

APPLICATION FOR POOL, SPA, AND/OR WATER FEATURE

www.LasVegasNevada.gov/BuildingPermits

Phone: (702) 229-6251 Fax: (702) 382-1240

Requirements for Electronic Submittals:

- Create a login and submit your plans online at <u>www.LasVegasNevada.gov/Dashboard</u>
- All plans must be stamped and signed by the contractor or designer. Electronic signatures and scanned PDF plans are acceptable from contractors. These applications are still required for the electronic submittal.
- Once approved, the system will send an email with the approved plans which must be printed for the jobsite. The
 permit must also be printed for the jobsite from <u>www.LasVegasNevada.gov/CheckStatus</u>

Residential Projects- Submit the following:

- This completed **application**.
- Structural plans and calculations uploaded to the structural plan and structural calculation buckets respectively.
- A complete stamped and signed design package consisting of plot plan, plumbing, and electrical as one pdf, uploaded to the electrical plan bucket.
 - Swimming Pool Checklist, <u>click here</u>, should be used to ensure plans are complete
 - Electrical Load Calculations can be completed using the following worksheet, <u>click here</u>.

Commercial Projects – Submit the following.

• This completed **application**.

- Structural plans and calculations uploaded to the structural plan and structural calculation buckets respectively.
- A complete stamped and signed design package consisting of site plan, plumbing, and electrical as one pdf, uploaded to the electrical plan bucket. Please note, a permit for a commercial pool will not be issued until SNHD has first reviewed and approved the design.

| Project # | (CLV USE ONLY) | | Valuation \$ |
|-----------------------------|--------------------|----------------|---|
| Project/Tenant Name: | | | |
| Project Address: | | | Zip Code: |
| For: Commercial and Public | Single Family Resi | dence [| Clark County Health District Approval (required for public pools and/or septic) |
| Pool only | Spa only | Pool and Spa | Water Feature |
| Gas line / Potable Water | Septic | | |
| Total Gallons Pool and Spa: | Pool Surfa | ace Area: | Spa Surface Area: |
| Total Surface Area: | | | |
| Applicant Information: | | Owner/Builde | r (Residential Only on primary residence) |
| Company Name: | | Individual Nam | ne: |
| Phone: F | ax: | Email: | |
| Contractor Information: | | | |
| Company Name: | Contracto | or License #: | Business License#: |
| | | | Permit Expires 180 Days After Abandonment of Work e when no inspection has been approved for any 180-da period after the permit has been issued. |



SWIMMING POOL CHECKLIST

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| ADDRESS | DATE |
|------------|------|
| CONTRACTOR | |
| OWNER | |

Note: Plans and documents are to be clear and drawn on substantial paper, electronically signed by each contractor or Owner/ Builder, and digitally signed "reviewed" by engineer of record or design professional.

Requirements and standards for pools/spas can be found in the 2018 International Swimming Pool and Spa Code (ISPSC) and Southern Nevada Amendments.

- □ 1. Plot plans (min 8.5" x 14")
 - A. Property lines showing setback to water's edge of pool/spa
 - B. Fences, retaining walls, and required barricades
 - C. Irregular grades and lot drainage
 - D. Dimensional location of pools/spa and equipment pads from existing and proposed structures, fences, walls and property lines
 - E. Deck configuration and dimensions
 - F. All diving & deck equipment (if provided show in cross section, see Item 2D)
 - G. Steps, ladders, or walk-outs as required
 - H. Show Handrail or Guardrails as required by IBC/IRC outside of water area.
 - I. Note on plans to provide secondary barrier requirement, ISPSC Amendment 305.7.
- 2. Structural plans reference engineer's structural details on plot plan
 - A. Type of construction (gunite/handpack/etc., type of cement, strength of concrete)
 - B. Pool/spa dimensions
 - C. Surface area of pool and spa
 - D. Two cross-sections (1 length, 1 width) of pool and spa drawn to scale and dimensioned through adjacent grade or structures
 - E. Computations or reinforcing steel schedule, special conditions and bond beam details.
 - F. Soils report required or design which utilizes a minimum lateral bearing pressure of 60 psf/ft and an exposure class S2 (Severe Sulphate exposure level).

- 3. Plumbing plans
 - A. Turnover in hours and pump G.P.M.
 - B. Type and size of filtration system
 - C. Show location/means of wastewater disposal
 - D. Type and size of pool/spa heater (stack or stackless)
 - E. Type of materials
 - F. Location of main outlet, returns, skimmers, show main drain(s) and catch basin drains (Suction Entrapment Avoidance)
 - G. Means of adding make-up water and backflow prevention
 - H. Specification, size, length, demand and routing of gas line (separate permit required for Fire pits, BBQ, Fire Tables, Fireplaces, Tiki Torches when not Owner/ Builder)
 - I. Plumbing plans to be signed by plumbing contractor.
- 4. Electrical plans
 - A. Size and location of existing electrical services and gas meter size and location
 - B. The means of lighting pool/spa
 - C. Show clearance of overhead power lines as per 2018 ISPSC per Southern Nevada Amendments 324.4, Table 680.9(A) If none exists, note plans as such).
 - D. Electrical load calculations are required if electrical service is less than 200 amps or two (2) or more pumps are installed
 - E. Electrical plans to be signed by electrical contractor
 - F. Show emergency disconnect location



SWIMMING POOL PLAN REQUIREMENTS

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This document is a guideline. It is not meant to supersede code, manufacturer installation instructions, or product listings.

- 1. Plot plans dimensioned and drawn to a reasonable <u>scale</u> and showing at least the following:
 - A. Property lines, easements, right-of-way of record, and overhead utilities.
 - B. Existing structures, fences, retaining walls, irregular grades (2-1 slope or greater), and other relevant characteristics adjacent to the pool/spa or waterscape area may add a structural surcharge to the pool wall if closer than 5'. A detailed cross section and structural review is required showing at least the following:
 - 1) Grade to property line/structure
 - 2) Design and location of footings for structure, fence/retaining wall, house, etc.
 - 3) Grade of adjacent property
 - 4) Pool wall, raised bond beam, spa, waterfall, etc.
 - C. The proposed pool/spa or waterscape, shape and type, dimensioned and located to show setbacks from the water's edge, side yards and clearances from existing structures adjacent to the pool/spa or waterscape area.
 - D. The proposed mechanical equipment pad dimensioned location in the relation to setbacks and side yards.
 - E. All diving and deck equipment items if included.
 - F. The proposed deck work configuration showing its anticipated drainage.
 - G. Show all deck heights, stairs, platforms, guard and handrails required to comply with IBC/ IRC.
 - H. Show site built slides and grottos with minimum 5' to property line
- 2. A structural working plan showing at least the following:
 - A. The type of construction. Fiberglass pools must have current ES reports to accompany submittal.
 - B. The pool/spa or waterscape dimensions, including the depth, surface area, and adequate cross-sections drawn to scale.
 - C. Computations, stress diagrams, and other data sufficient to show the correctness of the plans, including the reinforcing steel schedule and detail, if applicable.
 - D. Contractor's structural calculations (stamped and digitally signed by a registered engineer) for pool, spas, spa dam walls, raised bond beams, surcharges (within five feet of structures or property lines), waterscape and all other unusual conditions.
 - E. Detailed working drawings of the items listed in D, which shall be stamped and signed by the engineer of record and show:
 - 1) Plan view
 - 2) Cross sections, both width and length
 - 3) Reinforcing steel size
 - 4) Reinforcing steel spacing
 - 5) Thickness of walls

- F. The Building Department will accept stamped and digitally signed calculations and working drawings for repetitive use. These originals will be kept on file by the Building Department. These documents can be used by any contractor for repetitive use with written approval from the engineer of record or a site specific plan that refers to the repetitive use details stamped from the engineer. The original letter will also be kept on file with the Building Department. When submitting plans for permits, the need for wet-stamped calculations/ details will not be required.
- G. For approval of the original calculations:
 - 1) Submit calculations and working drawings for the Building Department's review and approval. This is for approval only—not for the issuance of permits.
 - 2) After approval, the responsible party (engineer or contractor) will pay the review fees and download their approved set from the Building Department. The Building Department will keep a file set of calculations.

NOTE: The structural calculations are to be used to substantiate the drawings not to replace them; separate detailed drawings are required.

- 3. A mechanical plan showing at least the following:
 - A. The volume, system flow rate in gallons per minute (GPM's) and turn over in hours.
 - B. The type and size of filtration system and the means of waste disposal.
 - C. The type and size of the pool heater, including the method of venting and provisions for combustion air, if applicable.
 - D. A pool piping schedule listing the types of materials and size of materials being used, and showing the location of the main outlets, surface skimmers, and inlets. Show the main drain(s) and catch basin drains (Suction Entrapment Avoidance APSP 7)
 - E. The means of adding make-up water and backflow prevention.
 - F. The size, length, material and routing of the gas line from the gas meter to heater, if applicable. A separate permit is required for gas lines that are *not* directly related to the pool or pool service equipment. An example would be: Fireplaces, Fire Pits, Fire Tables, Tiki Torches and BBQ's. The Pool Heater and Fire Features associated with the pool would be included within the scope of the Pool Permit. An Owner/ Builder would be allowed to extend the gas line only to these appliances without the requirement for a separate permit.
 - G. The size and location of existing electrical service.
- 4. An electrical load calculation will be required if the size of the main electrical service is **less** than 200 AMP *or* two (2) or more pumps are installed.
- 5. Section 314.4 of the 2018 Uniform Plumbing Code requires: Excavations shall be completely backfilled as soon *after inspection* as practicable. Precaution shall be taken to ensure compactness of backfill around piping without damage to such piping. Trenches shall be backfilled in thin layers to 12 inches (305 mm) above the top of the piping with clean earth, which shall not contain stones, boulders, cinder fill, frozen earth, construction debris, or other materials that will damage or break the piping or cause corrosive action. Mechanical devices such as bulldozers, graders, etc., shall be permitted to then be used to complete backfill grade. Fill shall be properly compacted. Precautions shall be taken to ensure permanent stability for pipe laid in filled or made ground.

Underground thermoplastic pipe and fittings shall be installed in accordance with the UPC Chapter 12.

6. Soils Information:

- A. Contractor / Owner may choose to exercise "Option A" or "Option B".
 - Option A: Have the structural designer clearly state in a cover letter to accompany the pool plans or stamp plans that the pool and deck have been designed for worst-case soil conditions (Design utilizes a minimum lateral bearing pressure of 60 psf/ft and an exposure class S2 (Severe Sulphate exposure level). In this instance, no further soils report will be required.
 - 2) Option B: Provide a site-specific soils report for the property. If you wish, you may obtain an "excavation only" permit without a soils report, but no inspections will be performed, and no pool permit will be issued until the site-specific soil report is received.
- 7. When submitting plans for permits:
 - A. Submit the site plan, engineer/city-approved detail working drawings, and engineer's approval letter.
 - B. Submit a copy of the engineer/city-approved calculations. Please note:
 - 1) All submittals must be complete even if others are doing the work.

NOTE: FOR PLANS PROVIDED BY A CONTRACTOR: List each contractor's name, license number, and name of person who prepared plans in a prominent location on the front sheet of each set of plans. The electronic signature of each contractor shall accompany this information. In the case of electrical or plumbing work, the signature must be that of the Master or Qualified Employee.

NOTE: FOR PLANS PREPARED BY AN OWNER/BUILDER: List owner's name that prepared plans in a prominent location on each sheet of each set of plans. The electronic signature of the owner/builder should accompany this information.

NOTE: 15 feet of block wall may be removed to build a pool, on the same permit. After the pool is completed, the wall must be restored to code compliance.

Plans have been reviewed under The 2018 International Swimming Pool and Spa Code (ISPSC), Amendments and all other applicable codes.

| TIMER BOXES ARE NOT PERMITTED AS A DISCONNECT FOR MOTORS. NEC 680.13, 110.3B, 430.103 | PUBLIC POOLS AND SPAS SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL ACCESSIBILITY REQUIREMENTS. | | |
|--|---|--|--|
| THIS PERMIT IS FOR THE POOL ONLY. SEPARATE PERMITS ARE REQUIRED FOR FENCES, PATIO COVERS, BARBECUES, POOL BUILDINGS, ETC | PROTECTIVE BARRIERS MUST COMPLY WITH SECTION 305 OF THE SOUTHERN NEVADA AMENDMENTS TO THE 2018 INTERNATIONAL SWIMMING POOL AND SPA CODE. | | |
| POOL STEPS SHALL HAVE A MAXIMUM UNIFORM RISE OF 12", A MINIMUM RUN OF 10", AND WALKING SURFACE A MINIMUM 240 SQ. IN. ISPSC 411.2, 809.5 | ALL POOL PANELS MUST HAVE A MINIMUM #10 WIRE FEEDER AND 30 AMP BREAKER AND AN INSULATED GROUND WIRE TO THE EXISTING PANEL. NEC 225.39(B), 240.4(D)(7) | | |
| ALL GAS LINES UNDER SLABS, AND/OR FOUNDATIONS, SHALL BE SLEEVED PER THE 2018 UPC SECTION 1210.1.6 | OUTDOOR HEATED POOLS AND SPAS WILL BE PROVIDED WITH A VAPOR RETARDANT COVER OR OTHER MEANS PER SECTION 303.1.3 ISPSC | | |
| DECKS SHALL SLOPE AWAY FROM THE POOL PER 306.5 AND TABLE 306.5, DEPENDING ON DECK SURFACES, ISPSC. PUBLIC POOL DECKS MUST ALSO COMPLY WITH SECTION 406 ISPSC | TWO (2) MAIN DRAINS (SUCTION OUTLETS) WITH A MINIMUM THREE(3) FOOT SEPARATION, OR ONE (1) MAIN DRAIN AND ONE (1) SKIMMER OR 1 MAIN DRAIN WITH UNBLOCKED CHANNEL OUTLET REQUIRED TO BE ON THE SAME SUCTION LINE OR ANY APPROVED INSTALLATION AS PROVIDED IN ANSI/APSP/ICC-7 2013. | | |
| THE CONTRACTOR OR OWNER RESPONSIBLE TO VERIFY PROPERTY LINES PROXIMITY PRIOR TO EXCAVATION. | PROVIDE MEANS TO DRAIN POOL TO PUBLIC SEWER OR TO THE PREMISES TO AN APPROVED DISPOSAL SYSTEM ON THE PREMISES OR BY METHODS APPROVED BY STATE OR LOCAL AUTHORITY, 320.1 ISPSC AMEND. | | |
| SITE DRAINAGE SHALL BE PROVIDED TO DIRECT ALL DRAINAGE FROM THE SITE, PERIMETER DECKS AND ROOFS AWAY FROM THE POOL OR SPA AND ADJACENT BUILDINGS AND STRUCTURES, ISPSC 324.3 AMEND. | APPROVAL OF ANY PLAN DOES NOT ALLOW THE DESIGN PROFESSIONAL OR THE CONTRACTOR TO VIOLATE THE EQUIPMENT CLEARANCE REQUIREMENTS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. | | |
| A GEOTECHNICAL INVESTIGATION REPORT IS ALWAYS REQUIRED UNLESS THE STRUCTURAL DESIGN UTILIZES A MINIMUM LATERAL BEARING PRESSURE OF 60 PSF/FT AND AN EXPOSURE CLASS S2 (SEVERE SULFATE EXPOSURE LEVEL). THE STRUCTURAL DESIGN SHALL ACCOUNT FOR THE EFFECTS OF ANY SURCHARGE LOADING THAT IS PRESENT. ISPSC AMEND. SECTION 307.2.2 | | | |

POOL EQUIPMENT SHALL NOT BLOCK THE ONLY ACCESS TO MECHANICAL EQUIPMENT. MAINTAIN A MINIMUM 24" PATH.

ELECTRICAL LOAD CALCULATIONS ARE REQUIRED IF THE DESIGN INCLUDES TWO OR MORE PUMPS/MOTORS OR THE MAIN SERVICE PANEL IS LESS THAN 200 AMPS.

TO ALL POOL CONTRACTORS

All plans must be signed by the contractor for all portions that they have designed and are responsible for. The stamp and signature of the Nevada registered structural engineer is only for that structural portion of the plans unless the structural engineer assumes responsibility and signs for all portions; this must be noted by the engineer.

"For plans provided by a contractor: List contractor's name, license number, and name of person who prepared plans in a prominent location on the front sheet of each set of plans. This information shall be accompanied by the original signature of the contractor. In the case of electrical or plumbing work, the signature must be that of the Master or Qualified Employee." Plans shall be kept on site in a weatherproof tube or envelope. Post the "Permission to Enter" sign for all inspections.

A 2" CLEARANCE BETWEEN COOL DECK AND STUCCO WEEP SCREED MUST BE MAINTAINED Per 2018 (IBC) section 2512.1.2 or (IRC) section 703.7.2.1 A COLUMN COLUMN

DEPARTMENT OF BUILDING & SAFETY

SWIMMING POOL CONTRACTOR GUIDELINES

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Per NAC 624.150, commercial and residential pools (sub-classification A-10): "The construction, alteration and repair of commercial and residential pools and spas, used for swimming, therapy or decoration, including appurtenant equipment." We have interpreted this to mean:

Items that can be constructed by an A-10 license and are included with the pool permit:

- Up to 15 feet of block wall removed and replaced code compliant.
- Block or retaining walls which are intrinsic to the design of the pool, bond beams, etc., required to be done to engineer's design.
- All electrical, gas lines, potable water lines and sewer lines that are **intrinsic** to the construction of the pool/ spa with an appropriate sub classification or license. (A-10, A10-(f), C-1, C-1(d)(g)(h), or C-2, C-2(f)

Items that **cannot** to be constructed by an A-10 license but **are included** with the permit. Subcontractors that are properly licensed can call for inspection from the items listed below:

- Gas lines require an A-10(f), C-1 or C-1(d)(g)(h) license; plumbing plans must be signed by that contractor
- Potable water requires a A-10(f),C-1 or C-1(d) license; plumbing plans must be signed by that contractor
- All electrical work requires a C-2, C-2(f) license; electrical plans must be signed by that contractor

Items that **can be** constructed by an A-10 license but **require a separate permit**:

- Block walls around equipment
- Footings that are part of the deck for future patio covers, gazebos, etc.

Items that are not allowed to be constructed by an A-10 license and require a separate permit:

- Patio covers, gazebos, room additions, built-in-place pool covers, pool house, etc.
- Block walls or retaining walls that have no bearing on the construction of the pool.
- All electrical, gas lines, potable water lines and sewer lines that are **NOT** intrinsic to the construction of the pool. This includes: BBQ's, Fireplaces, Fire Pits, Fire Tables, Tiki Torches, etc.

The city of Las Vegas, Department of Building and Safety will comply with all State statutes. Questions concerning the interpretation of what can and cannot be done on an A-10 license should be directed to the State Contractor's Board at (702) 486-1100.



SWIMMING POOL INSPECTION CHECKLIST

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901 Inspection

- 1. Before you enter, make sure "Permission to Enter" sign is posted outside of the backyard, and that it is signed by the owner.
- 2. Check plans to make sure they are:
 - a. Stamped and signed by engineer (wet stamp).
 - b. Stamped either approved or received by the City of Las Vegas.
 - c. Check site plan for gas lines (size, locations and length of run).
 - d. Check site plan to make sure it reflects exact conditions and equipment location and soil zone. Check for clearance to overhead power lines.
- 3. Check electrical conduit.
 - a. Bond the following with #8 solid copper wire: pool steel, light niches, any metal within 5'(including fences, windows), all motors, heaters and filters if they have a lug, any diving board, slide, or hand rail jigs, and automatic pool covers. All bonding to be done with approved clamps.
- 4. PVC waterlines and drains.
 - a. Waterlines are to be 12" deep, if not covered by decking and sanded top and bottom with no rocks larger 3/8"
 - b. Drains are to be at least 3' apart or in different planes
 - c. No plumbing to be in concrete pours or slabs, it must be buried in sub grade.
 - d. A backflow prevention device shall be installed to protect potable water supply.
- 5. Check approved site plans for engineer detail locations.
 - a. No mud, flaky rust, grease, oil or paint on steel.
 - b. Steel to be sized and installed per engineers' details and specifications.
 - c. Check engineer details against steel as installed.
 - d. Check for water features, if natural rock then they must have engineered pad to support the rock, if they are to have an artificial feature then there are specific engineer details that must be followed.

903 Inspections

- 1. Plastic gas line (PE)
 - a. Must have 60-PSI pressure.
 - b. Must be 18" deep and be sanded (3" bottom, 3" sides and 4" on top), no sharp aggregate.
 - c. Must sleeve risers with PVC pipe ½" larger on each side.
 - d. Must have electrically continuous corrosion-resistant tracer wire not less than AWG 14 or tape shall be buried with the plastic pipe to facilitate locating. One end shall be brought above ground at building wall or riser (UPC 1210.1.7.2).
 - e. Shut-offs required at the equipment end.
- 2. Metal gas line installed underground.
 - a. Factory coated pipe with 10-mil tape double wrapped on all joints and wrench teeth marks.
 - b. Vent is required when installed in a conduit or sleeve.
 - c. Gas lines require shut-offs at the equipment end.
 - d. Sleeves shall be provided to protect all piping through concrete and masonry walls.

905 Inspections

- 1. Turn down inspections required on concrete pools with decks 24" and wider and 12" or more above grade, follow engineers details for these inspections.
- 2. Raised decks against non-retaining walls require a clear space to prevent any surcharge.
- 3. Check that no slab will be poured against the existing house within 2" of weep screed.
- 4. Fiberglass pool deck inspections must follow the ICBO Evaluation Study details exactly.

910 inspections

- 1. Permission to enter sign to be posted. If not posted, knock on door for permission to enter.
- 2. Check approved site plans for any items that might have been added which are not on the plans (waterfalls, BBQ's, retaining walls, enclosure walls, etc).
- 3. Gas lines:
 - a. Require shut-offs at the equipment end.
 - b. Gas line pressure to be at 60 PSI for welded plastic and 10 PSI for steel and non-welded plastic piping.
 - c. Heater to be on pad, 3" above grade.
- 4. Electrical: 2017 National Electrical Code compliance.
 - a. Pool lights
 - 1) Must be GFCI protected, CLV must verify.
 - b. Gates:
 - 1) Must be self-closing and self-latching and 60" high measured from outside the enclosed area. Gates must open outwards.
 - 2) The latch or locking device must be at least 48" above grade and at least 6" from the top of the gate. This device must be protected from outside the enclosed area for a distance of 20" in all directions, except openings not greater than ¹/₄" in diameter.
 - 3) Double gates must be padlocked and or chained and locked with no other modifications as long as there is another code compliant man gate. If a self-latching type device is used on a double gate then the 20" protective barrier will be required.
 - 4) Double gates that are the only access to the rear yard and each leaf of the gate is 8' or less require one side of the gate pinned and locked down and the other portion of the gate must be self-closing, self-latching and protected as per item # ii above.
 - 5) Clearance under the gate must no more than 4".
 - c. Barriers:
 - 1. Barrier must met Requirements of the Southern Nevada Amendments to the 2018 ISPSC
 - d. Plumbing:
 - 1) All water lines above grade must be painted to protect it from UV.
 - 2) Pumps securely bolted down.
 - 3) Must have a method to drain pool (1 $\frac{1}{2}$ " PVC with valve or direct to sewer, etc).
 - 4) Backflow prevention device on auto fill line. Must have anti-siphon device on rear hose bib.
 - 5) Auto fill shall not be connected to any irrigation system plumbing.
 - e. Pool Safety: Installed per Southern Nevada Amendments to the 2018 International Swimming Pool and Spa Code



