FULTON COUNTY CODE OF ORDINANCES AND CODE OF RESOLUTIONS

CHAPTER 34 - HEALTH AND SANITATION

ARTICLE XII – SWIMMING POOLS AND RECREATIONAL WATERS

TABLE OF CONTENTS

Sec 34 -		Page
566	5 Definitions	1
567	Permit required	3
568	3 Compliance requirements	4
569	Construction approval	7
570	Modification approval	10
571	Operational approval	11
572	Construction	12
573	Water quality and sanitation	16
574	Circulation system	17
575	Piping and hydraulics	19
576	Sand filter	21
577	Diatomaceous earth filter	22
578	Cartridge filter	23
579	Skimmers and overflow gutters	23
580	Disinfection and chemical feeders	25
581	Equipment room	27
582	Diving areas and equipment	28
583	Lighting	29
584	Bathing loads	30

Table of Contents (cont.).

Sec 34			Page
	585	Sanitary facilities	30
	586	Safety	32
	587	Wading pools	37
	588	Spray pools	38
	589	Whirlpools	38
	590	Waterslides	40
	591	Zero-depth entry pools	42
	592	Indoor-outdoor pools	42
	593	Interactive play attractions	43
	594	Special purpose pools	44
	595	Multi-purpose pools	44
	596	Recreational water facilities	44
	597	New equipment, construction and materials	46
	598	Right of refusal	46
		Appendix	
	599	Table I - Pool surface area vs. number of skimmers	48
	600	Table II - Dwelling / living units vs. maximum bathing load	49
	601	Fig. No .1 - Diving boards - minimum dimensions	50
	602	Fig. No. 2 - Coping requirements	51

Article XII SWIMMING POOLS AND RECREATIONAL WATERS

Sec. 34-566. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Abandoned pool means a pool which the owner and/or permit holder or has permanently ceased operation, usually resulting in a nuisance; or a pool which the pool contractor or builder has ceased construction

Approved means accepted or acceptable to the department based on a determination of conformity with this article and principles, practices and generally recognized standards that protect public health.

Bathing load means the maximum number of bathers allowed within the pool enclosure at any time based on the amount of the pool's surface area (also see Appendix - Table #2, dwelling/Living Units vs. Maximum Bathing Load).

Certified pool contractor means a person who:

- (1) engages in the design and/or construction or major modification of a pool governed by this article;
- (2) has passed an examination administered by the department demonstrating their familiarity with this article;
- (3) consistently complies with this article; and
- (4) possesses a valid certification from the department.

Certified pool operator means the person who has been trained as a pool operator, is responsible for their pool's operation, and is familiar with the pool's system(s) and this article.

Closed pool means a pool, including all areas within the pool enclosure, that is inaccessible to bathers by closing and securing all entry points into the pool enclosure, and is posted "pool closed" at each entry point, as ordered by the department.

Deck means the areas immediately adjacent to a pool, including the coping, that are constructed specifically for bathers to enter or exit the pool, or to stand, walk or sit, or for ready access to and from the pool in an emergency.

Department means the Fulton County Department of Health and Wellness or its authorized representative(s).

Handhold / Foothold means any surface or object that provides a means for traversing the pool barrier, that is greater than 11/4" (one and one quarter inches) in horizontal width and/or is angled less than 45° from horizontal

Sec. 34-566. Definitions (cont.)

Imminent health hazard means a significant threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury / illness

Interactive play attraction means a pool that has manufactured devices using sprayed, jetted, or other type of water source which contacts bathers.

Modification means any repair, change, alteration or substitution of the pool, pool equipment, decking, bathhouse, pool barrier, or any other area or facility related thereof. A major modification shall include pool or deck surface refinishing; filter, pump or chemical feeder replacement; bathhouse floor replacement; or similar changes, and will require permitting. A minor modification shall include replacement of pressure gauges, flowmeter, or similar changes that normally will not require a permit.

Multi-purpose pool means a pool which is designed and constructed with a combination of bathing features such as a waterslide, diving well, zero-depth entry, and/or other similar features.

Not open means any pool that has been closed by the pool owner, permit holder or designee with all entry points secured and posted "Pool Closed".

Permit holder means the entity who possesses a valid permit to operate a swimming pool and is legally responsible for the operation of the swimming pool such as the owner, agent for the owner or other such authorized or designated person.

Person means any individual, owner, partnership, corporation, or association, or designee and may extend and apply to bodies including governmental agencies.

Recreational water facility means a bathing facility or area together with associated buildings, appurtenances and equipment, on artificial or natural ponds, springs, lakes, streams, or other bodies of water where the public is allowed to bathe or swim.

Renovation means major modifications of an existing pool and or facility involving replacement or reconstruction of equipment, pool surface, bathhouse, and/or deck, or similar changes.

Seasonal pool means a pool that is opened only for a few months during the year, mainly during the summer, is then closed, and reopens for next year's swimming season.

Special purpose pool means any pool designed and used exclusively for training, medical or physical therapy, exercise or other approved purposes.

Splash pool means a pool designed and operated exclusively to receive bathers from a water slide.

Spray pool means an artificial pool or area into which water complying with this article is sprayed but is not allowed to pond.

Sec. 34-566. Definitions, (cont.)

Swimming pool or pool means a watertight structure of concrete, masonry or other approved material and finish, located either indoors or outdoors, which is used or designed to be used by humans for bathing, recreation, swimming, diving or other related purposes, together with buildings, appurtenances and equipment required or used in connection therewith under the provisions of this article. A swimming pool or pool may be publicly or privately owned, and is operated by a person, as defined in this article, regardless whether or not a fee is charged for admission and use. Pool also means any swimming pool, whirlpool, wading pool, spray pool, slide pool, multi-purpose pool, zero-depth entry pool, interactive play attraction, or special purpose pool, in the context of this article. Pools serving two (or less) private residences are excluded from this article.

Turnover rate or turnover means the period of time required to circulate a volume of water equal to the pool capacity.

Wading pool means any pool used or designed to be used for wading and bathing.

Water slide means any facility having a water channel, flume or slide for users to slide into a splash pool. High-speed waterslides shall be considered as types of waterslides that utilize straight runs of channels or flumes and do not incorporate curves in the design.

Whirlpool means a pool, spa, hot tub, or other similar structure, which may be used in conjunction with tempered water and air induction or high velocity water circulation systems, and designed for use by a small number of bathers. Whirlpools that are emptied and cleaned after each individual use are exempt from this article

Year-round pool means a pool that is opened and available for use throughout the year, regardless of the season.

Zero-depth entry pool means a type of pool in which the pool floor intersects the water surface along one end of the pool.

(Res. of 6-25-86, § 30-2-9-1) **Cross reference(s)**—Definitions generally, § 1-2.

Sec. 34-567. Permit required.

(a) *Permit required*. No person shall construct, operate or modify a pool or recreational water facility without having applied for and received a valid permit from the department. The permit is valid until suspended, revoked, expired or there is a change in the permit holder. Failure to pay a permit fee, which includes returned checks for insufficient funds, shall be a violation of this article and invalidates the permit accordingly.

Sec. 34-567. Permit required (cont.)

- (b) Other approvals. Any person constructing, operating or modifying a pool or recreational water facility must comply with all applicable regulations and codes, including building codes, electrical and plumbing codes, and must obtain applicable permits and approvals from the appropriate agencies prior to initiating any work.
- (c) Use restrictions. The department may set use restrictions on any pool or recreational water facility and shall require the permit holder or designee to post notices in public view. The department shall post signs or require signs to be posted prohibiting or limiting the use of any pool or recreational water facility not complying with this article. Signs that are property of the department shall be removed only by the department. Defaced or missing department signs that were posted at a pool shall be replaced by the pool owner, permit holder or designee at no expense to the department. No person may enter the pool enclosure while the pool is posted "Closed" except the department or other authorized personnel. The pool area shall remain closed until permission to reopen is requested from the permit holder or designee and granted by the department.
- (d) Onsite sewage management systems. Any pool or recreational water facility and related sanitary facilities proposed to be constructed on premises utilizing an onsite sewage management system must be approved by the department prior to construction and in accordance with the Fulton County Code, Article XI, "Sewage Disposal". System design shall be based upon the maximum bathing load, as determined by the department, site plan, percolation tests, soil analysis and other data or specifications as required by the department and/or Article XI.
- (e) Construction or modification without approval. Any pool or recreational water facility constructed or modified without written approval from the department shall be subject to compliance with the current article.

(Res. of 6-25-86, § 30-2-9-2)

Sec. 34-568 Compliance requirements

(a) Department inspections. The department shall conduct periodic inspections at each pool and recreational water facility to insure that good operating practice is employed and that standards are maintained in compliance with this article. The department shall order the pool or recreational water facility permit holder or operator to immediately cease operation whenever the department declares that the pool or recreational water, facilities, and / or appurtenances are not in compliance with this article, for non-payment of fees, or as deemed necessary by the department. A fee shall be charged for each reinspection, if necessary, after the initial and follow-up inspections. Additional inspections of a pool or recreational water facility shall be performed as necessary for the enforcement of this article. Representatives of the department, after proper identification, shall be permitted to enter any pool or recreational area during hours

Sec. 34-568 Compliance requirements (cont.)

of operation for the purpose of performing inspections to determine compliance with this article.

- (b) *Inspection reports*. Findings made during an inspection shall be recorded on the inspection report form. The inspection report shall summarize the requirements of this article. A copy of the completed inspection report form shall be furnished to the owner, permit holder and/or designee of the facility at the conclusion of the inspection. The current inspection report shall be displayed in a conspicuous place where it is easily readable by the public.
- (c) Additional Documentation. In addition to the report findings, evidence may also be documented via photographs, samples, and any other means of documentation deemed necessary by the department.
- (d) Routine Compliance. Corrective actions for pools or recreational waters shall be initiated when any violations are found to exist, as outlined in the department's current "Enforcement Policy".
- (e) *Imminent health hazard*. When an imminent health hazard is found to exist, corrective actions for pools or recreational waters shall be initiated as ordered by the department, and shall include immediate cessation of operation until the facility is determined by the department to be in compliance. Failure of the owner, permit holder and/or designee to comply with the corrective action plan and immediate cessation of operation shall subject the pool or recreational water facility to immediate closure by the department. The following conditions shall be considered as or contributing to an imminent health hazard:
 - 1. Amount of disinfectant in pool water is above the maximum or below the minimum level as stated in Section 34-573.
 - 2. Inability to clearly to see the main drain(s) or distinguish the type, shape, or number of grate openings as stated in Section 34-573.
 - 3. Missing essential safety equipment, specifically, life ring and/or rope, shepherd's hook, slope break rope, pool phone missing or not working, or no certified pool operator on duty, as stated in Section 34-586.
 - 4. Barrier not effective as stated in Section 34-586.
 - 5. Any other condition deemed to be an imminent health hazard by the department including, but not limited to, the following: bathing load exceeded; occurrence of a fecal matter, blood or vomitus in the pool; or sanitary facilities not functioning properly or in an unsanitary condition, as stated in Sections 34-583, 34-585, and 34-584, respectively.
- (f) Suspension or Revocation of permit. The department shall have the authority to suspend or

Sec. 34-568 Compliance requirements (cont.)

revoke permits for failure to comply with the provisions of this Chapter. When an application for a permit is denied or the permit previously granted is to be suspended or revoked, the applicant or holder of the permit must be notified in writing, specifically stating any and all reasons why the action was taken. Suspension is effective upon service of a written notice thereof, and pool or recreational water facility operation must cease immediately. The notice must state the basis for the suspension and advise the owner, permit holder, or designee of the right to a preliminary hearing to be held by an experienced supervisory level employee of the department not directly involved in the suspension. The request for a preliminary hearing by the permit holder must be requested within ten (10) days of being served with the suspension notice. If requested, the preliminary hearing must be held within twenty (20) days of the request. The rules of evidence will not apply, but both the department and the owner, permit holder, or designee may present witnesses, records and argument. The hearing official will be authorized immediately to rescind or modify the suspension or to continue the suspension with or without conditions. If the suspension is not rescinded, the owner, permit holder or designee shall have ten (10) days to request an evidentiary hearing before the director or designee. If requested, the evidentiary hearing must be held within thirty (30) days of the request. If a hearing is not requested, upon correction of all violations, the owner, permit holder, or designee may request an inspection to reinstate the permit. The department may suspend any permit to operate a pool or recreational water facility if the owner, permit holder or designee does not comply with the requirements of this article; the operation of the facility does not comply with the requirements of this article; or the operation of the pool or recreational water otherwise constitutes an imminent health hazard or safety hazard to the public.

- (g) Service of notice. A notice of hearing is properly served when it is hand delivered to the owner, permit holder, or designee, or when it is sent certified or regular U.S. mail, return receipt requested, to the last known address of the owner, permit holder, or designee. A copy of the notice shall be filed in the records of the department.
- (h) *Notice of Hearing*. A notice of hearing is properly served when delivered in person or when it is sent certified or regular U.S. mail, return receipt requested, to the owner, permit holder, or designee. All notices shall state the date, time, place, and nature of the hearing, and shall be filed in the records of the department.
- (i) Hearings. Hearings shall be conducted at a time and place designated by the department. Any oral testimony given at a hearing shall be reported verbatim via electronic recording, and the hearing officer shall make provisions for sufficient copies of the recording upon request. The hearing officer shall make a final determination based upon the complete hearing record and shall sustain, modify, or rescind any notice or order considered in the hearing. The decision of the hearing officer shall be final absent an appellate review in the courts. A written report of the hearing decision shall be furnished to the owner and/or permit holder by the department.

Sec. 34-568 Compliance requirements (cont.)

- (j) Procedure when infection is suspected. When the department has reasonable cause to suspect possible disease transmission, it may require any or all of the following measures and any other actions necessary:
 - 1. The immediate exclusion of any suspected person from the pool or recreational water facility;
 - 2. The immediate closing of the pool or recreational water facility concerned until, in the opinion of the department, no further danger of disease outbreak exists;
 - 3. Adequate medical and laboratory examination as necessary.
- (k) Accident reporting. All drownings or near-drownings, and all disembowelments / near-disembowelments shall be reported in writing within twenty four (24) hours of the occurrence to the department detailing the incident. A copy of the police report, if completed, shall also be forwarded to the department.
- (l) Fecal or vomitus accidents. In order to prevent a fecal or vomitus accident in a pool, the permit holder or designee shall follow the department's current "Recommendations for Reducing the Risk of E. Coli Transmission in a Swimming Pool", which is adopted as reference. The permit holder or designee shall properly eliminate the possible contamination of bathers when a fecal, vomitus or blood accident occurs in a pool, and shall follow the department's current "Recommended Procedures for Managing Fecal Accidents or Contamination with Vomitus or Blood in a Swimming Pool", which is adopted as reference.

Sec. 34-569. Construction approval.

- (a) *Plan review*. Upon request, the department shall provide construction application forms and hydraulic analysis forms for approval of pool construction. All applications and any supplemental data shall be submitted to the department for review.
 - (1) *Plan preparation*. All drawings, specifications and data as required by the department shall be prepared and submitted by a certified pool contractor.
 - (2) Plan details. Complete plans and details of the project shall meet the requirements as set forth in the department's current, appropriate pool "Plan Review / Construction Checklist", including a hydraulic analysis of the pool piping and circulation equipment, samples of pool and/or flooring tiles or other surfacing materials, and manufacturer's cut sheets and/or specifications on all equipment. Prints or drawings shall comply with standard architectural/engineering practice, and shall bear identification of the certified pool contractor. Other additional data or information may be required by the department to clearly demonstrate and document the work to be undertaken.

Sec. 34-569. Construction approval (cont.)

- (3) Additional data. Any additional data required by the department for the purpose of clarification, anticipated use or to support any changes in design or scope of the project must be submitted prior to issuance of a permit to construct.
- (4) Changes to plans. Once a construction permit has been issued for a pool, construction must be in accordance with approved plans and specifications. Should any changes in the plans become necessary during construction, a letter, outlining any changes, and revised plans and specifications from the certified pool contractor, shall be submitted to the department for review and approval prior to initiation of such changes. Plans shall not be altered without approval from the department.
- (5) Plan review fee. A plan review fee shall be remitted with the plans. A fee shall be charged for each additional major or minor plan re-submittal after the initial and follow-up review, in accordance with the current department's fee schedule.
- (6) Construction permit fee. A construction permit fee shall be remitted with the application to construct. Permits to construct are not transferable.
- (7) Construction security. Any pool under construction shall be secured from unauthorized entry by erecting and maintaining an approved, effective barrier prior to filling with water.
- (8) Construction permit posted. The construction permit shall be conspicuously posted at the pool until the entire pool project is completed and approved for operation.
- (b) Certified pool contractor. The certified pool contractor shall be responsible for insuring that all construction is performed in accordance with this article and shall be subject to the following conditions:
 - (1) Certification. Certification shall be obtained by passing a written examination administered by the department. Renewal of certification shall be completed every two (2) years and prior to the contractor's certification anniversary. Certification renewal will be dependent upon the certified pool contractor's past performance, compliance with this article, and mandatory continuing education conducted and/or accepted by the department within the two (2) year certification renewal period.
 - (2) Fee. A fee shall be remitted with a completed application for certification and for recertification.
 - (3) Abandoning construction. A certified pool contractor shall not abandon an incomplete installation. A certified pool contractor shall not be held responsible for pool construction that has been halted due to circumstances beyond their control, such as not being compensated for services, provided that they submit an explanation in

Sec. 34-569. Construction approval (cont.)

writing within thirty (30) days to the department for review.

- (4) Suspension and revocation. A pool contractor's certificate may be suspended or revoked by the department upon violation of any of the requirements of this article.
- (5) Binding of suspension and revocation. Suspension and revocation of a pool contractor's certificate shall be binding on the individual and the company by which he/they are/were employed.
- (6) Duration of suspension and revocation. Suspension of a pool contractor's certification shall be levied for a minimum of one year. Revocation of a contractor's certificate shall be levied for a minimum of five years. Two suspensions within a five year period shall be grounds for revocation. A pool contractor with a suspended or revoked certificate will not be allowed to submit plans for construction nor construct a pool covered by this article.
- (7) Appeal. A certified pool contractor may appeal in writing prior to a suspension or revocation of their certificate, and will be afforded an opportunity for a hearing before this department to show cause why their certificate should not be suspended revoked. The decision by the department shall be based on the certified pool contractor's performance and shall be final.
- (8) Listing. The department shall maintain a current listing of certified pool contractors.
- (9) *Inactivity or change*. A certified pool contractor who is inactive for a period of two years or longer must be recertified prior to the department's acceptance of their submittal of plans or applications to construct pools. Any certified pool contractor who has a change in employment must notify the department in writing within thirty (30) calendar days from the date of the change.
- (10) *Inspections*. A certified pool contractor must request a piping inspection and pressure test, a final construction inspection and, if necessary, any reinspection of a newly constructed pool that they are responsible for prior to issuance of a permit to operate. The certified pool contractor shall be present at the site for each of these inspections.
- (11) *Instructions*. Upon completion of construction and/or prior to the operation of any pool, the certified pool contractor shall give the permit holder complete oral and written operational instructions for the pool and on all of the pool equipment, water chemistry, maintenance procedures, and other related information.
- (c) *Preliminary plan review*. The owner or agent for the owner may request a preliminary review of the plans by the department without obtaining a permit to construct the pool. A fee shall be charged for this consultation service.

Sec. 34-569. Construction approval (cont.)

- (d) Other agencies' approvals. All work must be inspected and approved by all appropriate agencies prior to final approval by the department. A copy of the permanent Certificate of Occupancy issued by the appropriate jurisdiction shall be submitted to the department after the final pool inspection and prior to issuance of a permit to operate.
- (e) Piping inspection. All pool piping shall be completely exposed and subject to an induced, static, water pressure test at a minimum of thirty-five pounds per square inch (35 p.s.i.) for a minimum of thirty (30) minutes and shall be inspected by the department prior to being covered by earth, deck or pool structure. Air may be used if the ambient temperature is predicted to be at or below freezing, and only if the certified pool contractor requests and receives permission from the department. If there are any variations from the approved plans and specifications, such variations must be corrected by the certified pool contractor in accordance with approved plans, or plans and specifications detailing the variations or changes must be submitted for a construction permit revision prior to continuance of construction.
- (f) Final construction inspection. The department shall conduct an inspection for final pool construction approval. Prior to the final construction inspection being conducted, a request from the certified pool contractor must be submitted when the pool is ready for the final construction inspection. If the construction is not approved on the initial inspection and first follow-up inspection, then a fee shall be charged for each additional inspection until final approval is granted.
- (g) *Invalid permit*. If construction is not commenced within one year from the date of approval, the construction permit is invalid and the project must be resubmitted to the department. A written request for an extension of time to commence construction may be approved by the department if no changes to the project are proposed or required.

(Res. of 6-25-86, § 30-2-9-3)

Sec. 34-570. Modification approval.

- (a) *Modification approval*. An application to modify a pool or recreational water facility must be submitted to and approved by the department prior to the modification. Any modification shall be in accordance with plans and specifications approved by the department. Changes in an approved project may be made only after written approval and consent of the department. Any additional data required by the department for purpose of clarification, anticipated use or to support the design or scope of the project must be submitted prior to issuance of a permit to modify. Permits to modify are not transferable. A permit to modify a pool is required for any major modification and for some minor modifications.
- (b) *Invalid permit*. If modifications are not commenced by the expiration date of the permit, the permit is invalid and the project must be resubmitted to the department. A written request for

Sec. 34-570. Modification approval.(cont.)

- an extension of time to commence a modification may be approved by the department if no changes to the project are proposed or required.
- (c) Fees. A permit fee shall be remitted with the application for a major modification. A fee shall be charged for each reinspection, if necessary, after the initial and follow-up inspections.

(Res. of 6-25-86, § 30-2-9-4)

Sec. 34-571. Operational approval.

- (a) Permit required. The person responsible for the operation of a pool or recreational water facility must obtain a valid permit, as the permit holder, to operate from the department before placing the pool or recreational water facility in operation. A permit to operate a pool or recreational water facility may be suspended or revoked for any violation of this article. Operating permits will become invalid as indicated by the permit expiration date. Any swimming pool operating without a valid permit, from the department, shall be subject to immediate closure.
- (b) *Permit nontransferable*. Permits are not transferable from one person to another, If the permit holder is changed, then the current permit to operate the swimming pool is invalid and a new permit to operate is required.
- (c) Permit, current inspection report, and certified pool operator's certificate displayed. The permit shall be framed and displayed in a conspicuous place as close to the entrance as possible where it is easily readable by the public at all times. Valid operating permits shall be conspicuously posted for public viewing in the pool area. The current (last) inspection report from this department shall be displayed in a conspicuous place where it is easily readable by the public at all times. A copy of the valid certified pool operator's certificate shall be conspicuously displayed near the permit to operate the pool or recreational water facility.
- (d) *Operating instructions*. All instructions necessary for the proper operation and maintenance of all pool equipment and appurtenances must be easily readable and conspicuously posted in the filter or equipment room.
- (e) Fees. A fee shall be remitted with the application for a permit to operate a pool or recreational water. Permits to operate are not transferable. For any pool or recreational water facility that is in operation beyond the permit expiration date without permission from the department, the fee for an application for a permit to operate shall be doubled, in accordance with the current fee schedule.

Sec. 34-571. Operational approval. (Cont.)

(f) Pools not in use. Any pool that is closed, not open, not in use or operation, or seasonal pools that are closed until the next swim season, shall be maintained in a safe and sanitary condition. The owner, permit holder or designee for any abandoned pool shall create an opening through the shell of the bottom of the pool for drainage and fill the entire pool with clean earth. No abandoned pool nor any pool not in use shall create a nuisance as defined in the Fulton County Code, Ch. 34, Article VII, "Nuisances".

(Res. of 6-25-86, § 30-2-9-5)

Sec. 34-572. Construction.

- (a) Finish and materials. Pools shall be constructed of inert, impervious, enduring, nontoxic materials which will provide a smooth, watertight and easily cleanable surface. All horizontal, interior pool surfaces at pool depths of five feet (5') or less, including steps, benches, or seats, shall be non-slip with a minimum coefficient of friction of 0.6, wet or dry. The surface shall have no cracks or open joints and interior corners shall be coved. Except for water line tiles, maximum twelve inch (12") wide racing lane markers, or wall turn targets, the surface below normal water level shall be finished in a very light color. Vinyl pool liners are prohibited. Rough and abrasive materials are prohibited. Any pool with a metal-based shell or utilizing dissimilar metals shall be provided with sacrificial anodes or other approved means to reduce galvanic action and electrolytic corrosion. The wall-to-floor juncture shall be coved with a minimum three inch (3") radius. There shall be no extensions, means of entanglement or other obstructions in the pool. Underwater ledges are prohibited.
- (b) Shape and size. Pools shall be constructed of such shape and size as to provide adequate water circulation, bather access and egress and to afford proper operator control. Calculations for determining size of pool and the number and type of associated facilities shall be based on the maximum bathing loads (see Appendix -Table II, Pool Design, and section 34-584 Bathing Loads). Pool proportioning between deep and shallow water shall be in accordance with the anticipated uses of the pool, with sound engineering and public health design and construction, and with Table II. The minimum pool size shall be five hundred (500) square feet. Interior walls shall be vertical and shall not be greater than eleven degrees (11°) from plumb. All vertical edges of corners and all protrusions into the pool shall have a minimum three inch (3") radius. All horizontal edges and corners of steps, benches, seats, and similar surfaces shall have a minimum one inch (1") radius.
- (c) *Depths*. Minimum depth of water at the shallow portion of the pool shall be three feet (3'), from which point the pool floor shall slope a maximum of one foot per twelve feet (1'/12') continuously to maximum depth of five feet (5'). Depth at the slope-break shall be five feet (5') for pools with depths exceeding five feet (5'). In the diving well, depth shall be as

Sec. 34-572. Construction (cont.)

stipulated in Section 34-582 and in accordance with the minimum specifications as indicated in the Appendix-Figure #1, "Pool configuration and minimum distances". The depth of the pool floor shall be uniform from one side of the pool to the other side. If starting blocks for competitive pool events will be utilized, then the minimum depth in the shallow end shall be three and one-half feet $(3\frac{1}{2})$. Double-level and above-deck pools are prohibited.

- (1) Depth markers. Permanent, easily-readable, depth markers, that are non-slip with a minimum coefficient of friction of 0.6 wet or dry, shall be provided with minimum four inch (4") high, black numbers and letters with a white background, indicated in feet and, when applicable, in inches (i.e., 5 FT or 5 FEET; 3 FT 6 IN or 3 FEET 6 INCHES). Depth markers shall be visible from both inside and outside the pool and shall be provided on both interior sides of the pool at or above normal water level, and on the deck at the shallow end, at the slope break, and at the deep end. At least one depth marker shall also be placed at each end of the pool. If the width of a pool exceeds thirty-five feet (35'), then a minimum of two (2) depth markers shall be installed evenly at each end of the pool. Deck depth markers shall be installed in the deck, but not in the coping, and within eighteen inches (18") of the pool wall.
- "No diving" markers. Deck areas at the shallow end of the pool or where pool depths are less than five feet (5'), shall be permanently marked "No Diving" in black letters with a white background with a minimum of two inches (2") in height, each warning spaced evenly around the pool perimeter, no more than ten feet (10') apart. "No Diving" markers shall be easily readable and non-slip, with a minimum coefficient friction of 0.6, wet or dry. An international "No Diving" symbol may be used in conjunction with, but shall not be a substitute for, approved, lettered, "No Diving" markers. "No Diving" markers shall be installed in the deck, but not in the coping, and within eighteen inches (18") of the pool wall.
- (d) *Bottom slopes*. The bottom in the shallow portion of a pool shall have a maximum, uniform slope of one foot (1') in twelve feet (12'). For a pool with a depth exceeding five feet (5'), the bottom of the pool from the slope break to the deep portion shall have a maximum, uniform slope of one foot (1') in three feet (3') (see Appendix- Figure #1, Pool configuration and minimum distances"). Each pool shall be constructed to enable complete drainage of the pool.
- (e) Steps and ladders. Steps and/or ladders shall be in such number and location as to provide bathers adequate egress from the pool. They shall have an easily- cleanable, corrosion-resistant, impervious material, with treads that have a non-slip finish, and shall be self-draining. Steps shall have a maximum riser height of twelve inches (12") and a minimum tread of twelve inches (12"). All steps shall have handrails anchored in the bottom step and extended over the coping and anchored in the deck, or a handrail double anchored in the deck that extends out to the center of the bottom step with a maximum height of six inches (6") above the normal water level at that point. Recessed step treads shall have a uniform vertical spacing of twelve inches (12") maximum and seven inches (7") minimum, with a minimum

Sec. 34-572. Construction (cont.)

depth of five inches (5") and minimum width of twelve inches (12"). Recessed treads shall be self-draining. Each set of recessed treads shall be provided with a set of handrails or grabrails to serve all treads A minimum of two egresses shall be provided, and an additional step or ladder will be required for each additional seventy five feet (75') of pool perimeter over one hundred and fifty feet (150'). Abrupt breaks in floor level, such as steps, stairs, benches and seats shall be clearly and permanently marked on the horizontal surface along the entire edge by a dark, continuous line of non-slip tile, with a minimum coefficient of friction of 0.6, wet or dry with a width between one and two inches (1"- 2").

- (f) *Decks*. A deck no less than four feet (4') in width, as measured from the inside wall of a pool, shall completely surround the pool.
 - (1) Minimum deck width. A minimum of four feet (4') of deck is required behind diving boards and platforms as measured from the edge of the board's or platform's ladder or handrail. A minimum of eight feet (8') of complying deck shall separate a pool from any other pool.
 - (2) *Minimum deck area*. The minimum, complying deck area required shall be equal in size to or greater than the pool surface area.
 - (3) Deck surface. The deck shall be unobstructed in all directions and shall be constructed at the same elevation as the outside edge of the coping. Minimum vertical clearance throughout the deck area shall be six feet, eight inches (6'-8"), except the ceiling for an indoor pool which shall be eight feet (8'). The deck shall accommodate maximum bathing loads, be smooth, impervious, and properly drained. The deck shall have a very light-colored finish and a non-slip, easily-cleanable surface with a minimum coefficient of friction of 0.6, wet or dry. Rough and abrasive surfaces are prohibited. Gravel, pea gravel, stone, epoxy gravel, wood, carpeting, vinyl, or other unapproved materials, deck and deck-surfacing materials are prohibited within the required deck area. A sample of the deck surface material shall be submitted, other than broomfinished concrete, for approval prior to installation.
 - (4) Deck slope and drainage Decks shall have a minimum transverse slope of one-quarter inch (¼") per foot and a maximum of one-half inch (½") per foot away from the pool or toward deck drains. The plane of the deck surface shall be uniform, with no steps, curbs, or similar structures, within the minimum required, complying deck area. Decks shall not retain any standing water greater than one-eighth inches (½") or greater than one (1) square foot of area for a period of time not to exceed ten (10) minutes. If deck drains are needed, at least one deck drain for every two hundred (200) square feet of deck surface area shall be provided. Deck drainage shall not be incorporated with any pool water or any potable water source. Deck drain grates shall be secured, yet easily removable with an

Sec. 34-572. Construction (cont.)

- appropriate tool to facilitate cleaning the drains. Adjacent areas to the deck and walkway(s) within the pool enclosure shall be safe and well drained.
- (5) Coping. A coping block made with a bullnosed, raised projection or other approved design, with a minimum one inch (1") radius, shall be installed along the entire perimeter of the pool except at the entry point for zero-depth entry pools. Coping shall not retain any water. Coping shall be considered as pool decking. Curbs are prohibited.
- (6) *Hose bibs.* Hose bibs, with backflow prevention, shall be installed within the pool enclosure and located less than one hundred feet (100') apart.
- (7) Deck joints and gaps. The maximum gaps in decks, between pool decks and the coping, or between other decks or walkways, shall be one half inch (½") of horizontal clearance with a maximum vertical elevation of one quarter inch (¼"). Construction joints where pool coping meets concrete deck(s) shall be watertight. Control joints in decks shall be provided to minimize the potential for cracks due to a change in elevation, separation of surfaces or movement of the slab. The areas where the deck(s) joins other concrete structures shall be protected by expansion joints to protect the pool adequately from the pressures of relative movement. Open expansion joints shall be a maximum of one-eighth inches (½") wide and one-half inch (½") deep. Expansion joint dimensions may be increased if the joint area is completely filled flush to the deck surface with a suitable, approved joint material. Wood material to fill expansion joints is prohibited.
- (8) *Deck edges*. The edge and corners of deck(s) shall be rounded, tapered or otherwise designed and constructed to eliminate sharp corners.
- (9) *Trash receptacle*. A minimum of one (1) covered and lined trash receptacle shall be provided and placed in a convenient location in the pool area, but not located within the minimum, required deck area.
- (g) Construction tolerances. Construction tolerances allowed on all dimensional designs for the pool's overall length, width, and depth in the deep end may vary plus or minus three inches $(\pm 3")$. All other dimensions may vary plus or minus one inch $(\pm 1")$, unless otherwise specified for less variance such as a competition pool. The design water level shall have a maximum construction tolerance at the time of completion of installation of plus or minus one quarter inch $(\pm 1/4")$ for a pool with adjustable weir skimmers, and of plus or minus one eighth inch $(\pm 1/4")$ for a pool with non-adjustable skimming systems or gutters. Step treads and risers may vary plus or minus one half inch $(\pm 1/2")$.

(Res. of 6-25-86, § 30-2-9-6)

Sec. 34-573. Water quality and sanitation.

- (a) Water source. Water supplied to the pool, bathhouse, drinking fountain, hose bibbs, or any other water supply or outlet shall be clean, clear, and free of objectionable minerals, and shall meet standards applicable to potable water as specified in the latest edition of "Standard Methods for the Examination of Water and Wastewater" (APHA). Water supplied to the pool must be delivered through a fill spout with a minimum three inch (3") air gap, installed at least two (2) pipe diameters above the rim of the pool or surge chamber, and located so as not to create an obstruction on the deck; or through an approved in-line make-up water system that is installed in a location which is readily accessible for inspection, repair or testing.
- (b) *Backflow prevention*. A minimum three-inch (3") gap or other approved, backflow prevention must be provided on all potable water lines.
- (c) *Pool water.* A sufficient number of samples may be taken, whenever the department deems necessary, to affirm, via bacteriological analysis, that the pool water meets the requirements in this article. Samples shall be taken while the pool is in use during the peak bathing load. All samples shall be collected, de-chlorinated, and examined in accordance with the procedures outlined in the latest edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association) or approved equivalent.
 - (1) Chemical Quality. The pool shall be maintained in a alkaline condition at all times with the pH between 7.2 and 7.8. Chlorine disinfection shall be provided on all pools except when other approved disinfection methods are utilized. The free-chlorine residual in all parts of the pool shall be maintained at a concentration of no less than one part per million (1.0 p.p.m.) at all times. Where stablizing agents are used, a free-chlorine residual shall be maintained at a concentration of no less than two parts per million (2.0 p.p.m.) at all times. The maximum stabilized or unstabilized free chlorine residual shall not exceed five parts per million (5.0 p.p.m.) except when super-chlorinating or shocking the pool. A. N,N-diethyl-p-phenylenediamine (D.P.D) test kit to measure the free chlorine residual shall be provided and used. When bromine is utilized, the residual in all parts of the pool shall be maintained at a concentration of no less than three parts per million (3.0 p.p.m.) and no greater than eight parts per million (8.0 p.p.m.). A D.P.D. test kit to measure the bromine residual shall be provided and used.
 - (2) Stabilizing chemicals. No stabilizing chemicals shall be utilized in any indoor pool. When cyanuric acid is used as a stabilizing agent in outdoor pools, the maximum concentration shall not exceed one hundred parts per million (100 p.p.m.). At pools using cyanurates, a test kit to measure the cyanurate concentration shall be provided and used. The cyanurate test kit shall permit readings in excess of the maximum permissible concentration.
 - (3) *Non-toxic chemicals*. Only chemicals which have been proven non-toxic by the Environmental Protection Agency and approved by the department shall be used.

Sec. 34-573. Water quality and sanitation (cont.)

- (4) Testing frequency. The pool water shall be tested for the disinfectant level and pH at least two times each day, including prior to opening and during peak bathing loads. If applicable, the cyanurate level shall be tested at least once a week. Test results shall be entered on a log that shall be maintained in the pool area for ready access.
- (5) *Cleanliness*. All pools shall be kept free from sediment, dirt or debris by frequent brushing and vacuuming of bottom and sidewalls. Visible scum shall be removed immediately. No person shall perform any pool maintenance procedures while the pool is open for use.
- (6) Clarity. At all times when a pool is in use, the water shall be of such clarity that the main drains on the bottom of the pool at the deepest point are clearly visible from the deck level nearest the main drains. The viewer shall be able to clearly distinguish the type, shape and number of openings of the main drain grates or covers.
- (d) *Periodic inspections*. Periodic inspections shall be made by the department to insure that good operating practice is employed and that standards are maintained in compliance with this article.

(Res. of 6-25-86, § 30-2-9-7)

Sec. 34-574. Circulation system.

- (a) Design and operation. A separate circulation system is required for each pool and shall consist of pump(s), piping, filter(s), water conditioning and disinfection equipment, and other accessory equipment which will clarify, condition and disinfect the water in accordance with this article. All pool equipment shall be listed with the National Sanitation Foundation, or other approved, independent testing and certifying organization, and approved by the department. The equipment shall be operated continuously on a twenty-four (24) hour basis to obtain the minimum required number of four (4) turnovers per day, or one turnover every six (6) hours). All pool piping shall be designed to accommodate one hundred percent (100%) of the design flow rate. For pools utilizing wall inlets, a maximum of twenty percent (20%) of the circulation flow shall be through the main drain and a minimum of eighty percent (80%) shall be through the overflow gutters or skimmers. In pools where floor inlets are utilized, the main drain line must be closed and the skimmer lines balanced and opened completely. For pressure filter systems utilizing over-the-gutter circulation, an approved surge device shall be provided. Timers used in conjunction with any circulation equipment are prohibited.
 - (1) Pumps. Pump(s) shall be adequate in number and capacity to provide the required pool turnover rate and shall be self-priming. Pumps shall supply the design circulation and backwash flows at a dynamic head sufficient to overcome friction losses in the piping, appurtenances and maximum filter headloss. If more than one pump is utilized in design or construction, then all of the pumps shall be the same including manufacturer,

Sec. 34-574. Circulation system (cont.)

size, capacity, and other similar factors. Pump performance curves shall be submitted with the plans.

- (2) Filters. Filter(s) shall be sized and maintained to accommodate the required design circulation flow. Filter tanks and integral parts shall be constructed of material capable of withstanding continuous anticipated usage and a pressure four (4) times the maximum operating pressure of the filter. If more than one filter is utilized in design or construction, then all of the filters shall be the same including manufacturer, size, capacity, and other similar factors.
- (3) Inlets. Adjustable inlets installed flush with the pool wall or floor shall be located in conjunction with the proposed method of circulation so as to provide effective, uniform circulation of the incoming water throughout the pool and to prevent stagnant areas. The number of inlets shall be calculated based on one inlet per fifteen feet (15') of pool perimeter or major fraction thereof. Inlets shall be evenly spaced either along the pool perimeter or on the pool floor. No inlet shall be less than thirty inches (30") below normal water level. Floor inlets shall be provided on all pools with surface areas exceeding 2,000 square feet, and shall be installed flush to the surface of the pool floor. Wall inlet fittings shall not project more than one inch from the surface of the pool wall.
- (4) Main drain openings. Each pools shall be provided with two (2) or more hydraulically balanced main drain openings for each main drain line at the deepest point and constructed to completely drain the pool. Main drain openings must be covered by an approved, secured grating, not removable by bathers. The open area of the drain cover (total area minus area of grate bars) shall be at least four (4) times the cross-sectional area of the drain pipe, and sufficient flow area shall be provided so that the full flow velocity at any part of the grate will not exceed one and one half feet $(1\frac{1}{2})$ per second. Openings between grate bars shall not exceed one half inch ($\frac{1}{2}$ "). Main drain openings shall be constructed in parallel, in a tee configuration, and spaced evenly across the deep end of the pool, with a minimum spacing of six feet (6') between each main drain opening. Pools shall be provided with a hydrostatic relief valve with a minimum size of two inches (2") or a more extensive hydrostatic system if necessary. A minimum of two (2) hydrostatic relief valves are required on pools with surface areas in excess of eighteen hundred square feet (1800 s.f.). Main drain covers shall be a minimum size of twelve inches by twelve inches (12" x 12"). Anti-vortex drain covers are prohibited.
- (5) Skimmers and overflow gutters. A surface skimming or perimeter overflow gutter system shall be provided for each pool, and shall be designed and constructed to skim the pool surface when the water level is maintained within the operating water level range of the system's weir device or rim. The actual water level shall be maintained within the operating water level range of the system's weir device or rim. Each skimmer or overflow system shall be designed and installed so as not to constitute a

Sec. 34-574. Circulation system (cont.)

hazard to the user, and to prevent entrance or entrapment of a limb or body or hair.

- (6) *Hair and lint strainer*. An adequately sized strainer shall be provided on the suction side of the circulation pump. Secondary pumps on vacuum-filter systems shall be protected by a strainer sized to adequately protect the pump. Strainers shall be inspected as often as necessary and maintained in a clean condition.
- (7) Vacuum cleaning system. An approved vacuum system shall be provided for pool cleaning. If utilizing a pool wall-mounted vacuum system, then the vacuum fittings shall be installed a minimum of six inches (6") and a maximum of twelve inches (12") below the normal waterline and located so as to allow cleaning the pool with no more than a fifty foot (50') vacuum hose. A vacuum fitting cover shall be provided on each vacuum fitting and installed flush with the pool wall, or the vacuum outlet must be covered with an approved mechanism which automatically closes and automatically latches, and can only be opened with an appropriate tool. If approved for use, portable vacuum systems shall not be stored on the pool deck.
- (8) Flow meters. An adequately sized flow meter, capable of measuring and indicating a minimum range of one half (½) to one and one half (½) times the design flow rate shall be installed on the pool return line to accurately indicate the circulation rate in gallons per minute. Flow meters shall be installed on straight pipe a minimum of five (5) times the diameter of the pipe from the nearest elbow, tee, valve, appurtenances other change in piping, conspicuously located and/or in accordance with the manufacturer's instructions for placement.
- (9) Heaters. Pools equipped with heaters shall have a fixed thermometer in the circulation line. Water temperature shall be thermostatically controlled. Adequate external valves and piping shall be provided to enable bypassing the heater and to facilitate complete removal for repairs without interruption of pool circulation. Pool water temperature shall not exceed one hundred and four degrees Fahrenheit (104° F). Heaters shall be installed according to the manufacturer's instructions and with all applicable codes. An unbreakable thermometer designed for use in a pool must be available for bathers and pool staff to monitor pool water temperatures. Control of the pool's water temperature shall not be accessible to bathers.

(Res. of 6-25-86, § 30-2-9-8)

Sec. 34-575. Piping and hydraulics.

(a) *Piping*. The piping system shall consist of non-toxic materials and be able to withstand a minimum pressure of thirty five pounds per square inch (35 p.s.i.). Piping configuration shall be designed to minimize friction losses. All piping used for pool circulation and manufacturers must be listed in the current edition of "Seal of Approval Listing of Plastic

Sec. 34-575. Piping and hydraulics (cont.)

Materials, Pipe Fittings and Appurtenances for Potable Water Supplies", National Sanitation Foundation (N.S.F.). All pool piping shall bear the N.S.F. seal for potable water and be schedule 40 or greater. Pipe installation shall comply with the applicable local plumbing code and this article. All valves and piping in the equipment room shall be clearly labeled, and water flow direction shall be indicated on exposed piping in the filter room. Piping shall be installed to facilitate complete drainage of the system. Flexible piping is prohibited. Heat bending of any pool piping for installation is prohibited.

- (1) *Maximum velocity*. Velocity shall not exceed ten feet per second (10 f.p.s.) in pressure piping nor five feet per second (5 f.p.s) in suction piping.
- (2) Main drain line. The size of the main drain line shall be based on full flow design conditions, and headloss calculations shall include friction losses of the pipe, fittings and the hair and lint strainer. The main drain line shall be designed and constructed to accommodate 100% of the design flow rate. The size of the main drain pipe shall be continuous throughout the length of the line.
- (3) Skimmer lines. The skimmer lines shall be designed and constructed to accommodate 100% of the design flow rate. The flow-through rate of the skimmers, based on the manufacturer's minimum recommendations, shall be used to determine the turnover rate if the turnover rate exceeds the manufacturer's recommendations.
- **(4)** Waste lines. Pool wastewater shall be discharged to a sanitary sewer except where discharge to a storm sewer, settling or a separation tank (for diatomaceous earth removal) or a dry well is specifically approved. If approved for discharge into a storm or a sanitary sewer, pool wastewater shall be chemically treated or treated by other approved methods when necessary to eliminate or neutralize chemicals in the water that exceed the Georgia Department of Natural Resources' limits prior to discharge or disposal. The sewer line shall be one standard size larger than main drain line(s). There shall be no direct connection between any pool piping and the sanitary sewer system. The backwash waste line shall be no smaller than the size of the pipe exiting the filter for the entire length of the backwash line. Discharge points shall be shown on the plans. If a backwash absorption pit is utilized, it shall be sized in accordance with department requirements. Volume of a pit shall be sized in cubic feet and shall be calculated as follows: Volume of Pit (cubic feet) = [Backwash Rate (g.p.m.) $\times 5$ minutes x 2] \div 7.5 gal / cubic foot. Soil percolation tests, borings, site inspections, and approval by the department prior to installation are required to determine suitability and location for a backwash pit.
- (5) *Piping details*. Plans must include complete details of all pool piping including pertinent elevations. All pool pipe shall be supported in accordance with manufacturer's recommendations.

Sec. 34-575. Piping and hydraulics (cont.)

(6) Hydraulic calculations. Hydraulic calculations shall be submitted on department forms with the plans. All pool pipe sizing shall be determined by a friction/flow chart for schedule 40 rigid PVC pipe based on the Williams and Hazen formula using a constant of 150 or approved equivalent. If approved, other types of piping shall be sized in accordance with an approved friction/flow chart. A copy of the friction/flow chart and a copy of the chart used to determine equivalent pipe lengths shall be submitted with the plans and specifications for new pool construction or for pool piping modification. Negative elevation head shall be included in the losses, but positive elevation head shall not be included.

(Res. of 6-25-86, § 30-2-9-9)

Sec. 34-576. Sand filter.

- (a) *Filter capacity*. Sand filter capacity shall be based on a maximum filtration rate between fourteen (14) and sixteen (16) gallons per square foot of filter area per minute.
- (b) Filter media. Media shall consist of at least a twenty-four inch (24") depth of screened, sharp filter sand or crushed quartz having an effective size of 0.4 mm to 0.5 mm and a uniformity coefficient of 1.5 to 2.0.
- (c) *Backwash*. The system shall be capable of backwashing filters at a rate of not less than fifteen (15) gallons per minute per square foot of filter area.
- (d) *Freeboard*. A minimum of twelve inches (12") of freeboard shall be provided between the surface of filter media and the overdrain of filters to allow adequate expansion of the media during the backwash cycle.
- (e) *Underdrain*. The filter underdrain system shall be of corrosion resistant, durable material, designed and constructed to adequately collect water during filtration and to evenly distribute water during backwashing.
- (f) Pump. The pump(s) shall be designed to maintain the required circulation flow against the total dynamic head of the system as calculated. Existing pools utilizing sand filters with an unknown total dynamic head shall be considered to have a minimum of sixty (60) feet of head.
- (g) Appurtenances. Each filter tank shall have an access port for inspection and servicing. Each filter shall have both influent and effluent pressure gauges with a minimum face size of two inches (2"), and a manual air relief valve. The filter system shall have an adequately sized, in-line backwash sight glass, minimum two inches (2") in length, on the backwash line. All appurtenances shall be conspicuously located for quick inspection.

Sec. 34-576. Sand filter. (cont.)

(h) *Piping and valves*. The filtering system shall be designed with all valves and piping required to permit filtering to pool, filtering to waste, filter bypass to waste, and complete drainage of the system. The piping layout shall accommodate proper maintenance, operation and inspection.

(Res. of 6-25-86, § 30-2-9-10)

Sec. 34-577. Diatomaceous earth filter.

- (a) *Filter capacity*. Diatomaceous earth filter capacity shall be based on a maximum filtration rate of two (2) gallons per square foot of filter area per minute.
- (b) *Backwashing*. Pressure filters shall be backwashed by reverse flow, which may be assisted by agitation and spray wash. A quick-opening valve is also required on the filter discharge line. Pressure filter tanks shall be completely drained by gravity.
- (c) Filter tank and septa. The filter and all component parts shall be of such material, design and construction to withstand normal continuous use without significant deformation, deterioration, corrosion or wear which would adversely affect filter operation. The filter area shall be determined on the basis of effective filtering surfaces, with no allowance given for areas of impaired filtration such as broad supports, folds or portions which may bridge the filter elements. The bottom of open vacuum filter tanks shall slope to a drain to facilitate complete drainage of the tanks.
- (d) *Pump*. The pump(s) shall be designed to maintain the required circulation flow against the total dynamic head of the system as calculated. Existing pools utilizing diatomaceous earth filters with an unknown total dynamic head shall be considered to have a minimum of fifty (50) feet of head on vacuum systems and ninety (90) feet of head on pressure systems.
- (e) Appurtenances. Pressure filters shall be equipped with an air-relief valve, influent and effluent pressure gauges with a minimum face size of two inches (2"), and an in-line sight glass, minimum two inches (2") in length on the backwash line. A vacuum gauge with a minimum face size of two inches (2") shall be provided on the pump suction line for vacuum filter systems. All appurtenances shall be conspicuously located for quick inspection.
- (f) Piping and valves. The filtering system shall be designed with all valves and piping to permit filtering to pool, precoat circulation and/or precoat to waste, complete drainage of the system, bypass filter to waste, and backwashing to waste. The piping layout shall accommodate proper maintenance, operation and inspection. If precoat circulation is used in a pressure system, an in-line sight glass, minimum two inches (2") in length, and a valve shall be provided in the pre-coat piping.

(Res. of 6-25-86, § 30-2-9-11)

Sec. 34-578. Cartridge filter.

- (a) *Filter capacity*. Cartridge filter capacity shall be based on a maximum filtration rate of three hundred and seventy five thousandths gallons per square foot of filter area per minute (0.375 g.p.m./ sq. ft./ min.).
- (b) *Pump*. The pump(s) shall be designed to maintain the required circulation flow against the total dynamic head of the system as calculated. Existing pools utilizing cartridge filters with an unknown total of dynamic head shall be considered to have a minimum of fifty (50) feet of head.
- (c) Appurtenances. Each filter shall be equipped with an air relief valve and influent and effluent pressure gauges minimum face size two inches (2"). All appurtenances shall be conspicuously located for quick inspection.
- (d) *Piping and valves*. The filtering system shall be designed with valves and piping to permit filtering to pool, bypass filter to waste, and complete drainage of the system. The piping layout shall accommodate proper maintenance, operation and inspection.
- (e) *Cartridges*. Two (2) sets of cartridges shall be provided so that one set may be cleaned while the filter is in operation. Disposable cartridges will be replaced when the required filtration rate is impaired. Modular-type cartridge filters, if approved, are not required to have a second set of cartridges.

(Res. of 6-25-86, § 30-2-9-12)

Sec. 34-579. Skimmers and overflow gutters.

- (a) Number of skimmers required. Each pool shall have at least two (2) skimmers. One additional skimmer shall be provided for each five hundred square feet (500 s.f.) of water surface area, or fraction thereof, for pools having up to nineteen hundred and ninety nine square feet (1,999 s.f.) of water surface area. Pools ranging from two thousand square feet (2,000 s.f.) up to five thousand square feet (5,000 s.f.) of water surface area shall have one additional skimmer for each two hundred and fifty square feet (250 s.f.) of water surface area, or fraction thereof, in excess of two thousand square feet (2,000 s.f.) of water surface area. Pools exceeding five thousand square feet (5,000 s.f.) of water surface area shall be required to have an overflow gutter system (see Appendix Table I, Pool Surface Area vs. Number of Skimmers).
- (b) *Skimmer location*. Skimmers shall be evenly spaced along the pool perimeter and located to prevent stagnant areas in circulation.
- (c) *Skimmer weir*. Each skimmer shall be built into the pool wall and shall have a minimum weir length of seven inches (7").

Sec. 34-579. Skimmers and overflow gutters (cont.)

- (d) Skimmer design. Each skimmer shall be designed for a flow-through rate of at least twenty-five gallons per minute (25 g.p.m.). Additional skimmers shall be provided when the design flow-through rate, based on the turnover rate of the pool, exceeds the manufacturer's recommendations. If the manufacturer's recommended maximum flow through the skimmers is not available, then a maximum of fifty-five gallons per minute (55 g.p.m.) per skimmer shall be utilized.
- (e) Adjustable for water level. Each skimmer shall be automatically adjustable to variations in water level over a range of at least three inches (3"). The normal pool water level shall be maintained within the operating range of the skimmer weir or gutter rim.
- (f) Equalizer line. Each skimmer shall be provided with a device to prevent air lock in the circulation system suction line. Equalizer lines shall be at least one and a half inches (1½") in diameter, installed at least one foot (1') below the weir level, provided with an equalizer valve, provided with a check valve, and provided with a grated opening installed flush at the pool wall.
- (g) Adjustable for circulation. Each skimmer shall be adjustable for balancing circulation.
- (h) *Screen.* A non-corrosive screen shall be provided to trap large debris. It shall be installed to allow ready removal and cleaning from an opening in the deck. Skimmer openings in the deck shall be secured with a cover that is installed flush to the deck surface, have a slip-resisting surface, and be of such strength to withstand normal deck use.
- (i) Overflow gutters. Overflow gutters shall be constructed of sufficient size to retain normal overflow, and the top of the gutter shall be uniformly level. The gutter invert shall slope uniformly one-half inch (½") per foot to each drain. Where slopes in the gutter drains are less than one-half inch (½") per foot, sufficient gutter wash fittings shall be provided to maintain a continuous flow in the gutter. Spacing between drains shall not exceed ten feet (10'). Minimum drain size shall be two inches (2") in diameter with a minimum three (3) square inch open grate area. Overflow gutter drain lines shall be connected to the circulation system through a surge chamber or other approved surge system. The surge system capacity shall be determined by the displacement of water by bathers based on the maximum bathing load. The hydraulic capacity of the overflow gutter system shall be capable of handling one hundred percent (100%) of the circulation flow. Gutter drain lines shall carry the pool overflow to the circulation system.
 - (1) Recessed gutters. Recessed gutters shall not be less than four inches (4") deep and four inches (4") wide with a minimum of four inches (4") open area above the gutter lip. No part thereof shall be visible from a position directly above the gutter.
 - (2) *Open gutters*. Open gutters shall not be more than six inches (6") deep nor less than twelve inches (12") wide.

Sec. 34-579. Skimmers and overflow gutters (cont.)

(3) Rollover or trough gutters. Rollover or trough gutters shall be provided with a sturdy, non-corrosive, non-slip grate to completely cover the trough. The grate shall be securely fastened to the gutter during operation. Openings in the grate shall not exceed one-quarter inches (1/4").

(Res. of 6-25-86, § 30-2-9-13, table 1)

Sec. 34-580. Disinfection and chemical feeders.

- (a) Disinfection required. The water in each pool shall be continuously chemically treated with a disinfecting agent, with associated, approved equipment, whereby the residual can be easily measured by simple and accurate field tests. Each pool shall have its own, separate, disinfecting and chemical feeder equipment.
- Gas chlorination. Where gas chlorine is used, the chlorinator shall be housed in an enclosure (b) located above grade. The enclosure must be ventilated with outside air by a chlorine-resistant exhaust fan with vents that are located approximately four inches (4") above the floor level, equipped with automatic louvers to achieve cross-flow ventilation located at the top of the enclosure for admitting fresh air, and capable of providing two (2) enclosure air changes per minute. Exhaust air shall be directed away from the pool area and shall not affect evacuees, nor any adjacent, inhabited area, in the event of a chlorine gas leak. Exhaust fans shall be wired to operate continuously. All chlorine tanks shall be secured by chains or other approved devices. Full and empty tanks shall be segregated, appropriately tagged, and stored in an upright position. Chlorine cylinder valve protection caps and valve outlet caps must be in place at all times except when the cylinder is connected for use. New, approved washers must be used each time a cylinder is connected. A chlorine valve cut-off wrench shall be kept on the cylinder valve stem that is in use. Platform scales or other means of gauging available chlorine gas supply must be provided, or a full reserve tank of chlorine gas shall be kept onsite at all times. Adequate lighting to illuminate the entire enclosure shall be provided, and the enclosure's light switch shall be located outside the enclosure entrance. The enclosure door shall have a sealed, reinforced glass observation port with a minimum observation opening of four inches by six inches (4"x 6") to enable inspection of the interior of the gas chlorine enclosure without entry. A warning sign shall be posted on the exterior side of the enclosure door(s) which states, in minimum four inch (4") high letters, DANGER -CHLORINE". The entrance door shall open to the exterior of the enclosure and shall be locked at all times except for authorized entry.
 - (1) Safety requirements. At least one (1) person trained in the performance of routine chlorination operation, maintenance, and emergency procedures must be readily available during the pool's normal operating hours. All pool personnel must be informed about gas chlorine leak control procedures. Only trained, designated personnel shall operate the chlorinator and change chlorine cylinders. Two full-face, self-contained breathing apparatus (SCBA) or supplied air respirator that meets

Sec. 34-580. Disinfection and chemical feeders (cont.)

Occupational Safety and Health Administration (OSHA) standards for construction and operation must be provided for protection against chlorine in the event of a leak. This equipment shall have sufficient capacity for the purpose intended. SCBA equipment must be readily accessible at a location outside the chlorine gas enclosure that is acceptable to the local fire chief. A written respirator program shall be provided and employees shall be trained in the use and maintenance of such equipment to insure operability and safety. All applicable local, state, and federal requirements concerning the proper handling of chlorine gas must be followed. Entry into the chlorine gas room must not occur without necessary safety equipment, such as SCBA, for leaks, or escape type half-face or mouthpiece, cartridge-type respirator or SCBA when conducting general maintenance, changing cylinders, or other related work, and two (2) trained personnel at the site. The telephone numbers of the gas chlorine supplier and the local fire department or 911 shall be posted on the exterior side of the gas chlorine enclosure. The chlorinator and all line and tank fittings must be checked for leaks at regular intervals and after every tank exchange. A small bottle of fresh ammonia solution or other approved detection method shall be provided to test for leaks and stored outside the gas chlorine enclosure.

- (c) Hypochlorinators. Positive-displacement, peristaltic, or other, approved types hypochlorinators or chemical solution feeders used for hypochlorination shall be of sturdy construction, shall be able to withstand wear, corrosion and deterioration by disinfectant solutions, and shall be capable of continuous, metered feeding of required, approved solution on a 24-hour basis. The feed rate shall be adjustable from zero to full range. Hypochlorinators shall be capable of feeding a chlorine dosage of twelve parts per million (12 ppm) to the circulation flow from chlorine solutions at a pressure greater than the circulation system pressure. Fail-safe features approved by the department shall be incorporated to prevent the disinfectant solution from siphoning or feeding directly into the pool, pool piping, water supply, or pool enclosure if the circulation equipment is not in operation or fails. Timers used in conjunction with hypochlorinators are prohibited. An adequately sized, corrosion-resistant, and appropriately labeled container with a tight-fitting lid shall be provided and used to hold chlorine solutions. Chlorine solutions shall be delivered downline from the pool filter and, if applicable, the pool heater, to achieve an effective pressure differential. Multiple hypochlorinators are prohibited. Each pool shall have its own hypochlorinator.
- (d) Chemical feeders. A chemical feeder shall be provided to add chemical solutions for pH adjustment. The chemical feeder shall meet the requirements of subsection (c) above. A single feeder may not be alternately used for chlorination and pH control. Timers used in conjunction with chemical feeders are prohibited. An adequately sized, corrosion-resistant, and appropriately labeled container with a tight-fitting lid shall be provided and used to hold pH solutions. pH solutions shall be delivered downline from the pool filter and, if applicable, the pool heater, to achieve an effective pressure differential. Multiple chemical feeders are prohibited. Each pool shall have its own chemical feeder.

Sec. 34-580. Disinfection and chemical feeders (cont.)

- (f) Chlorine erosion feeders. Only those erosion feeders specifically approved by the department may be used for pool disinfection. They shall be utilized in conjunction with hypochlorinators for superchlorination and chemical feeders for pH control meeting the requirements of subsection (c) and (d) above. Erosion feeders shall be capable of feeding a minimum chlorine dosage of three parts per million (3.0 ppm) to the circulation flow. Multiple erosion feeders are prohibited. Each pool shall have its own erosion feeder, if an erosion feeder is permitted.
- (g) Bromine feeders. Only those bromine feeders specifically approved by the department may be used for pool disinfection. They shall be utilized in conjunction with hypochlorinators for superchlorination and chemical feeders for pH control meeting the requirements of subsections (c) and (d) of this section. Bromine feeders shall be capable of feeding a minimum bromine dosage of three parts per million (3.0 ppm) to the circulation flow. Multiple bromine feeders are prohibited. Each pool shall have its own bromine feeder, if a bromine feeder is permitted.
- (h) Other disinfection methods. No other method of disinfection may be used unless the method is specifically approved by the department following demonstration of all aspects of the disinfection and toxicological properties thereof.
- (i) *Hand feeding prohibited*. No disinfectant or pH control chemical may be added by hand whether to skimmers or directly to the pool, whenever the pool is open.
- (j) Automatic controllers. If an automatic controller for adjusting chemical levels is to be used at a pool, the device and connections thereof shall be installed in accordance with the manufacturer's instructions. The device must be directly wired to the circulation pump and a flow switch such that when the pump stops, the chemical feeders are switched off. Automatic controllers must be submitted for approval by the department prior to installation. An automatic pool chemical controller, if approved for installation, shall not substitute for the requirement to manually perform onsite chemical pool water tests.

(Res. of 6-25-86, § 30-2-9-14)

Sec. 34-581. Equipment room.

(a) Enclosure. Pumps, disinfection equipment, filters, appurtenances and other approved pool filtration or other approved mechanical equipment shall be located in a permanent, completely enclosed equipment room, secured from unauthorized entrance, and protected from freezing. The entry door shall open to the exterior of the enclosure and shall be kept locked except for servicing the pool equipment. The equipment room and any storage area used for pool supplies, additional equipment, or chemicals shall be kept clean, safe and adequately lighted. Any separate room(s) used to store pool chemicals shall be kept clean, safe, dry, adequately lighted, with ventilation capable of one (1) enclosure air change every (3) three minutes exhausted to the exterior away from the pool area or other occupied area.

Sec. 34-581. Equipment room.(cont.)

- (b) Ventilation and drainage. Ready access, suitable drainage (sump pump if necessary) and ventilation of fresh make-up air with an exhaust fan capable of one (1) equipment room air change every three (3) minutes, exhausted to the exterior away from the pool area or other occupied area, must be provided for all equipment rooms. A fan shall be installed so as to exhaust the equipment room air away from the pool enclosure and adjacent inhabited areas. Floors shall slope one quarter inch (1/4") per foot to floor drains. A hose bibb with approved backflow prevention shall be provided inside the equipment enclosure.
- (c) Equipment clearance. All equipment and piping shall be installed to facilitate servicing with minimum effort. Filter tanks shall be at least eight inches (8") apart, twelve inches (12") from walls, and thirty-six inches (36") from the ceiling. Clearance around all equipment and appurtenances must permit unobstructed, ready access for inspection, maintenance, and operation.
- (d) Size. Filter room size shall be determined in accordance with subsections (c) and shall include additional working space adequate to perform routine maintenance and service operations. Unobstructed space shall also be provided for the safe storage of chemicals and auxiliary equipment. Ceiling height shall be no less than eight feet (8') as measured from the equipment room floor.
- (e) *Electrical controls*. No switches, starters, panel boards or similar electrical equipment shall be located in areas accessible to bathers.

(Res. of 6-25-86, § 30-2-9-15)

Sec. 34-582. Diving areas and equipment.

- (a) *Dimensions*. Dimensions (width, depth and length) of the diving area shall be in accordance with anticipated use by divers and with Figure #1, Appendix, "Pool Configuration and Minimum Distances"
- (b) Clearance. Diving boards or diving platforms must be installed no less than ten feet (10') apart (edge to edge) and no less than ten feet (10') from any pool side wall. At least fifteen feet (15') of free, unobstructed clearance shall be provided above diving boards and diving platforms.
- (c) *Finish*. Diving boards and platforms shall have a light colored, non-slip finish. Starting platforms shall be used only for competitive swimming, shall have a light-colored, non-slip finish, and shall be removed from the deck when not being used for the intended purpose.
- (d) Safety. Diving equipment shall be installed only on pool types that are equal to or larger than the pool type designated by the manufacturer. Diving equipment shall be installed according to the manufacturer's instructions and specifications and this article. All diving stands higher

Sec. 34-582. Diving areas and equipment. (cont.)

than twenty one inches (21") measured from the deck to the top of the secured end of the board shall be provided with stairs and/or a ladder. Steps and ladders shall be of corrosion-resistant, easily-cleanable material, and with treads that are non-slip and self-draining. Platforms and diving equipment of one meter (1 m) shall be protected with guard rails which shall be at least thirty inches (30") above the diving board or platform surface and extend to the edge of the pool wall. All platforms or diving equipment higher than one meter (1 m) shall have dual guard rails which are approximately eighteen inches (18") for the bottom rail and thirty six inches (36") for the top rail above the diving board or platform surface. Diving equipment shall be permanently anchored to the pool deck.

(Res. of 6-25-86, § 30-2-9-16)

Sec. 34-583. Lighting.

- (a) Lighting required. Artificial lighting shall be provided for all indoor pools and any outdoor pools to be used at night. Lighting shall be adequate to illuminate the entire swimming pool enclosure without glare. Electrical wiring, fixtures, and installation shall conform to the National Underwriters Laboratory, National Electrical Code, and local building code requirements. Ground-fault interrupters must be provided. Light fixtures located within the pool area shall be protected by a non-breakable lens.
- (b) Lighting requirements. Lighting in dressing rooms, sanitary facilities, equipment rooms and concessions shall comply with the local code requirements. Pool and deck areas shall be lighted in accordance with the following minimum requirements:
 - (1) Underwater Lighting. A minimum of twelve (12) lamp lumens and/or one-half (0.5) watt / square foot of pool surface area shall be provided when underwater lighting is utilized.
 - (2) Deck and Pool Lighting. An average of ten (10) foot candles shall be maintained in service on all deck areas where underwater lighting is utilized. An average of twenty (20) foot candles shall be maintained in service on all deck and pool areas where underwater lighting is not utilized.
 - (3) Outdoor pools. Outdoor pools not used for night swimming or recreation must be provided with a minimum underwater lighting of 12 lamp lumens or 0.5 watts /square foot of pool surface and deck lighting with an average of five (5) foot candles maintained in service on all deck and pool areas.

(Res. of 6-25-86, § 30-2-9-17)

Sec. 34-584. Bathing loads.

(a) Bathing load calculation. Pool usage shall not exceed the maximum bathing load. The bathing load shall be calculated on the basis of one person for each ten (10) square feet of pool surface area where the depth is less than or equal to five feet (5'), plus one (1) person for each thirty (30) square feet of pool surface in that portion where the depth exceeds five feet (5'). The minimum surface area of pools shall be determined by the number of dwelling/living units and the anticipated use (see Appendix - Table II, Dwelling/Living Units vs. Maximum Bathing Load). The department shall determine the bathing load for any pool that is designated as a "Special Purpose" pool or any pool with use restrictions. For pools serving facilities with no dwelling units or facilities that are considered as transient, such as hotels, motels, country clubs, and other similar facilities, the bathing load shall be determined by anticipated usage and assessment of other, similar facilities.

(Res. of 6-25-86, § 30-2-9-18)

Sec. 34-585. Sanitary facilities.

- (a) Sanitary facilities required. Adequate sanitary facilities including toilets, urinals, lavatories, and showers, enclosed in a bathhouse are required at all pools, except for those pools that meet the criteria stated in subsection (b) below. In determining the number of sanitary fixtures required, the maximum bathing load for the entire pool facility shall be used. The bathing load composition shall be considered as one-half (½) men and one- half (½) women. The bathhouse and sanitary facilities therein shall be maintained in a sanitary condition. A standard architectural drawing of the bathhouse showing the layout of the facility, the location of all fixtures, the flooring including drainage and slopes, and any other pertinent information that the department deems necessary to ensure compliance with this article, shall be submitted for approval by the department prior to any work performed. Fixtures shall be installed in accordance with applicable plumbing codes and shall be properly protected to prevent cross-connections.
- (b) *Individual sanitary facilities*. If individual, private sanitary facilities for all bathers are located within a (300') radius as measured horizontally from the pool edge, no additional sanitary facilities will be required. A shower meeting local plumbing code requirements shall be provided at each approved entrance into the pool area if no bathhouse is required. Foot baths are prohibited.
- (c) Facility size requirements. Facilities shall be provided in proportion to the maximum bathing load (see Appendix Table II) based on the number of dwelling/living units outside a three hundred foot (300') radius as measured horizontally from the pool edge. Separate facilities shall be provided for men and women. Family or unisex facilities will be allowed only when the minimum number of required facilities is provided.
 - (1) Toilets. One toilet shall be provided for each bather increment of one hundred (100) men or fifty (50) women.*

Sec. 34-585. Sanitary facilities (cont.)

- (2) Urinals. One (1) urinal shall be provided for each one hundred (100) men.*
- (3) Lavatories. One (1) lavatory shall be provided for each one hundred (100) men or women.*
- (4) Showers. One shower shall be provided for each one hundred (100) men or women.* Showers shall be an integral part of the interior of the bathhouse and located for bather use prior to entering the pool area. Soap shall be provided at each shower head. Shower floors shall slope one quarter inch (1/4") per foot to a drain and shall meet the same requirements for bathhouse floors as stated in subsection (e) below.
- (d) Location. The bathhouse to pool configuration shall be such that bathers must pass by or through the bathhouse as they enter into the pool enclosure. If the bathhouse is located outside the pool enclosure and is more than twenty five feet (25') from the pool enclosure's entrance, then a shower, with proper drainage and backflow prevention, is required at each approved entrance.
- (e) Floors. Floors shall be smooth, impervious, very light-colored, non-slip with a minimum coefficient of friction of 0.6 (wet), easily cleanable, shall have a slope of one-quarter inch (¼") per foot to drain(s), and shall be coved at the wall junction with ceramic tile or approved equivalent. A maximum of ten percent (10%) of the total floor surface area may be any color. Any standing water in the floor shall not exceed a depth of one-eighth inches (½"), shall not exceed one (1) square foot in area, and shall not remain on the floor more than ten (10) minutes. Flooring composed of vinyl, carpeting, wood, or mats, rugs, or other unapproved materials, are prohibited. A sample of the proposed flooring material, other than concrete, shall be submitted to the department for approval prior to installation.
- (f) Walls. Partition walls shall terminate at least six inches (6") above the floor or be placed on a continuous raised masonry or concrete base at least four inches (4") high
- (g) *Hose bibbs*. At least one (1) hose bibb with backflow prevention shall be provided in each of the men's' and women's sections of the bathhouse.
- (h) Water fountain. An approved, sanitary drinking fountain shall be conveniently accessible within the pool enclosure to all bathers. For existing pools, if the drinking fountain is not located within the pool enclosure, then access to and around the drinking fountain must comply with subsection (e) above.
- (i) Light and ventilation. The interior of the bathhouse including the sanitary facility area, locker or dressing area, and hallway shall be well-lighted with a minimum of one (1) watt of incandescent light for each square foot of floor area, and shall be adequately ventilated with a minimum of one (1) air change every five (5) minutes.

Sec. 34-585. Sanitary facilities (cont.)

(j) Solid waste disposal. An adequately sized, covered and lined trash receptacle shall be provided in each men's and women's sanitary facility area.

*Bather increments equaling or exceeding one half ($\frac{1}{2}$) the base number will be considered full increments, i.e., for subsection c.1., 160 men =1.6= 2 increments, therefore 2 toilets are required).

(Res. of 6-25-86, § 30-2-9-19)

Sec. 34-586. Safety.

(a) Pool barrier. Each pool shall be completely enclosed by an effective barrier. Pool barriers shall be a fence, wall or building, without private entrances or access into the pool area. Barriers, including entrances, shall be constructed so as to facilitate control of bather entry into the pool area, to prevent unauthorized entry, and to prevent animals and unsupervised children from entering the pool area. When the pool is not available for use, access shall be prohibited by closure of all entry points. The gate shall be secured with a steel chain and padlock, and only the owner, permit holder or designee shall retain the key. Pool covers will not meet this requirement. The barrier shall not be less than five feet (5') in effective height with no climbable objects within three feet (3') measured horizontally at the exterior grade from the barrier. Entry shall be at the shallow end of the pool through a self-closing gate or door that has a positive-latching mechanism mounted a minimum of forty-eight inches (48") above the exterior grade. The entrance gate must be able to self-close when opened four inches (4") or more as measured from the gate latch to the latching mechanism. The barrier shall not have any openings wherein a sphere, four inches (4") in diameter, is able to be passed through any portion of the barrier, either between barrier elements or from the bottom of the horizontal bar or element of the barrier to the finished grade. At least two (2) contiguous, horizontal elements of the barrier must be separated by a minimum of five feet (5') of unclimbable, vertical space, as measured from the tops of the horizontal elements, with no projections or recessions exceeding one and one quarter inches (11/4") to allow a foothold or handhold. A detailed drawing of the barrier, including the barrier composition, placement, dimensions, elevations, and any other pertinent data as required, shall be submitted to the department and must be approved prior to installation. The barrier shall be installed in accordance with this article, approved plans, and, if applicable, the manufacturer's instructions. The barrier must be completely constructed prior to filling and/or operation of the pool. Decorative elements within the required, complying fence fabric are prohibited. Barriers or fences composed of wood are prohibited. The following minimum standards shall apply to the specific types of pool barriers:

(1) Chain link

a. Line posts shall be tubular, galvanized steel pipe, at least two inches (2") outside diameter, and shall be installed no more than ten feet (10') on center throughout the entire perimeter of the fence. Line posts shall be embedded in

Sec. 34-586. Safety (cont.)

the ground for a minimum of twenty four inches (24") and in a minimum eight inch (8") wide and thirty inch (30") deep concrete jacket. Terminal posts and gate posts shall be tubular, galvanized steel, at least two and one half inches $(2\frac{1}{2}")$ outside diameter, embedded in the ground a minimum of thirty six inches (36") and in a minimum ten inch (10") wide and forty two inch (42") deep concrete jacket.

- b. Chain link mesh shall be at least eleven (11) gauge galvanized metal with no openings greater than one and one quarter inches (1½"). A minimum nine (9) gauge, secure tension wire must be installed within two inches (2") of the bottom of the fence fabric.
- c. A horizontal, supporting/ stabilizing bar of continuous, galvanized steel pipe at least two inches (2") in diameter shall be installed at the top of and connected to the fencing fabric.

(2) *Ornamental iron*

- a. Line posts shall be solid pipe, at least two inches (2") outside diameter, and shall be installed no more than ten feet (10') on center throughout the entire perimeter of the fence. Line posts shall be embedded in the ground for a minimum of twenty four inches (24") and in a minimum eight inch (8") wide and thirty inch (30") deep concrete jacket. Terminal posts and gate posts shall be solid, at least two and one half inches (2½") outside diameter, embedded in the ground a minimum of thirty six inches (36") and in a minimum ten inch (10") wide and forty two inch (42") deep concrete jacket.
- b. Vertical pickets shall be at least five eighths inches (5/8") by five eighths inches (5/8") tubular steel. The wall thickness of vertical pickets composed of tubular steel shall be at least one-eighth inch (1/8") thick. Vertical posts shall be spaced not more than eight feet (8') apart on center.
- c. Solid steel vertical pickets shall consist of at least one-half inch (½") thick bars.
- d. Horizontal support rails shall be continuous and at least one inch (1") thick channel steel.

(3) *Masonry*

a. Walls of masonry barriers shall be brick, concrete block, stone, or similar materials, with no openings greater than one and one-quarter inches ($1\frac{1}{4}$ ").

Masonry barriers shall be constructed so as to provide no projections or recessions within the five foot (5') section of complying barrier.

(4) Aluminum

- a. Line posts shall be at least two inches (2") outside diameter, and shall be installed no more than ten feet (10') on center throughout the entire perimeter of the fence. Line posts shall be embedded in the ground for a minimum of twenty four inches (24") and in a minimum eight inch (8") wide and thirty inch (30") deep concrete jacket. Terminal posts and gate posts shall be at least two and one half inches (2½") outside diameter, embedded in the ground a minimum of thirty six inches (36") and in a minimum ten inch (10") wide and forty two inch (42") deep concrete jacket.
- b. Vertical pickets shall be a minimum five-eighths inches ($\frac{5}{8}$ ") by one inch (1"), or a minimum of three-quarter inches ($\frac{3}{4}$ ") by three-quarter inches ($\frac{3}{4}$ ").
- c. The minimum thickness of all aluminum fencing posts and pickets shall be a minimum of nine (9) gauge.

(5) Alternative barrier materials

- a. Alternative barrier materials and methods may be approved if such material, methods, and barrier effectiveness are equivalent to or exceed those described in this article.
- (b) Certified pool operator. A certified pool operator shall be on duty at or near the pool at all times when the pool is open for use by bathers and shall be available during all department pool inspections. The certified pool operator shall be in full charge of all pool use and shall have authority to enforce all rules of safety and sanitation. Additional personnel shall be provided as needed to supervise other pools and facilities and bather compliance with pool entry conditions. The certified pool operator shall be trained and certified in a pool operator's course approved by the department. Each certified pool operator shall maintain and make available for inspection onsite a daily record of operating information. The record shall include data on disinfectant levels, pH, maintenance and such other data as may be required by the department. The certified pool operator shall be responsible for closing the pool when necessary and excluding unauthorized persons from entering the pool area. In inclement weather or when other factors pose hazards to bathers or hinder adequate control of the area, the guards shall cause evacuation of the area until proper conditions are restored. A pool service company or its employees cannot serve as a pool's certified pool operator unless the provisions stated herein are complied with. The certified pool operator's name, telephone number, and address shall be conspicuously posted at the exterior of the pool area's main entrance. A fee shall be charged for certification by the Department.

- (c) Lifesaving equipment. Each pool shall be provided with a shepherd's hook attached to a non-telescoping, aluminum pole, minimum length of fourteen feet (14'), with a blunt end. Each pool shall be provided with a Coast Guard approved lifesaving ring having an outside diameter of fifteen to twenty-four inches (15"-24"), firmly attached to a one-quarter inch to three-eighths inch (1/4"-3/8") diameter throwing rope with a maximum length of fifty feet (50'). Multiple units are required for pools longer than fifty feet (50') and shall be provided for each fifty feet (50') of pool length or major fraction thereof. Lifesaving equipment shall be mounted in a conspicuous place and be readily available for use.
- (d) Lifeguard chairs. If used, one (chair/station) shall be provided for each two-thousand (2,000) square feet of pool surface or major fraction thereof greater than one half. The chairs shall be located to provide lifeguards a clear, unobstructed view of the entire pool including the pool bottom at the deepest point. Lifeguard chairs shall be secured from bathers when not in use. Portable lifeguard chairs shall be removed from the pool-deck edge and secured when not in use.
- (e) *No lifeguard on duty.* Where no lifeguard is on duty, a sign shall be posted in a conspicuous location at or near the entrance to the pool area stating, in clearly, legible letters at least four inches (4") high, "WARNING NO LIFEGUARD ON DUTY".
- (f) *Telephone*. An operable telephone shall be readily available at all times within the pool enclosure. Directions to telephone locations must be conspicuously posted.
- (g) *Emergency telephone numbers*. A list of local emergency telephone numbers including Police, Fire, Ambulance, the pool operator or manager, and the department shall be posted at the telephone or have 911-only access.
- (h) *Emergency action plan*. Each permit holder shall maintain an approved emergency action plan for their pool facility similar to the one outlined by the American Red Cross and YMCA or comparable aquatic safety organization manuals. The emergency action plan shall be located for immediate access.
- (i) Electrical wiring and outlets. No overhead wiring shall pass over nor within twenty feet (20') horizontal distance of the pool enclosure. No electrical outlets shall be located within ten feet (10') of the pool edge.
- (j) First aid kit. Each pool shall be supplied with a readily available first aid kit equipped to treat at least fifteen (15) people, meeting OSHA (Occupational Safety and Health Administration) requirements for that size kit. The container shall be durable and weather-resistant, and shall be kept filled and ready for use. The first aid kit shall be mounted in a conspicuous location in the pool area at least forty eight inches (48") above grade. If a property management office is located within one hundred and fifty feet (150') of the pool and the office is always open

whenever the pool is open, then the first aid kit may be stored in the property management office. If the kit is stored in a property management office, then adequate signage shall be posted with a minimum one inch (1") high letters that clearly states directions to the first aid kit.

- (k) Float line with floats. A polypropylene or nylon rope or float line with plastic floats shall be installed across the pool along the slope-break in pools where the depths exceed five feet (5'). The floats shall be spaced no greater than seven feet (7') apart. The floats shall be secured so that they will not move. The tightly stretched float line shall be of sufficient size and strength to provide an adequate handhold and support loads imposed by bathers. The float line shall be securely fastened to recessed wall anchors of corrosion-resistant materials.
- (l) Rules and regulations. Easily readable and simply-stated rules and regulations for bathers, printed with a minimum of one-half inch (½") lettering, shall be conspicuously posted in the pool area, shall be enforced by the pool permit holder and/or operator and shall include at least the following:
 - 1. No glass, metal or hard plastic items, sharp objects or hazardous materials in the pool area or bathhouse.
 - 2. No animals allowed in the pool area.
 - 3. All bathers must shower before entering the pool.
 - 4. No food or drink allowed within four feet (4') of the pool edge.
 - 5. The bathing load.
 - 6. Hours of operation.
 - 7. Children must be accompanied by an adult in the pool area.
 - 8 Bathers with diarrhea, skin disease, open lesion, or other potentially hazardous condition, shall be excluded from the pool.
 - 9. Unattended, solo bathing is prohibited.
 - 10. Bathers shall wear appropriate attire. Diapers are prohibited.
- (m) Food. No food or drink shall be vended, served or consumed in the pool or within the required, minimum deck area around the pool. The deck shall be permanently marked with a solid, two inch (2") wide line delineating the area of the deck where food is allowed and the

area of the deck where food is prohibited. The words "No Food Beyond This Point", with minimum four inch (4") lettering shall be permanently marked on the deck every twenty-five feet (25'), oriented towards bathers as they enter the pool area.

(Res. of 6-25-86, § 30-2-9-20)

Sec. 34-587. Wading pools.

- (a) *Application*. For wading pools, all elements of this article for pools shall apply to wading pools with the following provisions:
- (b) Construction.
 - (1) Location. A wading pool must be located so that the lifeguard or operator may easily keep bathers under surveillance. A wading pool shall not be located near the deep end of any other pool. If a wading pool is located within another approved pool area and a separate barrier is installed for the wading pool area, then clear visibility through the wading pool barrier shall be provided.
 - (2) *Depth.* The depth of a wading pool shall not exceed eighteen inches (18").
 - (3) Slope. The bottom slope shall not be less than one foot (1') in twelve feet (12') nor more than one foot (1') in six feet (6'). Wading pools shall be completely self-draining.
 - (4) Walk areas and decks. A minimum of eight feet (8') of complying deck surface shall separate a wading pool from any other pool.
- (c) *Circulation system.*
 - (1) Circulation. The equipment shall be operated continuously on a twenty-four (24) hour basis to obtain the minimum required number of twelve (12) turnovers per day, or one turnover every two (2) hours. Fill and draw-type wading pools are prohibited. One skimmer shall be provided for each two hundred square feet (200) of wading pool surface area. Equalizer lines shall be installed at the lowest portion of the wall or in the floor, and be covered by a non-removable, approved grate.
 - (2) *Inlets*. A minimum of two (2) adjustable inlets flush with the pool wall or floor shall be provided based on one inlet per ten (10) feet or major fraction thereof of pool perimeter. Inlets shall be evenly spaced either along the pool perimeter or on the pool floor. Wall inlets shall be placed as close to the pool floor as possible.

Sec. 34-588. Spray pools.

- (a) *Application*. All elements of this article for pools shall apply to spray pools with the following provisions:
- (b) Construction. The bottom of a spray pool shall slope a maximum of one foot (1') in twelve feet (12') to an approved drain. The bottom of the spray pool shall be completely self-draining with no standing water. All recreational or water-attraction features must be safe, not retain any standing water, and shall be approved by the department on an individual, item by item basis. All play equipment shall conform to standards set forth by the U.S. Consumer Product Safety Commission, "Handbook for Public Playground Safety", 1991, which the department adopts as reference, or the American Society for Testing Materials, "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use", F1487-1993, which the department also adopts as reference.

(Res. of 6-25-86, § 30-2-9-21)

- (c) Water source. Spray heads shall be served by a potable water source that has approved backflow prevention. Spray heads and supply fixtures shall not constitute a tripping hazard. Spray heads shall be installed so as to eliminate any possibility of their submergence.
- (d) *Location*. Spray pools must be located so that the lifeguard or operator may easily keep bathers under surveillance. Spray pools shall not be located near the deep. end of any other pool.
- (e) Safety. Spray pools are exempt from Sec. 34-586-(c), Safety-Lifesaving Equipment.

(Res. of 6-25-86, § 30-2-9-22)

Sec. 34-589. Whirlpools.

- (a) Application. Whirlpools that are emptied and cleaned after each single bather use are exempt from this article. All elements of this article for pools shall apply to whirlpools with the following provisions:
- (b) Construction.
 - (1) Finish and materials. Whirlpools constructed of fiberglass or acrylic are prohibited.
 - (2) Depths. Water depth shall be no more than four feet (4') nor less than eighteen inches (18") in any portion of the whirlpool. No seat or bench shall be more than two feet (2') below the normal waterline.
 - (3) *Slopes*. Slope of the whirlpool floor shall not exceed one foot (1') in twelve feet (12'). The whirlpool floor, seat and steps shall be completely self-draining.

Sec. 34-589. Whirlpools.(cont.)

(4) Walk areas and decks. A walk area or deck no less than four feet (4') in width as measured from the inside wall of the whirlpool shall surround the whirlpool on at least one half $(\frac{1}{2})$ of the perimeter of the whirlpool.

(c) *Circulation system.*

- (1) Circulation. The equipment shall be operated continuously on a twenty-four (24) hour basis to obtain the minimum required number of forty-eight (48) turnovers per day, or one turnover every thirty (30) minutes. One (1) skimmer shall be provided for each one hundred (100) square feet of whirlpool surface area. Air intakes for therapy pumps shall be protected with an approved screen or grate and shall be located within the equipment room.
- (2) *Inlets*. A minimum of two (2) inlets shall be provided. Inlets shall be evenly spaced a maximum of 10 feet (10') apart or major fraction thereof along the floor or pool perimeter and located as close to the floor as possible or in the floor. No inlet shall be less than eighteen inches (18") below the normal water level. Hydrotherapy inlets shall be installed flush with the pool wall or floor.
- (3) Main drain openings. Make-up water for hydrotherapy systems shall be through the main drains, a surge chamber, or other approved device. Sufficient flow area shall be provided so that the combined circulation and hydrotherapy full-flow velocity through the main drain grates does not exceed one and one-half feet per second (1½ f.p.s.). The main drains shall be spaced evenly and as far apart as possible in the deepest portion of the whirlpool floor. Main drain covers shall be a minimum of nine inches by nine inches (9"x 9").

(d) Safety.

- (1) Rules. In addition to the minimum safety rules that must be posted (see sec. 34-586-(l), the following rules, printed with minimum one half inch (½") high lettering, shall be conspicuously posted in whirlpool area:
 - a. Elderly persons and pregnant women shall not enter the whirlpool without prior medical consultation and permission from their doctor.
 - b. Children shall not be permitted in the whirlpool without permission.
 - c. Persons suffering from heart disease, diabetes, high or low blood pressure or other health problems shall not enter the whirlpool without prior medical consultation and permission from their doctor.

Sec. 34-589. Whirlpools (cont.)

- d. Do not use the whirlpool while under the influence of alcohol, narcotics, antihistamines, anticoagulants, vasoconstrictors, vasodilators, stimulants, hypnotics, tranquilizers or other drugs that can cause sleepiness, drowsiness, or raise/lower blood pressure.
- e. Do not enter the whirlpool when the water temperature exceeds 104° F.
- f. Observe a reasonable time limit (e.g., 10 minutes or less), then shower, cool down and return for another brief stay if desired. Long exposure may result in nausea, dizziness or fainting.
- g. Enter and exit with caution.
- (2) Safety equipment. Whirlpools are exempt from the safety equipment requirements stated in Sec. 34-586-(c), (d) and (k) for swimming pools.
 - a. A clock, with a minimum twelve inch (12") face, shall be provided and mounted vertically so as to be clearly seen by all bathers in the whirlpool and whirlpool area.
 - b. If used, the therapy or booster pump switch shall be mounted on a wall at normal switch height above the floor, at least four feet (4') away from the pool edge, with a maximum timer limit of fifteen (15) minutes.

(Res. of 6-25-86, § 30-2-9-23)

Sec. 34-590. Waterslides.

- (a) *Application*. All elements of this article for swimming pools shall apply to waterslides with the following provisions:
- (b) Construction.
 - (1) Materials selection and finishing. The selection of all materials for components and accessories shall be such that all parts with external surfaces and edges that may come in contact with the user are assembled, arranged, and/or finished, so that they will not constitute a cutting, pinching, puncturing, or abrasion hazard under casual contact and intended use.
 - (2) Construction Design and materials used should be in accordance with proper structural engineering practice providing a sound, durable structure which will safely sustain all loads, liquid, hydrostatic and earth pressures involved in each case, throughout the expected life of the structure. The structures shall be watertight and all

Sec. 34-590. Waterslides (cont.)

- surfaces shall be inert, non-toxic, smooth and easily cleaned. Covered flumes are prohibited.
- (3) Curves and turns. All curves and turns throughout the flume shall be designed in such manner so that user impact with the walls does not present a hazard, and these portions shall be banked so that users are retained safely inside the flume under normal circumstances of operation.
- (4) Flume clearances. The distance between the side of a flume exit and a pool side wall shall be at least five (5') feet. The distance between sides of adjacent flume exits shall be at least six (6') feet. The distance between flume exits and the opposite side of the pool excluding steps and handrails, shall be at least twenty feet (20').
- (5) *High-speed slides*. Special provisions, approved by the department, shall be made in flume exit design, pool depth and pool width as measured from the flume exit to safely accommodate high-speed slides.
- (6) Flume terminus. The flume shall terminate at a depth no greater than two inches (2") below nor greater than two inches (2") above the normal water surface level.
- (7) Depths. The operating water depth of the splash pool at the end of a flume shall be three feet (3'). This depth shall be maintained in front of the flume for a distance of at least twenty feet (20'), from which point the pool floor may have a constant slope upward to the minimum water depth. These slopes shall be less than one foot (1') in seven feet (7'). Water depth at the end of the flume may be more than three feet (3') depending upon the use of the waterslide and approval by the department.
- (8) Decks. Decks along the exit side of the splash pool shall be at least ten feet (10') wide. Decks along the side opposite the pump reservoir shall be at least four feet (4') wide. The pump reservoir area shall be accessible by a three foot (3') minimum width walkway or deck for cleaning and maintenance.
- (9) Walkways. A four foot (4') minimum width, surfaced walkway, steps or stairway shall be provided between the pool and the top of the flume. The walkway and/or steps shall be separated from the flume by a physical barrier, set back far enough from the operating flume such that it cannot be contacted by users on the way down the slide.
- (10) *Lighting*. For an outdoor water-slide used at night and for an indoor waterslide, adequate lighting shall be provided for all areas of the flume, the splash pool, walkways and deck in accordance with Sec. 34-583, Lighting.
- (11) Volume of pump reservoirs. The pump reservoirs shall have sufficient volume to contain at least two (2) minutes of combined flow from all water treatment and flume

Sec. 34-590. Waterslides (cont.)

pumps and/or contain enough water to insure that the lower splash pool will maintain a constant water depth.

- (c) Circulation system. A water circulation system consisting of pumps, piping, filters, water conditioning, and disinfection equipment and other accessory equipment shall be provided which will clarify, condition and disinfect the pool volume of water. The equipment shall be operated on a twenty-four (24) hour basis to obtain the minimum required number of twenty-four (24) turnovers per day, or one turnover every hour.
- (d) Bathing load. The bathing load shall be calculated on the basis of three (3) persons for each ten (10) square feet of the splash pool surface area. However, only one person is allowed at any time in the pool during operation.
- (e) Safety. At least one certified lifeguard or one certified pool operator shall be stationed at the bottom of the slide at all times the slide is open for use. At any time, only one (1) bather shall be allowed on the slide, only one bather shall be allowed on the ladder or walkway to the slide, and only one bather shall be allowed in the splash pool. A key-operated, properly grounded switch to operate the pump supplying water to the slide shall be installed on the deck at the slide. Whenever the slide is not open for use, the lifeguard or qualified pool operator shall switch the slide key off, remove and properly secure the key, and prevent bathers from entering onto the slide.

(Res. of 6-25-86, § 30-2-9-24)

Sec. 34-591. Zero-depth entry pools.

- (a) *Application*. All elements of this article for swimming pools shall apply to zero-depth entry pools with the following provisions:
- (b) Construction. A zero-depth entry pool shall be designed and constructed so that the pool and the deck surface meet at a maximum slope of one foot in twelve feet (1':12'). Where the water depth in these pools is less than one and one-half feet (1½'), floor inlets shall be provided and spaced uniformly at a distance no greater than twenty feet (20') apart and located not further than twenty feet (20') from the point where the pool bottom intersects the deck, and not more than twenty feet (20') from any wall. A grated gutter, as described in Sec. 34-579, or other suitable, approved skimming system shall be installed along the entire zero-depth entry at the normal water level, and shall be designed and constructed to accommodate variations in the normal water level.

Sec. 34 -592. Indoor-outdoor pools.

(a) *Application*. All elements of the article for swimming pools apply with the following provisions:

Sec. 34 -592. Indoor-outdoor pools (cont.)

(b) Construction.

- (1) Separations. Separations between indoor-outdoor pools shall be a clearly marked, transparent, solid barrier of plastic, such as Lucite, or other approved material. The barrier shall be smooth, unbreakable, and shall not have any openings except for an opening to allow bathers to swim through.
- Openings. The opening in the separation or barrier for bathers to swim through shall be a minimum of three feet (3') in height and a minimum of four feet (4') in width as measured at the normal water level. The edges of the opening for bathers to swim through shall be smooth and rounded. If the separation between the indoor-outdoor pools extends below the normal water level, then an approved, protective sleeve shall completely encase the entire edge of the separation at a minimum height of twelve inches (12"). The protective sleeve and the separation or barrier combined shall extend below the normal water level less than twelve inches (12").
- (3) Separate pools. Each portion of an indoor-outdoor pool shall be considered as a separate pool, and each portion or pool shall be designed and constructed with its own, separate circulation system, appurtenances, decking, safety equipment, and other required equipment in accordance with this article.
- (4) *Ingress and egress*. Except at the indoor pool-outdoor pool junction, a deck, complying with Sec. 34-572, shall completely surround both pools. The pools, deck and the physical separation between the two pools shall be designed and constructed to enable ready access and egress. If the deck-to-deck distance at the separation or barrier exceeds six feet (6'), then an approved, taut, secured safety rope or handrail shall be attached to the entire length of the separation or barrier, except for the opening for bathers to pass through. The rope or handrail shall be installed above, and within, six inches (6") of the normal water level.

Sec. 34 -593. Interactive play attractions.

- (a) Application. All elements of this article for swimming pools apply to interactive play attractions with the following provisions:
- (b) Construction. Interactive play attractions design and construction shall provide a safe and sanitary recreational environment for users. The design and construction of the play equipment shall be in accordance with this article and with the U.S. Consumer Product Safety Commission "Handbook for Public Playground Safety", 1991, which the department adopts by reference; or American Society for Testing Materials, "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use", F1487-1993, which the department also adopts as reference, and with this article.

Sec. 34 -593. Interactive play attractions. (cont.)

(c) Circulation. All water used for any interactive play feature must be circulated through the pool's entire circulation system including the pump, filter, chemical treatment and other components, or an approved, separate system for interactive play features shall be provided.

Sec. 34-594. Special purpose pools.

- (a) *Application*. All elements of this article for swimming pools apply to special purpose pools with the following provisions:
- (b) Construction. The design and construction of these pools shall be based on the intended purpose and use and on sound public health and engineering principles. Special purpose pools shall be reviewed by the department on an individual basis for intended use and construction. Therefore, unique or special features may be permitted, such as a ramp to allow physically challenged individuals access and egress from the pool, whereas, a set of steps or a ladder would normally be installed. The bathing load shall be limited and determined by the Department, based on the intended use. Specific intended use shall not include general recreational bathing or swimming purposes. The intended use of the pool shall be clearly stated on the plans when submitted to the Department. A sign, with minimum one inch (1") high, black letters on a white background, with the purpose of the pool and the bathing load, shall be conspicuously posted at the entrance to the pool area.
- (c) *Operation.* Special purpose pools are prohibited for general recreational use.

(Res. of 6-25-86, § 30-2-9-25)

Sec.34-595. Multi-purpose pools.

- (a) *Application*. All elements of this article that applies to swimming pools shall apply to multipurpose pools with the following provisions:
- (b) *Design, Construction and Operation*. The design, construction and operation of each portion of a multi-purpose pool shall comply with the relative section(s) of this article.

Sec. 34-596. Recreational water facilities.

(a) Permit and use. Adequate facilities shall be provided and appropriate precautions shall be taken to control the use of recreational water facilities to insure the health and well-being of bathers. Four (4) sets of site plans prepared by a registered engineer shall display the anticipated bathing load, location, topography of the bathing area and surrounding land area, and appurtenances such as the bathhouse, lifeguard stations, and other related structures, and shall be submitted to the department for review prior to any development. An annual permit to operate a recreational water facility must be obtained from the department prior to operation.

Sec. 34-596. Recreational water facilities. (cont.)

- (b) Environmental survey. An environmental survey shall be made to record characteristics of the water source, possible sources of sewage contamination, industrial wastes, potential hazards and site suitability. A report of this survey shall be submitted to the department along with the plans.
- (c) Bacteriological analysis. Bacteriological analysis shall be made of the water by an independent, certified laboratory and results shall be included with the environmental survey submitted to the department. Re-survey and analysis may be required as often as deemed necessary by the department. E. Coli and enterococci densities shall be indicated in the analysis.
 - 1. *Plan submittal*. The following shall apply for plan submittal:
 - a. The bacteriological analysis shall include results from a minimum of three (3) bacteriological samples collected from the water of the bathing area of the proposed site. The samples shall be collected at least twenty-four (24) hours apart, weekly for three (3) consecutive weeks. The results of the samples shall be expressed in geometric means and must not exceed the following standards:
 - i. E. coli one hundred twenty-six (126) per one hundred milliliters (100 ml).
 - ii. enterococci thirty-three (33) per one hundred milliliters (100 ml).
 - 2. *Operation.* The following shall apply during operation:
 - b. Bacteriological sampling shall be performed at least every thirty (30) days. The sampling results shall be submitted to the department during the thirty (30) day sampling period. The initial sampling date shall establish the sampling cycle wherein samples may be collected in intervals of at least fourteen (14) days and no more than thirty (30) days apart. The results of the samples shall be expressed in geometric means and must not exceed the following standards:
 - i. E. coli thirty-three (33) per one hundred milliliters (100 ml).
 - 3. Follow-up samples. Whenever the result of any sample exceeds the maximum allowable densities, a series of follow-up samples shall be collected and analyzed by an independent, certified laboratory within twenty-four (24) hours of being notified of the results. This series shall be taken in the same location and shall consist of no less than three (3) samples. The results shall be expressed in geometric means and shall not exceed the limits described above. If the follow-up series results described above are exceeded, the recreational water facility shall be closed by the department. Closure shall be effective until two (2) consecutive series of samples comply with this section.

Sec. 34-596. Recreational water facilities. (cont.)

- (d) Sanitary facilities. Separate toilet and hand-washing facilities for men and women shall be provided in accordance with the anticipated bathing load (see Sec. 34-585, Sanitary Facilities).
- Safety. At least one American Red Cross or equivalent certified lifeguard shall be provided (e) for each one hundred (100) yards of waterfront/beach or fraction thereof. Lifeguards shall be capable swimmers and competent in rescue, lifesaving and first aid methods, including methods of artificial resuscitation. Each lifeguard's station (elevated station or platform) shall be equipped with a twenty inch (20") diameter lifesaving ring attached to a one-hundred foot (100') continuous length of light, strong line (manila or other suitable material); and a swimming buoy (diamond or torpedo type) attached to a continuous one-hundred to threehundred foot (100'-300') length of trail line. If bathing is permitted beyond a depth of five feet (5') for a distance greater than one hundred (100) yards as measured from the shoreline, a square-sterned boat, ten to twelve feet (10'-12') in length shall be provided. The boat shall be equipped with two (2) oars and oarlocks and have on board one (1) lifesaving ring with line. The boat shall be used by the lifeguard to patrol bathing areas where depths exceed five feet (5'). The outer safe limits, or boundary of the bathing area, shall be marked with buoys or other markers visible to bathers and spaced no less than twenty feet (20') apart. In inclement weather or when wind or other factors pose hazards to bathers or hinder adequate control of the area, the guards shall cause evacuation of the area until safe conditions are restored.

(Res. of 6-25-86, § 30-2-9-26)

Sec. 34-597. New equipment, construction and materials.

The department may grant tests, conditional construction permits or conditional permits for new designs, new equipment, new materials, or new processes proposed for use or installation in new or existing pools if satisfactory proof is submitted that sound engineering and public health principles are complied with as determined by the department. Performance guarantees shall be required. Conditional permits shall require satisfactory performance in the field for a time period to be established by the department. The department reserves the right to revoke any permit if satisfactory performance can not be demonstrated in accordance with the current policy and procedures addressing new products and processes, and this article. A fee shall be required for each evaluation in accordance with the department's current fee schedule.

(Res. of 6-25-86, § 30-2-9-27)

Sec. 34-598. Right of refusal.

Because of the infinite variations in the design, installation and operational conditions of all pools, health officials must look beyond this article to uncover any special problems which may be unique to the particular facility being evaluated. Where adequate standards do not exist and this article does not provide sufficient direction for consideration of innovation in design, construction and operation of proposed pools and recreational water facilities, the department will establish requirements necessary to protect the public's

Sec. 34-598. Right of refusal. (cont.)

health and safety. The department reserves the right to evaluate and deny any proposal or request not specifically addressed or identified under this article based on sound engineering and public health principles.

(Res. of 6-25-86, § 30-2-9-28)

APPENDIX

Sec. 34-599. Table I

TABLE I POOL SURFACE AREA VS. NUMBER OF SKIMMERS

Area (squa	re feet)	Number of skimmers
500	_	999	2
1000	-	1499	3
1500	-	1999	4
2000	-	2249	5
2250	-	2499	6
2500	-	2749	7
2750	-	2999	8
3000	-	3249	9
3250	-	3499	10
3500	-	3749	11
3750	-	3999	12
4000	-	4249	13
4250	-	4499	14
4500	-	4749	15
4750	-	5000	16

Sec. 34-600. Table II

TABLE II

DWELLING/LIVING UNITS VS MAXIMUM BATHING LOAD

Swimming Pools With Transient Bathers¹

No. of Units ³	Bathers/Unit
0 - 100	0.60
101 - 250	0.40
251 - 500	0.10
501+	0.05

Swimming Pools With Non-Transient Bathers²

No. Of Units ³	Bathers/Unit
0 - 100	0.75
101 - 200	0.60
201 - 300	0.40
301 - 500	0.15
501+	0.10

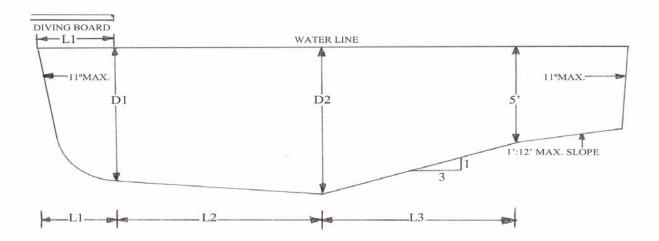
- 1. Motels and hotels, health clubs, or other non residential
- 2. Apartment complexes, condominiums, subdivisions, or other residential
- 3. Use of table in calculating the bathing load shall be cumulative.

Example: for a 360 unit apartment complex, $.75 \times 100 = 75$ $.60 \times 100 = 60$ $.40 \times 100 = 40$ $.15 \times 60 = 9$

 $Bathing\ load = 184$

Sec.34-601 .FigureNo.1

Figure No.1. Diving Boards - Minimum Dimensions



Board Height Over	Minimum Dimensions						
Water Surface	D1	D2	L1	L2	L3		
26" (3 meter)	7' - 0"	8'-6"	2'-6"	8'-0"	10'-6"		
30" (3/4 meter)	7' - 6"	9' - 0"	3'-0"	9'-0"	12'-0"		
1 meter	8'-6"	10' - 0"	4'-0"	10' - 0"	15'-0"		
3 meter	11'-0"	12' - 0"	6' - 0"	10' - 6"	21'-0"		

Sec. 34-602. Figure No. 2

