

# Site Plan Design Guidelines

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2016

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## 1.0 INTRODUCTION

### 1.1 SITE PLAN CONTROL

Site Plan Control is a specialized authority granted under Section 41 of the Planning Act, RSO 1990 that authorizes municipalities to review and approve the technical and design details of individual development proposals in a comprehensive and co-ordinated manner. The approval of a Site Plan application is required for the construction, development and re-development of all lands within the County of Perth, with some exceptions.

### 1.2 SITE PLAN DESIGN GUIDELINES

The Site Plan Design Guidelines is a document intended to provide explanatory information regarding the requirements for approval of a proposed Site Plan Agreement. The Guidelines are not a regulatory document themselves, but they describe in detail many relevant Provincial and Municipal regulations.

### 1.3 MEASUREMENTS

The precise requirements referenced in this document are in Metric Units only. Approximately Imperial Unit equivalents are provided solely for the convenience of the reader.

## 2.0 DEFINITIONS

- (a) "access aisle" means the space between parking spaces that allows persons with disabilities to get in and out of their vehicles;
- (b) "bevel" means a small slope that helps an individual negotiate an elevation change;
- (c) "cross slope" means the slope of a surface that is perpendicular to the direction of travel;
- (d) "curb ramp" means a ramp that is cut through a curb or that is built up to a curb
- (e) "in-line ramp" means a ramp that does not change directions;
- (f) "depressed curb" means a seamless gradual slope at transitions between sidewalks and walkways with driveways and highways, and is usually found at intersections
- (g) "driveway" means any area constructed within the public road allowance, connecting a paved public street with private property, for the purpose of providing access and egress for motor vehicles to private property;
- (h) "exterior path of travel" means outdoor sidewalks or walkways designed and constructed for pedestrian travel and are intended to serve a functional purpose and not to provide a recreational experience;
- (i) "lot line" means any boundary of a lot, or the vertical projection thereof;
- (j) "planting strip" means an area of land which shall be used for no other purpose than the planting of a row of trees or a continuous unpierced hedgerow of evergreens or shrubs.

- (k) “off-street parking facilities” includes open area parking lots and structures intended for the temporary parking of vehicles by the public, whether or not the payment of a fee is charged and includes visitor parking spaces in parking facilities;
- (l) “on-street parking” includes parking spaces located on highways, as defined in subsection 1 (1) of the *Highway Traffic Act*, that provide direct access to shops, offices and other facilities whether or not the payment of a fee is charged;
- (m) “redeveloped” means planned significant alterations;
- (n) “running slope” means the slope of a surface that is parallel to the direction of travel.

## **3.0 SUBMISSION REQUIREMENTS**

### **3.1 INTRODUCTION**

Site plan drawings accompanying an application for site plan approval are required to demonstrate how a proposal meets the various aspects of Official Plan Policies, the Zoning By-law, and the Site Plan Control Area By-law.

All the information may be presented on one drawing provided the information is clearly legible and accurate. On more complex proposals it may be necessary to prepare separate drawings to illustrate each aspect more clearly, e.g. existing conditions, site plan, landscape plan, site servicing plan, building elevations and a legal plan.

All projects require a site plan drawn to scale and consistent with the specifications of the application form. A plan of topographical survey of the subject property, if available, will assist in the assessment of the project. In some cases, building elevations, and/or cross-section drawings, are also required.

The following sections outline the submission requirements for each submission point in the Site Plan Approval process. Incomplete submissions will not be received for processing.

All submissions should be made in hard copy and portable document format (.pdf), and if possible, in standard AutoCAD (.dwg) format.

### **3.2 COMPLETE APPLICATION REQUIREMENTS**

Application material must include a completed application form, the required application fees and security deposit, and drawings illustrating the following information, as applicable:

- (a) all boundaries and dimensions of the site, including a directional arrow and the area of the land included in the site plan;
- (b) the shape, location, and dimensions of all buildings and structures existing on the site and distances to property lines (Buildings and structures to be removed/demolished should be noted);
- (c) the location and dimensions of all buildings, structures and freestanding signs proposed on the site;
- (d) plans showing the location of all facilities and works to be provided;

- (e) the use of all buildings and structures proposed on the site and of all parts of the site not to be covered by such buildings and structures;
- (f) drawings showing the plan, elevations, cross-section view, massing and conceptual design of each proposed building;
- (g) the location, size and description of all adjacent buildings lying within six metres (20 feet) of the property boundaries;
- (h) facilities for the lighting or any proposed flood-lighting of the site or of any buildings or structures thereon;
- (i) the location and description of any existing natural features such as trees, woodlots, streams, or ponds with indication as to which are to be retained and which removed or altered;
- (j) the size and location of all water and sewage connections, where necessary, the design of an underground electrical supply system, and septic system;
- (k) a drawing showing the relationship of the area of the site and buildings to surrounding roads, streets, and exterior areas;
- (l) the location, dimensions, elevations, surface materials and, where applicable, all access and egress points to abutting roads with indication of direction of traffic flow of all parking areas (either covered or uncovered), parking spaces, loading spaces, access driveways, fire routes, sidewalks, pedestrian walkways, elevators, and curbing proposed on the site;
- (m) the shape, location, and dimensions of all yards, landscaped open spaces and planting strips proposed on the site, including any walls, fences, shrubs, hedges, trees or other landscaping materials as may be necessary to provide adequate landscaping of the site or protection to adjoining lands;
- (n) any vaults, central storage and collection areas and other facilities and enclosures as may be necessary for the storage of garbage and other waste materials;
- (o) grading or alteration in elevation or contour of the site and provision for the disposal of storm, surface and waste water from the site and from any buildings or structures thereon;
- (p) widenings of highways that abut on the land;
- (q) easements conveyed to the Municipality for the construction, maintenance or improvement of watercourses, ditches, land drainage works, sanitary sewage facilities and other public utilities of the municipality or local board; and
- (r) a "zoning compliance table" listing the applicable zoning regulations and how the proposal has met them (see Figure 1 illustration).

<b>Zone:</b>		
<b>Regulation</b>	<b>Required</b>	<b>Provided</b>
Lot Area, Minimum	m <sup>2</sup>	m <sup>2</sup>
Lot Frontage, Minimum	m	m
Front Yard, Minimum	m	m
Interior Side Yard, Minimum	m	m
Exterior Side Yard, Minimum	m	m
Rear Yard, Minimum	m	m
Building Height, Maximum	m	m
Lot Coverage, Maximum	%	%
Floor Area per Dwelling Unit, Minimum	m <sup>2</sup>	m <sup>2</sup>
Landscaped Open Space, Minimum	%	%
Parking Spaces, Minimum	Rate:	
Loading Spaces, Minimum	Rate:	
Gross Floor Area, Maximum	m <sup>2</sup>	m <sup>2</sup>

Figure 1 - Zoning Compliance Table Sample Format

## 4.0 SITE ACCESS

### 4.1 OBJECTIVES

- (a) To ensure access driveways are located so as to not create a traffic hazard and designed to minimize the dangers to pedestrian and vehicle traffic in the vicinity, as intended by the Perth County Official Plan and any applicable local official plan.
- (b) To ensure that works on the road allowance are consistent with The Public Transportation and Highway Improvement Act and Municipal development standards.

### 4.2 NUMBER

The number of access driveways should be minimized on all streets. Each development will be analyzed in terms of the site characteristics, including street frontage, land area, traffic generation and parking capacity to determine the desirable number and locations of access driveways.

### 4.3 ANGULAR PLACEMENT

The centre line, for a distance of at least 6 metres (20 feet), of a two-way driveway should meet the curb line at a 90 degree angle. The centre line of a one-way driveway should meet the curb line at an angle not less than 60 degrees.

### 4.4 JOINT ACCESSES

Where appropriate, joint accesses with abutting property owners are required to be installed and the site plan should show the location and design. Where accommodating

a future joint access is appropriate, the site plan should show the proposed location and its availability should be described within the development agreement.

#### **4.5 LOCATION**

Access driveways should be located;

- (a) opposite other driveways or public streets to avoid turning conflicts;
- (b) to facilitate effective traffic movement between public roadways and off-street parking areas;
- (c) at least 7.5 metres (24.6 feet) from other driveways on the same lands;

#### **4.6 DRIVEWAY DESIGN**

All access driveways should;

- (a) have a minimum width of 3 metres (10 feet) at the property line;
- (b) be constructed with raised curbs and surfaced with asphalt or other hard surface;
- (c) have a slope no greater than 1:10 (10%); and
- (d) not interrupt or cause to be uneven any crossing sidewalks, curbs and gutters.

#### **4.7 SEPARATED DRIVEWAYS**

Where separate driveways are provided for site entrance and exit, they should;

- (a) be spaced at least 1.8 metres (6 feet) apart; and
- (b) have clear signage distinguishing entrance from exit.

#### **4.8 ABANDONED DRIVEWAYS**

Abandoned driveways should be removed and any sidewalks, curbs and gutters restored. The removal and restoration should be shown on the site plan.

### **5.0 LANDSCAPING**

#### **5.1 OBJECTIVES**

- a) To use shading from non-ornamental trees to improve the function and appearance of sites;
- b) To provide screening to mitigate land use impacts between adjoining properties and use areas;
- c) To use trees to reduce storm water runoff.

#### **5.2 PERIMETER LANDSCAPING**

Landscaping elements should be provided around the site perimeter, and should include trees at 6-10 metre intervals and should consist of a mixture of;

- (a) Deciduous trees which are at least 60 mm (2.4") caliper;
- (b) Coniferous trees at least 1.8 m (6 feet) in height;
- (c) Shrub plantings which are at least 60 cm (2 ft.) in height or 10 litres (3 gallons) in volume;

- (d) Hedge plantings which are at least 1.5 metres (5 ft.) in height and spaced at 1 metre (3.3 ft.) intervals;
- (e) Ornamental fencing (e.g. wrought iron, split rail); and
- (f) Decorative stones.

### **5.3 PLANTING STRIPS**

Required planting strips must be positioned between use areas with the potential to cause nuisance impacts (e.g. loading areas, drive-thru lanes, parking and driveways) and sensitive use areas, both on and off of the site.

Planting strips must;

- (a) not be located in a sight triangle;
- (b) not be located between the street line and the building line on the lot in such a manner as to impede or obscure the vision of the operator of a motor vehicle travelling on an adjacent street;
- (c) Have a minimum height of trees and shrubs in a planting strip at the time of planting of 1.2 metres (4 ft.);
- (d) Contain trees and shrubs of such a species or type so as to achieve a minimum height of 1.75 metres (5.75 ft.) at maturity;
- (e) have a minimum width of 1.5 metres (5 ft.);
- (f) Extend to within 3.0 metres (10 ft.) of any driveway extending through it; and
- (g) Extend to within 1.5 metres (5 ft.) of any walkway extending through it.

### **5.4 FENCING**

Required fencing must be constructed along lot lines where required to mitigate loss-of-privacy and other impacts. Such fencing is typically required to be 1.8 metres (6 ft.) high, but some circumstances may warrant a taller fence.

The Site Plan Agreement should specify the type, construction and height of any required fence or wall.

## **6.0 OUTDOOR LIGHTING**

### **6.1 OBJECTIVES**

- (a) To ensure the provision of sufficient illumination for pedestrian and vehicle movements.
- (b) To encourage lighting that improves site security.
- (c) To encourage lighting that enhances the appearance of buildings and other site features.
- (d) To prevent or mitigate off-site impacts related to outdoor lighting, such as glare, light trespass and light pollution.

### **6.2 DESIGN**

All external site areas should be illuminated in a manner that facilitates the safe use of the property and provides for appropriate nighttime security.

### **6.3 ACCENT LIGHTING**

Accent lighting should be provided to improve the appearance of interesting architectural features and landscaping elements. Wherever feasible, ornamental light fixtures should be used.

### **6.4 AREA LIGHTING**

Lighting intended to illuminate large areas of a site should be shielded to reduce glare and minimize off-site light broadcasts. Area lighting fixtures must be mounted no more than:

- (a) 6 metres (20 feet) above grade for residential uses; and
- (b) 15 metres (50 feet) above grade for non-residential uses.

## **7.0 OFF-STREET PARKING FACILITIES**

### **7.1 OBJECTIVES**

- (a) To ensure an appropriate amount of off-street vehicle parking spaces are provided for new development.
- (b) To ensure new off-street parking facilities meet or exceed the requirements of Regulation 191/11 (Integrated Accessibility Standards) of the Accessibility for Ontarians with Disabilities Act, 2005.

### **7.2 NUMBER OF SPACES**

The minimum number of parking spaces required by the applicable zoning by-law must be provided. As a means of encouraging an efficient development pattern, the provision of excessive amounts of parking is discouraged.

### **7.3 LOCATION**

Parking areas are encouraged to be no closer than 3.0 metres to a public roadway, or 1.5 metres to a property line except where a joint or continuous parking area is proposed.

### **7.4 ACCESSIBLE PARKING TYPES**

There are two types of accessible parking spaces, each of which have a minimum length of 6.1 metres and a maximum slope of 1:50:

- |        |   |
|--------|---|
| Type A | 3.4 metres wide with signage identifying the space as “van accessible”. |
| Type B | 3.0 metres wide.  |

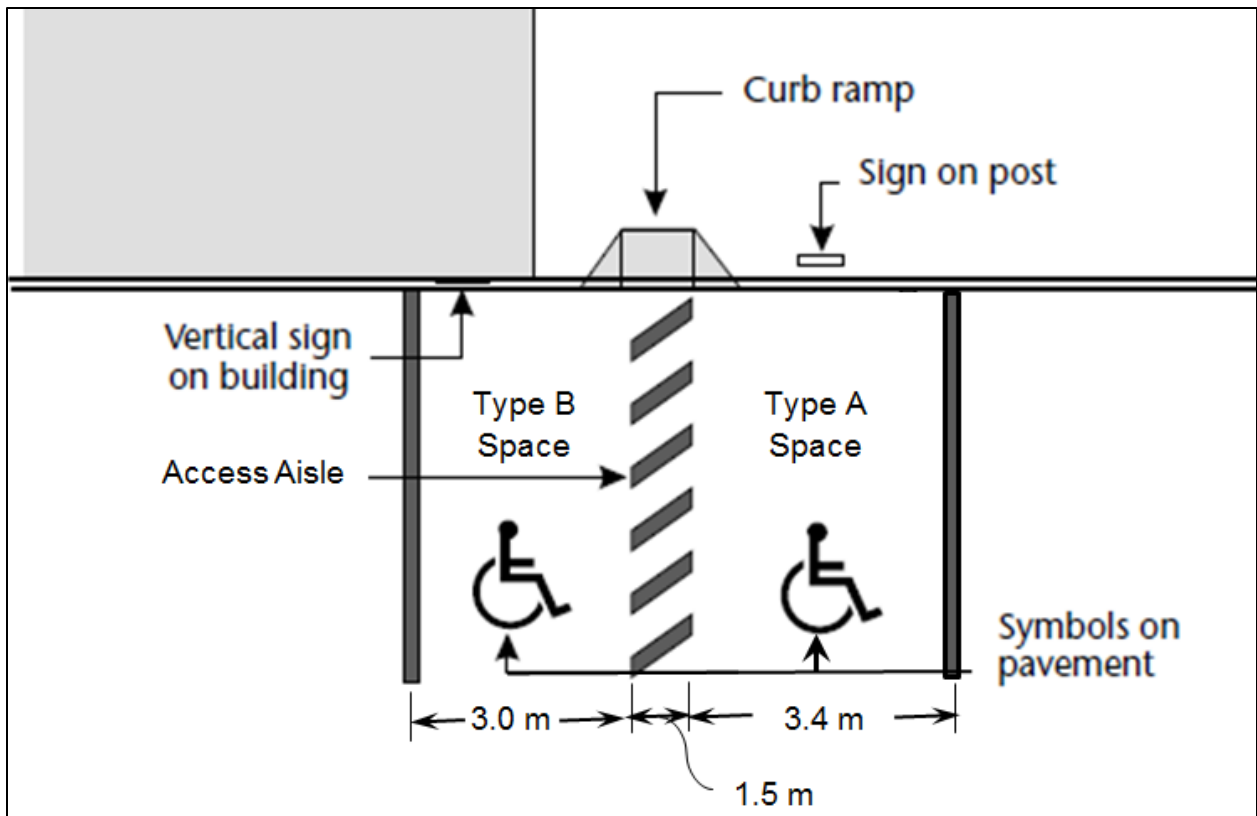


Figure 2 - Perpendicular Accessible Parking Spaces

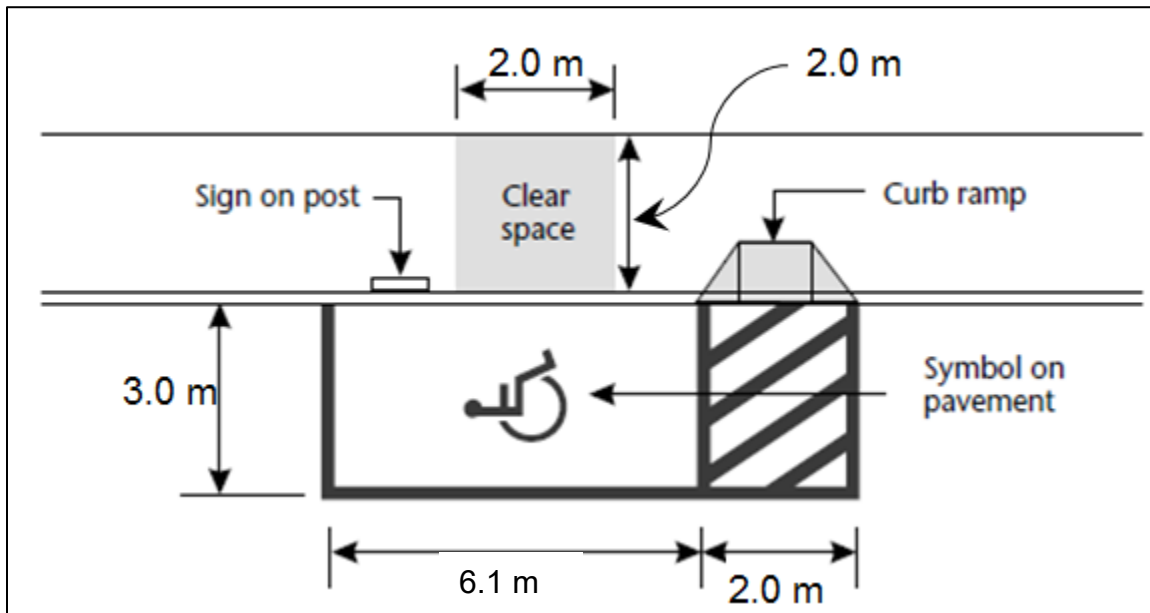


Figure 3 - Parallel Accessible Space

## 7.5 MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES

The following table describes how the minimum number of accessible spaces is to be calculated. Please note that calculated figures for the total number of required accessible spaces are to be rounded up to the nearest whole number.

<b>Total Parking Spaces Provided</b>	<b>Total Required Accessible Spaces</b>
<b>25 or fewer</b>	1
<b>26 – 50</b>	2
<b>51 – 75</b>	3
<b>76 – 100</b>	4
<b>101 – 200</b>	1 + 3% of Total Spaces
<b>201 – 1000</b>	2 + 2% of Total Spaces
<b>More than 1000</b>	11 + 1% of Total Spaces

Figure 4 - Number of Accessible Parking Spaces

In circumstances where only one accessible space is required, that space must be provided as a Type A space. For all other circumstances, the minimum required number of Type A spaces is 50% of the total accessible space requirement (rounded down to the nearest whole number). All other required accessible parking spaces may be provided as either Type A or Type B.

Exceptions to the minimum number of accessible parking spaces can be considered in circumstances where existing physical or site constraints prevent the provision of the minimum number.

## 7.6 ACCESS AISLES

Each accessible parking space provided must be adjacent to an access aisle, although one aisle may be shared by two spaces. Access aisles must:

- (a) Be a minimum of 1.5 metres wide;
- (b) Extend the full length of the parking space; and
- (c) Be marked with high tonal contrast diagonal lines.

## 7.7 SIGNAGE

Signage for the accessible spaces must be consistent with Section 11 of Highway Traffic Act, Regulation 581. The two provided options are illustrated below:



Figure 5 - Accessible Space Signs

The required parking signs should be:

1. Mounted vertically on a post or on a building, in a location in direct proximity to the parking space;
2. Installed at a height of 1.5 to 2.5 m from the ground/floor surface to the centre line of the sign;
3. For perpendicular parking, centered on the parking space;
4. For parallel parking, located toward the end of the parking space, on the opposite side from the access aisle.

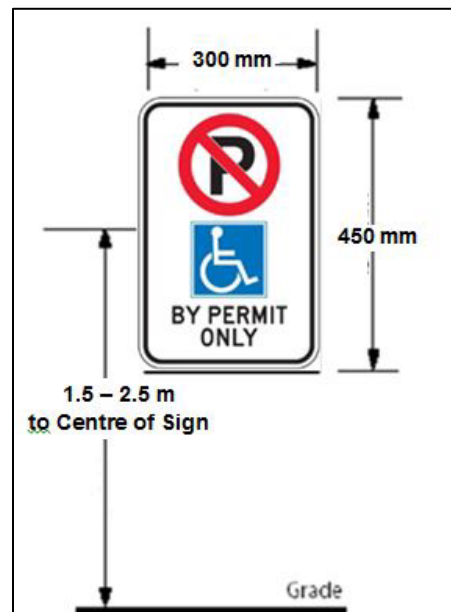


Figure 6 - Sign Installation

## **8.0 BICYCLE PARKING**

### **8.1 OBJECTIVES**

- (a) To encourage cycling by ensuring new developments provide an appropriate amount of bicycle parking.

### **8.2 AMOUNT**

If there is no minimum number of parking spaces required by the applicable zoning by-law, new and redeveloped sites should provide one bicycle parking space for every 15 required parking spaces.

### **8.3 LOCATION**

Bicycle parking facilities should be provided in highly visible areas in proximity to main building entrances, but should not interfere with pedestrian movement.

### **8.4 DESIGN**

Bicycle parking facilities are comprised purpose-built bicycle racks that are permanently installed and capable of reasonable theft prevention when equipment is secured with a lock.

## **9.0 EXTERIOR PATHS OF TRAVEL**

### **9.1 OBJECTIVES**

- (a) To ensure new development provides facilities for pedestrians at levels appropriate for internal and external connectivity demands.
- (b) To ensure new pedestrian facilities meet or exceed the requirements of Regulation 191/11 (Integrated Accessibility Standards) of the Accessibility for Ontarians with Disabilities Act, 2005.

### **9.2 EXTERIOR PATHS**

New or redeveloped exterior paths must meet the following requirements:

1. Paths must have a minimum clear width of 1.5 m, except where the exterior path connects with a curb ramp to serve as a turning space, in which case the clear width can be reduced to 1.2 m.
2. Where possible, paths must maintain a minimum head room clearance of 2.1 m. Where this is not possible, barriers and cane detectable edges must be provided around any obstructions.
3. Paths must have a firm, stable, slip resistant surface.
4. Any openings in the surface of a path must be narrower than 13 mm, and if elongated, perpendicular to the path of travel.
5. Paths must have a maximum slope of 1:20.



6. Changes in elevation along paths must be dealt with according to the following table:

Change in Elevation	Requirement
< 6 mm	None
6 – 13 mm	1:2 bevel
13 – 75 mm	1:8 slope or curb ramp
75 -200 mm	1:10 slope or curb ramp
> 200 mm	Ramp

7. Entrances to paths must provide openings at least 85 cm wide.  
8. Paths less than 1.6 m wide shall be provided with an unobstructed space not less than 1.8 m in width and 1.8 m in length located not more than 30 m apart.

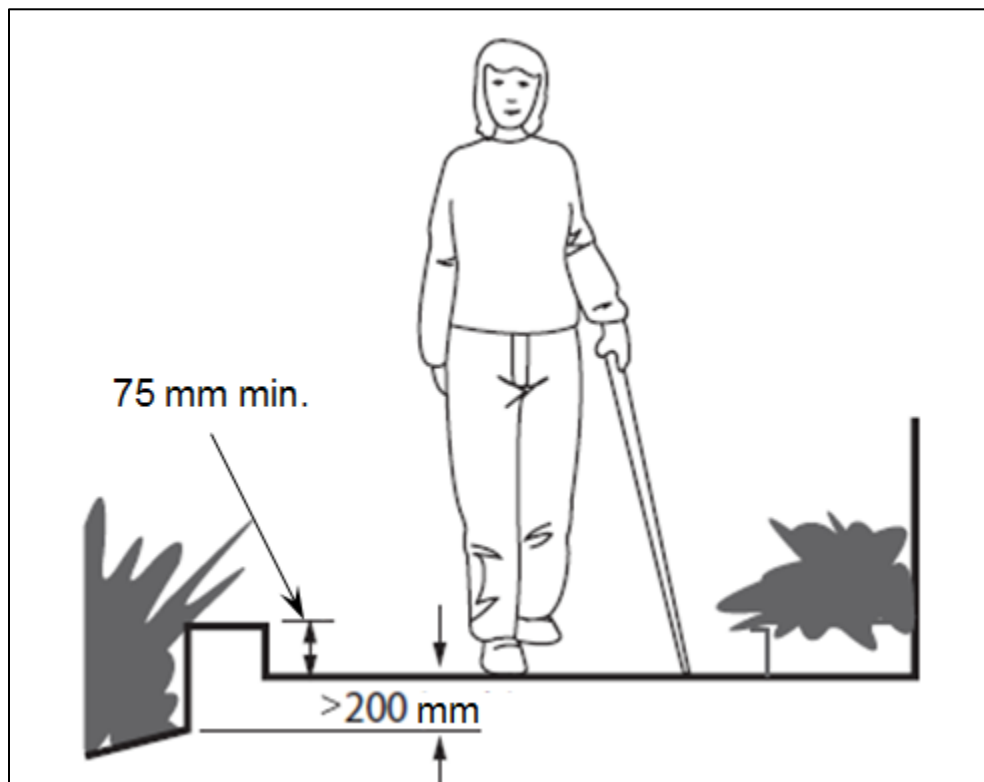


Figure 7 - Edge Protection

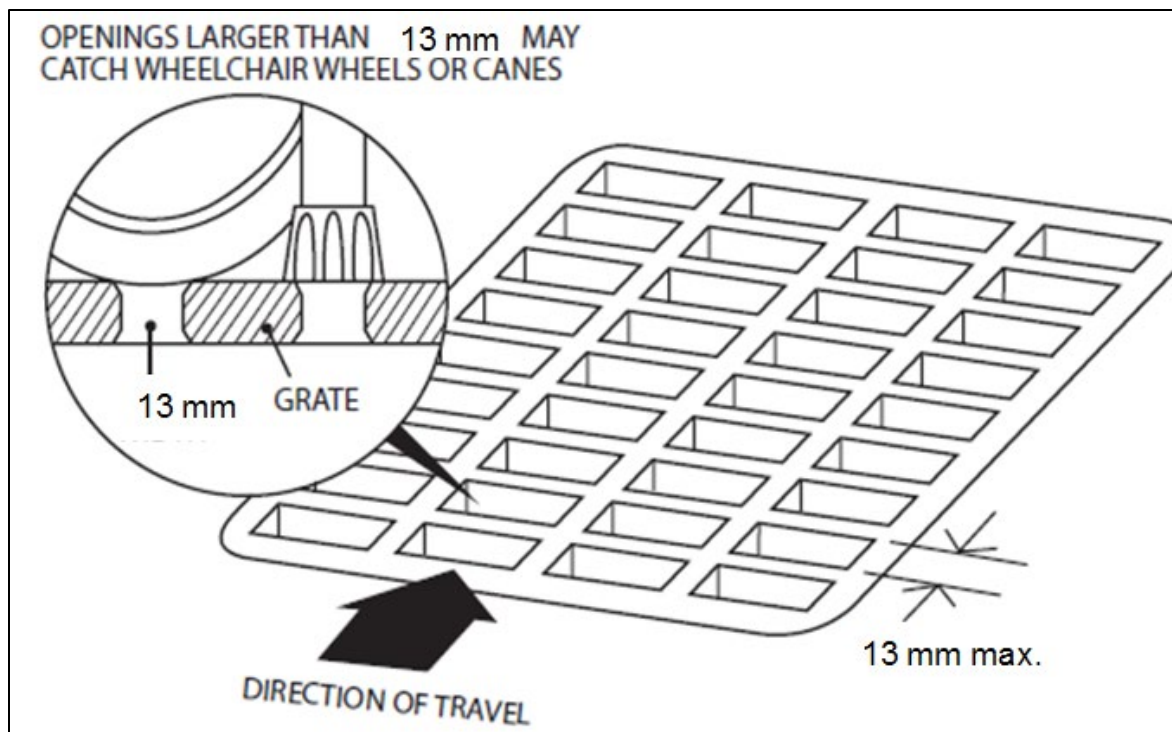


Figure 8 - Openings

### 8.3 EXTERIOR RAMPS

New or redeveloped exterior ramps must have:

1. a minimum clear width of 920 mm;
2. a surface that is firm, stable and slip resistant;
3. a maximum running slope of 1:15;
4. landings at the top and bottom of the ramp, where there is an abrupt change in direction, and not more than 9.0 m apart, which;
  - a. are a minimum of 1670 mm by 1670 mm; and
  - b. have a maximum cross slope of 1:50;
5. a maximum width to any surface opening of 13 mm, with any elongated openings perpendicular to the direction of travel;
6. handrails on both sides that are;
  - a. continuously graspable along their entire length and have circular cross-section with an outside diameter not less than 30 mm and not more than 40 mm, or any non-circular shape with a graspable portion that has a perimeter not less than 100 mm and not more than 155 mm and whose largest cross-sectional dimension is not more than 57 mm;
  - b. not less than 865 mm and not more than 965 mm high, measured vertically from the surface of the ramp, except that handrails not meeting these requirements are permitted provided they are installed in addition to the required handrail;
  - c. non-obstructing to pedestrian travel;

- d. extended horizontally not less than 300 mm beyond the top and bottom of the ramp;
  - e. a wall clearance of at least 50 mm;
  - f. the ability to withstand the loading values obtained from the non-concurrent application of a concentrated load not less than 0.9 kN applied at any point and in any direction for all handrails and a uniform load not less than 0.7 kN/metre applied in any direction to the handrail.
- 7. where 2.2 m or more wide, one or more intermediate handrails which are continuous between landings, located so that there is no more than 165 cm between handrails.
  - 8. a wall or guard on both sides, with guards being at least 1,070 mm high and designed so climbing is not facilitated;
  - 9. an edge protection with a curb at least 50 mm high on any side where no solid enclosure or guard is provided, or with railing or other barriers that extend to within 50 mm of the finished ramp surface.

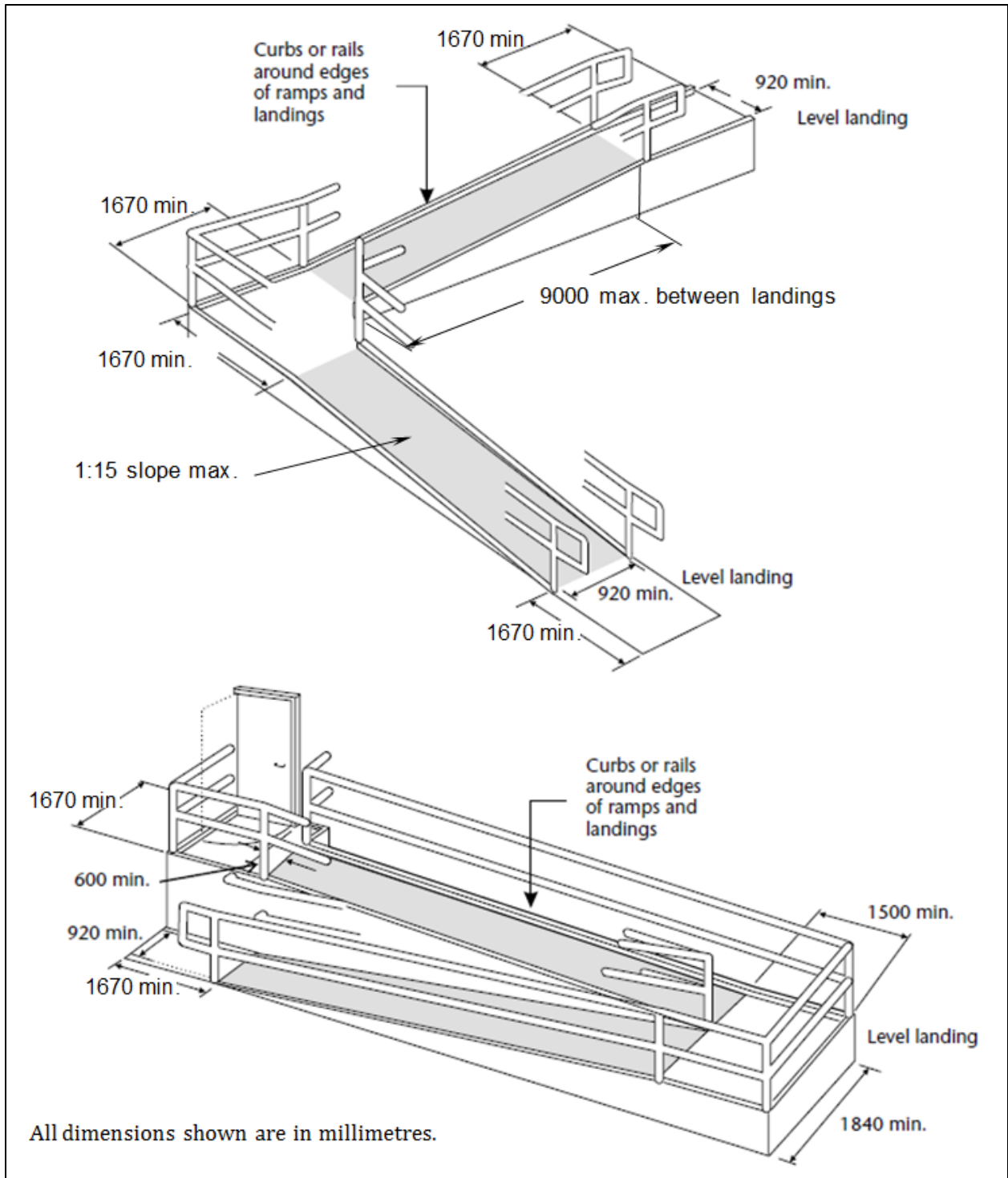


Figure 9 - Exterior Ramps

## 8.4 Exterior Stairs

New or redeveloped exterior stairs must have:

1. Treads with a surface finish that is slip resistant;
2. Uniform risers and runs in any one flight;
3. Rises between 125 mm and 180 mm;
4. Runs between 280 mm and 355 mm;
5. Closed risers;
6. A maximum tread nosing projection of 38 mm, with no abrupt undersides;
7. High tonal contrast markings that extend the full tread width of the leading edge of each step;
8. Tactile walking surface indicators located one tread depth from the top of all flights of stairs, that extend the full width of the treads and are built in or applied to the walking surface, featuring:
  - a. Raised tactile profiles;
  - b. High tonal contrast with adjacent surfaces;
9. Handrails on both sides that are consistent with Section 8.3;
10. Where stair treads and landings are more than 600 mm above the surrounding ground, guards must be provided that are at least 920 mm high along the stairs and 1,070 mm high around the landings;
11. For widths of more than 2200 mm, provide intermediate handrails that are continuous between landings and located so there is no more than 1650 mm between handrails.

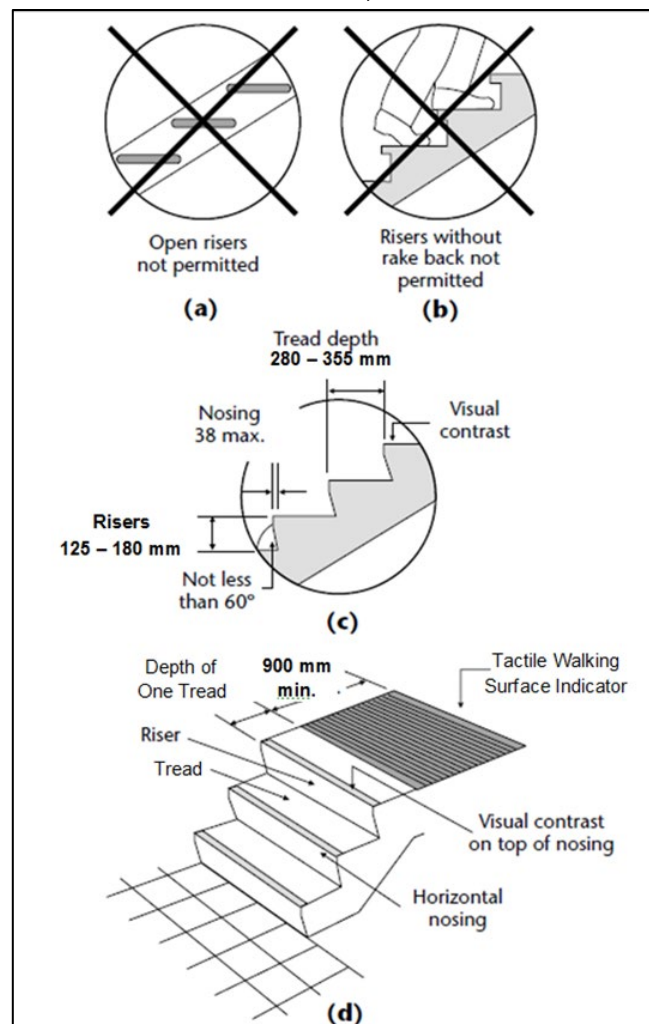
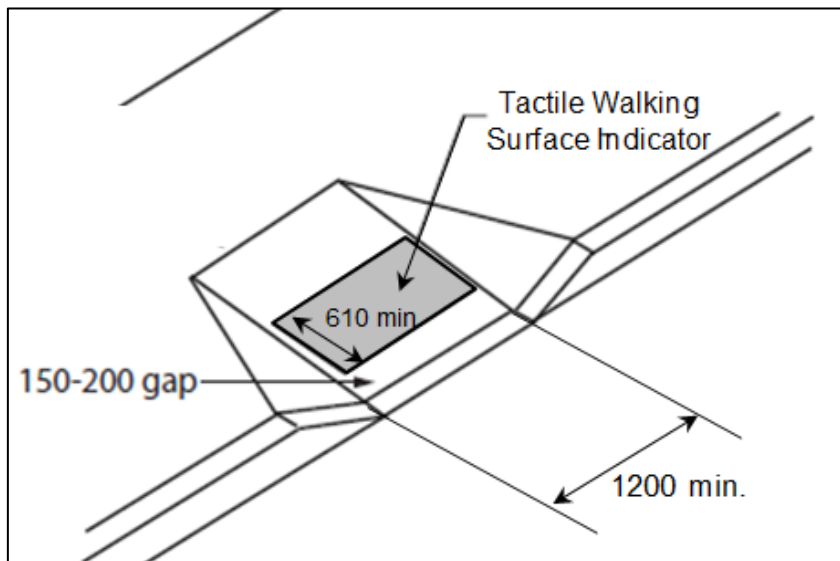


Figure 12 - Stairs

## 8.5 Curb Ramps

New or redeveloped curb ramps must align with the direction of travel, and must have:

1. A minimum clear width of 1.2 m, exclusive of any flared sides;
2. A maximum running slope of 1:8 for elevations less than 75 mm, and 1:10 for elevations 75 mm or greater;
3. A maximum cross slope of 1:50;
4. A maximum slope of flared sides of 1:10;
5. Where provided at a pedestrian crossing, tactile walking surface indicators that:
  - a. Have raised tactile profiles;
  - b. Have a high tonal contrast with the adjacent surface;
  - c. Are located at the bottom of the curb ramp;
  - d. Are set back between 150 mm and 200 mm from the curb edge;
  - e. Extend the full width of the curb ramp, and;
  - f. Are a minimum of 610 mm in depth.



## 8.6 Depressed Curbs

New or redeveloped curb ramps must;

1. Have a maximum running slope of 1:20;
2. Be aligned with the direction of travel;
3. Where provided at a

pedestrian crossing, tactile walking surface indicators that;

- a. Have raised tactile profiles;
- b. Have a high tonal contrast with the adjacent surface;
- c. Are located at the bottom portion of the depressed curb that is flush with the roadway;
- d. Are set back between 150 mm and 200 mm from the curb edge;
- e. Extend the full width of the curb ramp, and;
- f. Are a minimum of 610 mm in depth.

# 10.0 FIRE PROTECTION

## 10.1 OBJECTIVE

To ensure new development meets the requirements of the Fire Protection and Prevention Act, 1997 and the Ontario Building Code.

## **10.2 FIRE ROUTES**

New fire routes must:

1. Be connected to a public road.
2. Have signage consistent with Section 10.3.
3. Have a minimum clear driving width of 6 metres, but may be reduced at the discretion of the Municipality.
4. Be constructed of hard surface material such as asphalt, concrete, or lockstone and designed to support a load of not less than 11,363 kg (25,000 lbs.) per axle.
5. Have maximum slope of 1:12.5.
6. Be located between 3 and 15 metres from the face of the building
7. Have a minimum overhead clearance of 5 metres.
8. Have a minimum centre line radius of 12 metres.
9. If more than 90 metres in length, have turn-around facilities in the form of a second road connection, a bulb with a diameter of 27 metres, or a hammerhead 35 metres long.
10. Be designed to provide access to the building face which contains the principle entrance if only one (1) building face is accessible.
11. Provide access to the rear yards of residential buildings such as townhouses at intervals no greater than 90 metres.
12. Be no more than 45 metres from a principle entrance of each building portion which is completely cut off from the remainder of the building.
13. If designed to have a controlled entrance, such control of may be provided with a chain barrier (chain links size not to exceed 3/8"). The chains shall be connected to posts on either side of the fire route and suitable signs shall be posted.

### 10.3 FIRE ROUTE SIGNS

Fire route signs must be installed along identified fire routes at approximately 30 m intervals or as frequently as deemed necessary to identify the route in the judgement of the fire chief or his designate, and must:

1. Be permanently mounted on a rigid sign post, pole or building structure.
2. Be erected at a height of between 1.9 m and 2.5 m as measured from the surface of the fire route to the bottom edge of the sign.
3. Be installed at a distance of between 0.3 m and 3 m from the fire route.
4. Have a face at least 30 cm wide by 45 cm tall.
5. For FR-1, FR-2, and FR-3 signs; be installed at a 45 degree angle to the fire route, facing approaching traffic.
6. For FR-4 and FR-5 signs; be installed at a 90 degree angle to the fire route, such that both faces of the sign are visible to traffic.



## 10.4 HYDRANTS/WATER SUPPLY

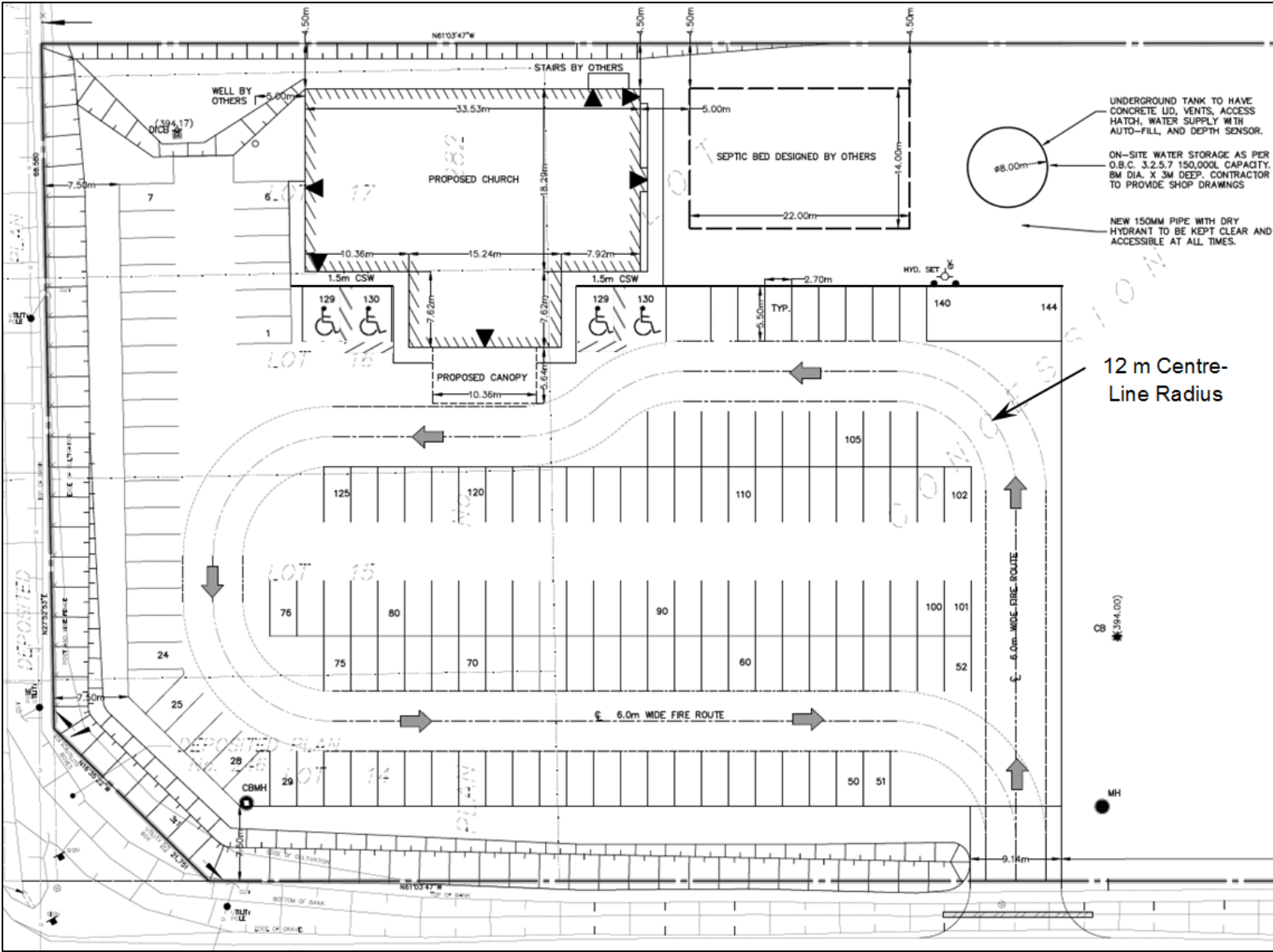
New hydrants must:

1. Be provided when any part of a building face is located more than 90 m from a municipal hydrant.
2. Be placed around the perimeter of the building so that no point on the perimeter of the building is more than 90 m from a hydrant
3. Be provided no more than 45 m from any new standpipe system or sprinkler system fire department connection.
4. Not be wall hydrants.
5. Not be supplied from water mains passing through or under buildings.
6. Be located 12 m from the building unless approved by the Municipality.
7. Be provided with 10 cm diameter concrete filled steel bollards where they may be subject to vehicle damage.
8. Be installed in accordance with N.F.P.A. 24.

The Ontario Building Code requires most new buildings that are not serviced by a municipal water supply system to provide an on-site water supply for firefighting purposes.

The water supply can consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the fire flow required, with the amount of on-site water determined by the Ontario Building Code. Dry hydrant connections for the on-site water supply should be designed in accordance with Municipal requirements.

Private fire service mains and appurtenances must be installed in accordance with N.F.P.A. 24 and water tanks for private fire protection must be installed in accordance with N.F.P.A. 22.



UNDERGROUND TANK TO HAVE CONCRETE LID, VENTS, ACCESS HATCH, WATER SUPPLY WITH AUTO-FILL, AND DEPTH SENSOR.

ON-SITE WATER STORAGE AS PER O.B.C. 3.2.5.7 150,000L CAPACITY, 8M DIA. X 3M DEEP. CONTRACTOR TO PROVIDE SHOP DRAWINGS

NEW 150MM PIPE WITH DRY HYDRANT TO BE KEPT CLEAR AND ACCESSIBLE AT ALL TIMES.

12 m Centre-Line Radius

CB (394.00)

MH

Figure 11 - Fire Route Example