2003

SOUTHERN NEVADA

POOL CODE

City of Boulder City
401 California Ave
Boulder City, NV 89005
(702) 293-9282

Clark County
500 S. Grand Central Pkwy
Las Vegas, NV 89155
(702) 455-3000
Inspections 455-7410

City of Henderson
240 S. Water St
Henderson, NV 89015
(702) 565-2332
Inspections 565-2090

City of Las Vegas
731 S. Fourth St
Las Vegas, NV 89155
(702) 229-6251
Inspections 229-2071

City of Mesquite
11 East 100 South
Mesquite, NV 89024
(702) 346-2835

City of North Las Vegas
2266 Civic Center Dr
North Las Vegas, NV 89030
(702) 633-1576

PREFACE

This document comprises the Southern Nevada Pool Code and was developed by the jurisdictions listed on the cover page as a document to be adopted by reference. These provisions are not code unless adopted and codified by governmental jurisdictions. These provisions are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternate has been approved and its use authorized by the building official. This document is available to be adopted as code by any jurisdiction without permission or approval from the jurisdictions listed on the cover page.

In addition to the requirements set forth in this document, public swimming pools, wading pools, spas and water features, designed for full or partial human submersion and open to the public must be constructed in compliance with the Clark County Health District rules and regulations. In the event that conflicts between this document and those regulations occur, the more restrictive condition will apply.

For further information on public pools, please contact the **Clark County Health District at 383-1266**.

SOUTHERN NEVADA POOL CODE

SECTION **PAGE**

SCOPE

To uphold a standard committed to human and life safety pertinent to water bodies and related equipment by functional regulation of technologies and appropriate building codes.

100 DEFINITIONS, GENERAL: For the purpose of this code, certain terms, phrases, words and their derivatives shall be construed as specified in this chapter and elsewhere in this code where specific definitions are provided. Terms, phrases, and words used in the singular include the plural and the plural singular. Terms, phrases, and words used in the masculine include the feminine and the feminine masculine.

Where terms are not defined, they shall have their ordinarily accepted meanings within the context with which they are used. *Webster's Third New International Dictionary of the English Language, Unabridged*, copyright 1986, shall be considered as providing ordinarily accepted meanings.

ACCESSIBLE: When applied to a fixture, connection, appliance or equipment shall mean having access thereto, but which may require the removal of an access panel, door or similar obstruction without damaging the structure or finish.

ACCESSIBLE, READILY: When applied to a fixture, connection, appliance or equipment shall mean having direct access without the necessity to remove an access panel, door or similar obstruction.

ACCESS BARRIER: A fence, wall, building wall or combination thereof that completely encloses a pool, spa or water feature and obstructs access.

APPROVED: Approval by the Building Official as the result of investigation and tests conducted by the Building Official, or by reason of accepted principles or tests by recognized authorities, technical or scientific organizations.

GATE OR DOOR: A single movable panel that swings or hinges, rotates or slides used for entrance into or closing off an opening in the required barrier.

HEALTH DISTRICT: Clark County Health District.

LISTED and LISTING: Equipment or materials included in a list published by an approved testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of current productions of listed equipment or materials. The published list shall state that the material or equipment complies with approved nationally recognized codes, standards or tests and has been tested or evaluated and found suitable for use in a specified manner.

MANMADE DECORATIVE WATER FEATURE: Any manmade stream, fountain, waterfall, or other water feature that contains water that flows or that is sprayed into the air, constructed for decorative, scenic or landscape purposes, except the following bodies of water:

(A) Manmade lakes as defined in local ordinance or administrative code.

(B) Swimming pools or spas as regulated in this document.

(C) Water features utilized in a family entertainment theme park as regulated in local ordinance or administrative code.

(D) Water feature used in conjunction with and appurtenant to a single-family residence, and available only to the family of the householder or their private guests.

MANUFACTURED: A pool, spa or water feature that is manufactured or constructed at another location, transported to the property, and placed and/or assembled at the property.

NORMAL OPERATING WATER LEVEL: The overflow point on overflow gutters or the midpoint in the throat of skimmers.

POOL: See “SWIMMING POOL.”

POOL DEPTH: The distance between the lowest point of the pool floor and the normal operating water level.

PORTABLE POOL (Non-permanently installed pool): A pool that may be readily disassembled for storage and reassembled to its' original integrity, and is not permanently attached to plumbing or electrical services.

PRIVATE SWIMMING POOL OR SPA: All artificially constructed swimming pools or spas which are used in conjunction with and appurtenant to a single-family residence, and available only to the family of the residence or their private guests.

PUBLIC POOL or SPA: Any swimming pool or spa, other than a private pool or spa, which is intended to be used for swimming or bathing, and is operated by an owner, lessee, operator, licensee, or concessionaire regardless of whether a fee is charged for use.

SLIP RESISTANT: A surface that has been so treated or constructed as to significantly reduce the chance of a user slipping when wet.

SPA: An artificially constructed body of water, either portable or permanent, designed for recreation or therapeutic use that is not drained, cleaned or refilled for each individual user. It may include, but is not limited to: hydro-jet circulation, hot tubs, hot water, cold water, mineral baths, air induction bubbles, or any combination thereof. It shall not include therapeutic facilities used by or under the direct control of licensed medical personnel.

STAIR, RECESSED TREAD, LADDER: A means of entry and exit to and from the pool or spa that may be used in conjunction with each other.

(A) **Stair**: A riser/tread or series of risers/treads extending down from the deck into the pool/spa area.

(B) **Recessed Tread**: A series of vertically spaced cavities in the pool or spa wall creating tread areas for step holes.

(C) **Ladder**: A series of vertically separated treads or rungs connected by vertical rail members or independently fastened to an adjacent vertical wall.

SWIMMING POOL: A permanently installed artificial body of water in excess of eighteen (18) inches in depth which includes all equipment necessary for its use.

WASTEWATER: Water from filter cleansing, draining of a pool or spa, or lowering of the water level in a pool or spa.

WATER FEATURE: See “MANMADE DECORATIVE WATER FEATURE”.

WIDTH or LENGTH: The actual dimension taken at the maximum location from inner wall to inner wall at the normal operating water level of a pool or spa.

200 SITE WORK, SETBACKS AND CLEARANCES: Excavation shall be so constructed or protected that they do not endanger life or property. Temporary barricades shall be maintained in place and kept in good order until permanent barriers are installed. It shall be the responsibility of the contractor or owner to verify property line locations prior to excavation.

(A) **Equipment Clearances:** All electrical equipment clearances shall comply with requirements specified per National Electrical Code and manufactures listing guidelines. A twenty-four inch (24") access path is required to all pool and existing mechanical equipment. Equipment shall be mounted on a permanent, secure wall, fence or other approved structure.

(B) **Equipment:** The equipment slab shall not be in contact with the foundation system of a property line structure. Equipment shall be installed with adequate drainage. Equipment in vaults or pits shall have automatic means to drain water. Equipment shall be installed in accordance with the currently adopted Codes, listing requirements and the manufacturer's installation instructions.

300 ELECTRICAL INSTALLATION: All electrical installations, modifications, repairs or alterations of pools, spas and water features shall conform to the provisions of the currently adopted National Electrical Code and Local Amendments.

(A) **Pool and Spa Lighting:** Pools and spas shall be equipped with lighting that illuminates the entire bottom and volume, and may be an underwater or overhead type. Underwater lighting shall be a minimum of one-half (1/2) watt or equivalent lumens per square foot of water surface area. Overhead lights shall be a minimum of two (2) watts or equivalent lumens per square foot of water surface area and shall be protected from breakage of any glass parts. Optical fiber lighting used for pool and spa lighting shall be installed in accordance with their listing and labeling.

(B) **Area Lighting of Public Pools and Spas:** Area lighting shall be provided to illuminate the surface areas of the pool deck and spa deck. The lights shall be a minimum of six-tenths (6/10) watt or equivalent lumens per square foot of deck area.

(C) **Disconnecting Means:** Time clocks are not permitted as a means of disconnect for motors unless listed or approved by the Authority Having Jurisdiction.

(D) **Load Calculations:** Electrical load calculations will be required for any pool, spa, or combination that utilizes more than one pump motor. This is required to verify that the existing electrical system is adequate for the additional loads being added.

(E) **Conductor Feeder, Overcurrent Protection & Grounding:** All pool panels shall have a minimum #10 AWG wire feeder and a thirty ampere (30A) breaker with an insulated ground wire to the existing panel.

400 PLUMBING INSTALLATION: Plumbing installation, modification, repair or alteration of a pool, spa or water feature shall conform to the currently adopted Plumbing Code and the additional following requirements:

(A) **Water Quality:** All water treatment, filtration and recirculation devices, and hydraulic lines and systems shall be approved by the Health District prior to permit issue for a public pool or spa. Water features designed for full or partial human submersion open to the public shall be reviewed and approved by the Health District prior to permit issuance. Water quality in water features which do not come in contact with the public, and private pools and spas shall be maintained in such a manner that a nuisance is not created pursuant to NRS 40.140.

(B) **Heating Equipment:** Heating equipment shall conform to the provisions of the currently adopted Mechanical, Plumbing and Electrical Codes. Installation of such equipment shall be according to the manufacturer's instructions and listing. Heating equipment shall be located on a minimum three (3") inch thick pad of concrete or other approved material. The top of the pad shall be a minimum of three inches above adjacent grade and shall be appropriately sized to accommodate all equipment. Alternate locations, such as vaults or pits, are subject to Building Official approval. When pool or spa water heating equipment is installed with a full-way type shutoff valve between the outlet of the heater and the pool or spa, an approved pressure relief valve shall be installed on the discharge side of the water heating equipment.

Vents shall terminate with clearances as follows:

(1) A minimum of four feet (4') below; or one foot (1') above; or four feet (4') horizontally from a door, an openable window or a gravity air inlet into a building.

(2) A minimum of three feet (3') above a forced air inlet that is within ten feet (10') of the vent.

(3) A minimum of four feet (4') from a property line, except a public way.

(4) Vents shall terminate per the manufacturer's listing.

(C) **Underground Installation:** Underground installation of plumbing lines to include water supply, drain, vacuum and circulating lines and gas piping systems shall be installed on a minimum three inch (3") base and four inch (4") cover of clean sand in place at time of inspection.

(D) **Water Piping:** Swimming pools, spas, and water features shall use approved type "L" copper or approved PVC pipe of a minimum schedule 40 PVC meeting the NSF PW-14 Standard or equal. PVC pipe shall be bent using heat by thermostatically controlled equipment. All plastic pipe exposed to sunlight shall be protected with an approved tape wrapping or paint. Water piping shall be pressure tested at twenty (20) PSI for fifteen (15) minutes.

(E) **Gas Piping:** Natural gas piping systems shall conform to the provisions of the currently adopted Plumbing Code. All other approved systems shall be tested at sixty (60) PSI for thirty (30) minutes. Liquefied petroleum gas piping systems shall conform to the provisions of the National Fuel Gas Code, NFPA 54. Threaded ferrous metal gas pipe systems shall be pressure tested at ten (10) PSI for fifteen (15) minutes.

(F) **Water supply:** Pools, spas, and water features shall have water directly supplied through a water supply inlet. The water supply inlet for public pools shall comply with Health District standards. The water supply inlet on private pools shall be protected by a one-inch (1") air gap or approved backflow protection device.

> **Exception:** Private pools and spas may be provided with a water supply consisting of an approved back flow protection device (vacuum breaker) located on the discharge side of the last valve or a sill cock (hose bib) from which a water hose may be attached.

(G) **Wastewater:** Wastewater from pools, spas, and water features shall be discharged to the public sewer through a permanently installed waste line. Wastewater shall not be discharged to a septic tank.

The permanently installed waste line shall discharge through an indirect waste connection of the following type: an approved interceptor; a sand trap which is vented and provided with a clean-out on the discharge side; or a "P" trap of a minimum size of three inches (3").

> **Exception (1):** If a public sewer service is not available, the Building Official may authorize the wastewater to be discharged above ground and used for irrigation purposes. The wastewater shall not be allowed to drain to adjacent properties or the public way. This authorization may be revoked if a hazardous, nuisance or unsanitary condition occurs.
>
> **Exception (2):** For private pools, spas, and water features, a minimum one and one-half inch (1 ½ ") hose connection may be used as a waste line.

(H) Entrapment Avoidance: The suction inlet for pool and spa cleaning systems shall be protected against user entrapment by installation of an anti-vortex cover. A minimum of two suction inlets shall be provided in the suction system. Separation of such inlets shall be a minimum of three feet (3') on the horizontal plane, or located on two different planes. (For example: one on the bottom and one on a vertical plane, one each on two separate walls, or one skimmer and one main drain on the same suction line). The suction outlets shall be plumbed so water is drawn simultaneously without valves, through the inlets to a common line to the pump system.

(I) Filtering and recirculation: Pools, spas, and water features shall be equipped with a filtering and recirculation system. Equipment shall be mounted on a minimum three-inch (3") thick pad of concrete or other approved materials. The pad shall be a minimum of three inches (3") above adjacent grade and sized to accommodate all equipment. All equipment shall be listed by a recognized testing agency for the appropriate use. The circulation system shall provide a complete turnover of water within the time frame specified below:

Public Pool	6 Hours
Private Pool	12 Hours
Public Spa	½ Hour
Private Spa	1 Hour
Water Feature	8 Hours

Filler, circulation systems, scum gutters and skimmers that are located in public pools, spas and water features shall conform to Health District regulations. Inlets for fresh or repurified water in all pools, spas, and water features shall be located to produce uniform circulation of water throughout the entire pool, spa or water feature.

(J) Over sewer: Swimming pools, in-ground spas, or water features shall not be constructed over a sewer, unless the sewer line is of cast iron material and prior approval from the Building Official is obtained.

(K) Septic Systems: All Swimming pool and spa water filler and circulation piping within twenty-five feet (25') of a septic system shall confirm to Health District regulations.

500 STRUCTURAL DESIGN AND INSTALLATION

(A) General: Pools, spas, and water features shall be constructed of reinforced concrete conforming to the currently adopted Codes or as approved by the Building Official. If groundwater is present, a hydrostatic valve or other approved means shall be installed at the lowest point. Approved, listed

manufactured pools, spas and water features shall be installed in accordance with manufacturer's installation instructions and their listing.

(B) **Soils:** All areas of Clark County shall have a geotechnical investigation at completion of excavation or prior to permit application, unless specifically identified as outside a special geologic consideration zone on the Clark County Soil Guidelines Map. The geotechnical investigation report must be prepared by an engineer licensed pursuant to NRS Chapter 625. The report will be accompanied by appropriate substantiation including tests, sampling data, suitability for the intended project, and recommendations, when appropriate, on treating the subgrade soil and/or modifications to the swimming pool design. The pool contractor is responsible to provide the report to the Building Department and the design professional. The design professional will determine if any modifications to the original design are required and will submit such changes to the Building Department for approval.

(C) **Concrete and steel reinforcement**. Concrete and steel reinforcement of concrete pools, spas, and water features shall be designed by a licensed State of Nevada registered professional Engineer or Architect. The minimum design strength of the concrete shall be four thousand five hundred (4500 psi) pounds per square inch unless otherwise approved by the design engineer (special inspections [1701] will not be mandatory unless noted by the design professional.) The continuity of a bond beam shall not be interrupted for the installation of skimmers or similar apparatus. Reinforcing steel shall be continuous around the apparatus to tie in with the remainder of the bond beam.

(D) **Walls and floors:** The materials used in pool, spa, and water feature wall and floor construction shall conform to the provisions of the currently adopted Building Code. Walls and floors shall be designed and constructed of non-absorbent material in a manner to be leak-proof and structurally sound under all the conditions of the site. The inner surface of the pool or spa shall be coved, rounded, or bull-nose at all joints, corners, angles of bases, walls, floors, or curbs. No sharp corners or projections shall be permitted.

(E) **Entry/Egress:**

(1) Pools and spas with a depth greater than two feet (2') at pool walls shall be provided with a means of Entry/Egress. Pools exceeding thirty feet (30') in width or length shall have egress provided on opposite ends of those sides greater than thirty feet (30'). A seat meeting the requirements of Section 500 (F)(2) shall be considered as a second means of egress.

(2) Water features greater than twenty-four inches (24") in depth with walls that are inclined greater than forty-five (45°) degrees shall have a means of entry/egress.

(3) An entry/egress for a pool, spa or water feature shall be constructed to minimize hazards and consist of a ladder, stairs, or recessed treads or an alternate method approved by the Building Official. The ladder, stairs or recessed treads shall comply with the following requirements, respectively:

(a) **Ladder:** Ladders shall be of a corrosion resistant material and be provided with two handholds or handrails. Ladder treads shall have a uniform vertical spacing of seven-inch (7") minimum and twelve-inch (12") maximum. Vertical spacing variation within each ladder shall not exceed one inch. Treads shall have a minimum horizontal depth of one and one-half inches (1 ½"). The top tread of the ladder shall be a maximum of twelve inches (12") below the coping, deck or exterior edge of the pool or spa.

(b) **Stairs/Steps:** Stairs/steps shall have a slip resistant surface and rounded corners. Public pools shall have a maximum riser height of ten inches (10") with a minimum horizontal tread depth of twelve inches (12"). Riser height variation within each stair shall not exceed one inch (1"). (Note: The distance from the bottom of the pool to the bottom step shall not be considered a riser.) Private pools, spas and water features may have a maximum riser height of twelve inches (12"). (Note: The distance from the bottom of the pool to the bottom step shall not be considered a riser.)

(c) **Recessed treads:** Recessed treads shall be provided with a set of handrails or handholds to serve all treads and risers. Recessed treads shall have a uniform vertical spacing of seven inches (7") minimum and twelve inches (12") maximum. Recessed treads shall have a minimum depth of five inches (5") and a minimum width of twelve inches (12"). The uppermost tread shall be a maximum of twelve inches (12") below the coping, deck or exterior edge of the pool or spa.

(F) **Deck, Seat or Handholds:** Pools and spas greater than three (3') feet in water depth shall be provided with a deck made of a slip resistant material or alternate method as approved by the Building Official. Man-made decorative water features and planters behind a rolled bond beam may interrupt the deck. In these cases seats or handholds may be used for safety and emergency provisions, and shall be a maximum of every four feet (4') around the perimeter

of the pool or spa. The deck, seat or handholds shall comply with the following requirements, respectively:

(1) **Deck:** The deck shall be a minimum of thirty inches (30") wide and slope ¼ inch per foot away from pool, property lines and house footings. The deck shall be placed a maximum of twelve inches (12") above the normal operating water level to qualify as a handhold. Public pools and spas shall have a minimum deck width of four feet (4'). Decks shall be sloped to effectively drain to either deck drains or perimeter areas away from the pool or spa.

(2) **Seat:** An underwater seat, bench or swim-out shall be a minimum of twelve inches (12") long and a maximum of twenty-four inches (24") below the water surface.

(3) **Handhold:** A handhold shall consist of any of the following:

(a) A continuous coping, ledge or handhold shall be a minimum width of three inches (3") and placed a maximum of twelve inches (12") above the water surface or no greater than four inches (4") below water level. Individual handholds must be at least six inches (6") in length and one and one-half (1 ½") inches in depth. Attachment must be made by an approved listed waterproof epoxy.

(b) A permanently secured rope of a minimum diameter of three-quarter inch (3/4") or a railing of one and one-quarter (1 ¼") inches to two inches (2") in diameter placed at a maximum of twelve inches (12") above the water surface.

(c) Ladders, steps or recessed treads complying with Item (E) Entry/Egress as listed above.

(G) **Site drainage:** Site drainage shall be provided to direct all perimeter deck drainage, general site and roof drainage away from the pool, spa and adjacent buildings and structures. Deck drains must terminate a minimum of twenty-four inches (24") from the foundation of any structure.

(H) **Wind Sensors:** Water features and fountains on public properties shall be equipped with an integral automatic wind sensor device calibrated to shut off airborne and moving water when wind velocity exceeds twenty miles per hour.

(I) **Diving Boards/Slides:** Pools equipped with diving boards or slides shall be engineered and designed to comply with standards such as ANSI/NSPI-1

required by the National Spa and Pool Institute. Slides shall be installed per manufacturer's listing.

600 SETBACKS AND CLEARANCES

(A) Location: In-ground pools, spas, and water features shall not be placed closer than five feet (5') to any building or structure and shall not encroach within public utility easements. An exception may be permitted when substantiation is provided by a Nevada Licensed Structural or Civil Engineer that no damage will occur to buildings, structures or adjacent properties and that no unsafe structural conditions will exist.

(B) Overhead electrical conductor clearances: The following parts of pools shall not be placed under existing service-drop conductors or any other open, overhead wiring; nor shall such wiring be installed above the following:

(1) Pools and the area extending ten feet (10') horizontally from the inside of the walls of the pool;

(2) Diving structures;

(3) Observation stands, towers or platforms.

Exceptions (1): Structures listed in items (1), (2), and (3) above shall be permitted under supply lines or service drops where such installations provide the following clearances:

	Insulated supply or service drop cables or wiring, 0-750 volts to ground, supported on and cabled together with an effectively grounded bare messenger or effectively grounded neutral conductor	All other supply or service drop conductors	
		VOLTAGE TO GROUND	
		0-15 kV	Greater than 15 to 50 kV
A. Clearance in any direction to the water level, edge of water surface, base of diving platform, or permanently anchored raft	22.5 ft. (6.9 m)	25ft. (7.5 m)	27 ft. (8.0 m)
B. Clearance in any direction to the diving	14.5 ft.	17 ft. (5.2 m)	18 ft.

platform or tower	(4.4 m)		(5.5 m)
C. Horizontal limit of clearance measured from inside wall of the pool	This limit shall extend to the outer edge of the structures listed in (1) and (2) above but not less than 10 ft. (3.05 m).		

Figure NEC 680.8. Exception No. 1.

Exceptions (2): Utility-owned, -operated, and -maintained communications conductors, community antenna system coaxial cables complying with Article 820, and the supporting messengers shall be permitted at a height of not less than ten feet (10') above swimming and wading pools, diving structures, and observation stands, towers, or platforms.

(See Sections NEC 225.18 and 225.19 for clearances for conductors not covered by this section.)

700 ACCESSIBILITY AND SAFETY

(A) Access barrier required: Pools, spas and hot tubs shall be completely enclosed with access barriers.

Exceptions (1): Prefabricated swimming pools accessory to a Group R, Division 3 Occupancy in which the pool walls are entirely above the adjacent grade and the capacity does not exceed 5,000 gallons.

Exceptions (2): Spa or hot tub with an approved lockable cover in the closed position meeting the most recent addition of ASTM Standard F1346, or equal, requiring structural support capacity of two-hundred seventy-five (275) lbs.

(B) Access Barrier Construction Requirements: Access barriers shall comply with the following:

(1) The top of the barrier shall not be less than sixty (60") inches in height above adjacent grade measured from outside the enclosed area. The vertical clearance between grade and the bottom of the barrier shall be four inches (4") maximum.

(2) Wrought iron fence with open guardrails shall have intermediate rails or an ornamental pattern such that a sphere four inches (4") in diameter cannot pass. Horizontal support members shall be spaced at least thirty-two inches (32") and shall comply with item #1 (listed above).

(3) Mixed use of masonry and wrought iron walls shall comply with all of the following:

(a) Masonry or wrought iron portion of the wall shall be a minimum of thirty-two inches (32") in height.

(b) Wrought iron portion of the wall shall comply with items #1 and #2 (listed above) with a maximum of two horizontal members, one near the top of the masonry wall (maximum of four (4") inches above top of wall) and one a minimum of sixty (60") above grade.

(4) Chain link fences shall have approved slats installed.

(5) Public pools and spas shall comply with the Health Districts requirements.

(C) Gates or Doors: All gates or doors eight feet (8') in width or less shall be self-closing and self-latching. Gates shall open outward. The self-latching device for gates shall be mounted inside the enclosed area and be designed to be inoperable from outside the enclosed area. Such devices shall be mounted at a minimum of forty-eight inches (48") above grade and not less than six inches (6") nor more than twelve inches (12") below the top of the door or gate. The devices shall be inaccessible from outside the enclosed area for a distance of twenty inches (20") in all directions from the latch except that opening not greater than one-quarter inch (1/4") diameter shall be permitted. Access Barrier gates not required to be self-closing and self-latching shall be equipped with protected self-latching, lockable hardware and shall remain locked at all times when not in use.

Single access gates and doors integral to fences shall comply with the requirements of Section 700 (B) and have latching devices capable of keeping the door or gate securely closed and latched.

Double gates used to close an opening they shall be permanently locked. If the double gates are the only access to the protected area, one gate shall be pinned and locked in the closed position and the adjoining gate must be self-closing and self-latching.

Key-operated, self-latching locks that are integral to the gate or door may be used as latching devices, so long as they are permanently locked from the outside and comply with the above installation requirements.

(D) Private Pool and Spa Safety Requirements: One of the following shall be used:

(1) Door Devices: Self-closing and self-latching devices installed on all doors with direct access to the pool with the release mechanism located a minimum of fifty-four inches (54") above the floor.

(2) Alarm System: Residential dwelling units that do not have a separate pool or spa enclosure barrier shall have an alarm installed on all doors with direct access to the pool. The alarm shall sound continuously for a minimum of thirty (30) seconds within seven (7) seconds after the door and its screen, if present, are opened, and be capable of providing a sound pressure level of not less that 85 dB when measured indoors at ten feet (10'). The alarm shall automatically reset under all conditions. The alarm shall be equipped with a manual means, such as a touch pad or switch, to temporarily deactivate the alarm for a single opening. The deactivation switch shall be located at least fifty-four inches (54") above the threshold of the door.

(3) Laser or light beam: A laser or light beam perimeter alarm that provides an active beam barrier around the total perimeter or isolates the pool or spa may be used. The laser or light beam must have an adjustable height capability and sound an alarm of at least eight-five (85) dB both inside and outside of the home when the beam is crossed. The alarm must automatically reset after alarming. The alarm shall meet ASTM's Provisional Standard Specifications for Pool Alarms (PS 128-01) and be UL listed.

(4) Addition Barriers: Addition barriers that isolate the dwelling from the pool a minimum forty-eight (48") inches in height through which a four inch (4") sphere will not pass. Any gate shall be self-closing and latching per 700 (C).

Exception: Latching mechanisms may be installed on the exterior side of the gate if it is installed at least fifty-four (54") above finished grade.

(5) Power Safety Covers: Power safety covers meeting ASTM F1346-1.

(6) Other means: When approved by the Building Official, other means of protection may be acceptable so long as the degree of protection afforded is not less than that afforded by any of the devices described above.

(E) Safety Glazing: Glazing in walls and fences within five feet (5') of the water's edge measured horizontally and less than sixty inches (60") measured vertically above grade shall be considered hazardous locations. In these locations, tempered glazing, laminated glass or Plexiglas shall be used.

(F) Barrier Timeliness. All required access barrier elements shall be in place prior to:

(1) Setting a manufactured pool, spa or water feature.

(2) The pre-plaster inspection of a conventionally constructed pool, spa or water feature.

(3) The filling with water of artificial bodies of water.

(G) Surveillance Substitute: For resort hotels type facilities only; in lieu of access barriers required above for water features, swimming pools or spas a pool guard may be provided so that observation is maintained at all times or an alternate method submitted in writing and approved by the Building Official. Such submittal shall become a permanent part of the job record

(H) Responsible Party: The owner of the property upon which pools, spas or artificial bodies of water are located are responsible to establish and maintain access barriers. The owner or developer of land adjacent to an access barrier required by this section shall not reduce, degrade, or infringe on the access barrier's compliance with this code.

(I) Alternative Plans or Devices: Written alternative plans or devices for access barriers shall be submitted to the Building Official. If approved by the Building Official, the owner remains responsible for establishing and maintaining such approved alternate methods.