



SWIMMING POOL PLAN CHECK GUIDELINES

The California Health and Safety Code and the California Code of Regulations, Title 22, requires any person proposing to construct, remodel or alter a public swimming pool or auxiliary structure or equipment to submit plans and specifications to Tulare Environmental Health. Tulare Environmental Health must approve plans prior to commencing construction and in advance of the issuance of any permit from the local Building Inspection Department. Changes to plans and/or specifications after approval of plans must be submitted to Tulare Environmental Health for review.

These Guidelines are based on requirements contained in the California Health and Safety Code (Sections 116025 through 116068) and the California Code of Regulations, Title 22 (Chapter 20) and Title 24 (Chapter 90). Plans must show that all applicable requirements will be complied with. **THESE GUIDELINES ARE NOT INCLUSIVE AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.** Refer to the appropriate state codes for additional requirements and details. Pre-gunite (or equivalent), pre-plaster (or equivalent) and final inspections from Tulare Environmental Health are required before a pool can be opened for use or before a permit to operate can be issued.

THE FOLLOWING INFORMATION IS REQUIRED. Plans must be drawn to scale in a professional manner and include the following:

1. Name, address, and telephone number of owner, pool contractor or pool company, general contractor and architect.
2. Address of pool to be constructed.
3. Plot plan drawn to scale showing pool location in relation to all buildings on the property. Where applicable, indicate the travel distance in feet from the pool to the living quarters on the property that are farthest from the pool. Smaller scale acceptable on plot plan only.
4. Two (2) sets of complete plans and specifications ("by others" and "per code" is not acceptable). Indicate equipment make and model numbers on the plans.
5. Pool plans must be drawn to scale (minimum 1/4 inch = 1 foot).
6. All calculations must be shown on the plans or on a sheet attached to the plans.
7. Completed data sheet for each pool (data sheet is attached at end of guidelines).
8. Detailed, acceptable pool decking, pool fencing or enclosure, and ancillary facilities plans must be submitted before pool plans can be approved.
9. Scale floor plan of pool equipment room or area (minimum 1/2 inch = 1 foot).
10. Pool users restroom, dressing and shower facilities plans (when necessary). If restroom, dressing and shower facilities are required or proposed, acceptable plans for these facilities must be submitted before pool plans can be approved.

RESTROOM, DRESSING AND SHOWER FACILITIES REQUIREMENTS (when necessary).

1. Separate restroom and dressing facilities for each sex. Check with local Building Department regarding handicap requirements.
2. Number of restroom and shower fixtures:

- a. For the purpose of determining the number of fixtures required, one pool user shall be considered for every 15 square feet of pool water surface area (total water surface area if there is more than 1 pool).
- b. Showers: One shower per 50 pool users.
- c. Lavatories: One lavatory per 80 pool users.
- d. Toilets:
 - (1) Female: One toilet per 60 females.
 - (2) Male: One toilet plus one urinal per 75 males.
3. Provisions for privacy.
4. Submit a complete schedule of proposed room finishes.
5. Smooth, easily cleanable, durable and moisture resistant wall and ceiling finishes.
6. Floors shall be slip-resistant and extend upward onto walls at least 5 inches with an integrally coved base and shall slope to floor drains (minimum 1/4 inch per foot).
7. Submit floor material specifications (samples may be needed). Floors shall have a hard nonabsorbent surface, such as concrete with a slip-resistant finish or slip-resistant ceramic tile. Carpeting or other similar types of material shall not be permitted on shower or toilet room floors.
8. Submit a plumbing plan.
9. Showers and lavatories shall be provided with hot and cold water or tempered water. The maximum allowable water temperature is 110 degrees F.
10. Lavatories shall be provided with permanent single-service towel dispensers (or hot air blowers) and permanent soap dispensers.
11. Showers shall be provided with soap in approved dispensers.
12. Toilet tissue in permanent dispensers shall be provided.

THE FOLLOWING INFORMATION IS REQUIRED:

POOL PROFILE VIEW. Longitudinal section plan through the centerline of the pool must provide the following information:

1. Pool length and depth dimensions. Pool depth dimensions must be from the operating water level to the bottom of the pool.
2. Distance from shallow end wall to point of break in the bottom slope from shallow to deep water or to the main drain if there is no break in the bottom slope.
3. Distance from break in bottom slope to main drain (if applicable).
4. Distance from main drain to deep end wall.
5. Depth at shallow end wall and deep end wall.
6. Depth at break in bottom slope, if applicable.
7. Depth at main drain (maximum pool depth).
8. Depth at entire base of any pool stairs (must be uniform in depth at entire base of any pool stairs).
9. Location of any flush mounted rope anchors.
10. Pool stairs profile view that includes height of step risers and width of step treads.
11. Design and location of hand rail(s) at pool stairs. Include handrail profile view. Indicate height of upper railing surface above deck, coping or other handhold and pool steps.

POOL TOP VIEW. Provide the following information on the plans:

1. Width of pool.
2. Diving board (if any) location(s) and distance from board center to sidewalls and any other diving board.
3. Submit a complete pool plumbing plan. Show location, pipe size and length of all pool plumbing, including skimmer, main drain and other suction lines, fill lines, return lines and return inlets.

- a. Design pool filtration return plumbing system to obtain uniform flow through each return inlet (a return loop system, for example).
 - b. Design pool skimmer plumbing system to obtain uniform flow through each skimmer (a "T" connection for the skimmer suction line between 2 skimmers that will result in uniform flow in a 2 skimmer system or a skimmer suction loop system, for example).
4. Return Inlets.
 - a. Locations of inlet fittings.
 - b. Two return inlets for the first 10,000 gallons and one additional inlet for each additional 10,000 gallons or fractional part thereof.
 - c. Inlet fittings shall be located greater than 18 inches below the water line, except for a wading pool.
 - d. Inlet fittings shall be separated by at least 10 feet.
 - e. Inlet fittings shall be located to ensure uniform circulation.
 - f. Inlet fittings should be at least 5 feet from any skimmers.
 - g. Additional inlets may be required to ensure uniform circulation.
 - h. Inlet fittings shall not protrude greater than 1 1/4 inches into the pool and shall be rounded and smooth.
 - i. Volume of flow through inlet fittings must be adjustable.
 - j. Wall inlet fittings direction of flow must be adjustable.
 5. Floor Inlets.
 - a. One floor inlet shall be provided for each 10,000 gallons for a pool that exceeds 40 feet in width.
 - b. Additional floor inlets may be required to ensure uniform circulation.
 6. Skimmers. NOTE: Skimmers cannot be used on pools with a water surface area over 5,000 square feet.
 - a. Location of skimmer(s).
 - b. Provide one skimmer for each 500 square feet of pool water surface area, or fractional part thereof.
 - c. Each skimmer shall be located in relation to pool inlets to aid recirculation and skimming.
 - d. Prevailing wind conditions will need to be considered when locating skimmers.
 7. Location of main drains.
 8. Locations of ladders, grab rails and steps, pool stairs and handrails.
 9. Pool light location(s) and wattage (when required).
 10. Locations of depth markers.
 11. Depth marking line. There shall be a straight line of 4-inch wide slip-resistant tile of contrasting color across the bottom of the pool where the water depth is 4 1/2 feet. EXCEPTION: Pools having a maximum depth of 5 feet or less shall not be required to have a depth marking line.
 12. Rope Anchors. When a pool has a change in bottom slope from shallow to deep water, flush mounted rope anchors (for a safety rope and buoys) shall be installed where the water depth is 4 1/2 feet.
 13. Location of permanently installed fill line.

EQUIPMENT SPECIFICATIONS. Provide the following information:

1. Provide specifications sheets for all pool equipment, fittings and grates.
2. Filters.
 - a. Filter type.
 - b. Make and model number.
 - c. Square footage of filter area.
 - d. Filter specifications sheet(s).
3. Pumps. For each pump provide:

- a. Make and model number.
- b. Horsepower.
- c. Pump performance curve.
4. Skimmers.
 - a. Skimmer make and model number.
 - b. Each skimmer shall have an equalizer line and an approved equalizer line grate.
 - c. Skimmer lines cannot be connected to the main drain.
 - d. Skimmer specifications sheet(s).
5. Chlorinators or equivalent disinfectant feeders.
 - a. Make and model number.
 - b. Specifications sheet(s).
6. Flow meters.
 - a. Make and model number.
 - b. Location on piping.
 - c. Flowmeter pipe size rating.
 - d. Specifications sheet(s).
7. Filter influent and effluent pressure gauges.
8. Approved backflow prevention device.
 - a. Properly installed on fresh water fill line at supply valve.
 - b. Backflow prevention device specifications sheet(s).
9. Inlet fittings specifications sheet(s).
10. Suction grates (including skimmer equalizer line grates).
 - a. Suction grate make and model number(s).
 - b. Open area of each grate in square inches.
 - c. Suction grates shall be removable only with tools.
 - d. Grate openings shall not exceed 1/2 inch in the smaller dimension.
 - e. Suction grates shall not create a suction hazard or a physical entrapment hazard.
 - f. Suction grate specifications sheet(s).

SUPPORT DATA. Provide the following information on the plans:

1. Pool capacity in gallons.
2. Square footage of pool water surface area.
3. Finish color of pool (must be white).
4. Type of pool piping proposed (copper, PVC, etc.).
5. Approved source of water for pool(s), restrooms and showers.
6. Approved sewage disposal system for pool filter wastewater disposal and for sewage from restrooms and showers.

SIGNS AND SAFETY EQUIPMENT. Provide the following information on the plans:

1. Sign indicating "WARNING-NO LIFEGUARD ON DUTY" (minimum 4 inch letters). The sign shall also state "Children Under the Age of 14 Should Not Use Pool Without An Adult In Attendance."
2. Approved artificial respiration demonstration sign.
3. Emergency telephone numbers sign.
4. At least two "NO DIVING ALLOWED" signs (minimum 4 inch letters) for pools with a maximum depth that is less than 6 feet.
5. Occupant load sign (1 bather per 20 square feet of pool water surface area, minimum 4 inch letters).
6. "NO USE OF POOL ALLOWED AFTER DARK" sign (minimum 4 inch letters) if pool is not supplied with lighting.
7. Body hook on a minimum twelve-foot pole.
8. Life ring (minimum 17 inch exterior diameter) with a 3/16 inch attached line long enough to span maximum width of pool.

9. First-aid kit (if required).

ADDITIONAL REQUIREMENTS. Provide plans and information for the following:

1. Pool Decks.

- a. Complete pool deck and deck drainage plans.
- b. A minimum continuous and unobstructed 4-foot wide slip-resistant nonabrasive deck area of concrete or like material shall extend completely around all pools (including special use pools and wading pools) and the deck shall further extend at least 4 feet on both sides and to the rear of any diving board. Deck width is measured from the poolside edge of the handhold.
- c. Pool deck surfaces shall be sloped away from the pool (minimum 1/4 inch per foot) to deck drains or other approved surface water disposal areas.
- d. The distance between any pool and a spa pool shall be at least 6 feet.

2. Handholds (coping, cantilevered decking or perimeter overflow system).

- a. Submit a scale section view of the coping, cantilevered decking or perimeter overflow system.
- b. Coping or cantilevered decking overhang shall not exceed 2 inches or be less than 1 inch and shall not exceed 2 1/2 inches in thickness.
- c. Coping or cantilevered decking shall be slip-resistant.

3. Pool Enclosure. Submit complete pool enclosure plans.

a. Enclosure. The pool shall be enclosed by one or a combination of the following: a fence, portion of a building, wall or other approved durable enclosure. Doors, windows that open, or gates of living quarters or associated private premises shall not be permitted as part of the pool enclosure. The enclosure, doors and gates shall meet all of the following specifications:

- (1) The enclosure shall have a minimum effective perpendicular height of 5 feet as measured from the outside as depicted in Figures 31B-4 and 31B-5, California Code of Regulations, Title 24, Section 3118B (see page 8).
- (2) Openings, holes or gaps in the enclosure, doors and/or gates shall not allow the passage of a 4-inch diameter sphere. The bottom of the enclosure shall be within 2 inches of the finished grade.
- (3) The enclosure shall be designed and constructed so that small children cannot readily climb it. Horizontal and diagonal member designs, which might serve as a ladder for small children, are prohibited. Horizontal members shall be spaced at least 48 inches apart. Planters or other structures shall not be permitted to encroach upon the clean span area as depicted in Figure 31B-5. Chain link may be used provided that the openings are not greater than 1 3/4 inches measured horizontally.

b. Gates and doors opening into the pool enclosure shall also meet the following specifications:

- (1) Gates and doors shall be equipped with self-closing and self-latching devices. The self-latching device shall be designed to keep the gate or door securely closed. Gates and doors shall open outward away from the pool except where otherwise prohibited by law. Hand activated door or gate opening hardware shall be located at least 3 1/2 feet above the deck or walkway.

EXCEPTION: Doors leading from areas of hotels and motels, as defined in the Business and Professions Code Section 25503.16(b), which are open to the general public, e.g., restaurants, lobbies, bars, meeting rooms, and retail shops need not be self-latching.

- (2) Except as otherwise provided herein, gates and doors shall be capable of being locked during times when the pool is closed.
- (3) The pool enclosure shall have at least one means of egress without a key for emergency purposes. Unless all gates or doors are so equipped, those gates and/or

doors which will allow egress without a key shall be clearly and conspicuously labeled in letters at least 4 inches high "EMERGENCY EXIT".

(4) The enclosure shall be designed and constructed so that all persons will be required to pass through common pool enclosure gates or doors in order to gain access to the pool area. All gates and doors exiting the pool area shall open into a public area or walkway accessible by all patrons of the pool.

c. Pool enclosures must comply with the dimensions specified in figures 31B-4 and 31B-5 (see page 8).

d. Openings in pool enclosures (other than between the bottom of the enclosure and finish grade, which must be 2 inches or less) should be less than 4 inches to ensure that a 4-inch diameter sphere will not pass through the enclosure openings.

e. Local Building Departments may require more stringent pool enclosure requirements.

4. Pool Geometry. The dimensions and slopes of a pool shall conform to the appropriate Figure 31B-1, Figure 31B-2, or 31B-3 (see pages 9, 10, and 11).

EXCEPTION: A special purpose pool shall be permitted a depth greater than 3 1/2 feet at the shallowest end.

5. Pool Stairs and Hand Rails.

a. Submit complete pool stairs plans.

b. Pool stair step treads shall be a minimum of 12 inches in width and shall be uniform in size, except that if the top step is curved, the top step tread shall be not less than 18 inches wide as measured at the point of maximum curvature.

c. Step risers shall not exceed 12 inches in height.

d. Step risers shall be uniform in size.

e. Hand rails shall extend from the deck to not less than a point above the top of the lowest pool step.

f. The upper surface of handrails shall be not less than 28 inches above the deck and poolside edge of the handhold.

6. Depth Markers.

a. Three inch minimum height durable depth markers shall indicate pool water depth in feet.

b. Depth markers must be accurate to the nearest 1/2 foot.

c. Depth markers shall be a color contrasting with the background.

d. Depth markers required at the following pool locations:

(1) Maximum depth.

(2) Minimum depth.

(3) Each end.

(4) On both sides of pool at any break in bottom slope between the shallow and deep areas of the pool.

(5) On the perimeter of the pool at distances not to exceed 25 feet.

e. Depth markers shall be on the vertical pool walls at or above water level.

f. If the pool is over 20 feet wide, the pool must have corresponding slip-resistant depth markers on the edge of the deck next to the pool.

g. Deck depth markers must be easily read from the deck.

h. Deck depth markers (must be slip-resistant) are recommended for pools that are 20 feet or less in width.

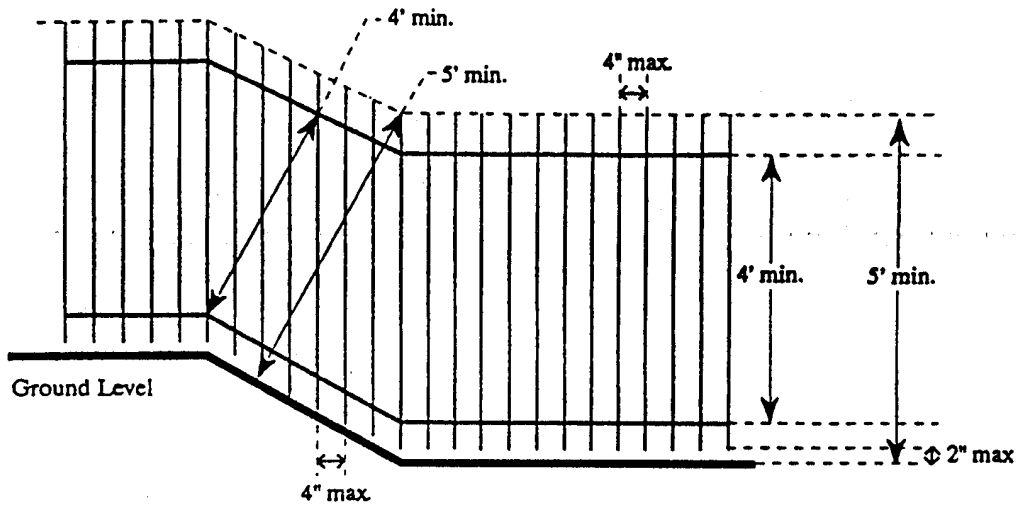


Figure 31B-4 Perpendicular fencing dimensions on sloping ground.

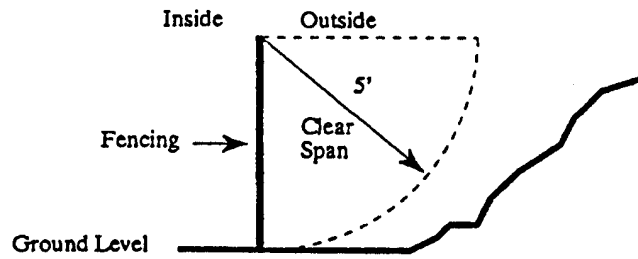


Figure 31B-5 Effective fencing height.

Figure 31B-1

Depths and Clearances for Pools with Boards above 30"

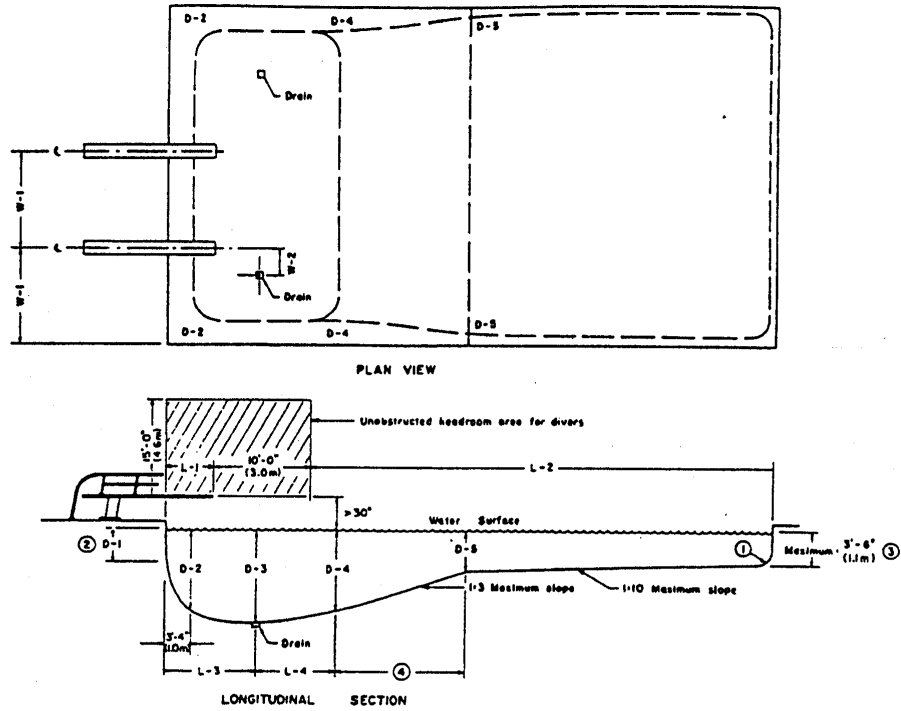


Table No. 1
Minimum Required Depths and Clearances for 1-Meter and 3-Meter Boards

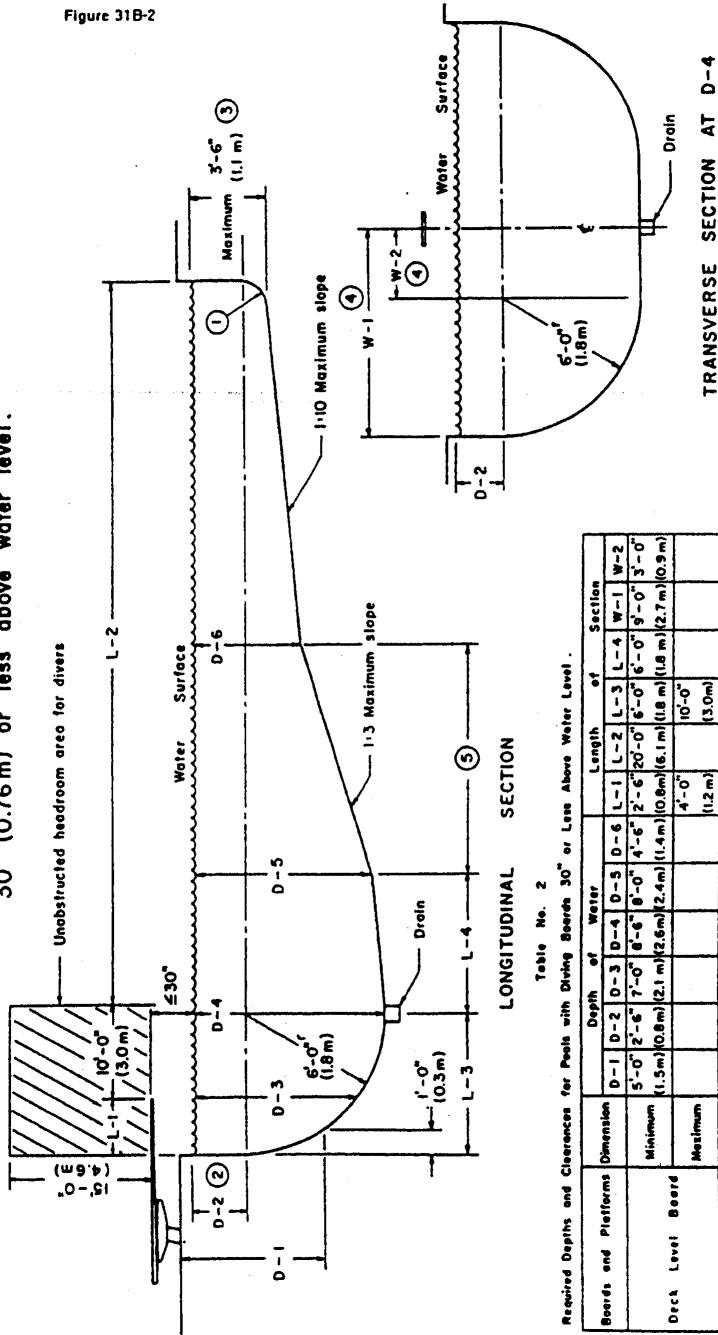
Boards and Platforms	Dimension	Depth of Water					Length of Section					
		D-1	D-2	D-3	D-4	D-5	L-1	L-2	L-3	L-4	W-1	W-2
1-Meter Board	Minimum	4'-0"	8'-6"	9'-0"	8'-6"	4'-6"	5'-0"	20'-0"	11'-4"	10'-0"	10'-0"	5'-0"
		(1.2m)	(2.6m)	(2.7m)	(2.6m)	(1.4m)	(1.5m)	(6.1m)	(3.4m)	(3.0m)	(3.0m)	(1.5m)
3-Meter Board	Minimum	4'-0"	10'-0"	11'-6"	10'-6"	4'-6"	5'-0"	30'-0"	11'-4"	14'-0"	15'-0"	5'-0"
		(1.2m)	(3.0m)	(3.5m)	(3.2m)	(1.4m)	(1.5m)	(9.2m)	(3.4m)	(4.3m)	(4.6m)	(1.5m)

Notes for Figure 1 and Table No. 1

- ① Maximum radius at shallow end shall be 1'-0" (0.30m).
- ② Springline (D-1) shall extend to the break in slope between the shallow area and the diving bowl.
- ③ See exception to Section 2-9013(a).
- ④ Dimension based on maximum slope and other minimum or maximum dimensions.

Figure 31B-2

Depths and Clearances for Pools with Diving Boards
30" (0.76 m) or less above water level.



LONGITUDINAL SECTION

TRANSVERSE SECTION AT D-4

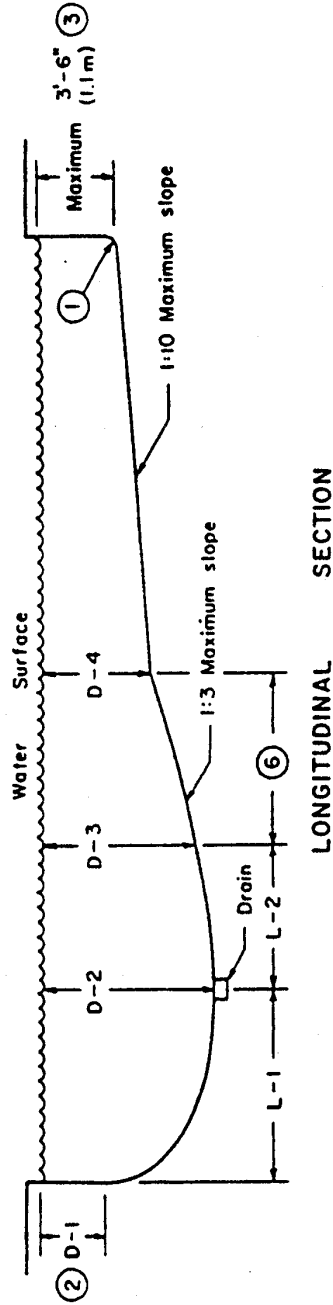
Table No. 2
 Required Depths and Clearances for Pools with Diving Boards 30" or Less Above Water Level.

Boards and Platforms	Dimension		Depth of Water		Length of Section							
	D-1	D-2	D-3	D-4	D-5	D-6	L-1	L-2	L-3	L-4	W-1	W-2
Deck Level Board	5'-0"	2'-6"	7'-0"	8'-6"	8'-0"	4'-6"	2'-6"	20'-0"	6'-0"	6'-0"	9'-0"	3'-0"
	(1.5m)	(0.8m)	(2.1m)	(2.6m)	(2.4m)	(1.4m)	(0.8m)	(6.1m)	(1.8m)	(1.8m)	(2.7m)	(0.9m)
Minimum							4'-0"	10'-0"				
Maximum							(1.2m)	(3.0m)				

- Notes for Figure 2 and Table No. 2
- ① Maximum radius of shallow end shall be 1'-0" (0.3m).
 - ② Springline D-2 shall extend to the break in slope between the shallow area and the diving basin.
 - ③ See exception to Section 2-9013 (e).
 - ④ Dimensions W-1 and W-2 shall apply from wall of deep end to D-6.
 - ⑤ Dimension based on maximum slope and other minimum or maximum dimensions.

Figure 31B-3

Depths and Clearances for Pools without Diving Boards



LONGITUDINAL SECTION

Table No. 3

Required Depths and Clearances for Pools without Diving Boards

Boards and Platforms	Dimension	Depth of Water			Length of Section		
		D-1	D-2	D-3	D-4	L-1	L-2
None	Minimum	2'-6"	6'-0"	5'-6"	4'-6"	3'-6"	3'-0"
		(0.8m)	(1.8m)	(1.7m)	(1.4m)	(1.1m)	(0.9m)

Notes for Figure 3 and Table No. 3

- ① Maximum radius at shallow end shall be 1'-0" (0.3 m).
- ② Springline (D-1) shall extend to the break in slope between the shallow area and the diving bowl.
- ③ See exception to Section 2-9013(a).
- ④ Width of pool at Section D-2 shall be at least 15'-0" (4.6 m).
- ⑤ Pools with maximum depths less than that specified shall have a minimum length of 15'-0" (4.6 m).
- ⑥ Dimension based on maximum slope and other minimum or maximum dimensions.

7. Pool Lighting:

- a. General. Where pool lighting is provided, it shall be such that lifeguards or other persons may observe, without interference from direct and reflected glare from the lighting sources, every part of the underwater area and swimming pool surface, all diving boards, or other pool appurtenances.
- b. Nighttime Use. Pools used at night shall be equipped with underwater lighting fixtures that will provide complete illumination of all underwater areas of the pool with no blind spots. Illumination shall enable a lifeguard or other persons to determine whether: (1) a bather is lying on the bottom of the pool, and (2) the pool water conforms to the definition of "clear pool water".
EXCEPTION: Pools provided with a system of overhead lighting fixtures, where it can be demonstrated to the enforcing agency that the system is equivalent to the underwater lighting fixture system.
- c. Deck Area Lighting. Where the pool is to be used at night, pool deck areas shall be provided with lighting so that persons walking on the deck can identify hazards. Lighting fixtures shall be aimed towards the deck area and away from the pool surface insofar as practical.
- d. Warning Sign for Pools Without Pool Lighting. Where pool lighting fixtures that comply with the above requirements are not provided, a sign with clearly legible letters not less than 4 inches high shall be posted in a prominent place near each entrance to the pool area. This sign shall state "NO USE OF POOL ALLOWED AFTER DARK".

8. Equipment Room or Area Plan.

- a. Scale drawing of pool equipment room or area (minimum 1/2 inch = 1 foot).
- b. Equipment room or area plumbing and equipment plan.
- c. Identify all equipment and show the location of all equipment on the plans.
- d. Show all piping and pipe sizes.
- e. Indicate any proposed 90 or 45 degree elbow pool piping, valves, gauges, flow meters, pumps, filters, heaters, chemical feeders, etc.
- f. Show the location of equipment room or area in relation to the pool(s) on a scale plan.
- g. All equipment shall be readily accessible for service, repair, replacement and inspection.
- h. Floor shall be concrete (or other approved material).
- i. Floor shall be sloped at a minimum of 1/4 inch per foot to approved drainage.
- j. Each pool's filtration and treatment system shall be completely separate from the filtration and treatment system of any other pool.

9. Waste Water Disposal.

- a. Filter wastewater shall be disposed of to a sanitary sewer (or other approved waste water disposal system if a sanitary sewer is not available).
- b. Air-gap separation required.
- c. Plans must include size, location and slope of any sewer line that will receive filter wastewater.
- d. Submit the size and location of any proposed filter wastewater sump.
- e. Waste water disposal systems shall be designed so as to prevent back-up and overflow of waste water while filters are being cleaned.

10. Pool Cleaning Systems. A built-in or portable type vacuum cleaning system shall be provided.

11. Hose Bibb(s).

- a. Indicate location of hose bibb(s).
- b. All areas of pool deck must be within 75 feet of a hose bibb.
- c. Hose bibbs shall be located so as not to constitute a safety hazard.
- d. Approved backflow prevention device required for each hose bibb.

12. Drinking Fountains.

- a. One guarded jet drinking fountain shall be provided for the first 250 pool users and an additional fountain shall be provided for each additional 200 bathers or fraction thereof.
- b. The number of pool users shall be determined according to number 2a on page 1 of these guidelines.

EXCEPTION: Drinking fountains shall not be required when drinking water is available at adjacent living quarters, or in an adjacent building such as a bathhouse, cabana, clubhouse, or recreational facility.

13. Test kit for free chlorine (DPD or other approved test kit), pH, and cyanuric acid (when used).

GAS CHLORINE ROOM (if applicable).

1. Compressed chlorine gas storage containers and associated chlorinating equipment, when installed indoors, shall be in a separate room of not less than 1-hour fire-resistant construction.
2. The gas chlorine room shall not be located in a basement or below ground level.
3. The gas chlorine room entry door shall open to the exterior of the building and shall not open directly towards the pool or pool deck.
4. Provide mechanical exhaust (taken at a point at or near the floor level) which produces at least 60 air changes per hour and is vented to the outside air. The point of discharge for the mechanical exhaust system to the outside air shall be at least 10 feet from any window that opens or adjacent building and at least 10 feet above the adjoining grade level.
5. Fresh air intakes shall be within 6 inches of the ceiling.
6. Submit the volume of the gas chlorine room in cubic feet and submit specifications for the exhaust fan or blower (including the cubic feet per minute ratings).
7. Provide a spray bottle of commercial strength ammonia.
8. Indicate location of light fixture and exhaust fan switches (switches must be adjacent to the entry door outside of the room). Each switch shall be clearly labeled "TURN ON BEFORE ENTERING."
9. A Gas Chlorine warning sign that reads "DANGER: GASEOUS OXIDIZER-CHLORINE" (minimum 4 inch letters) and the appropriate hazard identification symbol for gas chlorine, on the exterior side of the entry door to the chlorine room, or on the adjacent wall area, is required.
10. Indicate location of gas mask or self-contained breathing apparatus.
11. Emergency evacuation procedures and map shall be in a conspicuous location near the entrance to the pool.
12. Fire Departments and Fire Districts may have additional requirements relating to the use of chlorine gas (Uniform Fire Code).