



CITY OF MESA
DEVELOPMENT SERVICES
RESIDENTIAL SWIMMING POOL AND SPA REQUIREMENTS
THAT HAVE A MASTER PLAN ON FILE

PROJECT STREET ADDRESS: _____

PERMIT # _____

THIS CHECKLIST CAN BE USED AS A GUIDE WHEN REVIEWING PLANS FOR RESIDENTIAL SWIMMING POOL CONSTRUCTION. THESE COMMENTS CAN BE CUT AND PASTED INTO YOUR ELECTRONIC DOCUMENT REVIEW. **NOTE: ALL REFERENCES WERE TAKEN FROM THE 2018 MESA SWIMMING POOL AND SPA CODE WITH AMENDMENTS AND THE 2017 NATIONAL ELECTRIC CODE.**

- _____ 1. Provide a fully dimensioned site plan, drawn to scale, including lot dimensions, location of all structures on the lot, location of pool and/or spa, pool equipment, fences, gates, all existing windows and doors with access to pool/spa area and easements.
- _____ 2. Show any water features, pool features and/or accessory structures that will be constructed with the pool and provide engineering for these features and/or accessory structures. EXCEPTION: Pre-manufactured metal patio covers and awnings and lightweight pre-manufactured metal frame fabric covered shade structures.
- _____ 3. Structures such as a slide, swim up bar, or shade cover will add a surcharge or gravity load to an engineered pool/spa wall. This includes structures attached to a pool/spa wall, or a structure with footings that at a minimum do not meet a ratio of 1' distance from the edge of a footing to the edge of a pool/spa wall, for every 1' of pool/spa depth. Verify this information is on the plans if applicable.
- _____ 4. Show dimensions from water's edge to all property lines. Water's edge must be at least 4' from any property line. Mesa Zoning Ordinance 11-30-11
- _____ 5. Show dimensions from water's edge to all structures. Provide structural calculations for pool wall when water's edge is less than 4' from any structure.
- _____ 6. Pool shown on plot plan is a diving pool. Identify the Type of pool that it will be. Type I, Type II, Type III, Type IV, or Type V. Diving pools have a minimum water envelope. Dimensions vary with the different pool type. These dimensions can be found in ISPSC Section 804.
- _____ 7. Diving boards that have any metal in the construction of the board must be bonded.
- _____ 8. Show dimensions from water's edge to adjacent windows or glass doors. Glass within 5' from water's edge must be tempered and identified as such.
- _____ 9. All metal within 5' of the water's edge must be bonded with at least 8 AWG wire.

- _____ 10. Show location of electrical service entrance and overhead electrical lines (if any). All overhead wires or service drops, telephone lines, etc. must be a minimum height of 22.5' from the surface of the water's edge.
- _____ 11. Identify wire size and type, circuit breaker size and burial depth for all electrical installations. If wire is direct burial identify type and if installed in conduit identify size and material. All electrical installations are to be installed per 2017 NEC requirements.
- _____ 12. Identify locations of all existing electrical outlets. Electrical outlets must be a minimum of 6' from water's edge protected by a GFCI (ground fault circuit interrupter). NEC 680.22 (A)
- _____ 13. Pool equipment must be located a minimum of 5' from water's edge.
- _____ 14. Pool, spa and/or pool equipment shall not be located within a Public Utility Easement (PUE).
- _____ 15. Locate any gas or LP equipment/heater at least 4' from any operable window.
- _____ 16. If LP tanks are being installed, identify location and size of the LP tanks. LP tanks are to be installed per Mesa detail (attached).
- _____ 17. If natural gas is being used for the equipment/heater, provide the BTU load for all existing appliances (or a list of all existing appliances) and the BTU load for the new equipment/heater.
- _____ 18. Provide a gas line installation detail for new equipment/heater. Detail must include size and type of material, depth of piping and the length of gas line run from gas meter to equipment/heater.
- _____ 19. Water supply must be protected from backflow. ISPSC 302.5
- _____ 20. Decks shall be slip resistant and cleanable. ISPSC 306.2
- _____ 21. Identify location of hose bib. ISPSC 306.9.1
- _____ 22. Provide/identify suction entrapment avoidance complying with APSP7. 310.1
- _____ 23. Show compliance with pool/spa barrier. Compliance can be met by one of the following methods. Identify on plans which method will be used to provide compliance.
 1. Barrier around the pool.
 - a) Top of the barrier shall not be less than 5' above grade, measured from the outside of the barrier.
 - b) The barrier, if not the perimeter fence, shall not be closer than 4' to a property line.
 - c) The vertical clearance between grade and the bottom of the barrier shall not exceed 2" for grade surfaces that are not solid, such as grass or gravel.
 - d) The vertical clearance between the bottom of the barrier to a solid surface, such as concrete, shall not exceed 4".

- e) Openings in the barrier shall not allow passage of a 4" in diameter sphere.
- f) Solid barriers that do not have openings shall not have indentations or protrusions that could form handholds or footholds.
- g) A mesh fence barrier must be installed per the manufacturer's installation instructions and; the bottom of the mesh fence shall not be more than 1" above the deck; 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" from grade or decking; the fence shall not allow passage of a 4" in diameter sphere to pass under the panel; the attachment device shall attach each barrier section at a height not lower than 45" above grade; and mesh fence posts must be placed in concrete. Mesh fencing must meet the requirements of ASTM F2286.
- h) When the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45", the horizontal members shall be located on the pool/spa side of the fence. Spacing between vertical members shall not exceed 1 3/4" in width.
- i) Chain link fencing cannot have openings greater than 1 3/4" and the mesh shall not be less than 11 wire gauge.
- j) Barriers composed of diagonal members shall not have openings formed by the diagonal members greater than 1 3/4" and the angle of the diagonal members shall not be greater than 45 degrees from the vertical.
- k) Barriers must be a minimum of 36" from any permanent structure or equipment that could be used to climb the barrier.
- l) The pool/spa side of the barrier shall not be less than 20" from the water's edge.
- m) Gates within the barrier shall comply with the following:
1. Must open outward away from the pool.
 2. Shall be self-closing and self-latching.
 3. Shall be equipped to accommodate a locking device.
 4. Gates not intended for pedestrian use shall remain locked.
 5. Double/multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be self-closing and be secured with a self-latching device. The gate and barrier shall not have openings greater than 1/2" within 18" of the latch release mechanism.
 6. Latches less than 54" from grade shall be located on the pool/spa side of the gate and not less than 3" below the top of the gate and the gate/barrier shall not have openings greater than 1/2" within 18" the release mechanism.

2. Structure as a wall barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors and/or windows provide direct access to the pool/spa through that wall, must meet **one** of the following requirements.

1) Operable windows having a sill height of less than 48" above the indoor finished floor and doors shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be listed and labeled as a water hazard entrance alarm in accordance with UL 2017. The operable parts of the alarm deactivation switches shall be located 54" or more above the finished floor.

2) Windows used for emergency escape or rescue which face into a yard with a swimming pool/spa shall be equipped with a latching device located not less than 54" above the floor. All other operable dwelling unit windows facing into a yard with a swimming pool/spa shall be equipped with a screwed in place wire mesh screen, a keyed lock that prevents opening the window more than 4", or a latching device not less than 54" above the floor.

All doors leading from the dwelling unit with direct access to the swimming pool/spa shall swing away from the pool, shall be self-closing and self-latching, and shall be equipped with a locking device. The release mechanism for the latch or a secondary locking device, shall be located not less than 54" above the floor. A locking latch which uses a key, electronic opener, or integral combination lock may be located at any height on the door. Sliding doors shall not form any part of a required barrier unless the self-closing and self-latching mechanism is approved.

Multi panel sliding doors or walls shall meet the requirements of ISPSC 305.4(1) or 305.4(2), as amended, or shall be secured in place by a permanent fastening method that requires a tool to remove. If a sliding glass door or panel is the only door leading to the pool area, it shall meet the requirements of ISPSC 305.4(1) or 305.4(2), as amended.

3) The pool/spa shall be equipped with a key operated powered safety cover in compliance with ASTM F1346. The keyed pool cover switch shall be located not less than 54" above the floor or adjacent ground level and where the entire pool/spa cover can be visually inspected.

NOTE: Pet doors are not allowed in the barrier wall. ISPSC 305.4.1