

City and County of Broomfield

1 DesCombes Drive Broomfield, CO 80020

Broomfield, CO 80020 www.broomfield.org

Requirements for Residential Spas and Hot Tubs

303.438.6207 FAX

A building permit is required for the installation or placement of all spas and hot tubs. Not only are zoning rules applicable, but many life safety issues need to be addressed.

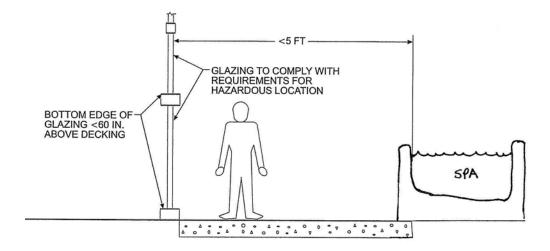
Outdoor Spas/Hot Tubs

- Provide a dimensioned site plan showing where the spa/hot tub is to be located in relation to the house and the property lines. Setbacks from property lines are required complying with the Zoning ordinance. Spas/hot tubs are accessory structures per BMC 17-32-010 (B). Principal structure setbacks apply if the spa/hot tub is placed less than 7½ feet away from the home.
- Suction outlets in the spa or hot tub shall be designed and installed in accordance with ANSI/APSP-7 for entrapment avoidance.
- An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be completely surrounded by a barrier which shall comply with the following:
 - o The top of the barrier shall be at least 48 inches above *grade* measured on the side of the barrier which faces away from the swimming pool.
 - o Openings in the barrier shall not allow passage of a 4-inch-diameter sphere.
 - Solid barriers, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
 - Barriers shall be designed to minimize possibility of climbing; many restrictions apply. See IRC Section AG105.
 - Access gates shall comply with the barrier requirements and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches from the bottom of the gate, the release mechanism shall be located on the pool side of the gate at least 3 inches below the top of the gate; and the gate and barrier shall have no opening larger than 1/2 inch within 18 inches of the release mechanism.
 - Where a wall of a dwelling serves as part of the barrier, the pool shall be equipped with a powered safety cover in compliance with ASTM F 1346; or doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017. The deactivation switch(es) shall be located at least 54 inches above the threshold of the door; or other means of protection approved by the governing body, shall be acceptable as long as the degree of protection afforded is not less than the protection afforded items described above.
 - Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps: 1) The ladder or steps shall be capable of being secured, locked or removed to prevent access; or 2) The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter sphere.
 - Barriers shall be located to prohibit permanent structures, equipment or similar objects from being used to climb them.
 - Spas or hot tubs with a safety cover which complies with ASTM F 1346 shall be exempt from the barrier requirement.
- All glazing within 60 inches of the water's edge of the spa/hot tub and less than 60 inches above any walking surface shall be safety glazing per IRC R308.4, item 9.
- Spas/hot tubs shall not be located over or within 5' horizontally of buried electrical service per NEC 680.10.

- For hard wired spas/hot tubs, there shall be a disconnecting means that is readily accessible and within sight of the spa/hot tub, and located at least 5 feet from the inside walls of the sp/hot tub. This shall be able to simultaneously disconnect all ungrounded conductors for the spa/hot tub or spa/hot tub equipment other than lighting per NEC 680.12 and 430.102.
- All receptacles within 20 feet of the inside walls of outdoor spas/hot tubs and the outlet supplying pump motors shall be GFCI protected.
- At least one 15 or 20 ampere receptacle on a general branch circuit shall be located not less than 6 feet and not more than 20 feet from the inside wall of the outdoor spa/hot tub. This receptacle shall be located not more than 6½ feet above the floor, platform or grade level serving the spa/hot tub. Other outlets shall be no closer than 10 feet to the inside wall of the spa/hot tub. (All distances measured in the shortest path a supply cord could follow without passing through walls, windows, or doors.)

Exception: a receptacle serving the spa/hot tub equipment may be located between 6 and 10 feet from the inside wall of the spa/hot tub provided that all of the following are met: consist of a single receptacle, employ a locking configuration, is of the grounding type, has GFCI protection, and be equipped with "in-use" covers.

- Cord and plug connections are permitted with cord length less than 15 feet to a GFCI protected receptacle.
- New light fixtures or ceiling fans over and within 5 feet measured horizontally from the inside walls of outdoor spas shall be not less than 12 feet above the maximum water level.
- Existing light fixtures over and within 5 feet measured horizontally from the inside walls of outdoor spas shall be not less than 5 feet above the maximum water level, shall be rigidly attached to the existing structure, and shall be GFCI protected. Lighting fixtures or ceiling fans more than 5 feet but less than 10 feet measured horizontally from the inside walls of outdoor spas shall be GFCI protected unless more than 5 feet above the maximum water level and rigidly attached to the structure.
- Switches shall be not closer than 5 feet from the inside wall of the spa/hot tub.
- Metal surfaces within 5 feet of the inside walls of the spa/hot tub or within 12 feet vertically of the maximum water level shall be bonded with #8 copper wire.





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Indoor Spas/Hot Tubs

- Provide a dimensioned floor plan showing the location of the spa or hot tub in the house. Include location of all windows, doors, electrical switches, outlets, and light fixtures.
- All glazing within 60 inches of the water's edge of the spa/hot tub <u>and</u> less than 60 inches above any walking surface shall be safety glazing per IRC R308.4, item 9.
- All receptacles shall be located at least 6 feet measured horizontally from the inside walls of the spa/hot tub.
 Receptacles located within 10 feet of the inside walls of indoor spas or hot tubs shall be GFCI protected.
- For hard wired spas/hot tubs, there shall be a disconnecting means that is readily accessible and within sight of the spa/hot tub, and located at least 5 feet from the inside walls of the spa/hot tub. This shall be able to simultaneously disconnect all ungrounded conductors for the spa/hot tub or spa/hot tub equipment other than lighting per NEC 680.12 and 430.102.
- At least one 15 or 20 ampere receptacle shall be located not less than 6 feet and not more than 10 feet from the inside wall of the indoor spa/hot tub. Receptacles serving indoor spas/hot tubs shall be no closer than 6 feet and no more than 10 feet to the inside wall of the spa/hot tub. (All distances measured in the shortest path a supply cord could follow without passing through walls, windows, or doors.)
- New light fixtures over and within 5 feet of indoor spas/hot tubs:
 - shall be not less than 12 feet above the maximum water level without GFCI protection;
 - shall be not less than 7½ feet above the maximum water level with GFCI protection;
 - may be less than 7½ feet above the maximum water level <u>if</u> the fixture is recessed with a glass or plastic lens, nonmetallic trim, listed as suitable for use in damp locations, and is GFCI protected;
 - may be less than 7 feet 6 inches above the maximum water level <u>if</u> the fixture is fully enclosed with a glass or plastic globe, nonmetallic body or a metallic body isolated from contact, listed as suitable for use in damp locations, and is GFCI protected.
- Switches shall be not closer than 5 feet from the inside wall of the spa/hot tub.
- Metal surfaces within 5 feet of the inside walls of the spa/hot tub or within 12 feet vertically of the maximum water level shall be bonded with #8 copper wire.
- Walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.