

Swimming Pools

The purpose of this brochure is to explain to owners and contractors the City of Burnaby's requirements for private swimming pools.

"This information is provided for convenience only and is not in substitution of applicable City Bylaws or Provincial or Federal Codes or laws. You must satisfy yourself that any existing or proposed construction or other works complies with such Bylaws, Codes or other laws."

Definition of Swimming Pools

The Swimming Pool Enclosure Bylaw 2000 defines "**swimming pools**" as "any privately owned man-made pool or other structure which is designed to contain water, is intended to be used for swimming, bathing, wading or diving, has a surface area equal to or exceeding 14 sq.m. (150 sq.ft.) and a depth at any point equal to or exceeding 0.5 m (20 in), and includes, without limitation, in-ground swimming pools, above-ground swimming pools, wading pools, hot tubs and spas".

Location of Swimming Pools

Swimming pools may not be constructed within a required front yard (as defined in the Burnaby Zoning Bylaw) nor closer than 3 m (10 ft) to any property line.

Swimming Pool Enclosure (barrier)

The Swimming Pool Enclosure Bylaw 2000 states that every swimming pool shall be completely enclosed by a sturdy non-climbable barrier having:

- A height of not less than 1.5 m (5 ft);
- Except in the case of a building wall, no opening greater than 100 mm (4 in) wide at its least dimension;
- No member or attachment located between 100 mm (4 in) and 900 mm (35 in) above the ground level at the base of the barrier that could facilitate climbing; and
- Except in the case of a building wall, no access through the barrier except by way of one or more self-closing, self-latching and lockable gates, with the latch and lock located on the

swimming pools side of the gate at a height of not less than 1 m (3 ft) above the ground level at the base of the gate.

Every barrier enclosing a swimming pool shall be maintained at all times in a state of good repair.

The Zoning Bylaw prohibits fences from obstructing vision clearance on corner lots. Also, in Residential Districts, where the rear line of a lot abuts the side line of an adjoining lot, the height of fences or walls on such rear lot line shall be not greater than the height permitted on the side lot line of the adjoining lot at the point of abutment. These requirements should be considered when designing the proposed pool and/or the required fencing.

Permits and Inspections

Building, Plumbing and Electrical permits are required for swimming pools having a water surface area exceeding 14 sq. m. (150 sq ft) and a depth of more than 500 mm (20 in).

Electrical permits are also required for any electrical wiring associated with a decorative pool that is larger than 1.5 m (5 ft) in any dimension and that is readily accessible to the public.

Building permits and demolition permits for pools in other than single and two family developments require a Preliminary Plan Approval (PPA) from the City's Planning Department prior to issuance of the permit. Please contact the Planning Department at 604-294-7400 for PPA application requirements.

A building inspection of the pool form work and any associated accessory building used for equipment, etc., is required prior to the placement of concrete or backfill. A final inspection is required after the swimming pool, accessory building and fencing are completed.

The permit fee is based on construction value as set out in the Building Bylaw. The damage deposit must be paid prior to the issuance of a building permit.

Pre-fabricated swimming pools shall be engineered. Electrical components must bear evidence of approval by CSA, or another certification agency recognized in the Province of B.C. A building permit must be issued to confirm the siting, and to ensure that the required fencing is in place. A plumbing permit will also be required to ensure proper drainage and backflow prevention is provided.

Building Permit Application Requirements

All plans and specifications for in-ground swimming pools shall be prepared by a Professional Engineer and/or Architect registered in B.C. and shall bear the seal of the designer. Letters of Assurance Schedule B for Geotechnical and Structural are required to be submitted at the time of application for building permit. Upon completion, a Schedule C-B Letter of Assurance for Geotechnical and Structural must be submitted to the Building Inspector on site.

Application for a building permit shall be accompanied by a site plan showing:

- location of the principal building and any existing accessory building(s) on the property;
- size and location of the swimming pool;
- location, construction and height of fencing and gate(s);
- size and location of filter and heater equipment or accessory building housing the equipment;

- location of electrical service to buildings or equipment;
- location of swimming pool water supply;
- location of the backwash or waste water disposal point; and
- if the pool is uncovered or covered.

Electrical Requirements

Electrical work shall be installed under permit, in accordance with the B.C. Electrical Code and the current edition of the Burnaby Electrical By-law. Reference: Canadian Electrical Code, Part 1 (current edition), Section 68 - Swimming Pools.

An electrical inspection and approval is required before any electrical work may be concealed.

Any overhead wiring above a swimming pool, diving platform or similar structure or above the area extending 5 m (16 ft) horizontally from the pool edge, must conform to the requirements of Rule 68-054.

Separation for underground wiring from the inside wall of the pool shall be based on Table 61 of the Electrical Code.

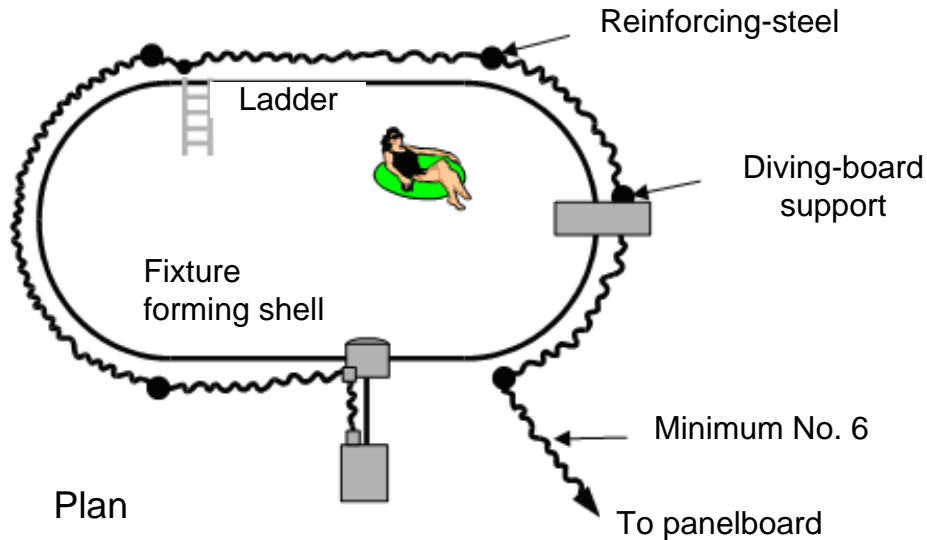
Receptacles

- (1) No receptacles shall be installed within 1.5 m (5 ft) of the inside walls of the pools.
- (2) Receptacles located between 1.5 m (5 ft) and 3 m (10 ft) of the inside walls of a pool shall be protected by a ground fault circuit interrupter of the class A type.
- (3) Communication jacks shall not be installed within 3 m (10 ft) from the inside walls of the pools.

Bonding and Grounding

- (1) The metal parts of the pool and other non-electrical equipment associated with the pool, such as piping, pool reinforcing steel, ladders, diving board supports, and fences within 1.5 m (5 ft) of the pool shall be bonded together and connected to non-current-carrying metal parts of electrical equipment, such as decorative type pool lighting fixtures not located in a forming shell, metal screens or shield for underwater speakers, conduit, junction boxes and the like, by a copper conductor not smaller than No. 6 AWG, which shall be connected to the panelboard supplying pool electrical equipment.
- (2) Pool reinforcing steel shall be bonded with a minimum of four connections equally spaced about the perimeter of the pool.

The following sketch illustrates the requirements for pool bonding.



Underground conductors, including communication conductors, shall have a minimum horizontal separation from the inside wall of a swimming pool, per table 61.

Plumbing & Gas Requirements

Plumbing

All plumbing work for swimming pools shall be installed under a plumbing permit and shall be in accordance with Burnaby Plumbing By-Law and the Part 7, Plumbing Services of the B.C. Building Code.

All swimming pool drain and backwash lines shall discharge to either a:

- 600 mm (24 in) diameter sump that is properly connected to a combined or sanitary sewer; or
- 75 mm (3 in) vented trap and stand pipe connected to the plumbing system.

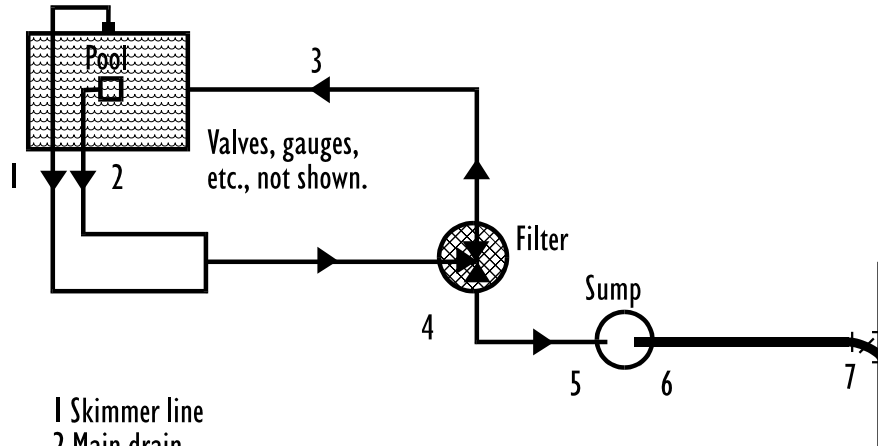
The water in a swimming pool shall be separated:

- from any potable water supply by an approved backflow preventer to ensure that the water in the pool system does not flow back into the potable water supply;
- by air gaps from the sewer or drainage system which it drains; and
- from a wading-pool or therapeutic pool recirculation system.

Drainage piping shall be laid at least 450 mm (18 in) underground and potable water piping at least 600 mm (24 in) underground.

Inspection and approval by a City Plumbing Inspector is required before potable water or waste water pipes may be concealed.

POOL PIPING SCHEMATIC - N.T.S.



- 1 Skimmer line
- 2 Main drain
- 3 Inlet line
- 4 Backwash (drain) line
- 5 Air gap connection
- 6 Sanitary sump outlet pipe
- 7 Connection to building drain or sewer

Gas

Gas fitting work shall be installed, under permit, and shall be in accordance with Burnaby Gas By-Law No. 7288 and the latest natural Gas Installation Code.

An outdoor pool heater shall not be installed:

- under a sundeck, patio, porch, carport, roof or roof overhang of any kind, unless it is vented to code requirements above such an obstruction;
- within 3000 mm (10 ft) of an opening in a building;
- within 900 mm (3 ft) of adjacent construction;
- within 1500 mm (5 ft) of a meter or regulator vent;
- closer than 450 mm (1.5 ft) to any property line.

A room or enclosure containing a gas-fired swimming pool heater shall:

- be accessible only from outdoors;
- be isolated from a habitable portion of a building;

- contain appliances which are properly vented to a point not less than 600 mm (2 ft) above the roof of the building;
- be provided with an adequate supply of combustion and ventilation air.

Chlorine and other filtering chemicals shall be stored in a space separate from a gas-fired equipment room and no direct access from the equipment room to the storage area is permitted.

A valved manual bypass shall be installed in the water circulating piping of a swimming pool heater. A thermometer shall be installed in such a manner that the water temperature on the outlet side of the heat exchanger can be read.

Generally, a gas inspection is required:

- before covering underground gas piping;
- for the pressure test on the house piping; and
- after the appliance is operative.

Removal/Infill of an Existing Swimming Pool

If you have an existing swimming pool that you wish to remove or infill, you must first obtain a building permit. The building permit is issued over the counter at the Burnaby Building Department for a fee equivalent to the fee charged for the demolition of an accessory building.

If the pool is to be filled in, the concrete structure of the pool should be broken (jack hammered) or drainage holes provided to allow for surface drainage to dissipate into the surrounding soil. After the concrete has been broken up or removed, the permit holder should call the Building Department to request an inspection. A Building Inspector will then inspect it and will also determine if there are any plumbing or electrical issues that may require additional permits or inspections.

Clean, non-organic, compacted fill should be used to fill the pool area.

After the pool has been removed or in-filled, the permit holder should call the Building Department to request a final inspection of the site.

If you have any further questions, please contact the Building Department at 604-294-7130.

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