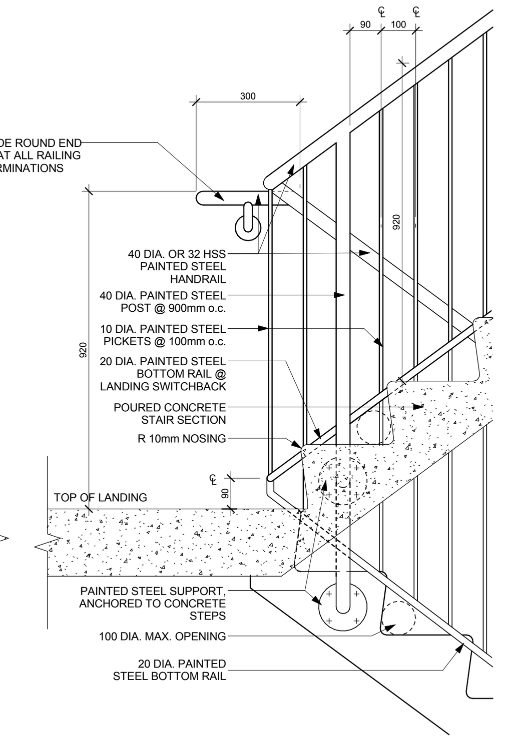
Typical Ladder, 9000mm High 5 / A6-00
NTS



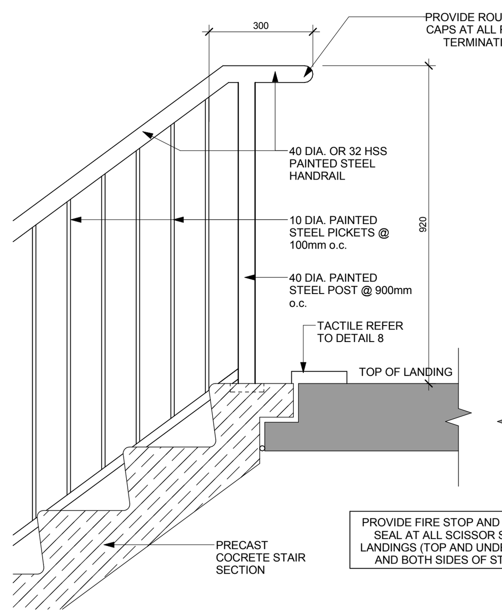
Typical Ladder, Elevated 3 / A6-00
NTS



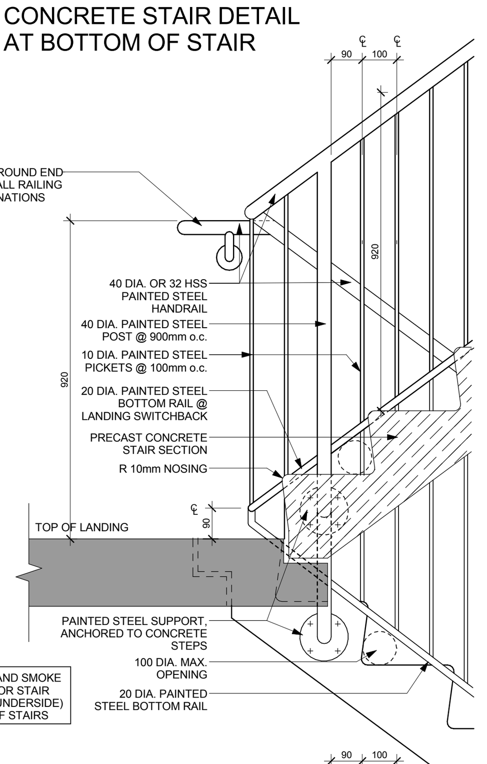
CONCRETE STAIR DETAIL AT TOP OF STAIR



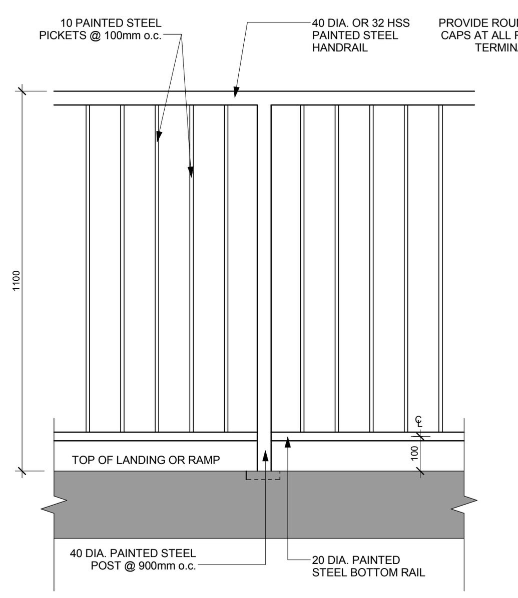
CONCRETE STAIR DETAIL AT BOTTOM OF STAIR



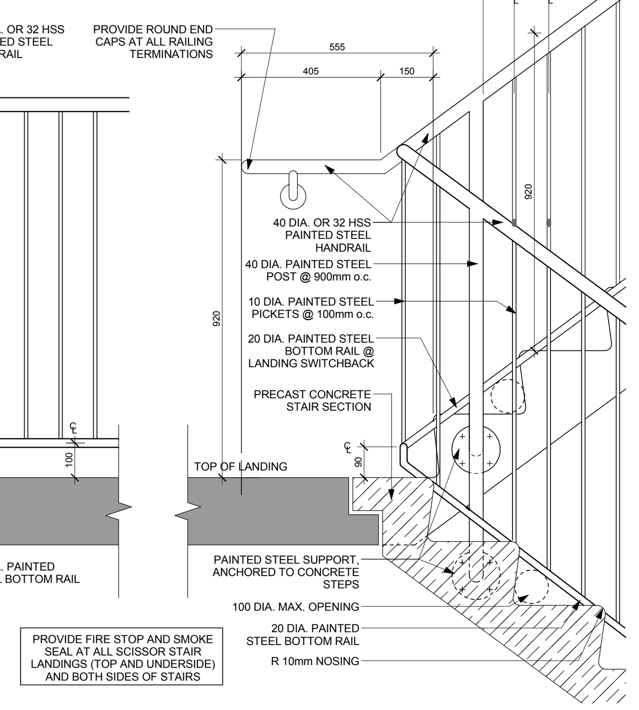
PRECAST STAIR DETAIL AT TOP OF STAIR



PRECAST STAIR DETAIL AT BOTTOM OF STAIR



GUARD DETAIL AT STAIR LANDINGS AND AT RAMPS



ALTERNATE PRECAST STAIR DETAIL AT BOTTOM OF STAIR

FLOOR NUMBERING NOTES:

1. ARABIC NUMBERALS INDICATING THE ASSIGNED FLOOR NUMBER SHALL,
a) BE MOUNTED PERMANENTLY ON EACH SIDE OF DOORS TO EXIT STAIR SHAFTS.
b) BE NOT LESS THAN 60mm HIGH, RAISED APPROX. 0.7m ABOVE SURFACE.
c) BE LOCATED 1500mm FROM THE FINISHED FLOOR, AND BE CONTRASTING IN COLOUR WITH THE SURFACE TO WHICH THEY ARE APPLIED.
2. UPPER CASE LETTER INDICATING THE DESIGNATION ASSIGNED TO EACH *EXIT* STAIR SHAFT SHALL BE MOUNTED PERMANENTLY ON EACH SIDE OF DOORS TO THE *EXIT* STAIR SHAFT AND SHALL,
a) BE NOT LESS THAN 60mm HIGH, RAISED APPROX. 0.7mm ABOVE THE SURFACE,
b) BE LOCATED 1500mm FROM THE FINISHED FLOOR, AND
c) BE CONTRASTING IN COLOUR WITH THE SURFACE TO WHICH THEY ARE APPLIED.
3. FLOOR NUMBERS ARE TO BE PROVIDED ON THE STAIRWELL SIDE OF EACH DOOR AND ALL STAIRWELLS ARE TO BE COLOUR-CODED AS PER O.B.C. 3.4.6.18.

ALL HATCHED PROFILES ON A6 SERIES DRAWINGS INDICATE PRECAST CONCRETE STAIR SECTIONS

STAIR AND STAIRWELL CONSTRUCTION NOTES:

1. DIMENSION OF CLEAR SPACE TO BE MAINTAINED BETWEEN WALL HANDRAILS AND STAIR WALLS IS TO BE SET AT 50mm MINIMUM. FOR A 40mm DIAMETER HANDRAIL, CENTRE LINE OF WALL HANDRAIL IS 70mm FROM STAIR WALL. (MAXIMUM OVERALL EXTENSION OF WALL HANDRAIL FROM STAIR WALL TO BE 100mm.)
2. REFER TO STAIR SERIES, A6 DRAWINGS FOR LOCATIONS OF STAIRS WITHIN STAIRWELLS (TYP.). COORDINATE SLAB EDGE PROFILE AND LOCATION WITH PRECAST STAIR SHOP DRAWINGS.
3. PROVIDE MINIMUM 750mm CLEARANCE BETWEEN THE LEADING EDGE OF ALL EXIT STAIR DOORS AND CENTER WALLS OR STAIR GUARDS.
4. THE IDENTIFICATION OF FLOOR AND OTHER SIGNS INTENDED TO FACILITATE ORIENTATION FOR VISUALLY-IMPAIRED PERSONS SHOULD OFFER MAXIMUM COLOUR CONTRAST TO BE EFFECTIVE. FOR THIS REASON, IT IS RECOMMENDED THAT WHITE ON BLACK OR BLACK ON WHITE BE USED, AS THIS COMBINATION PRODUCES THE BEST LEGIBILITY. IT IS ALSO RECOMMENDED THAT THE SIGN SUFRACES BE PROCESSED TO PREVENT GLARE.

Typical Stair, Railing, Details and Notes 2 / A6-00
NTS

Ontario — The Office of the Fire Marshal

GUIDELINES FOR STAIRWELL SIGNS IN MULTI-STOREY BUILDINGS

Introduction

This guideline contains guidance for building owners and property managers to assist them in installing suitable directional egress signs within stairwells and signs intended to instruct people about the proper exit route in the event of fire.

Deaths have occurred in high-rise buildings when people have inappropriately tried to escape from a building by traveling up exit stairwells in an effort to escape at the roof level. In these instances, the stairways did not contain access to the roof and the people perished when they were overcome by smoke. The signs contained in this guideline are intended to prevent similar tragedies of this nature from occurring in the future.

The signs identified in this guideline were jointly developed through consultation with various organizations. The signs are of a universal nature intended to be easily understandable. The installation criteria for the signs is intended to ensure that they are installed in a suitable location that would be visible to people using a stairway to evacuate the building in a fire emergency.

The directional egress signs are intended to prompt people to travel in the correct direction in order to exit from the building. The precautionary signs are intended to warn people not to enter a dead end portion of a stairwell.

The use of these signs reinforce the emergency evacuation procedures outlined in the building's fire safety plan.

People must be aware that they have to take precautions to protect themselves from exposure to smoke. If people encounter smoke while they are in a stairwell, they should use an alternate stairwell to proceed to evacuate. If the alternate stairwell contains smoke, the people should find refuge in a suite, taking precautions to protect themselves.

DIRECTION OF EGRESS SIGN

Sign Purpose

People may not be familiar with the stairwell exiting arrangements of each building they enter. They may not know whether they should go up or down the stairs to exit the building in the event of an emergency.

The direction of egress signs are intended to indicate the direction of egress (travel) within a stairwell for the purpose of evacuating the building in an emergency.

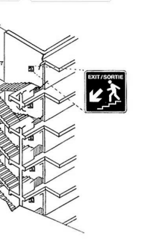
Sign Content and Colour

- Each sign shall depict the figure of a person walking down or up stairs. The sign shall include the word(s) "EXIT" or "EXIT/SORTIE" and a directional arrow displayed in front of the person figure oriented in the direction of egress.
- The minimum vertical and horizontal dimensions of each sign shall not be less than 190 mm.
- The sign shall be contrasting in colour so that the sign is clearly visible on the surface in which it is applied. (White, with a green background is the recommended colour contrast combination for this sign.)
- The sign shall have a contrasting border around the perimeter, where the sign is installed on a wall surface of a similar shade or colour.

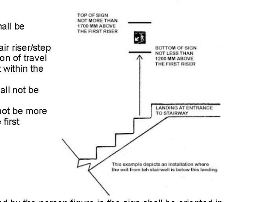
Refer below to the example of signs depicting the variety of orientations which may be encountered within typical exit stairwells. (Appendix "A" depicts a directional sign conforming to the minimum size requirements referred to above.)

Installation Criteria

- A sign shall be permanently installed and maintained;
  - within each stairwell, and
  - at each landing which provides access to the stairs from each storey in the building.



- Each sign referred to above shall be installed;
  - directly above the first stair riser/step which leads in the direction of travel to the exit from that point within the stairwell, and
  - the bottom of the sign shall not be less than 1200 mm, and
  - the top of the sign shall not be more than 1700 mm above the first riser/step.



- The direction of egress depicted by the person figure in the sign shall be oriented in the same manner reflecting the actual direction of travel within the stairwell at the point in which the sign is installed. (Refer to the figures on the previous page.)
- Additional signs may be installed within the stairwell.

WARNING SIGNS

TOP OF STAIRWAY TERMINATES AT A DEAD END

Purpose

There are two types of signs intended to warn people not to go up the stairs because the stairway terminates at a dead end without access to an exit. In the past, there have been a number of people who have died in a dead end portion of stairwells where they had been overcome by smoke during a serious fire.

In instances where a sign of this nature is required, the owner may choose to install signs in a manner conforming to one, or both options identified below.

(Option A)

Content for a Wall Sign

- Each sign shall depict the figure of a person walking up stairs with a universal "no" symbol (circle with a bar crossing out the activity) and the words NO EXIT TO ROOF or NO EXIT TO ROOF / PAS DE SORTIE SUR LE TOIT displayed beside the universal no symbol.
- The outside diameter of the universal "no" symbol (red circle with a bar crossing out an activity) shall not be less than 140 mm (5 1/2 in).

Colour of Wall Sign (Option A)

- Black figure of a person, stairs, and text on a white background. The universal "no" (circle with a slash through it) shall be red.

(Option B) Content for a Precautionary Sign Installed on a Stairway Riser

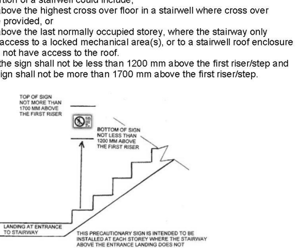
- Each sign shall depict the figure of a person walking up stairs with a universal "no" symbol (circle with a bar crossing out the undesired activity) and the words NO EXIT TO ROOF or NO EXIT TO ROOF / PAS DE SORTIE SUR LE TOIT displayed beside the universal no symbol.
- The outside diameter of the universal "no" symbol (red circle with a cross through it) shall not be less than 95 mm (3 3/4 in).
- The letters of the text NO EXIT TO ROOF or NO EXIT TO ROOF / PAS DE SORTIE SUR LE TOIT shall have a stroke of not less than 6 mm (in) and a height of not less than 35 mm (1 3/8 in).

Colour of Sign (Option B)

- Black figure of a person, stairs, and text on a white background. The universal "no" (circle with a slash through it) shall be red.

Installation Requirements for a Wall Sign (Option A)

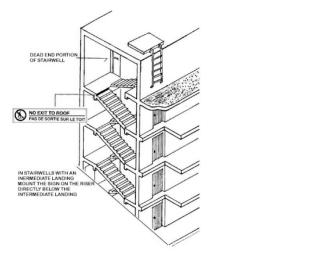
- When this option is chosen, the sign shall be permanently installed and maintained on the wall directly above the first stairway riser/step that leads to a "dead end portion of a stairwell".
- A dead end portion of a stairwell could include;
  1. an area above the highest cross over floor in a stairwell where cross over floors are provided, or
  2. an area above the last normally occupied storey, where the stairway only provides access to a locked mechanical area(s), or to a stairwell roof enclosure that does not have access to the roof.
- The bottom of the sign shall not be less than 1200 mm above the first riser/step and the top of the sign shall not be more than 1700 mm above the first riser/step.



Installation - Stairway Riser Sign (Option B)

In A Stairwell With Intermediate Landings

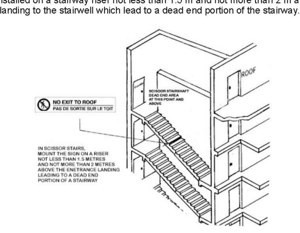
- When this option is chosen, the sign shall be permanently installed and maintained on the stair riser situated directly below the intermediate landing (in a stairway constructed with intermediate landings) which leads to a dead end portion of the stairway.



Installation - Stairway Riser Sign (Option B)

In A Scissor Stairwell (Without Intermediate Landings)

Where no intermediate landing is provided, (for example in scissors stairways) the sign shall be installed on a stairway riser not less than 1.5 m and not more than 2 m above the entrance landing to the stairwell which lead to a dead end portion of the stairway.



SIGNS FOR BASEMENT STAIRS

Purpose

Most exit stairs are designed so that they end at the level of the exterior exit door. The purpose of this sign is to ensure that occupants are warned in those cases where a stair continues past the level of the exit.

Sign Colour and Content

The Building Code (Article 3.4.5.2.) does not specify the exact content or colour of this sign. However, the content has to indicate that traveling down beyond the level of the exterior exit door does not lead to an exit. Suggested content could be: "No Exit Below This Floor". The recommended colour for the sign could be red letters on a contrasting background, or a red background with contrasting letters. It is suggested that the sign be a minimum of 190 mm in any dimension.

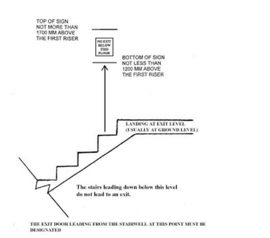
Installation Criteria

The sign should be permanently installed and maintained within all exit stairwells in buildings over 2 storeys where the stair continues below the level of the exterior exit door.

It is recommended that each sign be installed directly above the first stair riser/step below the level of the exterior exit door on the side which will be most visible to people going down the stairs.

The bottom of the sign should be no less than 1200 mm and no more than 1700 mm above the first riser/step.

Additional signs may be installed if necessary.



EMERGENCY ACCESS TO FLOOR AREAS

Sign Purpose

The Building Code (Article 3.4.6.17.) requires that in a building over 6 storeys, emergency access is required to be provided out of an exit stairwell to permit people to leave the stairwell and enter a floor area, should the stairwell become blocked by smoke or other obstructions above the exit level. Signs are required to indicate which doors within the exit stairs will provide emergency access to the floor areas.

Sign Content and Colour

The Building Code does not specify the exact content or colour of this sign. However, those doors required to provide emergency access to floor areas are required to be identified by a sign on the stairway side to indicate that they are openable from that side.

Suggested wording could be: "Emergency access to floor area through this door".

The recommended colour for the sign could be green letters on contrasting background, or a green background with contrasting letters. It is suggested that the sign be a minimum of 190 mm in any dimension.

Additional signs may be installed on floor levels where the doors are locked. The additional signs would indicate which storey(s) the required emergency access to the floor area is provided. These signs could read: "Emergency access to floor area on floor ______" (insert the appropriate floor number).

Installation Criteria

The signs are required to be mounted on the stairway side of those doors which the Building Code requires not to have locking devices that would prevent entry. Those doors are into:

a. any floor area designated as an area of refuge;
b. at least one door every five storeys or less;
c. at least one of the three highest storeys.

The sign should be permanently installed and maintained where required.

It is recommended that required signs be installed either on the door, or on the latch side of the door in a manner which will be most visible to people going down the stairs.

The bottom of the sign should be no less than 1200 mm and no more than 1700 mm above the floor level.

FLOOR NUMBERING AND STAIRWELL SHAFT DESIGNATION

Sign Purpose

In order to help orient people in the event of an emergency, the number of each floor and a designation assigned to each exit stair shaft are required by the Building Code (Article 3.4.6.18.) to be mounted permanently on each side of a door to an exit stair shaft.

Sign Content and Colour

The assigned floor number must be shown as an Arabic numeral that is contrasting in colour with the surface to which it is applied.

The designation assigned to each exit stair shaft must be shown as an UPPER CASE LETTER that is contrasting in colour with the surface to which it is applied.

Installation Criteria

The assigned floor number and the designation assigned to each exit stair shaft shall be permanently mounted on each side of doors to an exit stair shaft and be:

a. not less than 60 mm high,
b. raised approximately 0.7 mm above the surface,
c. be located 1500 mm from the finished floor

NOTE:

The Fire Code requires floor numbering to be provided in existing buildings regulated by Section 9.6. The requirements specified by the Fire Code are similar in nature to the requirements specified above. The Chief Fire Official has the authority to accept floor numbering signs installed in accordance with either requirements under the provisions of Article 9.1.2.4. of the Fire Code.

Provincial Guidelines For Stairwells 1 / A6-00
NTS

Contractor Must Check And Verify All Dimensions On The Job.
Do Not Scale The Drawings.
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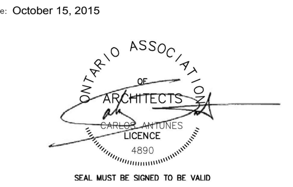
Date: October 15, 2015



SEAL MUST BE SIGNED TO BE VALID
Tender

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No.:	Revision	Date

No	Issued For	Date
3.	Tender	Oct. 15, 2015
2.	Building Permit	June 12, 2015
1.	Waterfront Toronto Review	May 1, 2015

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
Typical Stair and Railing, Details and Notes

Project
Hines TRIDEL®
AQUAVISTA
Block 3 - R3 & R4
263 Queens Quay East
Toronto, ON

Scale: As indicated
Drawn by: JM
Checked by:
Project No.: 13148
Date: October 15, 2015
Drawing No.: A6-00