

unbalanced hydrostatic pressures and to protect the pool structures from stresses which may develop due to freezing.

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65.

H 71.06 Water supply. The water supply for a pool shall be from an adequate and approved source. Equipment design shall take into consideration the quality of water that will be available. No direct connection shall be made between potable water supply piping and a pool or the piping thereof.

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65.

H 71.07 Maximum pool attendance. The maximum instantaneous allowable attendance at a combination, diving or swimming pool shall be based upon the following use factors:

- (1) **SHALLOW PORTION.** Ten square feet per patron.
- (2) **DEEP PORTION.** Twenty-four square feet per patron.
- (3) **INDOOR SCHOOL POOL.** The shallow and the deep portions of pools used for class purposes should be sized to provide 25 and 36 square feet per student patron, respectively.

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65.

H 71.08 Pool basin. (1) **ENTRANCE AND SEPARATION.** The design should require that swimmers gain access to combination or swimming pool decks adjacent to the shallow portion. Where pool layout requires entrance adjacent to the deep portion, the minimum adjacent deck width shall be ten feet. Area, routing and drainage separation shall be provided between the areas used by patrons and those used by spectators.

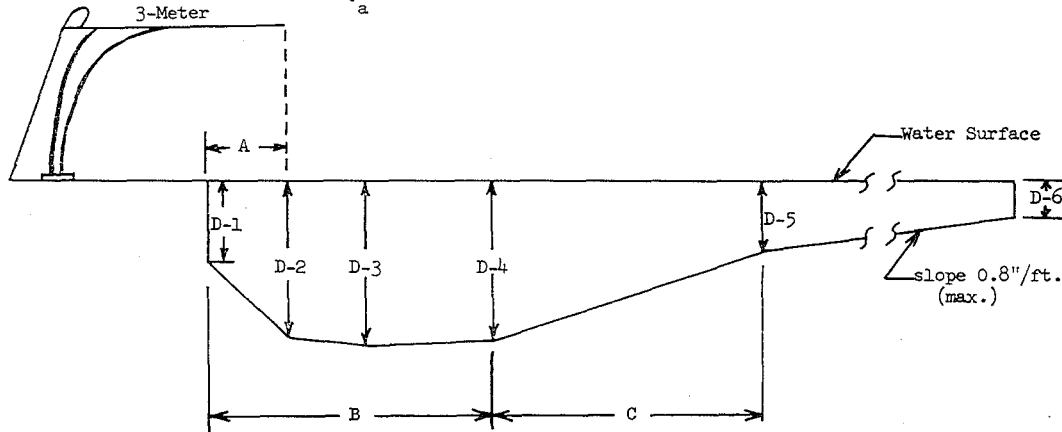
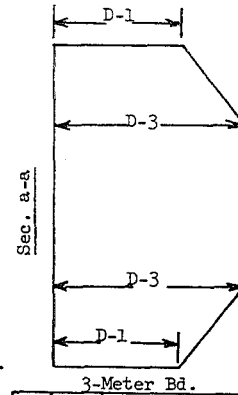
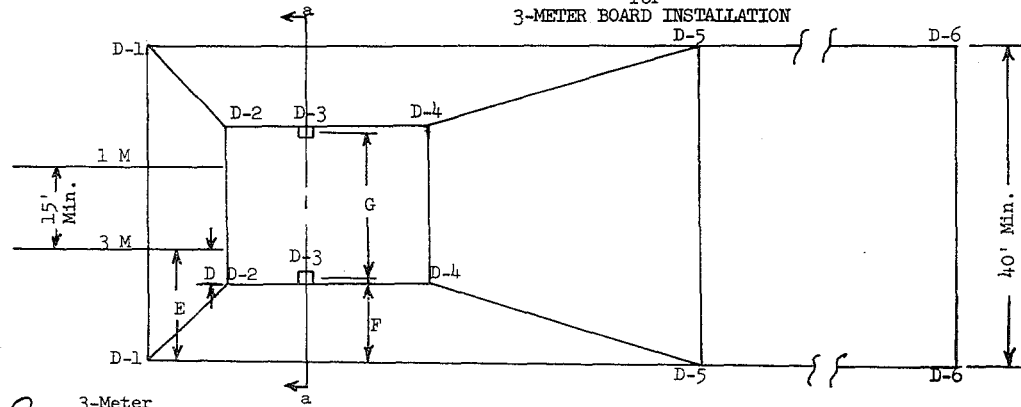
(2) **DEPTHS AND FLOOR SLOPE.** The depth of water above the pool floor at the wall in the shallow end of a combination or swimming pool shall be not less than 30 inches nor more than 36 inches unless special approval is obtained for greater depths. The increase in depth in the shallow portion of a combination pool or those used for swimming or therapeutic purposes shall not be greater than 0.8 inch per foot. The depth of water at the breakpoint or safety rope location in a combination pool shall be not less than 4.5 feet nor more than 5.5 feet.

(3) **VERTICAL WALL DEPTH.** Walls in the shallow portion of a combination or swimming pool shall be vertical. A curved junction between the wall and floor shall have a radius of not more than 6 inches.

(4) **DEEP PORTION.** Where the diving area is not a wholly separate structure, provision shall be made to separate the deep portion from the shallow portion by a safety rope located at the 5.5 foot depth or at the breakpoint if shallower. The diving section of combination or diving pools shall have adequate area and water depth. The minimum depth, length and width clearance from diving boards shall be as indicated by figures I, II, III and IV. The contours of the floor shall not infringe upon the profiles indicated by these figures.

Not to scale

FIGURE I - PLAN AND PROFILE
for
3-METER BOARD INSTALLATION



	Min.	Max.	
DEPTHS	** D-1	5'0"	D-3
	D-2	10'0"	D-3
	D-3	10'3"	*
	D-4	10'0"	D-3
	D-5	4'6"	5'6"
	D-6	2'6"	3'0"
LENGTHS	A	5'0"	6'0"
	B	18'0"	*
	C	17'0"	*
	D	5'0"	*
	E	15'0"	*

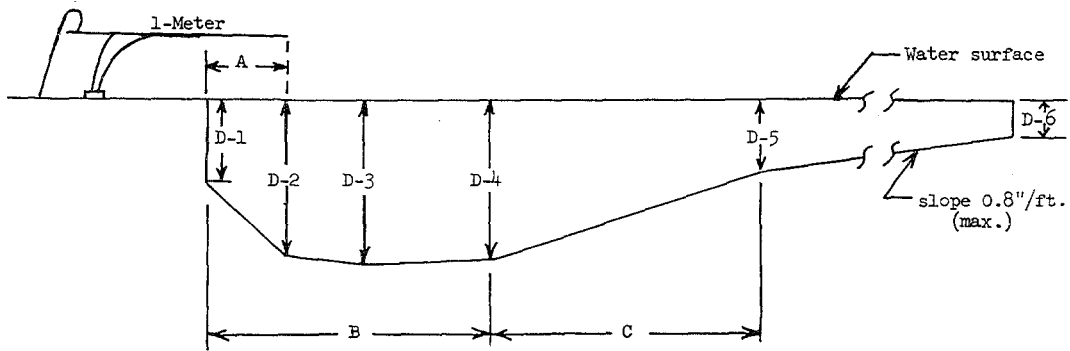
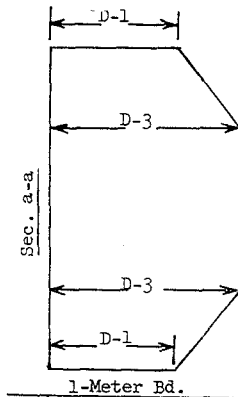
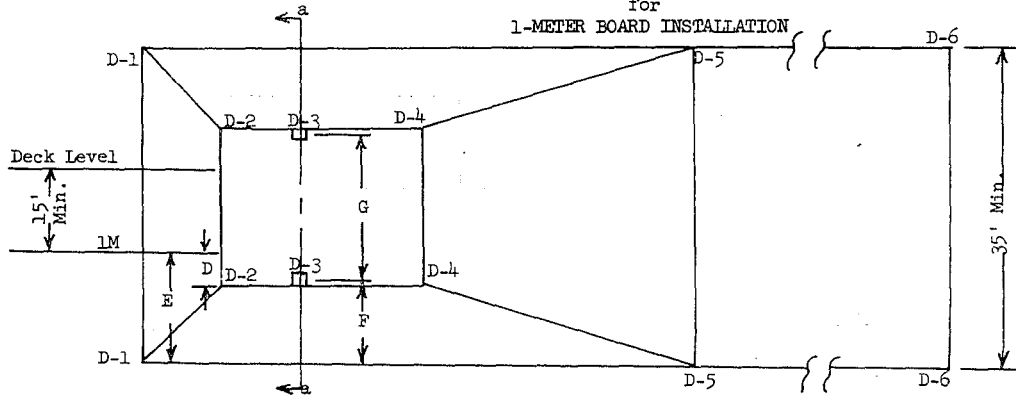
Notes:

* When maximum or minimum dimension is not indicated there is no limiting dimension.

** D-1 shall be at the side wall or not more than 6 inches from the wall.

Not to scale

FIGURE II - PLAN AND PROFILE
for
1-METER BOARD INSTALLATION



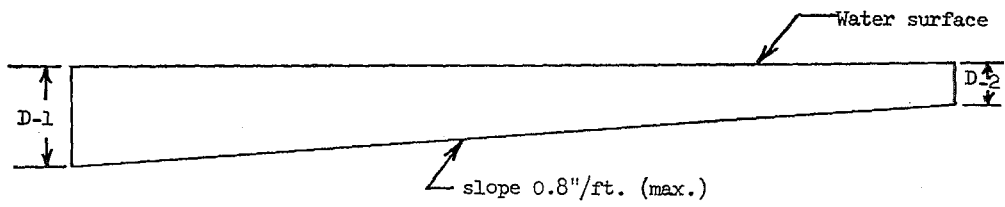
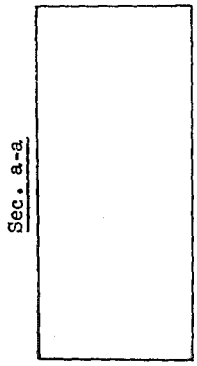
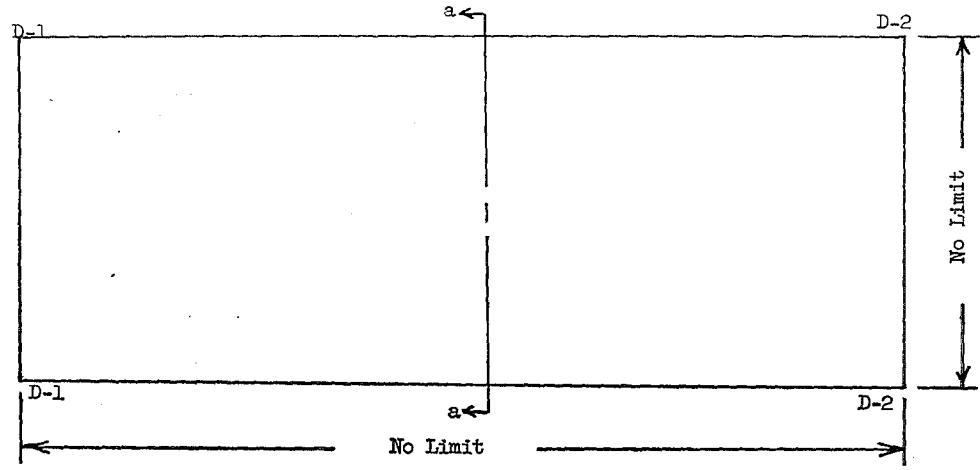
		Min.	Max.
DEPTHS	**		
	D-1	5'0"	D-3
	D-2	8'6"	D-3
	D-3	8'9"	*
	D-4	8'6"	D-3
	D-5	4'6"	5'6"
LENGTHS	D-6	2'6"	3'0"
	A	5'0"	6'0"
	B	18'0"	*
	C	12'0"	*
	D	5'0"	*
	E	10'0"	*
F	*	10'0"	

Notes:

- * When maximum or minimum dimension is not indicated there is no limiting dimension.
- ** D-1 shall be at the side wall or not more than 6 inches from the wall.

Not to scale

FIGURE IV - PLAN AND PROFILE
for
SWIMMING POOL - NO DIVING BOARDS



No Diving Bd.

DEPTHS	Min.	Max.
	D-1	*
D-2	2'6"	3'0"

(5) **OBSTRUCTIONS.** Except for a safety ledge, safety rope, ladder or side rails, there shall be no obstruction extending from the wall or the floor into the clear area of a pool. A clear vertical distance of not less than 13 feet shall be provided above any diving board.

(6) **SAFETY LEDGE.** When included, the safety ledge shall be at a constant depth of 30 to 60 inches and shall be 6 inches in width, with a slope of one-half inch from the wall toward the pool.

(7) **LADDERS AND STAIRS.** At least 2 points of egress shall be provided for any swimming, diving or combination pool, which shall be spaced so that at least one point of egress is in the deep portion and one at or near the shallow end wall. Maximum separation of points of egress, measured along the perimeter, shall be 75 feet. Handrails extending from below the water surface to the deck, curb, or coping shall be provided on each side of ladders. Grab rails may be substituted for handrails. Stairs may be substituted for ladders only at or near the end wall of the shallow portion of a swimming or combination pool. When included, stairs shall be recessed and treads shall have a finish such as to minimize slipping. Stairs shall have a uniform rise of not more than 7.75 inches and uniform treads of not less than 9.5 inches, with all corners rounded to a radius of one-half inch. The treads shall not project beyond the face of the riser. Stairs having more than 3 risers shall have a handrail on each side.

(8) **WALL AND FLOOR FINISH.** Wall and floor finish may be of concrete, cement plaster, tile, paint, or other inert and impervious material, nontoxic to man, and shall be reasonably durable. Paint, when used, shall be of such composition that it will produce neither taste nor odor in the water. Finish shall be reasonably smooth and be white or light in color of a Munsell value of 6.5 or greater.

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65; am. (4) and (6), Register, May, 1966, No. 125, eff. 6-1-66.

H 71.09 Depth markings. Markers shall be on the edge of the deck along the pool perimeter. The depth of water shall be plainly marked at maximum and minimum points, at points of break in slope and at equal intermediate intervals of 25 feet or less. Depth marker numerals shall be at least 6 inches high and be of a color contrasting with the background.

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65.

H 71.10 Deck. (1) **AREA.** The deck of a combination, diving or swimming pool shall extend completely around the pool and have a minimum width of 6 feet when instantaneous attendance is 200 patrons or less. One additional foot of width shall be provided for each additional instantaneous attendance of 200 patrons or fraction thereof. A minimum deck width of 4 feet shall be provided on the sides and at the back of any piece or diving equipment. Additional area should be provided for sun bathing.

(2) **DRAINAGE.** Outdoor pool decks shall slope away from the pool. For outdoor pools having a surface area greater than 1600 square feet the decks shall slope to deck drains, to other acceptable devices or to channels providing free unobstructed flow. Indoor pool deck drainage may be conveyed to the pool recirculation system, provided a bypass to the drainage system is installed. Drains shall be connected to a storm sewer or discharge to the ground surface at a suit-

able point. Openings in deck drains shall be three-eighths inch or less in width or diameter.

(3) **FINISH.** The deck surface shall have a non-slip texture causing no discomfort to bare feet.

(4) **HOSEBIBS.** A hosebib or hosebibs shall be provided in the equipment room and at such intervals along the deck as necessary to permit adequate cleaning. All hosebibs served by a potable water supply shall be protected against backsiphonage by proper installation of vacuum breakers at a height of at least 7.5 feet above the deck or floor or as near a ceiling as is possible where such limits minimum height. See Wis. Adm. Code, section H 71.21 (2) (i).

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65.

H 71.11 Fence. A wall or fence at least 50 inches high, of such construction as will make access difficult, shall completely enclose combination, diving, swimming and limited purpose pools and the paved areas adjacent thereto. The enclosures shall be so designed that where bathhouse facilities are provided, access to the pool shall be through the bathhouse, dressing room facilities or through controlled openings. The enclosure shall not extend beyond paved areas.

History: Cr. Register, June, 1965, No. 114, eff. 7-1-65.

H 71.12 Recirculation system. (1) **INLETS.** (a) *Type and location.* Inlet fittings shall be of the adjustable type and be located 12 to 18 inches below the design water surface. They shall be spaced not over 15 feet apart, with one inlet within 5 feet of each corner of the pool. Inlet piping should be sized on the basis of the flow each must carry.

(b) *Inlets for skimmer type pool.* Directional flow inlets shall be used with skimmer type pools. They shall be designed to cause a rotation of the water surface and to prevent short circuiting within the pool.

(c) *Reverse flow pool.* The above requirements do not preclude the use of a reverse flow pool providing the design meets the approval of the board.

(2) **OVERFLOW GUTTERS.** (a) *Where required.* Overflow gutters shall be provided on all pools having a surface area of over 1600 square feet. See Wis. Adm. Code section H 71.12 (4) (a).

(b) *Extent and capacity.* Overflow gutters shall extend completely around the pool, except at steps or at recessed ladders. The overflow gutter shall be designed to also serve as a handgrip. The gutter and its appurtenances shall be capable of continuously removing at least 125% of the recirculation rate when the water level in the gutter is at the lip.

(c) *Slope and drains.* Gutter bottoms may be flat or sloping. Gutter drains shall be located not more than 15 feet apart.

(d) *Shape and proportions.* The interior width of the gutter shall be not less than 3 inches at the bottom. Sloping gutters shall have a depth of at least 2 inches at the high point and 4 inches at the drain. The minimum depth of a gutter constructed without slope shall be not less than 4 inches. The gutters shall decrease in width from the top of the lip to the bottom. When a gutter has a width of less than 12 inches, the vertical distance from the gutter lip to the deck shall be not less than 0.6 of the horizontal projection from the pool

wall to the back of the gutter. When a gutter has a width of 12 inches or more said vertical distance shall be such as to trap the water. They shall be designed to prevent entrapment of bathers' arms or legs.

(e) *Outlet fittings and pipe.* The gutter outlets shall be connected with pipes which have a diameter of at least 2 inches. The net area of the opening in the grating of outlet fittings shall be at least one and one-half times the area of the outlet pipe. See Wis. Adm. Code section H 71.16 (1) (2) (3) (4).

(f) *Surge tank.* All overflow gutters on combination, swimming and diving pools shall be connected to the recirculation system through a surge tank having an effective capacity of 1.0 gallon per square foot of pool water surface. Each surge tank shall have an overflow pipe of adequate capacity to convey excess water to the clear waste water drain.

(3) **ROLL-OUT TYPE POOL.** Roll-out or deck level type pools shall be designed to meet applicable provisions applying to gutter type pools. The design of the curb and handgrip shall conform to accepted standards of construction which shall be evaluated by the board in respect to the proposed use of the pool.

(4) **AUTOMATIC SKIMMERS.** (a) *Number, location and quality.* Automatic skimmers may be installed on pools having not more than 1600 square feet of surface area. At least one skimming device, built into the pool walls, shall be provided for each 500 square feet of surface or fraction thereof. Skimmers shall be so located as to provide effective constant skimming in relation to surface movement of the water. On outdoor pools, at least one skimmer shall be located on the leeward side of the pool. Skimmers shall be sturdy and be constructed with corrosion resistant materials. See Wis. Adm. Code section H 71.12 (2) (a).

(b) *Flow-through rate.* Each skimmer shall be designed for a flow-through rate of at least 30 gallons per minute. The combined capacity of all skimmers in a pool shall be equal to or greater than the required recirculation rate.

(c) *Weir adjustment and controls.* The skimmer weir shall adjust automatically and shall operate freely and continuously with variations of at least 4 inches in water level. All skimmers shall be provided with individual flow controls. All skimmed water must pass through an easily removable and cleanable basket or screen before encountering control valves and entering the pump suction. The piping from the recirculating drain shall contain a manual control valve.

(d) *Air-lock prevention.* If a skimmer is connected directly to the recirculation pump suction pipe, it shall include a device to prevent an air-lock in the suction line. If equalizer pipes are used, they shall pass an adequate amount of water to meet pump suction requirements should the water in the pool drop below the weir level. If any other device or arrangement is used, a sufficient amount of water to maintain pump suction requirements shall be assured. Equalizer pipes shall be designed to carry the total required recirculation rate. The equalizer pipes shall be located at least one foot below the lowest overflow level of the skimmer. A valve or equivalent device that will remain tightly closed under normal operating conditions, but which