

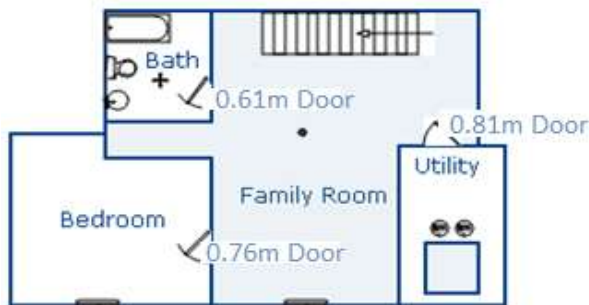
## Lower Level/Basement Development

### Ceiling Heights of Rooms or Spaces

Minimum ceiling heights for the following rooms are:

- Family Room 2.1 m
- Bedroom 2.1 m

Example Only



### Bedroom Windows Egress

- Each bedroom must have at least one window for emergency egress
- Minimum one operable outside window that has "unobstructed opening" of 0.35 m<sup>2</sup> with no dimension less than 380 mm
- For sliding windows the minimum dimension applies to the operable portion of the window
- If window opens into window well minimum 760 mm clearance in front of window
- Must be able to open window from inside without use of tools or special knowledge, including opening security bars

### Doors

Minimum door width sizes:

- Mechanical Room 810 mm
- Bathroom 610 mm
- Bedroom 760 mm
- Minimum Door Height 1980 mm

### Heat/Ventilation

- Warm air vent to be provided in each finished room located next to unheated space (exterior wall or cold room)
- When a room has an exterior wall, warm air vents are to be located with at least one exterior wall/window bathed by warm air.
- Return air system must be designed to handle entire air supply of house
- Return air openings are not to be located within 3 m horizontally from the furnace and cannot be installed in an enclosed furnace room, bathroom or laundry room

### Bathroom/Water Bylaw 23-21

*Indoor Water Conservation Measures*

#### Toilets

- For main level and/or upper storey toilets a WaterSense® certified high-efficiency (HET) or a high efficiency single flush or dual flush toilet with an effective flush volume not exceeding 4.8 litres (1.28 US gallons) per flush with a solid waste removal of 350 grams<sup>2</sup> or greater

- For sub grade / basement level toilets, all toilets shall be 6 litres (1.6 US gallons) per flush or less

#### High Efficiency Faucets

- A WaterSense® certified high-efficiency (HET) residential Faucets lavatory (bathroom) faucet or; a residential lavatory (bathroom) faucet with a flow capacity/maximum flow rate of not more than 5.7 litres (1.5 US gallons) per minute

- All shower valves must be pressure-balanced or thermostatic-mixing valves

- Showerheads -WaterSense® certified or a shower head with a flow capacity/maximum flow rate of not more than 7.6 litres (2.0 US gallons) per minute. More than one showerhead, the cumulative flow capacity shall not exceed 7.6 litres per minute (See Bylaw 23-21)

- A kitchen faucet with a flow capacity/maximum flow rate of not more than 6.8 litres (1.8 US gallons) per minute

#### Water Conserving Appliances

- A dishwasher certified as an EnergyStar® water conserving appliances device; and front and top-load clothes washers certified as an EnergyStar4 water conserving device

#### Fans

- Must be vented to exterior with separate switch located inside the room

### Smoke & Carbon Monoxide Alarms

- Detectors are required to be installed in basement ceilings in each sleeping room and a smoke detector/carbon monoxide alarm in a location between the sleeping room doorways and the remainder of the storey (hallway)
- Must have certification label 120V complete with battery back up and wired to general circuit for lights and plugs with no switches between the breaker and the detector(s)
- Carbon monoxide alarms are required when installing wood burning stoves or basement bedroom(s)

## Mechanical Room

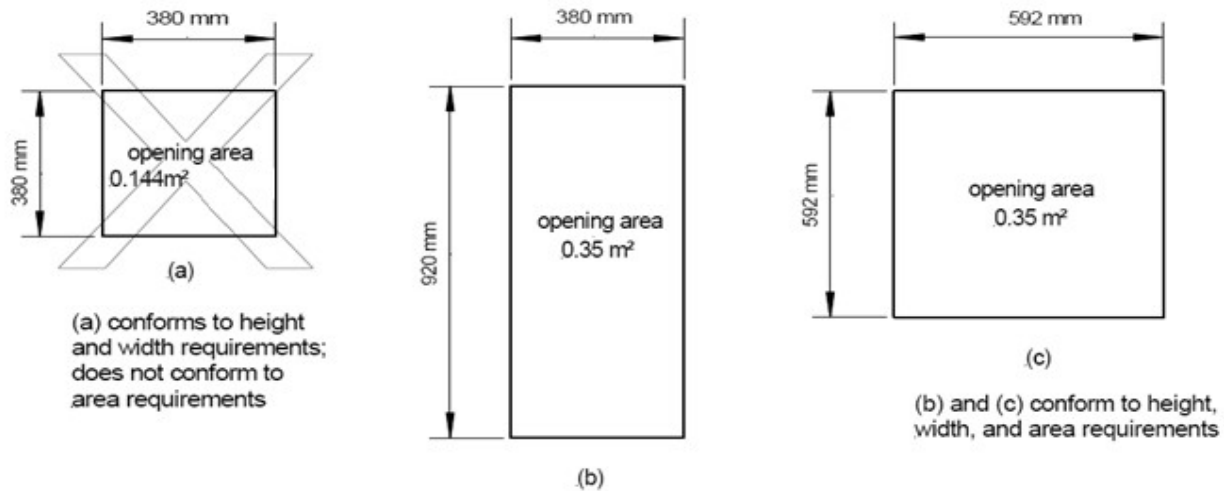
- When any part of basement is developed the furnace/boiler room must be enclosed and have a door
- Prior to submitting application check rating plate on appliances (hot water tank, furnace, boiler) for minimum clearance requirements
- Furnaces require disconnect switch which can be the breaker or another switch. When the doorway is made the switch must be located between the entryway and furnace

## Electrical

- Electrical panel requires 1 m of clearance in front at all times and cannot be inside a closet or bathroom
- One circuit may have a maximum of 12 outlets (combination of lights and plugs)
- Vapour barrier hat must be installed around the box on an outside wall before it is nailed to the stud
- All junction boxes must remain accessible. Do not cover a box with drywall or build into an inaccessible location
- Three-way switches are required to control the basement stairway lighting from top and bottom landings
- Bathroom plugs are required to be GFCI (Ground Fault Circuit Interruptor) and located at least 0.50 m from shower or tub. Bathroom switches must be out of reach of the shower or tub unless protected by a GFCI
- Branch circuits that supply receptacles installed in basement bedrooms shall be protected by an arc-fault circuit interruptor

*Electrical, plumbing and gas work may be performed by the property owner (providing the property owner resides in the dwelling unit) otherwise work must be carried out by certified licensed contractors.*

*Example of bedroom window measurements*



*This guideline may be updated periodically. It has no legal status and cannot be used as an official interpretation of the various bylaws, codes and regulations currently in effect.*