SOUTHERN NEVADA AMENDMENTS

TO THE

2018 INTERNATIONAL SWIMMING POOL AND SPA CODE

AS AMENDED BY THE CITY OF NORTH LAS VEGAS

PREFACE

This document was developed by the Southern Nevada Building Officials' International Swimming Pool and Spa Code committee and presents recommended amendments to the 2018 International Swimming Pool and Spa Code as published by the International Code Council

Participation in the 2018 IBC Committee was open to all interested parties. However, voting on amendment proposals was limited to one vote each for six of Southern Nevada municipalities (Clark County, Henderson, Las Vegas, North Las Vegas, Boulder City, and Mesquite), the Clark County School District, and three industry representatives. All committee proceedings were conducted in accordance with Robert's Rules of Order.

The recommended amendments contained herein are not code unless adopted and codified by governmental jurisdictions. These amendments are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternates have been approved and their use authorized by the Building Official. This document may be copied and used in whole or in part without permission or approval from the organizations listed on the cover page.

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Section Chapter 1

Delete Chapter 1 in its entirety except Section 101. Revise Sections 101.1 and 101.2

101.1 Title. These regulations shall be known as the International Swimming Pool and Spa Code, hereinafter referred to as "this code".

101.2 Scope. The provisions of this code apply to the construction, alteration, movement, renovation, replacement, repair and maintenance or use of aquatic recreation facilities, pools and spas. The pools and spas covered by this code are either permanent or temporary, and shall be only those that are designed and manufactured to be connected to a circulation system and that are intended for swimming, bathing or wading. Where this code refers to codes not adopted by the jurisdiction, the applicable code adopted by the jurisdiction shall govern.

Section Chapter 2 definitions

Add a new definition to Chapter 2

MANMADE DECORATIVE WATER FEATURE: Any manmade stream, fountain, waterfall, or other water feature that does not meet the definition of a pool or spa and contains circulating water that flows or that is sprayed into the air, constructed for decorative, scenic or landscape purposes. Any manmade decorative water feature greater than 18 inches (457 mm) of maximum water level or installed overflow water depth shall meet the requirements of a swimming pool as specified in Chapters 2 through 10.

Exceptions: The following bodies of water shall be exempt from these requirements:

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

B. Pools and spas regulated by this document or administrative code.

C. Water feature not greater than 18 inches (457 mm) of maximum water level or installed overflow water level, used in conjunction with and on the same property as a single-family residence, and available only to the family of the householder or their private guests.

MANUFACTURED POOL OR SPA. A listed 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.

Section 304

Delete Section 304 in its entirety

Section 305 Barriers

Revise entire section 305.1 thru 305.2.10

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 the areas where those spas or hot tubs, are located shall not be required to comply with section 305.2 through 305.14.

305.2-Swimming pools and spas. Outdoor pools and spas and indoor swimming pools and spas shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.14.

Exception: Water features with a maximum water depth of 18" or less.

305.2.1 Barrier height and clearances. The top of residential barrier including gates and doors shall not be less than 60 inches (1524 mm) in height above adjacent grade measured from outside the enclosure, or a vertical 8 feet (2.4 m) non-climbable barrier, measured on the inside. The maximum vertical clearance between grade and the bottom of the barrier shall be 4 inches (101.6 mm). When permanently installed pools or spas are in adjacent yards the common barrier may be reduced to 48 inches (1219.2 mm) on either side.

The Public barriers including gates and doors shall not be less than 72 inches in height above adjacent grade measured from outside the enclosure. The maximum vertical clearance between grade and the bottom of the barrier shall be 4 inches (101.6 mm).

305.2.2 Wrought Iron. Vertical wrought iron fence, open guardrails shall have pickets spaced such that a sphere 4 inches (101.6 mm) in diameter cannot pass through. Horizontal support members shall be spaced at least 32 inches (813 mm) apart and shall comply with Section 305.2.1.

305.2.2.1 Wrought Iron with Masonry. Residential barriers using mixed use of masonry and wrought iron walls shall comply with all of the following:

1. Masonry or wrought iron portion of the wall shall be a minimum of 32 inches (813 mm) in height.

2. The wrought iron portion of the wall shall comply with Sections 305.2.1 with a maximum of two horizontal members, one near the bottom, within 4 inches (101.6 mm) of the masonry wall below, and one a minimum of 60 inches (1524 mm) above grade.

305.2.3 Solid barrier surfaces. Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and foot holds, except for normal construction tolerances and tooled masonry joints.

305.2.4 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than 1 ¾ inches (44mm). Where the fence is provided with slats fastened at the top and bottom which reduces the openings, such openings shall be not greater than 1 ¾ inches. The fence shall have top and bottom horizontal supports. The fence height must be a minimum of 60 inches (1524 mm) and shall be constructed of not less than 11 gauge wire.

305.2.5 Diagonal members. Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be no more than 1 ¾ inches (44 mm). The angle of diagonal members shall not be greater than 45 degrees (0.79 rad) from vertical.

305.3 Gates. Access gates shall comply with the requirements of Section 305.3.1 through 305.6

305.3.1 Gates or Doors.
All single gates or doors a maximum of 8 feet (2.4 m) or less in width, shall meet the following requirements:

1. Gates and doors shall be self-closing and self-latching and comply with 305.3.2.

2. Gates shall open outward from the enclosed pool area.

305.3.2 Latches.
The self-latching devices of gates or doors shall be one of the following:

1. The release mechanism of the self-latching device shall be located on the pool or spa side of the gate not less than 3 inches (76mm) or more than 6 inches from the top of the gate or door. The gate, door and barrier shall not have openings greater than ½ inch (12.7mm) within 18 inches (457) of the release mechanism.

2. Key-operated, self-latching locks maybe be mounted at any height above grade. Key-operated, self-latching locks that are integral to the gate or door may be used as latching devices, as long as they are permanently locked from the outside.

3. A device that is an ASTM F-1908, approved latching device. The latch shall be installed per the manufacturer's installation instructions.

305.3.3 No other device shall impede operation or obstruct closing of gate or door and the self-latching device.

305.4 Large Access Barrier Gates. Single access barrier gates greater than 8 feet (2.4 m) in width shall be self-closing and self-latching. Protected by a barrier have openings not greater than ½ inch (12.7mm) within 18 inches (457 mm) of the release mechanism, or lockable hardware and shall remain locked at all times when not in use.

> **Exception:** Electronic remote latches without manual devices and panic hardware where required shall not be subject to height restrictions.

305.5 Double or multiple Gates. Double gates or multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-closing, self-latching device. The gate and barrier shall not have openings larger than ½ inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.2.

> **Exceptions:** All leafs of the gate shall remain locked when not in use**.** If double gates are used as the only access to the yard, one gate shall be pinned and locked in the closed position and the adjoining gate must meet the requirements of Section 305.3.1, 305.3.2.

305.6 Electric Operated Gates. Electric operated gates shall start to close within 30 seconds of entry.

305.7 Secondary Access Barrier Requirement.
Where a wall of the dwelling or structure serves as part of the barrier and where doors or windows provide direct access to the pool or spa through that wall an additional barrier that isolates all openings in the dwelling unit from the residential pool or spa shall be erected. One of the following options shall be required:

305.7.1 Option one. Mesh fencing, other than chain link fences shall be installed in accordance with the manufacturer's instructions and shall comply with the following:

1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade measured on the side of the barrier that faces away from the pool or spa.

2. The bottom of the mesh fence shall be not more than 1 inch (25 mm) above the deck or installed surface or grade.

3. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.

4. The fence shall be designed and constructed so that it does not allow passage of a 4-inch sphere under or through any mesh panel.

5. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches (102 mm) from grade or decking.

6. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eye-type latch incorporating a spring-actuated retaining lever such as a safety gate hook.

7. All gates shall be self-closing and latching at the top of the barrier. No other device shall impede operation or obstruct the closing of self-latching gate. Where a hinged gate is used with a mesh barrier, the gate shall comply with

Section 305.3.

8. Patio deck sleeves such as vertical post receptacles which are placed inside the patio surface shall be of a nonconductive material.

305.7.2 Option two. Self-closing and self-latching devices installed on all openings in dwelling unit that provide direct access to the pool or spa. Openings to include doors; operable windows with a sill height of 48 inches (1219 mm) or less; and pet doors allowing the passage of a sphere of 4 inches (102mm) in diameter.

Exception:

1. Operable windows with a sill height less than 48 inches (1219 mm) with a manufacturer installed permanent locking or latching mechanism mounted not less than 54 inches (1372mm) from floor.

2. Self-closing, self-latching pet doors approved by the building official.

305.7.3 Option three. An alarm shall be installed on all openings in dwelling unit that provide direct access to the pool or spa. Openings to include doors; operable windows with a sill height of 48 inches or less; and pet doors allowing the passage of a sphere of 4 inches (102 mm) in diameter. The alarm shall be listed and labeled as a water hazard entrance alarm in accordance with UL 2017.

The alarm shall sound continuously for a minimum of 30 seconds within 7 seconds after the door is opened, and be a minimum of capable of providing 85 dB when measured indoors at 10 feet (3.05 m). 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 54 inches (1372 mm) above the threshold of the door.

Exception:

1. Operable windows with a sill height less than 48 inches (1219mm) with a manufacturer installed permanent locking or latching mechanism mounted not less than 54” from floor.

2. Self-closing, self-latching pet doors approved by the building official.

In dwellings or structures not required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.

305.7.4 Option four. A pool motion device, laser or light beam activation alarm system permanently installed that provides an active barrier within the pool or across the access to the pool from the dwelling unit or installed around the entire perimeter of the pool. The device shall sound an alarm of at least 85 dB both inside and outside of the home when activated. The alarm must automatically reset after alarming. The device and alarm shall

meet ASTM F2208 and be listed.

305.7.5 Option five. A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pools and spas.

305.7.6 Option six. An approved alternate means of protection, such as self-closing doors with self- latching devices, provided that the degree of protection afforded is not less than the protection afforded by sections 305.7.1 through 305.7.5 and approved by the authority having jurisdiction.

305.8 Onground residential pool structure as a barrier. An onground residential pool wall structure or a barrier mounted on top of an onground residential pool wall structure shall serve as a barrier where all of the following conditions are present:

1. Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, the wall complies with the requirements of Section ~~305.2~~ 305.7 and the pool manufacturer allows the wall to serve as a barrier.

2. Where the barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, and the requirements of Section ~~305.2~~ 305.7.

3. Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section ~~305.2~~ 305.7.

4. Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4 inch (102 mm) diameter sphere.

5. Barriers that are mounted on top of on ground residential pool walls are installed in accordance with the pool manufacturer's instructions.

305.9 Natural barriers. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge a minimum of 18 inches (457 mm), a barrier is not required between the natural body of water shoreline and the pool or spa.

305.10 Natural topography. Natural topography that prevents direct access to the pool or spa area shall include but not be limited to mountains and natural rock formations. A natural barrier approved by the governing body shall be acceptable provided that the degree of protection is not less than the protection afforded by the requirements of Sections 305.2 through 305.7.

305.11 Barrier Timeliness. All required access barrier elements shall be installed prior to:

1. Installation of a pre-manufactured pool or spa.

2. The pre-plaster inspection of a conventionally constructed pool or spa.

3. The filling of any water feature.

305.12 Surveillance Substitute. In lieu of access barriers required by this code, therapeutic facilities used by or under the direct control of licensed medical personnel, and resort hotel facilities may provide a dedicated guards that observation is maintained at all times. An alternate method may be submitted in writing and approved by the Building Official. Such submittal shall become a permanent part of the job record.

305.13 Responsible Party. The owners 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.

305.14 Alternate Materials or Methods: An application for alternate materials or methods must be reviewed and approved by the Building Official for any proposed access barrier which does not meet the requirements of this code. If approved by the Building Official, the owner remains responsible for establishing and maintaining such approved alternate materials or methods.

Section 307.1.1

Revise section 307.1.1

307.1.1 Glazing in hazardous locations. Hazardous locations for glazing shall be as defined in the International Building Code or the International Residential Code. Where glazing is determined to be in a hazardous location, the requirements for glazing shall be in accordance with those codes, as applicable. Glazing in walls or barriers within 60 inches (1524 mm) or less, of the water's edge and less than 60 inches (1524 mm) vertically above a standing or walking surface shall be considered hazardous locations.

Section 307.2.2

Revise Section 307.2.2 as follows:

307.2.2. Materials and structural design. Pools and spas shall conform to one or more of the standards indicated in table 307.2.2. The structural design of pools and spas shall be in accordance with the *International Building Code.* If permitted by the Building Official, a geotechnical investigation report is not required for structural designs which utilize a minimum lateral bearing pressure of 60 psf/ft and an Exposure Class S2

(severe sulfate exposure level). The structural design may only utilize less stringent geotechnical parameters when a geotechnical investigation report is provided that fully complies with the requirements of the 2018 IBC Chapter 18. The structural design shall account for the effects of any surcharge loading that is present. Lateral earth pressure due to seismic motion need not be included in the design.

307.2.2.1 Ground water Protection. If groundwater is present, a hydrostatic valve shall be installed at the lowest point; or other approved means shall be provided to prevent buoyant uplift.

Section 311.2.4

Add a new Subsection 311.2.4.

311.2.4 Adequate Drainage. Equipment shall be installed with adequate drainage. Equipment in vaults or pits shall have an approved means to drain water from the vault or pit.

Section 313.4

Revise Section 313.4 to add subsection 313.4.1:

313.4 Location. Pumps and motors shall be accessible for inspection and service in accordance with the manufacturer's specifications.

313.4.1 Equipment. Any outdoor equipment pad shall not be in contact with any foundation. Equipment shall be installed with adequate drainage. Equipment in vaults or pits shall have an approved means to drain water from the pit. Equipment shall be installed in accordance with the currently adopted Codes, listing requirements and the manufacturer's installation instructions.

Section 320.1

Revise section 320.1 to read as follows:

320.1 Backwash water or draining water. Backwash water and draining water shall be discharged to the sanitary sewer, or into an *approved* disposal system on the premise, or shall be disposed of by other means *approved* by the state or local authority. Direct connections shall not be made between the end of the backwash line and the disposal system. Drains shall discharge through an air gap.

Section 323.1 thru 323.1.3

Revise 323.1 thru 323.1.3 to read as follows:

323.1 Handholds required. Where the depth below the *design waterline* of the pool or

spa exceeds 42 inches (1067 mm), handholds along the perimeter shall be provided. Handholds shall be located at the top of deck or coping, or as modified in section 323.1.2. Handhold shall be a minimum of 6 inches (152.4 mm) long and 1 ½ inches deep.

Exceptions:

1. Handholds shall not be required where an underwater bench, seat or swimout is installed.

2. Handholds shall not be required for wave action pools and action rivers.

323.1.1 Height above water. Handholds shall be located not more than 12 inches (305 mm) above the *design waterline*.

323.1.2 Handhold type. Handholds shall be one or more of the following:

1. Top of deck or coping

2. Rail

3. Rock, or artificial rocks with design handholds in rock.

4. Designed Ledge, minimum 3 inches deep, not more than 12 inches (305mm) above the design waterline or 6 inches below.

5. Ladder

6. Stair step

7. Any design that allows holding on with one hand while at the side of the pool.

8. Individual tile handholds. Attachment must be made by an approved listed waterproof epoxy.

9. Vanishing edge sloping into the main body of water shall have a maximum wall thickness of 15 inches (381 mm) when used as a handhold.

323.1. 3 Handhold spacing. Handholds shall be horizontally spaced not greater than 4 feet (1219 mm) apart.

Section 323.4

Add new Section 323.4

323.4 Wind Sensors.
Water features and fountains on commercial 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.

Section 323.5

Add a new Section 323.5

323.5 Water features. Manmade decorative water features and/or vanishing edge catch basins greater than 24 inches (610 mm) in depth with walls that are inclined greater than forty-five (45°) degrees, shall have a means of entry/egress complying with sections 411 or 809.

Section 324

Add new section and sub groups 324, 324.1, 324.2, 324.3, 324.4

SECTION 324 - **SITE WORK, SETBACKS AND CLEARANCE REQUIREMENTS**

324.1 Site Work. Excavation areas shall be protected so 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.

324.2 Pool or Spa Location. Any pool or spa shall not be placed closer than 60 inches (1524 mm) to any window to a building or structure and shall not encroach within public utility easements.

Exception: 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.

324.3 Drainage. Site Drainage shall be provided to direct all drainage from site, perimeter decks, and roofs away from the pool or spa and adjacent buildings and structures. Overall site drainage shall be maintained.

324.4 Overhead Conductor Clearances. Overhead conductors shall meet the clearance requirements in this section. Where a minimum clearance from the water level is given, the measurement shall be taken from the maximum water level of the specified body of water.

324.4.1 Power. With respect to service drop conductors and open overhead service conductors, and open overhead wiring, swimming pool and similar installations shall comply with minimum clearances given in NEC Table 680.9(A) and illustrated in NEC Figure 680.9(A).

324.4.2 Communications Systems. Communication, radio, and television coaxial cables within the scope of Articles 800 through 820 of the NEC shall be permitted at a height of not less than 3.0 m (10 ft) above swimming and wading pools, diving structures, and observation stands, towers, of platforms.

Section 401.1

Revise section 401.1

> **401.1. Scope**. The provisions of this chapter shall apply only to Class A, Class B, Class C, Class E, and Class F public swimming pools. In addition to the provisions of this chapter, public swimming pools shall first be reviewed and approved by the Southern Nevada Health District.

Section 501.1

Revise section 501.1

> **501.1 Scope**. This chapter shall govern the design, installation, construction and repair of public spas and exercise spas regardless of whether a fee is charged for use. In addition to the provisions of this chapter, Public spas, shall first be reviewed and approved by the Southern Nevada Health District.

Section 601.1

Revise section 601.1

> **601.1 Scope.** This chapter covers public pools and water containment systems used for aquatic recreation. This chapter provides specifications for the design, equipment, operation, signs, installation, sanitation, new construction, and rehabilitation of public pools for aquatic play. This chapter covers Class D-1 through Class D- 6 public pools whether they are provided as stand-alone attractions or in various combinations in a composite attraction. In addition to the provisions of this chapter, Public pools for aquatic recreation shall first be reviewed and approved by the Southern Nevada Health District.