CITY OF LONG BEACH

Community Development Department
Building and Safety Bureau
411 W. Ocean Boulevard, 2nd Floor, Long Beach, CA 90802
562.570.PMIT (7648) | longbeach.gov/lbcd

INFORMATION BULLETIN

IB-022

Eff: 01-01-2008 Rev: 01-27-2026

Swimming Pool and Spa

The purpose of this Information Bulletin (IB) is to assist owners, design professionals, and contractors in understanding and complying with the design, construction requirements, and appropriate pool safety features for swimming pools and spas in the City of Long Beach (City). This IB summarizes the specific pool safety features required by the California Health and Safety Code (HSC) sections 115920-115929, the California Building Code (CBC) section 3109, and the Long Beach Municipal Code (LBMC) as part of the permitting requirements for swimming pools and spas.

The topics covered in this IB are as follows:

- Definitions
- General Requirements
- Pool Enclosure and Safety Features Required
- Pool Equipment and Drainage
- Structural Design

Definitions.

For the purpose of these regulations, the terms in this IB are defined pursuant to the HSC 115921 as follows:

1. "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and above-ground structures and includes, but is not limited to, hot tubs, spas, portable spas, and nonportable wading pools.

2. "Public swimming pool" means a swimming pool operated for the use of the general public with or without charge or for the use of the members and guests of a private club. Public swimming pool does not include a swimming pool located on the grounds of a private single-family home.

   Note: Examples of public swimming pools and spas include those located in the following: commercial buildings, hotel, motel, resort, automobile and trailer park, automobile court, mobile home park, campground, duplex, apartment house, condominium, townhouse, lot with 2 or more dwelling units, homeowner association, club, community building, public or private school, gymnasium and health establishment.

3. “Private swimming pool” means a swimming pool, permanent or portable accessory to a single-family dwelling, which is intended for noncommercial use, and available only to the family of the household and their guests.

General Requirements.

1. Permit Requirements.

   a. Public Swimming Pools. All public swimming pools and spas shall obtain separate building, electrical, and/or plumbing permits.

   b. Private Swimming Pools. All private swimming pools and spas shall obtain combination-building permits.

   c. Pool Enclosures. All pool enclosures constructed of wood, masonry, concrete, corrosion-metal or chain link may require a separate building permit. In all cases, review and approval is required by the Building and Safety Bureau (Bureau) prior to installation.

      Note: Approved construction material for fences include wood, masonry, concrete, corrosion-metal or chain link fence. Pool enclosures shall be properly maintained, kept vertical, uniform, and structurally sound.

   d. Permit Exceptions. Permits are not required for the following swimming pools or spas or pool enclosures:

      (i) Swimming, bathing and/or wading pools not over 2 feet in depth; are entirely below the adjacent grade; that provide a distance from the pool to the property lines and/or buildings or structures not less than the depth of the pool; not having a surface area exceeding 250 square feet; and having no electrical or plumbing installation. (LBMC 18.04.020.B.16)

      (ii) Prefabricated swimming pools accessory to a single-family dwellings or duplexes (Group R-3 occupancy) that are less than 2 feet deep; are entirely above the adjacent grade; does not exceed 5,000 gallons capacity; and contains no electrical, mechanical or plumbing installations; and is not in violation of Title 21 Zoning Regulations. (LBMC 18.04.020.B.17)

   e. Additional Sub-trade Permits: Any additional gas or electrical outlets installed for any of the exceptions outlined in item (d) above shall obtain separate plumbing or electrical permits.

2. Plan Submittal Requirements.

   a. Building Plans. Building plans and structural calculations are required for all swimming pools or spas at the time of plan submittal. Building plans shall include a fully dimensioned plot plan, which shows the location of the pool or spa, pool enclosure, and all accessory equipment and their setbacks to all adjacent buildings, property lines, and slopes.

      Exception: The Building Official may waive the requirement for calculations when a valid standard swimming pool plan approved by a recognized agency is used. An agency approval number for the standard plan is required and must be based upon the current code.

   b. Electrical Plans. Electrical plans are required for all public swimming pools or spas and accessory equipment at the time of plan submittal. Plans should provide equipment locations,

panel schedule, branch circuit and feeder size, grounding/bonding diagram, and electrical devices distance and spacing per code.
All swimming pool or pool that have a water depth of 42 inches or greater shall comply with the provisions of the California Electrical Code section 680 for the construction and installation of electrical wiring for, and equipment in or adjacent to the pool.

c. Mechanical Plans. Mechanical plans are required for all public swimming pools or spas at the time of plan submittal. Plans should provide equipment schedule for pool heater and pumps, method of venting pool heater, and compliance with the California Energy Code section 110.4.

d. Plumbing Plans. Plumbing plans are required for all public swimming pools or spas at the time of plan submittal. Plans should provide distance from gas meter to pool equipment, including BTU rating for each piece of equipment and all gas pipe sizes and types.

Note: Separate submittal and approval from the Long Beach Health and Human Services Department is required for water backflow devices for pool make-up water.

Note: Pursuant to the requirement of the Long Beach Energy Resources Department, 1,000 BTU = 1 CFH shall be used to determine gas pipe size.

e. Signature on Plans. Plans and calculations shall be signed and stamped by a registered design professional (e.g., architect or engineer) licensed in the State of California.

f. Expansive or Uncertified Fill Soils. Building plans shall indicate “Expansive Soil” or “Uncertified Fill Soil” and shall comply with the structural design criteria in Part V of this IB and the CBC, when applicable.

3. Location of Swimming Pools. The swimming pools shall be located as follows:

a. Zoning Code Requirements. All pools shall comply with the use and location requirements of the Long Beach Zoning Code. Pools shall not be located in any required yard where fences 5 feet in height are prohibited or the required front yard.

b. Building Code Requirements. The setback requirements for swimming pools from the bottom of ascending slopes and the top of descending slopes shall be H/4 and H/6, respectively, where H is the height of the slope per the CBC 1808.7.3.

c. Glazing in Hazardous Locations. Glazing in walls of a building and fences used as the barrier for swimming pools and spas shall comply with the requirements of the CBC §2406 when all of the following conditions are present:

(i) The bottom edge of the glazing is less than 60 inches above the pool-side of the glazing.

(ii) The glazing is less than 5 feet from swimming pool or spa water’s edge.

4. Special Requirements for Swimming Pools.

   a. Public Swimming Pool Deck. All public swimming pools shall provide a continuous, unobstructed, minimum 4 foot-wide slip-resistant non-abrasive (walking or lounging) deck area of concrete or like material flush with the top of the pool shell wall and extending completely around the pool. The deck shall be measured from the poolside edge of the coping lip. The deck shall extend 4 feet on both sides and rear of any diving board or slide and their appurtenances.

      Note: There are exceptions and additional requirements in the CBC Chapter 11B and Chapter 31B.

   b. State Accessibility Regulations. All public swimming pools and accessory structures shall be accessible to person with disabilities and comply with the applicable provisions of the CBC Chapter 11A or 11B.

   c. Long Beach Health and Human Services Department (LBHHS). All plans to construct public swimming pools shall be approved by the LBHHS prior to issuance of the building permit. For more LBHHS related information on public swimming pools, please visit: longbeach.gov/health/inspections-and-reporting/forms/environmental-health/

      Exception: LBHHS approval is not required for public swimming pools on lots with 3 or fewer dwelling units.

   d. Long Beach Energy Resources Department (LBER). All plans to construct public or private swimming pools shall obtain approval from the LBER for the sizing of gas piping supplied to pool heaters or other external gas appliances prior to issuance of the building or plumbing permit. LBER may require that the gas meter be upgraded. For more LBER related information on pool heater installation or gas meter upgrade, please visit the following webpage and obtain the “Pool Heater Installation Checklist”: longbeach.gov/energyresources/information/engineering-specs-and-standards/

Pool Enclosure and Safety Features Required.

1. Private Swimming Pool. All private swimming pools or spas shall be equipped with **at least two** of the following drowning prevention safety features required by the Swimming Pool Safety Act Section 115922(a) of the California Health and Safety Code. A permanent enclosure preventing direct access to a swimming pool and/or spa shall be provided as one of the two required drowning prevention safety features.

   a. The pool shall be isolated from access to a home by a permanent enclosure that meets the requirements of CBC 3109. A permanent enclosure shall have all of the following characteristics:

      (i) Any access gates through the enclosure open away from the swimming pool and are self-closing with a self-latching device placed no lower than 60 inches above the ground. Any access gate shall not exceed 48 inches in width.

      (ii) A minimum height of 60 inches.

(iii) A maximum vertical clearance from the ground to the bottom of the enclosure of 2 inches.

(iv) Gaps or voids, if any, do not allow passage of a sphere equal to or greater than 4 inches in diameter.

(v) An outside surface free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of 5 years to climb over.

(vi) Where the permanent enclosure includes an exterior wall of the residence and/or accessory structures including but not limited to garage, sheds, pool houses and accessory dwelling units, any doors opening directly into the enclosed area shall be provided with a self-closing, self-latching device with a release mechanism placed not lower than 54 inches above the interior finished floor or a permanent exit alarm.

(vii) Where provided, the permanent exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that “the door to the pool is open.” Exit alarms may be battery operated or may be connected to the electrical wiring of the building.

b. The pool shall incorporate removable mesh pool fencing that meets American Society for Testing and Materials (ASTM) Specifications F 2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.

c. The pool shall be equipped with an approved safety pool cover that meets all requirements of the ASTM Specifications F 1346-91.

d. Swimming pool alarms that, when placed in a swimming pool or spa, will sound upon detection of accidental or unauthorized entrance into the water. These pool alarms shall meet and be independently certified to the ASTM Standard F 2208 "Standard Safety Specification for Residential Pool Alarms" which includes surface motion, pressure, sonar, laser, and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature.

e. The Building Official may consider other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the devices set forth above, and have been independently verified by an approved testing laboratory as meeting standards for those devices established by the ASTM or the American Society of Mechanical Engineers.

2. Public Swimming Pool. All public swimming pools or spas shall be enclosed by a fence, portion of a building, wall or other approve durable enclosure (CBC Chapter 31B as adopted or amended by the LBHHS). An enclosure shall have all of the following characteristics per the CBC 3119B.1 (unless determined otherwise by the LBHHS):

a. The enclosure shall have a minimum effective perpendicular height of 5 feet. Enclosure shall be located to prohibit permanent structures, equipment or similar objects from being used to climb the enclosure.

b. Openings, holes or gaps in the enclosure, doors and/or gates shall not allow the passage of a 4-inch diameter sphere. The enclosure shall be constructed over a hard and permanent material equivalent to concrete.

c. The enclosure shall be designed and constructed so that it cannot be readily climbed by small children. Horizontal and diagonal member designs, which might serve as a ladder for small children, are prohibited. Horizontal members shall be spaced at least 48 inches apart. No planters or other structures that can be climbed shall be permitted within 5 feet of the outside of the pool enclosure or within a 5 feet arc. The area 5 feet outside of the pool enclosure shall be a common area open to the public.

d. Chain link may be used, provided that openings are not greater than 1-3/4 inches measured horizontally.

e. Gates and doors opening into the pool enclosure also shall meet the following specifications (CBC 3119B.2):

(i) Be equipped with self-closing and self-latching devices,

(ii) Open outwardly away from the pool,

(iii) Hand-activated door or gate-opening hardware shall be located at least 42 inches but no higher than 44 inches above the deck or walkway,

(iv) Be capable of being locked during times when the pool is closed,

(v) Exit door shall comply with CBC Chapter 10, and

(vi) At least one means of egress without a key for emergency purposes and clearly and conspicuously labeled in letters at least 4 inches high “EMERGENCY EXIT.”

3. Driveway Gates. Driveway gates are not permitted as part of the pool enclosure.

Pool Equipment and Drainage.

1. Pool Equipment. Plans shall show location of all pool equipment. Every swimming pool or spa shall be equipped with an approved filter unit and drain and shall comply with the requirements of the California Plumbing Code and the LBMC.

2. Pool Drainage. In accordance with the Long Beach Water Department’s (LBWD) requirements and the LBMC Chapter 18.61 NPDES and SUSMP Regulations, drainage to the sanitary sewer or storm drain system shall be as follows:

a. Periodic Draining of Swimming Pool. Dechlorinated swimming pool water from periodic draining can be discharged into the storm drain system per the LBMC 18.61.030.

Exception: Rising pool water due to rain may be discharged to the sewer system to lower the water level without obtaining approval from the LBWD. If the pool water must be drained

completely for any reason, it should be dechlorinated and discharged into the storm drain system.

b. Deck Drainage. Uncontaminated water on decks built around the swimming pools or spas shall not drain into the sanitary sewer system and should be conducted to the storm drain system via non-erosive device.

c. Other Types of Drainage. All other swimming pool, spa or filter backwash discharges, including open and unenclosed shower or washing area adjacent to the pool for general rinsing, shall be discharged into the sanitary sewer system.

3. Entrapment Avoidance for Private Swimming Pool. Whenever a building permit is issued for the construction of a new swimming pool or spa, the pool or spa shall meet all of the following requirements:

a. The suction outlet of the pool or spa for which the permit is issued shall be equipped to provide circulation throughout the pool or spa as prescribed in paragraph (b).

b. The swimming pool or spa shall either have at least 2 circulation suction outlets per pump that shall be hydraulically balanced and symmetrically plumbed through one or more "T" fittings, and that are separated by a distance of at least 3 feet in any dimension between the suction outlets, or designed to use alternatives to suction outlets, including, but not limited to, skimmers or perimeter overflow systems to conduct water to the recirculation pump. The circulation system shall have the capacity to provide a complete turnover of pool water, as specified in the CBC 3124B.

c. Suction outlets shall be covered with anti-entrapment grates, as specified in the ANSI/APSP-16 performance standard or successor standard designated by the federal Consumer Product Safety Commission, that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area, and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.

d. Any backup safety system that an owner of a new swimming pool or spa may choose to install in addition to the requirements set forth in paragraph (a), (b) and (c) above shall meet the standards as published in the document, "Guidelines for Entrapment Hazards: Making Pools and Spas Safer," Publication Number 363, March 2005, United States Consumer Product Safety Commission.

Whenever a building permit is issued for the remodel or modification of an existing swimming pool, toddler pool, or spa, the permit shall require that the suction outlet or suction outlets of the existing swimming pool, toddler pool, or spa be upgraded so as to be equipped with anti-entrapment grates, as specified in the ANSI/APSP-16 performance standard or a successor standard designated by the federal Consumer Product Safety Commission.

Structural Design.

1. General Structural Design Requirements. The pool shall be designed in accordance with the latest code requirements and the following:

   a. Pneumatically applied mortar (shotcrete) pools shall be designed, tested, and inspected in conformance with CBC 1908.

   b. Gunite may be used for structural purposes, provided it conforms to all applicable requirements of CBC 1908 and shall require continuous inspection as required for shotcrete per CBC 1705.3 and Table 1705.3. The design and placement of rebar in gunite pools shall be the same as that specified for shotcrete construction.

   c. Minimum concrete compressive strength, f'c, for shotcrete or gunite shall be 2,500 psi.

   d. When casting against the earth, the reinforcing steel in gunite or shotcrete pools shall have a minimum cover of 3 inches per ACI-318.

2. Wall Design. Pool walls shall be designed in accordance with the ACI-318 requirements and the following:

   a. Pool walls shall be designed for earth pressures as specified in the CBC 1610.1 and the ASCE 7 Section 3.2.1, designed for expansive soil as specified in the CBC 1808.6 and this IB, or per recommendation in a soils report.

   b. Hydrostatic pressure shall be used in an outward direction as a design criterion where concrete is not deposited against natural undisturbed earth or approved compacted fill.

   c. Minimum required reinforcing steel in either direction shall be 1/10 of 1 percent of the wall cross-sectional area with a maximum spacing of 18 inches. (ACI-318)

3. Pools in Expansive Soil. The following minimum construction requirements will be required for all swimming pools located in expansive soil:

   a. All pools shall be provided with a concrete or equally impervious deck sloping away from the pool with a minimum width of 4 feet and having a lip extending 6 inches below the bottom of the deck at its outer edge. All joints in the deck and coping shall have approved permanent resilient waterproof seals. The coping shall be set in a solid bed of mortar.

      Exception: The impervious deck may be omitted, provided the pool is designed for lateral earth pressure of P = 62.4H + P(s); and the bond beam has a thickness of not less than 12 inches and is reinforced with a minimum of 3 #4 bars in each face. The soil around the pool shall slope away from the pool to prevent ponding; or a drainage system shall be provided to collect surface water.

b. To determine the lateral earth pressure on the pool walls, the following formula shall be used:

P = 45H + P(s) but not less than CBC 1610.1 and Table-1610.1, where:
P = lateral pressure in pounds per square foot.
H = vertical distance in feet below the ground surface.
P(s) = lateral pressure due to any superimposed surcharge.

c. The design of bond beams and the thickness and amount of reinforcing steel in the bottom of pools shall be given special consideration. Bond beams shall have a minimum of 4 #3 bars.

4. Pools in Uncertified Fill Soils. The Bureau may issue permits for "floating type" swimming pools when the following conditions are complied with:

a. A favorable recommendation from a soils or geotechnical engineer is required. Recommendation in the soils report shall be based upon findings in the field relative to the materials making up the fill, the density, containment, drainage factors, and additional conditions which may affect the pool structure or its foundation.

b. The pool is designed under the assumption that it receives vertical support from the soil lying under the pool bottom. The limits of the supporting soil shall be below a line drawn around the perimeter of the pool and located on the bottom of the pool where a line sloping at 33 degrees with the horizontal is tangent to the pool bottom.

c. Pool walls shall be designed assuming no support from the surrounding soil as well as a 30 pounds per cubic foot equivalent fluid pressure acting inward.

d. All water connections including both inlet and outlet shall be flexible in nature so that some differential settlement between pool and utilities may take place without causing leaks.

e. The soils/geotechnical engineer shall verify in the field the capability of the soil to support the pool and that the construction is in accordance with the recommendation in the soils report.

5. Backfill of Swimming Pool and Spa. The requirements for the backfilling of existing residential or commercial swimming pools or spas can be found in Information Bulletin IB-008 Backfill of Swimming Pool and Spa.

To request this information in an alternative format or to request a reasonable accommodation, please contact the Community Development Department at longbeach.gov/lbcd and 562.570.3807. A minimum of three business days is requested to ensure availability; attempts will be made to accommodate requests with shorter notice.