Residential Building Permit Requirements
Development Services Division
630 Ronald Reagan Drive, Evans GA 30809
(706) 868-3420

ATTENTION:

As we are taking precautionary measures for COVID-19**, ALL** permit requests including **ALL** NEW Residential Construction **MUST** be emailed to **permits@columbiacountyga.gov**.

Please ensure the items listed below are included and attached in your email. Please make sure all attachments are submitted in PDF form.

Type of Permits

New Residential Building Permit

- □ Permit Application (completed, signed and dated)
- □ Plans (scope of work)
- □ Plot/Site Plan
- □ RES check
- □ Water Tap & Sewer Tap receipt
- □ Septic Tank receipt (if applicable)
- □ LDP application
- □ Homeowner Disclosure (if applicable)

Alterations / Additions Permit / Retaining Wall

- □ Permit Application (completed, signed and dated)
- □ Plans (scope of work)
- □ Plot Plan
- □ LDP application
- □ Homeowner Disclosure (if applicable)
- □ Retaining Wall Engineer Design Plans

All other Permits (Roofing, Electrical, Mechanical, Plumbing, Sprinklers etc.)

- □ Permit Application (completed, signed and dated)

Pool Permit

- □ Permit Application (completed, signed and dated)
- □ Plans (scope of work)
- □ Plot/Site Plan
- □ LDP application
- □ Homeowner Disclosure (if applicable)
- □ Pool Owner Affidavit (completed, initialed, signed and notarized)

Deck Permit

- □ Permit Application (completed, signed and dated)
- □ Plans (scope of work)
- □ Plot/Site Plan
- □ LDP application
- □ Homeowner Disclosure (if applicable)

Once your requested permit(s) have been approved, we will contact you to take payment over the phone. We accept VISA and MASTERCARD.

Please submit **ALL** inspection requests to: **inspections@columbiacountyga.gov**.

Please submit Land Disturbance Permit Applications to **LDP@columbiacountyga.gov**.

If you have any questions regarding Land Disturbance call (706) 855 - 7246

If you have any questions regarding Planning call (706) 868 – 3400

COLUMBIA COUNTY
Development Services

COLUMBIA COUNTY
BUILDING PERMIT APPLICATION

OFFICE USE ONLY		
___ IN PERSON ___ EMAIL ___ ONLINE APPLICATION # _____ LDP APPLICATION # _____	RECEIVED DATE:	BY:
	ENTERED DATE:	BY:
	REVIEWED DATE:	BY:

1. PROJECT ADDRESS:				
2. LEGAL DESCRIPTION - LOT:	**BLOCK:**	**MAP/PARCEL:**	**SUBDIVISION:**	
3. APPLICANT NAME:			**CONTRACTOR** ☐ **AUTHORIZED AGENT** ☐ **HOMEOWNER** ☐	
4. EMAIL:			**5. CONTACT # :**	
6. COST OF WORK:			**7. CHANGING FOOTPRINT OF STRUCTURE?** **YES** ☐ **NO** ☐	
8. DESCRIBE WORK:				

PROPERTY OWNER

NAME: _____

CONTACT NUMBER: _____ CONTACT EMAIL: _____

ADDRESS: _____

TRADES REQUIRED	TYPE OF PERMIT	ADDITIONAL INFORMATION	CONTACT PERSON	PERMIT INFO
	____ NSF ____ TWNHM ____ MH ____ POOL ____ ACCESSORY BLDG ____ ALTERATION ____ OTHER	TOTAL SQ FT: UNDER ROOF _____ WATER TYPE _____ SEWER TYPE _____	**BUILDER / GENERAL CONTRACTOR** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
ELECTRICAL ☐ YES ☐ NO	____ SERVICE CHANGE ____ GENERATOR ____ SOLAR ____ HOUSE / TRADE ____ TEMP POLE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____ # AMPS: _____	**ELECTRICIAN** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
PLUMBING ☐ YES ☐ NO	____ GAS ____ SUB / TRADE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____	**PLUMBER** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
MECHANICAL ☐ YES ☐ NO	____ GAS ____ SUB / TRADE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____	**MECHANICAL** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
IRRIG/SPRKLR ☐ YES ☐ NO	____ SUB / TRADE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____	**IRRIGATION SPRINKLER** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____

REVISED 02/2023

* THE ISSUANCE OF THIS PERMIT AUTHORIZES IMPROVEMENTS OF THE REAL PROPERTY DESIGNATED HEREIN WHICH IMPROVEMENTS MAY SUBJECT SUCH PROPERTY TO MECHANICS' AND MATERIALMENS' LIENS PURSUANT TO PART 3 OF ARTICLE 8 OF CHAPTER 14 OF TITLE 44 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED. IN ORDER TO PROECT ANY INTEREST IN SUCH PROPERTY AND TO AVOID ENCUMBRANCES THEREON, THE OWNER OR ANY PERSON WITH AN INTEREST IN SUCH PROPERTY SHOULD CONSIDER CONTACTING AN ATTORNEY OR PURCHASING A CONSUMER'S GUIDE TO THE LIEN LAWS WHICH MAY BE AVAILABLE AT BUILDING SUPPLY HOME CENTERS.

* THE ISSUANCE OR GRANTING OF A PERMIT SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE ADOPTED CODES OR OF ANY OTHER ORDINANCE OF THIS JURISDICTION. PERMITS PRESUMING TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF THE ADOPTED CODES OR OTHER ORDINANCES OF THIS JURISDICTION SHALL NOT BE VALID. THE ISSUANCE OF A PERMIT BASED ON CONSTRUCTION DOCUMENTS AND OTHER DATA SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS IN THE CONSTRUCTION DOCUMENTS AND OTHER DATA. THE BUILDING OFFICIAL IS AUTHORIZED TO PREVENT OCCUPANCY OR USE OF A STRUCTURE WHERE IN VIOLATION OF THE ADOPTED CODES OR ANY OTHER ORDINANCES OF THIS JURISDICTION. THE BUILDING OFFICIAL IS AUTHORIZED TO SUSPEND OR REVOKE A PERMIT ISSUED UNDER THE PROVISIONS OF THE ADOPTED CODES WHEREVER THE PERMIT IS ISSUED IN ERROR OR ON THE BASIS OF INCORRECT, INACCURATE OR INCOMPLETE INFORMATION, OR IN VIOLATION OF ANY ORDINANCE OR REGULATION OR ANY OF THE PROVISIONS OF THE ADOPTED CODES.

* A MEMBER OF THE COLUMBIA COUNTY TAX ASSESSORS STAFF MAY VISIT YOUR PROPERTY TO CARRY OUT THE DUTY OF MAKING AN APPRAISAL OF THE FAIR MARKET VALUE OF TAXABLE PROPERTY PURSUANT TO PART 1 OF ARTICLE 5 OF CHAPTER 5 OF TITLE 48 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED. FOR ADDITIONAL INFORMATION CONTACT 706-312-7474.

* THIS PERMIT BECOMES NULL AND VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMNCED WITHIN 180 DAYS OR IF CONSTRUCTION OR WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AT ANY TIME AFTER WORK IS COMMENCED.

* COLUMBIA COUNTY RESERVES THE RIGHT TO REVOKE ANY PERMIT DETERMINED TO CONTAIN FALSIFIED INFORMATION OR ISSUED IN ERROR.

* NOTICE TO CONTRACTORS: ANY CONTRACTOR CONSTRUCTING RESIDENCES OR ANY OTHER TYPE OF CONSTRUCTION IN THE ABOVE STATED SUBDIVISION WILL BE HELD ACCOUNTABLE AND RESPONSIBLE FOR ANY DAMAGES BY REASONS OF SAID CONSTRUCTION TO CURBS, GUTTERS, MAN HOLES, CATCH BASINS, WATER MAINS, ETC.

* INSPECTION REQUESTS SHOULD BE MADE THROUGH EMAIL TO: INSPECTIONS@COLUMBIACOUNTYGA.GOV. ALL REQUESTS RECEIVED BY 4:30 WILL BE SCHEDULED FOR THE NEXT BUISNESS DAY. ANY REQUESTS RECEIVED AFTER 4:30 PM WILL BE SCHEDULED FOR THE SECOND BUSINESS DAY. A FEE WILL BE CHARGED FOR THE SECOND AND EACH SUBSEQUENT REINSPECTION. ANY OUTSTANDING FEES MUST BE SETTLED PRIOR TO THE RELEASE OF A CERTIFICATE OF OCCUPANCY/COMPLETION.

* I UNDERSTAND THAT IT IS MY RESPONSIBILITY TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS AND THAT THE ISSUANCE OF THIS PERMIT IS NOT DEEMED AN AFFIRMATION BY COLUMBIA COUNTY OF SUCH COMPLIANCE. I CERTIFY THE INFORMATION PROVIDED IS TRUE AND ACCURATE AND CONTAINS NO FALSE OR FRAUDULENT INFORMATION.

* I HEREBY CERTIFY THAT I HAVE READ AND EXAMINED THIS PERMIT AND KNOW THE SAME TO BE TRUE AND CORRECT. I UNDERSTAND THAT THE GRANTING OF A PERMIT DOES NOT WAIVE THE PROVISIONS OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PERFORMANCE OF CONSTRUCTION. I AGREE TO REQUEST ALL INSPECTIONS REQUIRED BY COLUMBIA COUNTY.

SIGNATURE OF APPLICANT / CONTRACTOR / AUTHORIZED AGENT / OWNER DATE

PRINT NAME

Homeowner Disclosure Agreement
Development Services Division
630 Ronald Reagan Drive, Evans GA 30809
(706) 868-3420

Development Services
Disclosure Agreement
Columbia County Code of Ordinances Section 18-252

Columbia County ordinances require that residential construction work shall be performed by registered residential builders. I have applied for a do-it-yourself registration. The registration allows me, as the owner of my property, to act as my own residential builder even though I have not registered as a residential builder. I must supervise the construction myself. I may build or improve a single-family residence for use and occupancy only by myself and my family. It may not be built for sale or rent. If I sell or rent a building, I have built myself within two years after the construction is complete, it will be presumed (subject to my right to rebut same) that I built the home for sale or rent, which is a violation of the ordinance. I may not hire an unregistered person or entity to perform services for me as a residential builder. It is my responsibility to make sure that people employed by me have the registration certificates required by Columbia County's contractor registration ordinances. My construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.
The undersigned states and affirms that he/she is the owner of the property under the legal description of property to be used for the proposed construction or alteration as described on the permit application and that the building is not being built or altered to be offered for sale or lease, nor is the building being used by the general public for street address:

_____
Address:

_____
Signature of Property Owner Date

_____
Printed Name of Property Owner Date

Subscribed and Sworn Before Me on This the _____ Day of _____, 20 _____.

_____
Notary Public

- ☐ I, as the property owner will reside in the above-mentioned address.
- ☐ I, as a family member of the property owner will reside in the above-mentioned address.
  Relationship to the property owner: _____

_____
Signature of family member Date

_____
Printed Name of family member Date

Subscribed and Sworn Before Me on This the _____ Day of _____, 20 _____.

_____
Notary Public

Licensing & Permits Department

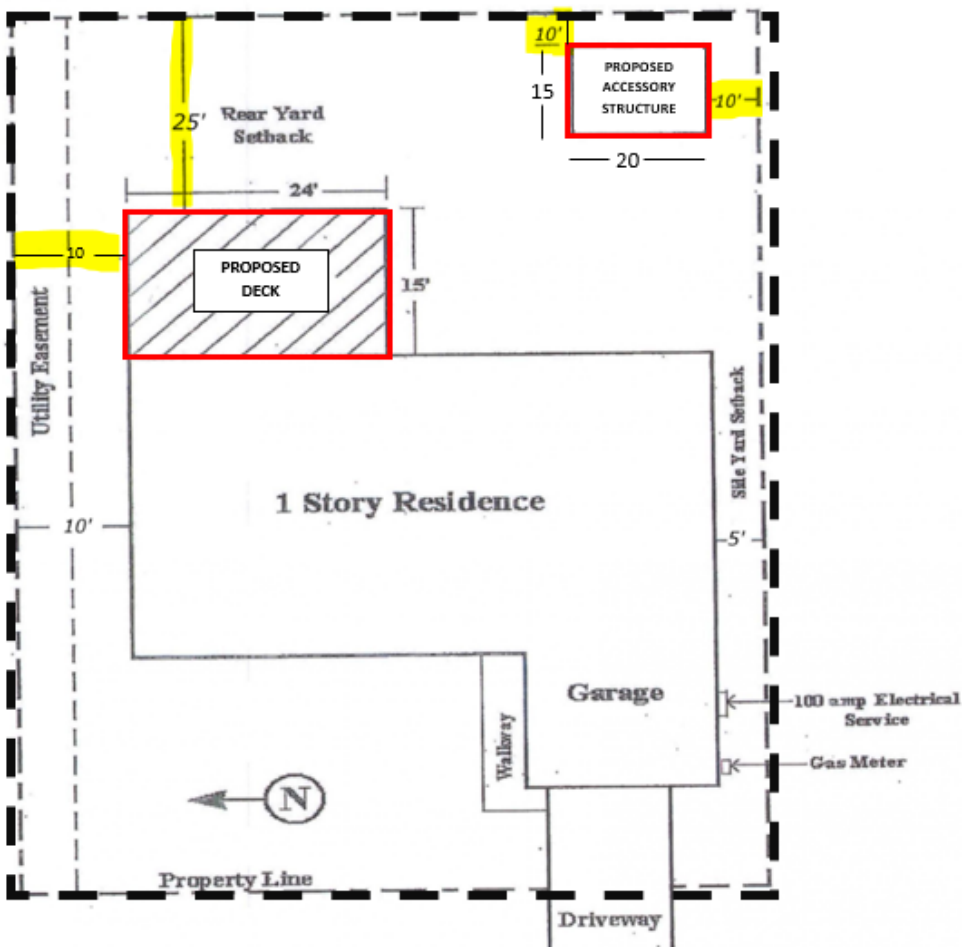
Proof of Ownership:_____ Verified by:_____

Revised 12/2023

2018 International Residential Code

R106.2 Site plan or plot plan. The *construction documents* submitted with the application for *permit* shall be accompanied by a site plan showing the size and location of new construction and existing structures on the site and distances from *lot lines*. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The *building official* is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted.

Sample Site Plan



Land Disturbance Permit Application

Mailing address:
Stormwater Compliance
P.O. Box 498
Evans, GA 30809

Questions?
Call: (706) 447-7645 [SOIL] / Email: LDP@columbiacountyga.gov
Make all checks payable to 'Columbia County'

Street Address:
630 Ronald Reagan Dr.,
Bldg A, East Wing Evans,
GA 30809

PROJECT

Project Description: _____ Lot : _____
Project Address: _____ Parcel ID: _____
Land Disturbance Permit Type: ☐ Clearing & Grading ☐ Minor ☐ Major ☐ Exempt
Project Details: ☐ Part of Common Dev ☐ Stand Alone Res ☐ Stand Alone Com
☐ Common Dev ☐ Infrastructure ☐ Other
Total & Disturbed Project Acres: _____ Proposed Date of Construction:

OWNER & APPLICANT & ENGINEER

Property Owner of Record: _____ Phone #: _____
Mailing Address: _____ Email: _____

Operator/Contractor: _____ Phone #: _____
Mailing Address: _____ City/State: _____
Email: _____

24-Hr Contact Name: _____ 24-Hr Contact #: _____
24-Hr Email: _____

Engineering Firm: _____ Phone #: _____
Contact Person: _____ Email: _____

ENVIROMENTAL

Notice of Intent (NOI): ☐ Primary ☐ Secondary ☐ Tertiary ☐ N/A
Date NOI submitted to Georgia Environmental Protection Division*: _____
*Must show proof of submittal date either by GEOS generated submittal receipt or EPD stamp on the front page of the NOI

NOI fee: acres disturbed (round off to the nearest tenth) x $45/acre = $_____ ☐ Check attached
Limits of Disturbance within 200-ft of State Waters: ☐ Yes ☐ No
Flood Plain: ☐ Yes ☐ No
For residential projects: If you are building a livable structure that is located within the Special Flood Hazard Area (SFHA), as mapped by FEMA, an elevation certificate is required. Elevation Certificate Required: ☐ Yes ☐ No

REQUIRED DOCUMENTS

Plan type: ☐ Erosion, Sedimentation and Pollution Control Plan ☐ Grading Plan ☐ Plot Plan
Attachments included (per the permit table found in Chapter 34-70 of the Ordinance) – *check ALL that apply:*
GSWCC Erosion, Sedimentation & Pollution Control Plan Checklist for:
☐ Stand Alone Construction Projects ☐ Common Development Construction Projects
☐ Grading Checklist ☐ Stormwater Checklist ☐ Infrastructure Checklist
☐ NOI
☐ GSWCC Certification *(required for all projects with a NOI)*

Name: _____ Certification #: _____

OFFICIAL USE ONLY

Application fee: $_____ Received By: _____ Date: _____
Application: ☐ Approved ☐ Approved w/Conditions ☐ Disapproved [Col. Cty Code of Ordinance, 34-70(b)(5)a]
Special Conditions:

1. This permit is valid only after signed by the Engineering Services Director (or designee)
2. E&SC Bond required (irrevocable letter of credit) ☐ No ☐ Yes Amount $_____
3. No site work shall begin until after a pre-construction meeting is held by the Environmental Services Department (as required by LDP table)
4. This permit is non-transferrable
5. Other _____

Plan Approval Date: _____ NOI Approval Date: _____
NOI Fee: ☐ Yes ☐ No Amount $_____ Paid: ☐ Yes ☐ No
Date Paid: _____ Received By: _____

_____ _____
Engineering Services Director (or designee) Date

General Conditions, Legal Authority, Certification, & Required Signature on following page

Land Disturbance Permit Application

GENERAL CONDITIONS

a. Projects that include the impoundment of water or the construction of a pond, the owner hereby agrees and does by these presents, indemnify and hold harmless Columbia County, Georgia from and against any and all claims, demands, suites. Judgments, or chooses-in-action which may be a third party against Columbia County, Georgia, as a result of the impoundment of water or the construction of a pond covered by this permit.

b. Applicant indemnifies and holds the Columbia County, Georgia and its officers, agents, and employees against any and all claims, damages, demands, actions, causes of action, costs and expenses of whatsoever nature, which may result from any injury, death, loss or damage arises out of the construction, operation, maintenance, repair, removal or relocation of the facilities covered by this permit.

c. Applicant is responsible for submitting all applicable documents, plans, reports, and/or drawings to comply with theLand Disturbance Permit Table and Columbia County Ordinance

d. Applicant is responsible for obtaining any additional permits required by Georgia DOT, GA EPD, GA DNR, USACE &/or other government agencies.

e. This permit is subject to modification or revocation on a finding of noncompliance with any of the provision of the Columbia County Soil Erosion and Sedimentation Control Ordinance, and/or Erosion and Sedimentation Act of 1975, as amended, or any of the rules promulgated pursuant thereto; or with any representation made on the attached thereto.

f. Unless otherwise exempted, person engaged in land-disturbing activities shall apply erosion and sedimentation control measures which conform to the specifications contained in the current version of the "Manual for Erosion and Sediment Control in Georgia" (also known as the "Green Book") published by State Soil and Water Conservation Commission.

g. Once approved, this permit is effective until completion of the aforementioned land disturbing activity. However, if the land disturbing activity does not commence within twelve (12) months from date issued, or construction ceases for a period of 90 days, this permit will become null and void.

h. The contractor will adhere to the weight limits prescribed on County maintained roads for hauling equipment and/or materials to and from this site. The contractor will be held responsible for any damages to the streets and/or utilities due to non-compliance of weight limit regulations.

i. Failure to comply with the terms of this application will result in an immediate Stop Work Order in accordance with Columbia County Code of Ordinance, Chapter 34-72 (b).

j. The following projects are exempt from the permit requirements of Columbia County Ordinance Section 34-70, provided however any land disturbing activities conducted as part of any such project shall conform to the minimum requirements as set forth in Ordinance Section 34-69, including, but not limited to, the implementation of BMPs, and the level of documentation specified in the LDP table shall be submitted to the County for verification in advance of undertaking such activity:

1) Project with land-disturbance of less than 1000-square feet and not within 200-feet of State Waters.

2) Individual new home construction within a larger common plan of development with an open Primary Notice of Intent, and such individual new home construction will be conducted in conformance with the approved development plan and ESPC plan applicable to the lot affected.

3) Minor land-disturbing activities such as home gardens and individual home landscaping, repairs, maintenance work, fences, etc.

4) Excavations and related preparations for establishment of irrigation wells not part of a bona-fide agricultural operation under O.C.G.A. 1-3-3.

LEGAL AUTHORITY

In accordance with Columbia County Code of Ordinance, Chapter 34 Environmental Article III,

34-70(b)(5)

Denial of permit. If a permit applicant has had two or more violations of previous permits, this article, or the Georgia Erosion and Sedimentation Act, as amended, within three years prior to the date of filing of the application under consideration, the county may deny the permit application pursuant to O.C.G.A. 12-7-7(f)(1).

34-70(b)(6)

Bond requirement. The county may require the permit applicant to post a bond in the form of government security, cash, irrevocable letter of credit, or any combination thereof up to, but not exceeding, $3,000.00 per acre or fraction thereof of the proposed land-disturbing activity, prior to issuing the permit. If the applicant does not comply with this article or with the conditions of the permit after issuance, or the bond, the county may call the bond or any part thereof to be forfeited and may use the proceeds to hire a contractor to stabilize the site of the land-disturbing activity and bring it into compliance.

34-70(d)(4)

The permit may be suspended, revoked, or modified by the county, as to all or any portion of the land affected by the plan, upon finding that the land-disturbing activity is not in compliance with the approved ESPC plan or the permit or that the holder or his successor is in violation of this article. A holder of a permit shall notify any successor as to all or any portion of the land affected by the approved plan of the conditions contained in the permit.

CERTIFICATION

I hereby certify that the information provided herein is true, correct and complete to the best of my knowledge. I further certify that I have read the stipulations in this application and that I, and/or the entity I represent, as applicable, will be subject to these stipulations if a permit is issued.

_____

Operator/Contractor (Print)

_____

Owner/Developer or Authorized Representative (Print)

_____ _____

Owner/Developer or Authorized Representative (Sign) Date

Property Owner Affidavit for
Pools, Hot Tubs and Spas
Development Services Division
630 Ronald Reagan Drive Evans, GA 30809
(706)868-3420

Property Information

Street: _____

City: _____ Zip: _____

Parcel: _____

Property Owner: _____

Phone: _____

Email: _____

I have received and read the attached section 305, Barrier Requirements, as depicted in the 2018 International Swimming Pool and Spa Code and Commentary along with the 2018 International Property Maintenance Code 303, Swimming Pools, Spas and Hot Tubs which include regulations for the structures and barriers. I understand the intent of the code is to prevent potential loss of life due to accident or drowning. I acknowledge as the property and pool owner that the barrier requirements remain in perpetuity and it is against Columbia County's ordinance to remove, replace, alter or change the barrier in a manner that reduces its effectiveness as a safety barrier.

_____

Signature of Property Owner

Subscribed and Sworn Before Me on This the _____ Day of _____, 20_____.

_____

Notary Public

along many rivers and streams shown on FIRMs. Placement of pools and spas that encroach into floodways, especially those that are on ground, partially in the ground and those that involve fill, are required to be evaluated by a qualified professional in accordance with accepted engineering practices. To be acceptable, the encroachment analysis must demonstrate that there will be no increase in the design flood elevation. Several states have more restrictive requirements, which can be determined by contacting the NFIP state coordinator (each state has an agency designated to coordinate the NFIP with communities).

[BS] 304.2.2 Pools and spas located where floodways have not been designated. Where pools and spas are located where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed pool or spa and any associated grading and filling, will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

❖ Although FEMA has mapped floodways along many rivers and streams shown on a community's FIRM, other riverine flood hazard areas have base flood elevations but do not have designated floodways. In these areas, the potential effects that floodplain activities may have on flood elevations have not been evaluated. If FEMA has not designated a regulatory floodway, the community is responsible for regulating development that encroaches into these areas so as not to increase flood elevations by more than 1 foot (305 mm) at any point in the community. In effect, this means a community must either prepare a hydraulic analysis for proposed activities or require permit applicants to do so. Encroachment analyses should be prepared by a qualified professional in accordance with accepted engineering practices. Several states have more restrictive requirements, which can be determined by contacting the NFIP state coordinator.

[BS] 304.3 Pools and spas in coastal high-hazard areas. Pools and spas installed in coastal high-hazard areas shall be designed and constructed in accordance with ASCE 24.

❖ Flood hazard areas in a coastal community include areas subject to flooding that are not expected to have high waves and usually have coastal high-hazard areas where wave heights of 3 feet (914 mm) or higher are expected above the elevation of floodwaters during the base flood (identified on FIRMs as "Zone V"). Some FIRMs also delineate areas where wave heights of 1.5 to 3 feet are expected to occur (called "Coastal A Zones"). Waves impose significant loads on structures, including pools and spas. ASCE 24 requires consideration of flood loads and requires pools to be elevated and designed to break away without producing debris capable of causing significant damage to adjacent structures or designed to remain in the ground. Alternatively, pools may be designed and constructed to remain in the ground during design flood conditions without obstructing flow that results in damage to any structure. The IBC (by reference to ASCE 24) and IRC Section R322.3.3 require pools to be structurally independent of buildings unless the buildings are designed to resist the additional imposed flood load. Additional guidance is found in FEMA TB #5.

[BS] 304.4 Protection of equipment. Equipment shall be elevated to or above the design flood elevation or be anchored to prevent flotation and protected to prevent water from entering or accumulating within the components during conditions of flooding.

❖ Equipment associated with a pool or spa, such as filters, pumps and heaters, must be installed above the design flood elevation to protect such equipment. If equipment cannot be elevated and still serve the intended function, it can be installed below the flood elevation if it is anchored and protected.

304.5 GFCI protection. Electrical equipment installed below the design flood elevation shall be supplied by branch circuits that have ground-fault circuit interrupter protection for personnel.

❖ Electrical equipment that is installed below the elevation required in ASCE 24, such as lighting, receptacle outlets and motorized pool covers, must be supplied by circuits that have ground-fault circuit-interrupter (GFCI) protection. Caution should be used to ensure that the GFCI device, whether a GFCI receptacle or GFCI breaker, is located above the elevation required in ASCE 24, as the line side of the GFCI device may remain energized even after all downstream devices have be de-energized.

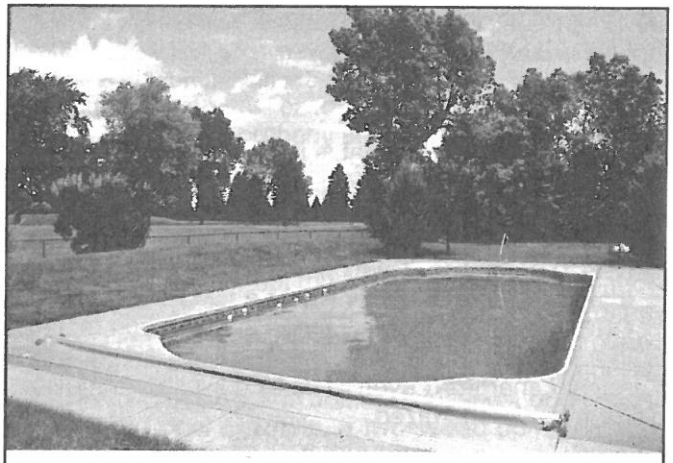
SECTION 305
BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Sections 305.2 through 305.7.

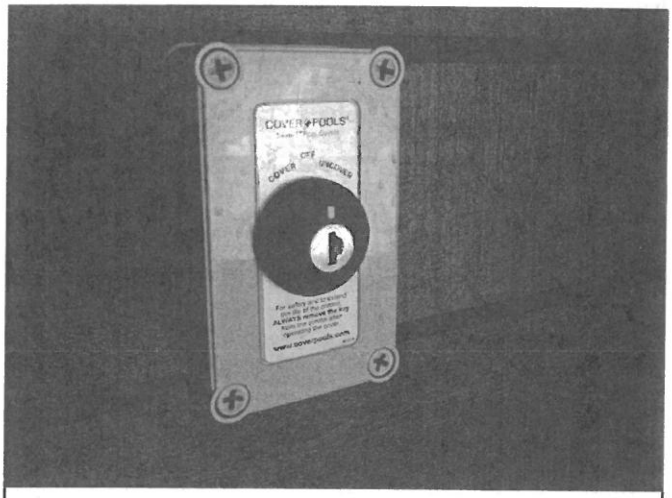
❖ Barriers around pools and spas significantly restrict unauthorized access to such pools and spas. The perimeter barrier design requirements in this section are especially focused on preventing children from having access to an area where the potential for drowning or near drowning is very high. Once children are inside the barrier perimeter, only constant adult supervision of those children can prevent drowning or near drowning. Thus, when adults choose to leave the pool and spa area, common sense dictates that all children should also leave the area and be taken outside of the perimeter barrier. Therefore, a thorough inspection of perimeter barriers is necessary, as they are the only required line of defense against drowning or near drowning of children when adults are not present.

Where spas and hot tubs are provided with lockable covers complying with ASTM F1346 and pools are provided with power safety covers complying with ASTM F1346, barriers are not required. Commentary Figures 305.1(1) and 305.1(2) show powered safety covers on residential and public swimming pools, respectively. When covers are retracted on pools or removed from spas, only constant adult supervision of a pool and spa can prevent children from drowning or near drowning. Thus, when adults choose to leave the pool or spa area, common sense dictates that children are removed from the pool or spa and the cover installed immediately. Therefore, a thorough inspection of covers, cover latching systems and cover deployment systems (and their operation) is necessary, as these covers are the only required line of defense against drowning or near drowning of children when adults are not present. Although the code is silent about the controls for electric-powered safety covers for pools, it is a reasonable assumption that care would be taken to keep the operating controls secured so only those persons responsible enough to not trap users in the pool would be operating the cover [see Commentary Figure 305.1(3)].

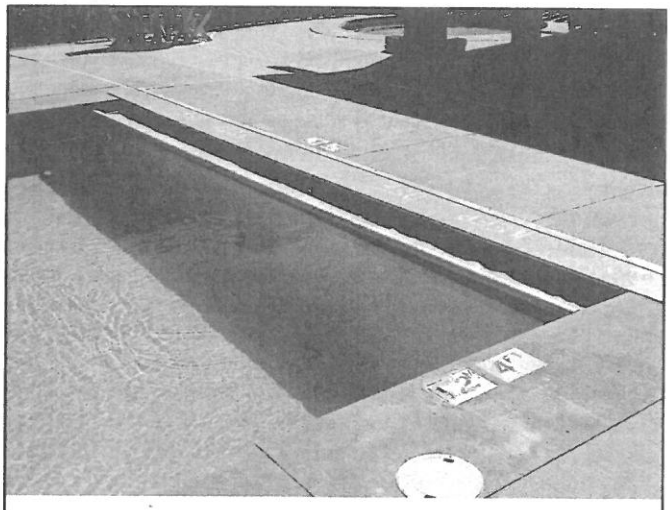
Note that a nonpowered pool cover (i.e., one that is manually installed) does not provide relief of the barrier requirement [see Commentary Figure 305.1(4)]. Even though a manual pool cover might comply with the requirements of ASTM F1346, installation of manually installed covers are time consuming and could be somewhat complicated such that they would not be used every time the pool was not in use.



Commentary Figure 305.1(1)
ON-DECK-TYPE POWERED
SAFETY COVER FOR RESIDENTIAL POOL



Commentary Figure 305.1(3)
KEY SWITCH FOR
POWERED POOL COVER OPERATION



Commentary Figure 305.1(2)
INTEGRAL-TYPE POWERED
SAFETY COVER FOR PUBLIC POOL

Commentary Figure 305.1(4)
NONPOWERED MESH COVER DOES NOT ALLOW
FOR ABSENCE OF BARRIER AROUND POOL

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7.

❖ Sections 305.2 through 305.7 cover the requirements for barriers.

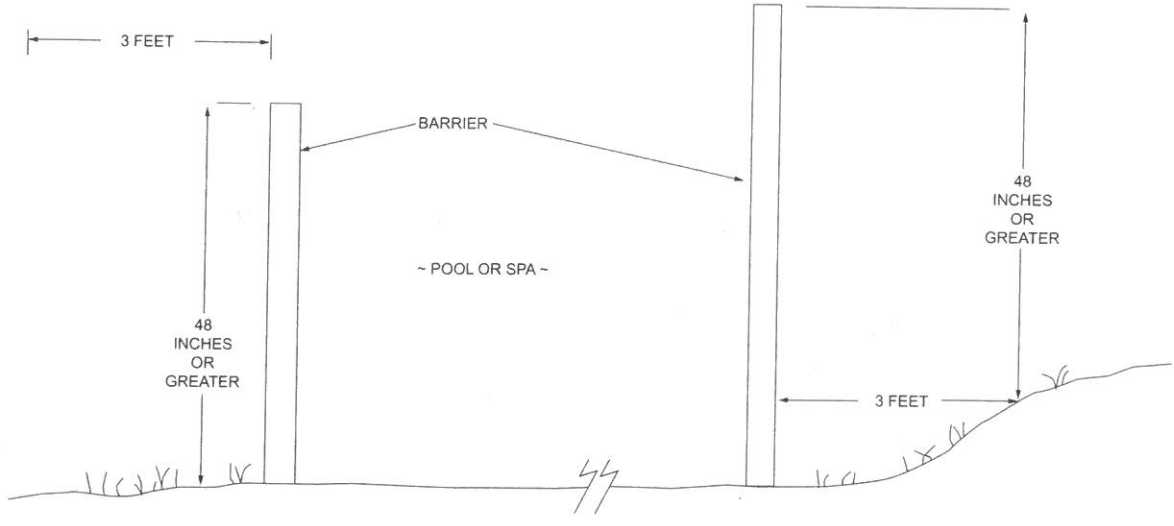
305.2.1 Barrier height and clearances. Barrier heights and clearances shall be in accordance with all of the following:

1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.
2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.
4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).

❖ The barrier height of 48 inches (1219 mm) ensures that smaller children cannot simply hop the fence to gain access to the pool or spa. Those persons who are capable of climbing over a 48-inch-high (1219 mm) barrier are probably of sufficient maturity to avoid the pool if they cannot swim or are uncomfortable with the idea of entering the water of a spa. The height is measured on the outside of the barrier from the highest elevation of grade or concrete slab for a distance of 3 feet (914 mm) away from the outside of the barrier [see Commentary Figure 305.2.1(1)]. This requirement coordinates with Section 305.2.9, which requires a clear zone of 36 inches (914 mm) around the outside of the barrier.

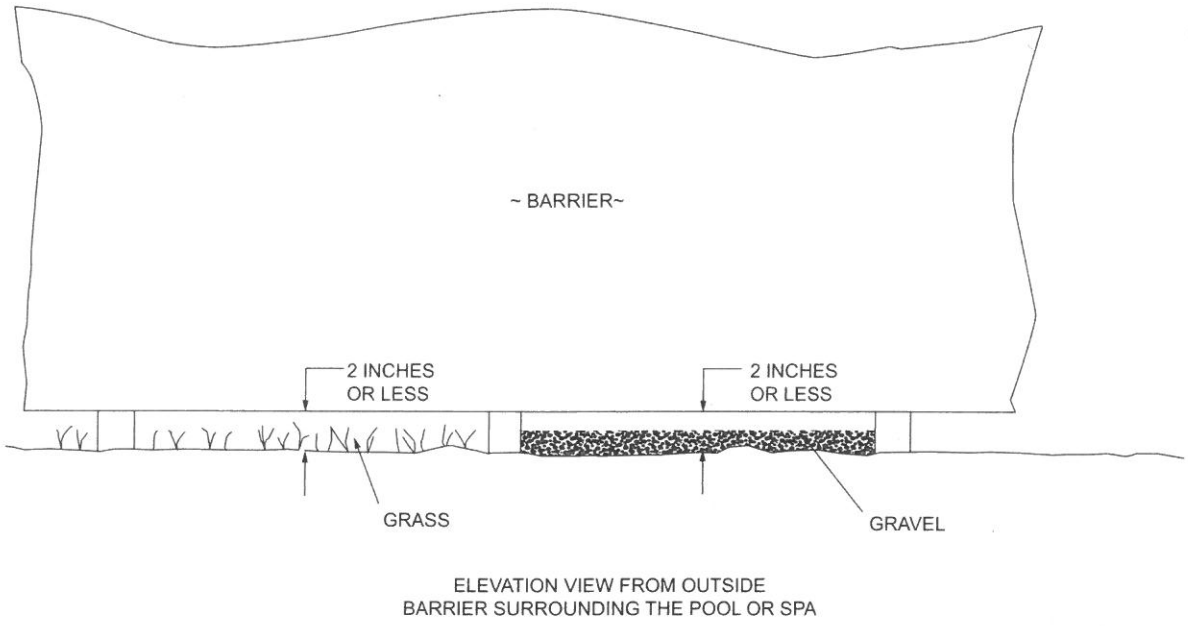
Barriers that are not close to the ground could be bypassed by a child maneuvering under the barrier. Where over grass or gravel, the bottom of the barrier must be within 2 inches (51 mm) of the ground surface from which the grass grows from or onto which the gravel is placed. It is unlikely that a child would be able to dig out more than 2 inches (51 mm) of settled, naturally compacted earth in order to make an opening large enough to gain access to the pool or spa. If the bottom of the barrier is over concrete, the bottom must be within 4 inches (102 mm) of the concrete surface to prevent a child from maneuvering through the opening to gain access to the pool or spa [see Commentary Figures 305.2.1(2) and (3)].

The top of a pool or spa could be above grade. The barrier for this arrangement could be installed at grade or the barrier could be installed on top of the pool or spa [see Commentary Figure 305.2.1(4)]. Where mounted on top of the pool or spa, the vertical clearance from the top of the pool or spa to the underside of the barrier cannot exceed 4 inches (102 mm) [see Commentary Figure 305.2.1(5)] to prevent a child from maneuvering through the opening to gain access to the pool or spa.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

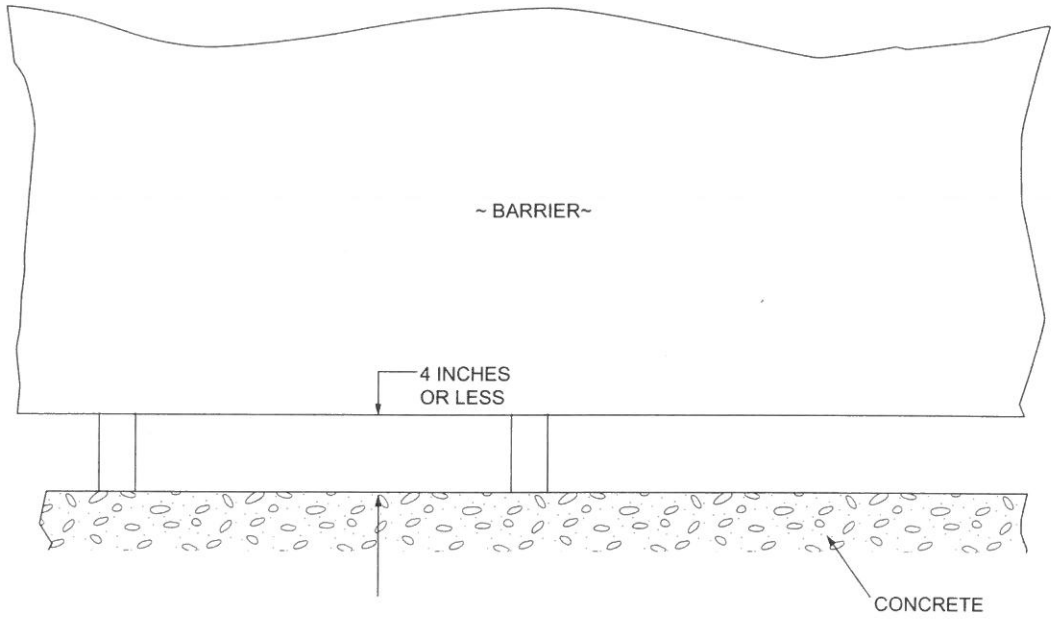
Commentary Figure 305.2.1(1)
HEIGHT OF BARRIER ABOVE GRADE



ELEVATION VIEW FROM OUTSIDE
BARRIER SURROUNDING THE POOL OR SPA

For SI: 1 inch = 25.4 mm.

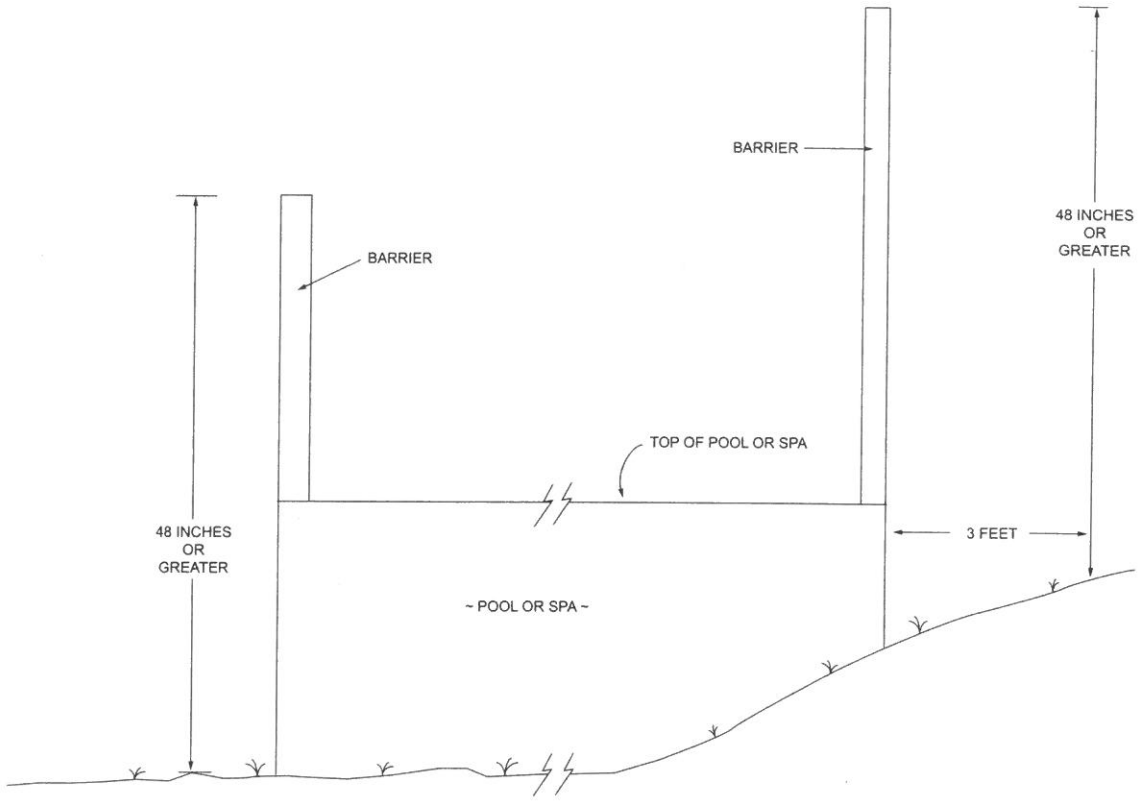
Commentary Figure 305.2.1(2)
MAXIMUM CLEARANCE FROM BOTTOM OF BARRIER TO GRADE



ELEVATION VIEW FROM OUTSIDE
OF BARRIER SURROUNDING THE POOL OR SPA

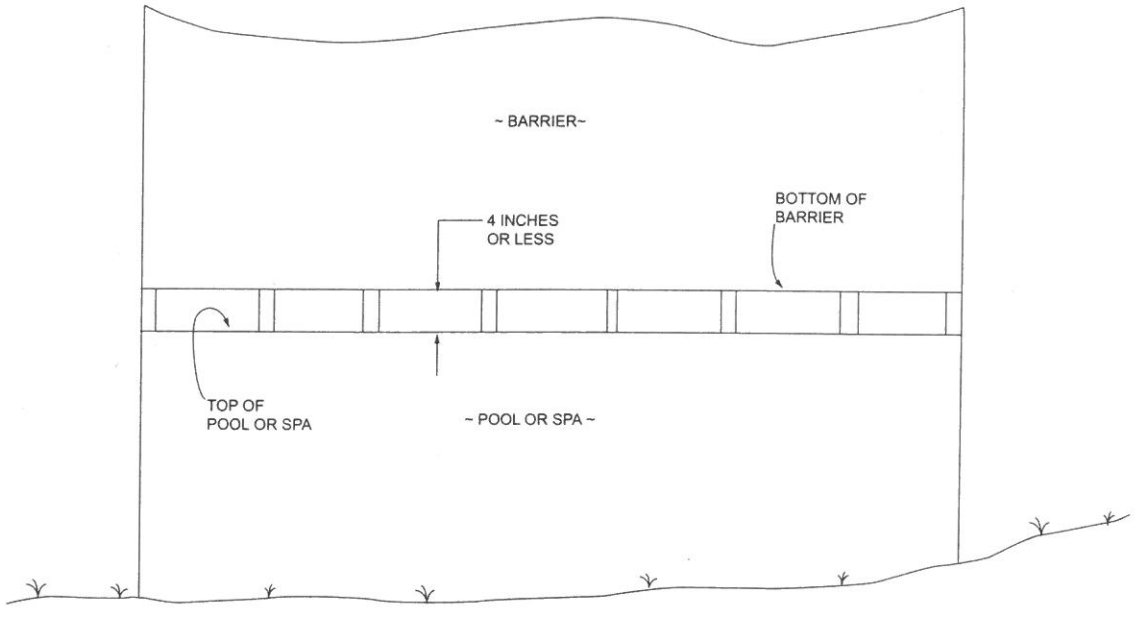
For SI: 1 inch = 25.4 mm.

Commentary Figure 305.2.1(3)
MAXIMUM CLEARANCE FROM BOTTOM OF BARRIER TO SOLID SURFACE



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Commentary Figure 305.2.1(4)
HEIGHT OF BARRIER WHERE MOUNTED ON TOP OF THE POOL OR SPA



Commentary Figure 305.2.1(5)
MAXIMUM CLEARANCE FROM BOTTOM OF BARRIER TO TOP OF THE POOL OR SPA WHERE BARRIER IS MOUNTED ON TOP OF THE POOL OR SPA

305.2.2 Openings. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

❖ The 4-inch (102 mm) opening is narrow enough to prevent passage of a small child through the barrier (see Commentary Figure 305.2.2).

305.2.3 Solid barrier surfaces. Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.

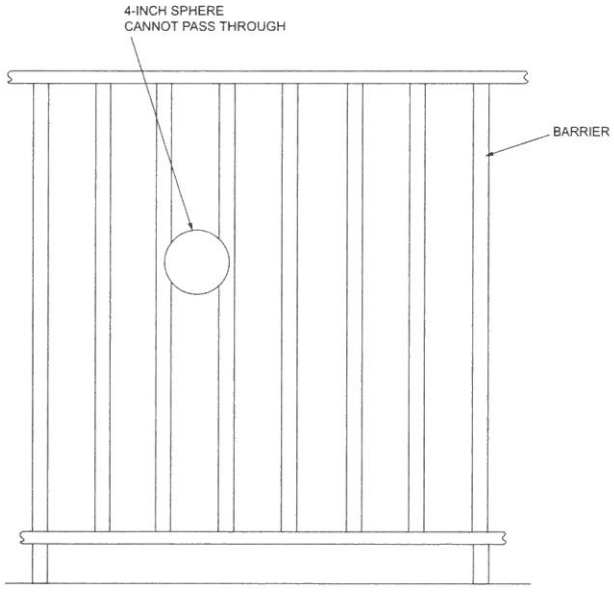
❖ An important characteristic of a barrier is that the exterior vertical face not offer any protrusions or indentations such that a toehold or handhold could assist in the climbing of the barrier.

305.2.4 Mesh fence as a barrier. Mesh fences, other than chain link fences in accordance with Section 305.2.7, shall be installed in accordance with the manufacturer's instructions and shall comply with the following:

1. The bottom of the mesh fence shall be not more than 1 inch (25 mm) above the deck or installed surface or grade.
2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches (102 mm) from grade or decking.
3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall be not greater than 4 inches (102 mm) from grade or decking.
4. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eye-type latch incorporating a spring-actuated retaining lever such as a safety gate hook.
5. Where a hinged gate is used with a mesh fence, the gate shall comply with Section 305.3.
6. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.
7. Mesh fences shall not be installed on top of onground *residential* pools.

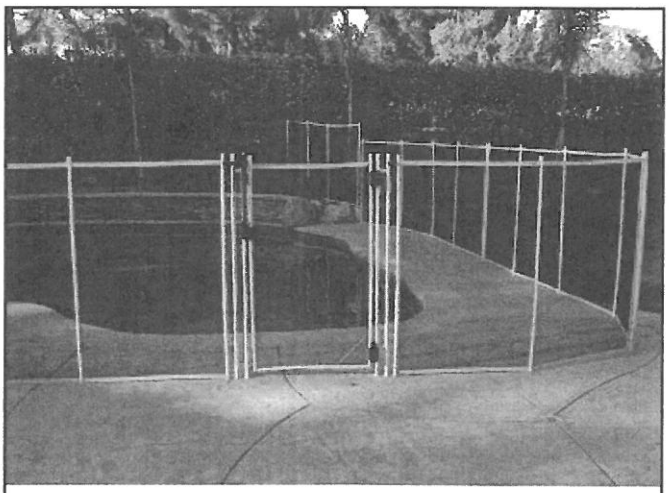
❖ Mesh fences provide a removable barrier for a pool or spa. For example, consider a pool with a permanent barrier on three sides and the fourth side is bounded by a building. During times when the pool is not in use, a mesh barrier could be erected between the pool and the building so that the space between the building and the mesh fence could be used without concern that the pool could be easily accessed by children. The bottom of the mesh barrier (fence) must not be able to be lifted more than 4 inches (102 mm) above the pool deck so that a child cannot crawl under the barrier. The attachment devices between mesh barrier sections and the posts must be not less than 45 inches (1142 mm) above the deck so that they are out of reach of small children. The attachment devices must offer the same difficulty to disengage as a spring-loaded hook and eye latch. Gates with mesh fences must comply with gate requirements in Section 305.3.

Mesh fences must not be used on top of onground residential pools because mesh fencing cannot resist the forces of an adult falling against it. An adult could topple off the deck of an above-ground pool and onto the ground below (see Commentary Figure 305.2.4).



For SI: 1 inch = 25.4 mm.

Commentary Figure 305.2.2
FOUR-INCH SPHERE CANNOT PASS THROUGH BARRIER OPENINGS



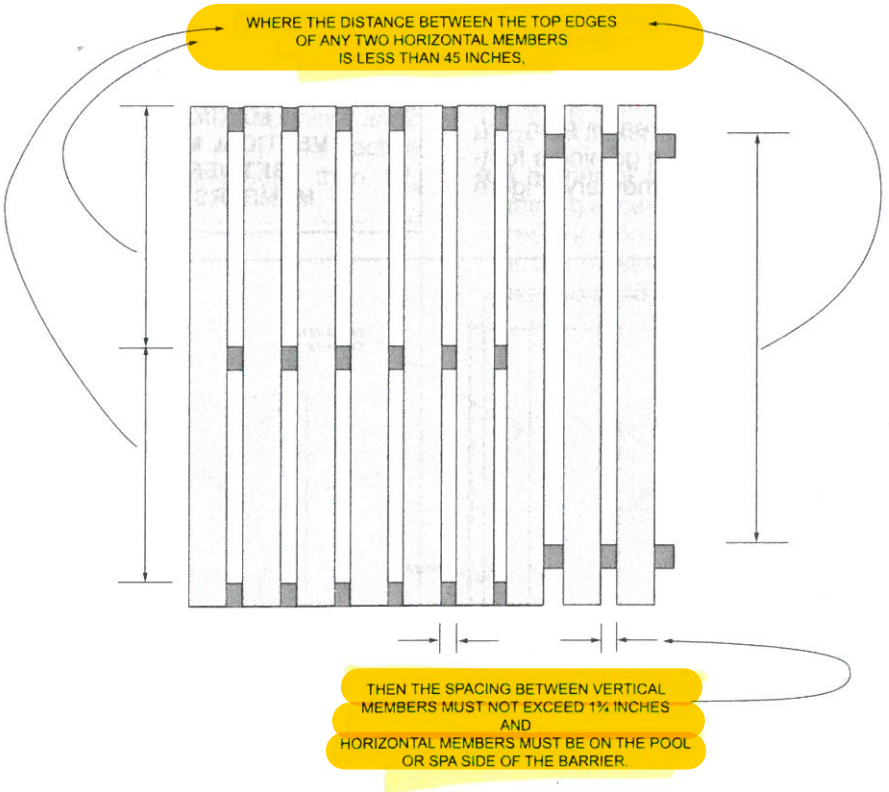
Commentary Figure 305.2.4
MESH FENCE AS A STRUCTURE-TO-POOL BARRIER

305.2.5 Closely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed $1^3/_4$ inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed $1^3/_4$ inches (44 mm) in width.

❖ Conventional fencing that is not chain link fence is typically constructed with horizontal rails attached to vertical posts. Vertical pickets are fastened to the horizontal rails to complete the barrier. If the distance between the top surface of the horizontal rails is less than 45 inches (1143 mm), such spacing could allow a child to climb up and over the barrier. Therefore, these closely spaced rails must be located on the pool or spa side of the barrier so that a child on the outside of the barrier cannot climb over it. Where closely spaced rails exist and are exposed between vertical members on the exterior of the fence, the gap between vertical pickets must not be more than $1^3/_4$ inches (44 mm) wide so that a child cannot wedge his or her foot in the gap and gain a handhold on the top closely spaced horizontal member in order to scale the fence [see Commentary Figure 305.2.5(1)]. Any decorative cutouts in the pickets must not have an opening greater than $1^3/_4$ inches (44 mm) for the same reason [see Commentary Figure 305.2.5(2)].

There are welded metal wire mesh products and flexible "on a roll" plastic fence products that "technically comply" with the dimensional requirements of this section. However, this section was written with typical wood or rigid vinyl fence construction in mind. Consider a wood fence with 4-inch by 4-inch vertical posts with two 2-inch by 4-inch horizontal rails (one near the top, one near the bottom of the fence) with $^3/_4$-inch-thick vertical pickets (4 to 6 inches wide) horizontally spaced apart not more than about the thickness of 2-inch (nominal) material. Such construction has "thickness of its vertical members," making it difficult to climb. For example, reaching between the pickets to grab onto a 2-inch by 4-inch horizontal rail will be difficult. Similarly, wedging the toe of a shoe between the (thick) pickets to get a toe-hold onto the horizontal rail will be difficult. And generally, such a fence would not be constructed with many closely spaced horizontal rails as it would be too costly and structurally unnecessary.

Do these metal or plastic mesh products with horizontal "members" every 4 inches or closer (but with the width between vertical "members" less than $1^3/_4$



For SI: 1 inch = 25.4 mm.

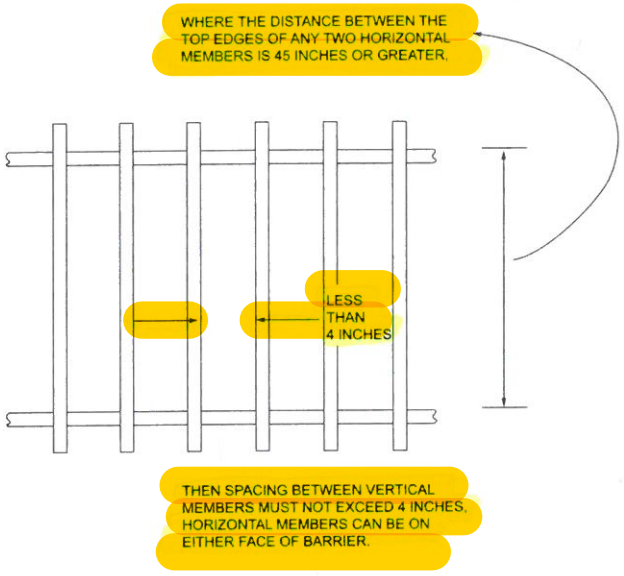
Commentary Figure 305.2.5(1)
MAXIMUM SPACING BETWEEN VERTICAL MEMBERS WHERE DISTANCE BETWEEN TOP OF HORIZONTAL MEMBERS IS LESS THAN 45 INCHES

inches) offer an equivalent resistance to climbing by children? Does such a product offer a similar rigidity and ruggedness to a fence constructed of wood members given that the code does not specify a distance between vertical posts? There are situations where, for public safety, a code official might have to make a decision about items that are not specifically covered by the code. Section 102.8 provides support to the code official in these instances.

305.2.6 Widely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed $1^3/_4$ inches (44 mm).

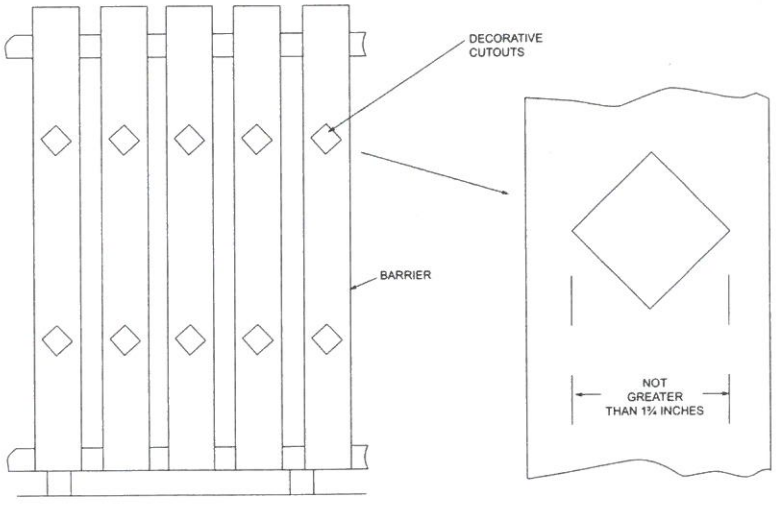
❖ Conventional fencing that is not chain link fencing is typically constructed with horizontal rails attached to vertical posts. Vertical pickets are fastened to the horizontal rails to complete the barrier. If the distance between the top surface of the horizontal rails is greater than or equal to 45 inches (1143 mm), such spacing poses a climbing difficulty for children. Therefore, these widely spaced rails could be located on either side of the fence. Because there is not a reachable horizontal top member to gain a handhold, the vertical pickets could be spaced as far as 4 inches apart [see Commentary Figure 305.2.6(1)]. However, note that Section 305.2.2 requires that openings in the barrier must not allow the passage of a 4-inch (102 mm) sphere. Any decorative cutouts in the pickets must not have an opening that is greater than $1^3/_4$ inches (44 mm) to prevent a child from gaining a foothold to scale the fence [see Commentary Figure 305.2.5(2)].

Commentary Figure 305.2.6(2) shows a barrier. The fence is known to be 4 feet (1219 mm) high. It is obvious that the distance between the horizontal rails is less than 45 inches (1143 mm) and the vertical pickets spaced wider than 1.75 inches (44 mm). Thus, this fence is a violation because the horizontal members are not at least 45 inches (1143 mm) apart.



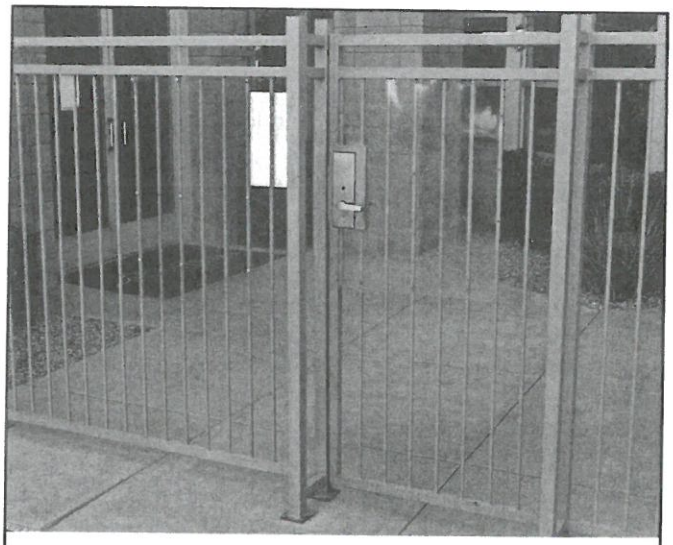
For SI: 1 inch = 25.4 mm.

Commentary Figure 305.2.6(1)
MAXIMUM SPACING BETWEEN VERTICAL MEMBERS WHERE DISTANCE BETWEEN TOPS OF HORIZONTAL MEMBERS IS 45 INCHES OR GREATER



For SI: 1 inch = 25.4 mm.

Commentary Figure 305.2.5(2)
MAXIMUM OPENING WIDTH OF DECORATIVE CUTOUTS IN BARRIER MATERIALS

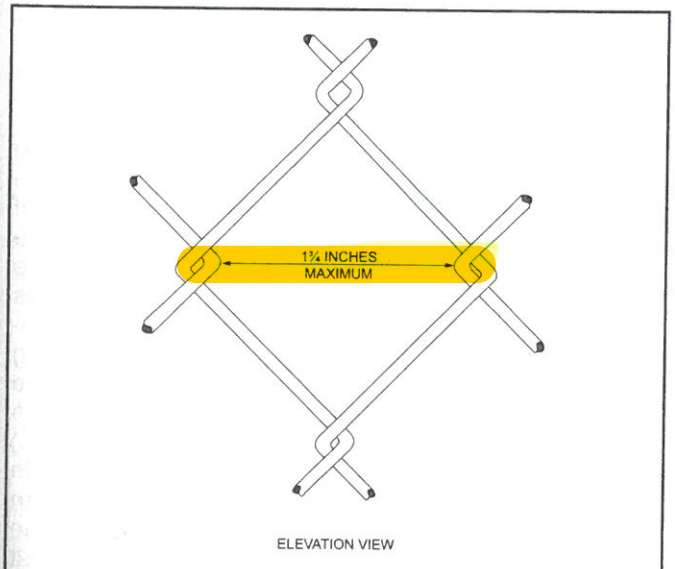


Commentary Figure 305.2.6(2)
VIOLATION—BARRIER (FENCE) HORIZONTAL MEMBERS TOO CLOSE

305.2.7 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than $1^3/_4$ inches (44 mm). Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall be not greater than $1^3/_4$ inches (44 mm).

❖ Chain link fencing has diamond-shaped or square openings. The most common sizes of chain link openings (measured between parallel sides of the opening) are 2 inches (51 mm) and $2^1/_4$ inches (57 mm). This section requires that the openings be not greater than $1^3/_4$ inches (44 mm) so that a child cannot wedge his or her foot in the opening in order to climb the fence (see Commentary Figure 305.2.7). Two-inch (51 mm) and $2^1/_4$-inch (57 mm) chain link fence must have the openings reduced in size by the installation of slats (sometimes called privacy slats) vertically or diagonally. Where slats are used, they must be attached to the top and bottom of the fence so that they cannot be removed for gaining a hand- or foothold on the fence. The slats must be of a width that reduces the openings to less than $1^3/_4$ inches (44 mm).

Chain link fencing is also available in $1^1/_4$-inch (32 mm) size (mesh). The resulting diagonal opening is $1^3/_4$ inches (44 mm). Therefore, slats would not be required for this size of chain link fence.



For SI: 1 inch = 25.4 mm.

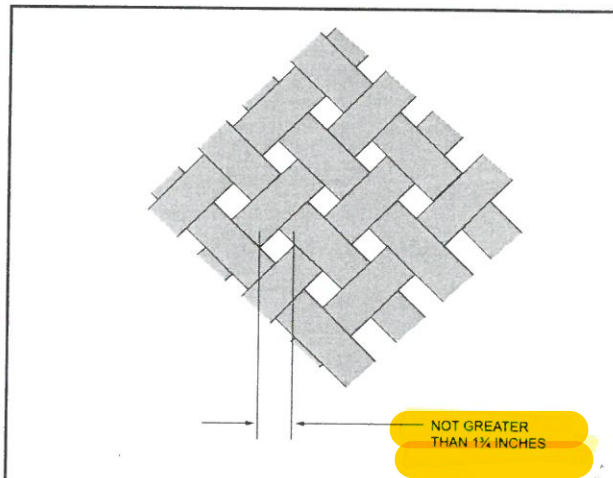
Commentary Figure 305.2.7
MAXIMUM OPENING WIDTH IN BARRIERS BUILT WITH CHAIN LINK FENCING

305.2.8 Diagonal members. Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not greater than $1^3/_4$ inches (44 mm). The angle of diagonal members shall be not greater than 45 degrees (0.79 rad) from vertical.

❖ Some barrier designs use diagonal members (latticework) as part of the barrier. Where diagonal members are installed, the angle cannot be more than 45 degrees (0.79 rad) from vertical and the opening created by the diagonal members cannot be greater than $1^3/_4$ inches (44 mm) so a child cannot wedge a foot in the opening to climb the barrier (see Commentary Figure 305.2.8).

305.2.9 Clear zone. There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.

❖ A barrier of any height is not much of a deterrent to gaining access to the pool or spa if there is equipment, trees or storage boxes that are within 3 feet (914 mm) of the outside of the barrier. These items could be used to assist someone in climbing over the barrier.



For SI: 1 inch = 25.4 mm.

Commentary Figure 305.2.8
MAXIMUM OPENING WIDTH IN BARRIERS BUILT WITH DIAGONAL MEMBERS

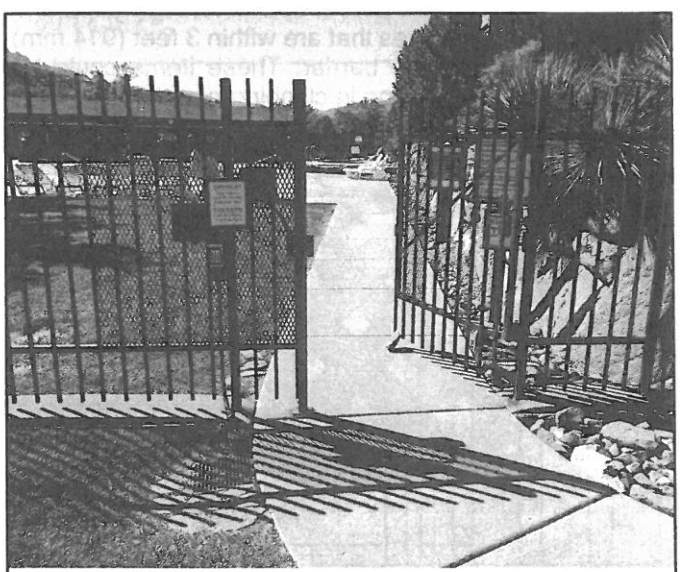
305.2.10 Poolside barrier setbacks. The pool or spa side of the required barrier shall be not less than 20 inches (508 mm) from the water's edge.

❖ Barriers must not be installed so close to the pool or spa such that if a child did manage to climb over the barrier, he or she would not immediately fall into the water.

305.3 Gates. Access gates shall comply with the requirements of Sections 305.3.1 through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.

❖ There can be two types of gates in a barrier: a service access gate, which is required by Section 305.3.1 to be secured by a lock, and a pedestrian gate for user access to the pool or spa. This section requires that pedestrian gates open outward, self-close and self-latch so that the barrier is continuous all around the pool or spa after a user passes through the gate. The code is not specific as to the conditions whereby the gate must be self-closing and self-latching. Wind, degree of opening and instability of the barriers and gate could affect the closing and latching of the gate. The code official will have to use his or her best judgment concerning this section. Commentary Figure 305.3 shows a pedestrian access gate that swings in the wrong direction.

Some code officials might consider an outdoor public pool and spa area a location where "means of egress," as defined by the IBC, applies. Section 1010 of the IBC pertaining to doors and gates has requirements for self-closing and self-latching doors (of which the IBC considers gates as doors).



Commentary Figure 305.3
VIOLATION—WRONG SWING DIRECTION ON PEDESTRIAN ACCESS GATE

305.3.1 Utility or service gates. Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.

❖ This section requires that service gates be locked when not in use.

305.3.2 Double or multiple gates. Double gates or multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than $^1/_2$ inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.3.

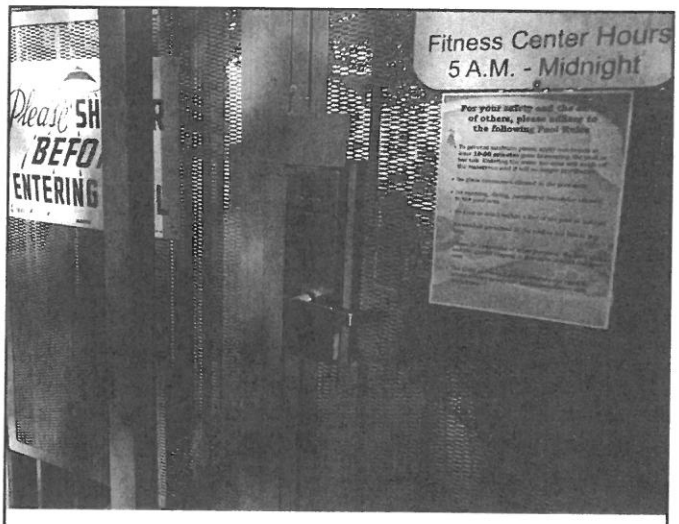
❖ In some cases, gates could be installed with several movable (swinging) sections. One swinging section must be provided with a self-latching device that is located on the pool or spa side of the gate. The other portions of the gate must be secured so that they are normally stationary. For example, the normally stationary side of the gate might be prevented from swinging by a sliding rod mounted on the gate that can penetrate into a hole in the deck or walkway. The latch on the other gate must be of the self-latching type and must be on the pool or spa side of the gate. The inside release mechanism must be protected against tampering from the outside of the gate by providing a solid panel or mesh with openings of not greater than $^1/_2$ inch (12.7 mm). The panel or small opening mesh must extend not less than 18 inches (457 mm) in all directions (except not beyond the top of the required gate height) of the inside latch-release mechanism (see commentary, Section 305.3.3).

305.3.3 Latches. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from grade, the release mechanism shall be located on the pool or spa side of the gate not less than 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than $^1/_2$ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

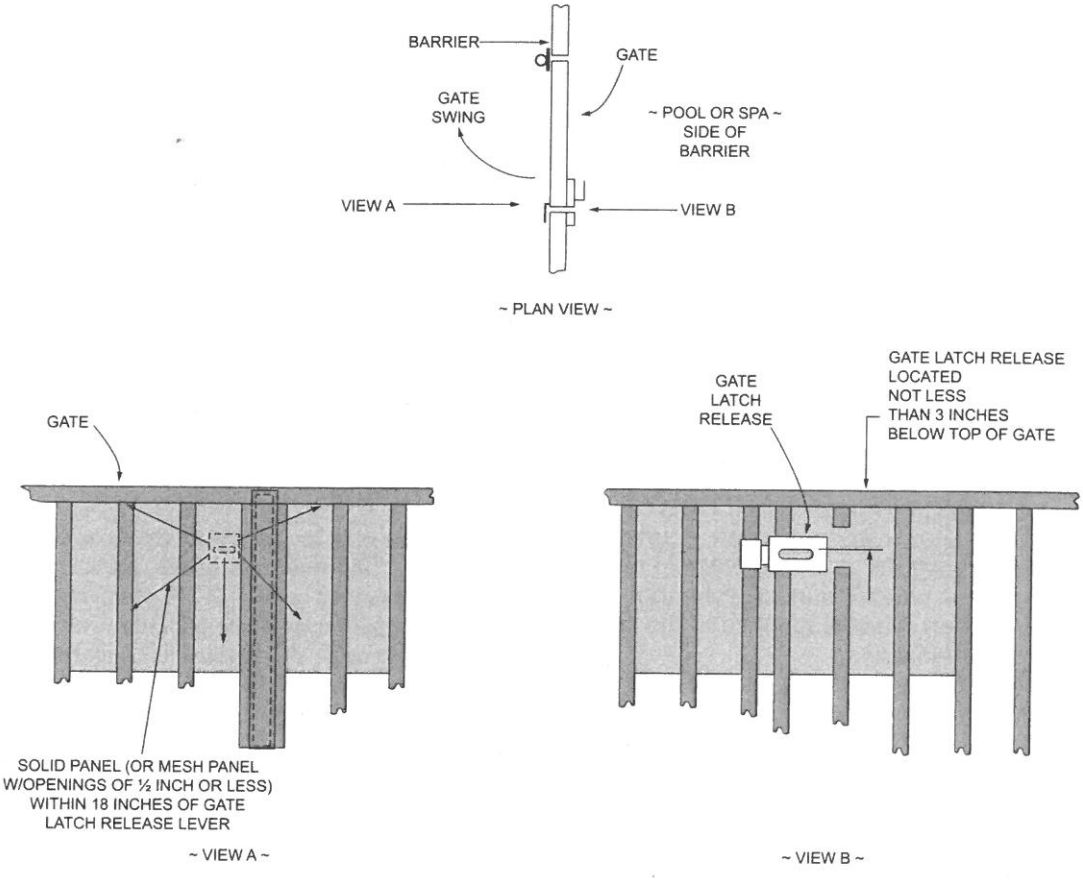
❖ This section requires that the gate's latch-release mechanism on the nonpool or spa side of the gate be not less than 54 inches (1372 mm) above grade or, if less than 54 inches (1372 mm), then the release mechanism must be on the pool or spa side of the gate. Placing the release mechanism at 54 inches (1372 mm) puts the release out of reach of small children. But there may be aesthetic reasons for having the latch at less than 54 inches (1372 mm) above grade. Where located on the pool or spa side of the gate, the latch must be not less than 3 inches (76 mm) below the top of the gate. This allows for adults outside of the gate to reach the release but prevents children outside the gate from reaching the latch release. The inside (backside of the gate) release mechanism must be protected against tampering from the outside of the gate by providing a solid panel or mesh with openings of not greater than $^1/_2$ inch (12.7 mm). The panel or small opening mesh must extend not less than 18

inches (457 mm) in all directions of the inside latch-release mechanism [see Commentary Figure 305.3.3(1)].

This section reflects the "traditional approach" for latch-release mechanisms on pedestrian access gates to pool and spa areas. Although suitable for most residential (as defined by this code) pool and spa access gates, this approach might not coordinate with designs for accessibility and controlled access needs in a public environment. For example, a latch-release on the inside (backside) of the gate or at a 54-inch height above the walking surface on either side of a gate is out of the reach range for persons seated in a wheelchair. Key card or key entry might also be necessary to control when the pool or spa can be used and who can use the pool or spa [see Commentary Figure 305.3.3(2)]. Therefore, the designer of the barrier system and pedestrian access gate for a public environment will need to assess each gate arrangement against all code requirements and the needs of the client in order to propose an alternative method to the code official for compliance to this section (see Section 104.11).



Commentary Figure 305.3.3(2)
KEY CARD ENTRY ON GATE TO POOL AND SPA AREA MIGHT REQUIRE ALTERNATIVE METHOD APPROVAL



For SI: 1 inch = 25.4 mm.

Commentary Figure 305.3.3(1)
LOCATION AND PROTECTION OF BARRIER GATE LATCH RELEASE WHERE LOCATED AT LESS THAN 54 INCHES ABOVE WALKING SURFACE

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor and doors shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and *labeled* as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
2. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
3. An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

❖ A building wall can serve as part of the barrier. Where that building wall has openings such as doors or operable windows, those openings can provide access to the pool or spa by a child. If the wall has only operable windows and those windowsill heights are 48 inches (1219 mm) or more above the inside floor of the structure, then the wall provides a level of protection similar to a 48-inch-high (1219 mm) barrier. Although furniture could be placed against that wall that could aid in a child gaining access to the window, the code official can only be concerned about the height of the window above what is considered to be a permanent and "normal" walking surface. The code official doesn't have any control over the placement of furniture in a building. Walking surfaces would include, for example, permanent stairs and landings intersecting walls having operable windows. However, a kitchen countertop with windows just above the countertop would not be considered a "normal" walking surface even though a child might use kitchen drawers to climb to the countertop to access the window.

If the operable windowsill heights are lower than 48 inches (1219 mm) above the floor, either screen or window alarms listed and labeled to UL 2017 must be installed; or a safety cover listed and labeled to ASTM F1346 must be provided for the pool or spa [see Commentary Figure 305.4(1)].

Where there is a door in the wall, either a door alarm listed and labeled to UL 2017 must be installed; or a safety cover listed and labeled to ASTM F1346 must be provided for the pool or spa. A third option for a door could be to provide a self-closing and self-latching door with a latch-release mechanism that is not less than 54 inches (1372 mm) above the floor, but this option requires approval by the code official.

Where a door or window alarm is installed, the deactivation switches must be not less than 54 inches (1372 mm) above the floor [see Commentary Figure 305.4(2)]. This height corresponds to the same height required for latch-release mechanisms for gates in Section 305.3.3. Where the structure is required to be an Accessible unit, a Type A accessible unit or a Type B accessible unit, the deactivation switch height can be reduced to 48 inches (1219 mm) above the floor to be within upper reach range of persons seated in a wheelchair. Accessible units, Type A accessible units and Type B accessible units are defined in the IBC.

Note that Item 2 does not specify that pools are required to have a powered safety cover in compliance with ASTM F1346. A manual safety cover is the minimum requirement. This is in contrast to Section 305.1, which does not require a barrier where specific powered safety covers are used. If there is a barrier around the pool (perhaps a structure forms part of that barrier) or the pool has a powered safety cover, then the public at large has restricted access to the pool. Requiring a safety cover (manual type as a minimum) for relief of the alarm requirement for doors and windows for a structure serving as part of the barrier is more for the safety of the children in the structure. It is then a personal decision by the occupant as to whether they will install the safety cover to protect their children. The code intends that the means for safety be provided to the occupant—the code official cannot make the occupant use those means. Commentary Figure 305.1(4) shows a manual installed safety cover (however, it is unknown whether what is shown meets ASTM F1346). Note the barrier (fence) in the background on the left of the photo.

305.5 Onground residential pool structure as a barrier. An onground *residential* pool wall structure or a barrier mounted on top of an onground *residential* pool wall structure shall serve as a barrier where all of the following conditions are present:

1. Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, the wall complies with the requirements of Section 305.2 and the pool manufacturer allows the wall to serve as a barrier.
2. Where a barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, and the wall and the barrier on top of the wall comply with the requirements of Section 305.2.
3. Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section 305.

4. Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4-inch (102 mm) diameter sphere.
5. Barriers that are mounted on top of onground *residential* pool walls are installed in accordance with the pool manufacturer's instructions.

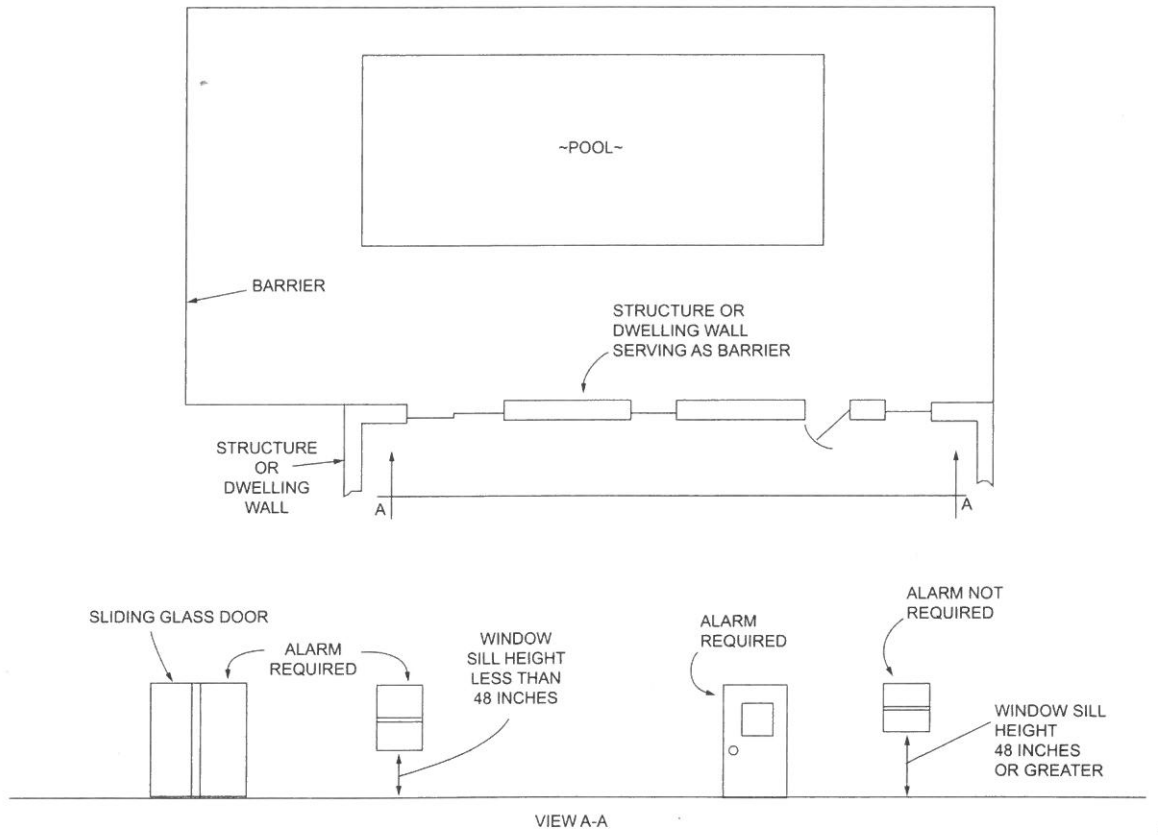
❖ Onground pools that have the top of the structure at 48 inches (1219 mm) or more above grade around the entire perimeter can serve as their own barrier from entry to the vessel. In order to serve as the barrier, all the requirements of Section 305.2 must be met; for example, a clear zone of 36 inches (914 mm) around the vessel and the outside of the pool wall cannot be climbable by children. Because the pool is above ground, a stairway or ladder is needed to access the vessel. Such ladders or stairways must be either removable or locked in some manner so that children cannot access the vessel. Any resulting opening from the removal or securing of a stairway must not leave openings where a 4-inch sphere (102 mm) will pass through. Barriers for stairways are provided by the manufacturer of the stairway, so the installation of such barriers must be in accordance with the manufacturer's instructions.

305.6 Natural barriers. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge not less than 18 inches (457 mm), a barrier is not required between the natural body of water shoreline and the pool or spa.

❖ Although natural bodies of water are not a barrier, they can restrict access to pools and spas by a child simply because he or she would have to navigate through not less than 18 inches (457 mm) depth of the natural body of water before reaching the pool or spa. If the child is successful, there is a low probably that he or she will have difficulty in the pool and spa water.

305.7 Natural topography. Natural topography that prevents direct access to the pool or spa area shall include but not be limited to mountains and natural rock formations. A natural barrier approved by the governing body shall be acceptable provided that the degree of protection is not less than the protection afforded by the requirements of Sections 305.2 through 305.5.

❖ Natural topography could present significant difficulty for children to access the pool and spa. For example,



For SI: 1 inch = 25.4 mm.

Commentary Figure 305.4(1)
STRUCTURE OR DWELLING WALL SERVING AS A BARRIER TO A POOL OR SPA

a pool or spa area that is adjacent to a steep and rocky hillside might be too treacherous for anyone to traverse, let alone a child. However, the code official must approve such arrangements to allow elimination of a barrier or portion thereof.

SECTION 306
DECKS

306.1 General. The structural design and installation of decks around pools and spas shall be in accordance with the *International Residential Code* or the *International Building Code*, as applicable in accordance with Section 102.7 and this section.

❖ The structural design and construction of decks around pools and spas must follow the requirements of the IBC or IRC, as applicable, and the requirements of this section.

306.2 Slip resistant. Decks, ramps, coping, and similar step surfaces shall be slip resistant and cleanable. Special features in or on decks such as markers, brand insignias, and similar materials shall be slip resistant.

❖ The presence of water on a walking surface significantly increases the slip potential. Special attention must be given to markers and insignias to make sure that they do not present an increased slip hazard.

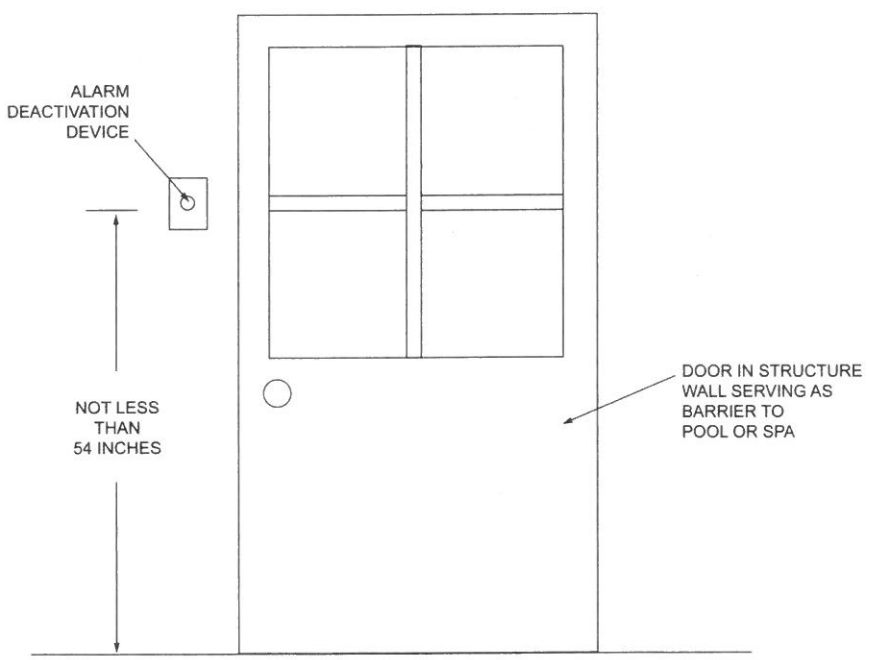
306.3 Step risers and treads. Step risers for decks of public pools and spas shall be uniform and have a height not less than $3^3/_4$ inches (95 mm) and not greater than $7^1/_2$ inches (191 mm). The tread distance from front to back shall be not less than 11 inches (279 mm). Step risers for decks of *residential* pools and spas shall be uniform and shall have a height not exceeding $7^1/_2$ inches (191 mm). The tread distance from front to back shall be not less than 10 inches (254 mm).

❖ Step riser heights and tread depths are slightly different for decks associated with pools and spas, depending on whether they are associated with the IBC or the IRC.

306.4 Deck steps handrail required. Public pool and spa deck steps having three or more risers shall be provided with a handrail.

❖ For three or more steps associated with a pool or spa deck for a public pool or public spa, a handrail is needed. There is not a similar requirement for steps associated with pool or spa decks for residential pools or spas, noting the definition of "residential" in Chapter 2. Note that the IRC does require handrails for stairways with four or more risers where the stairway is part of the means of egress for an IRC building (see IRC Section 311). However, not all exterior doors (such as a sliding patio door) of an IRC building are intended to be means of egress doors.

306.5 Slope. The minimum slope of decks shall be in accordance with Table 306.5 except where an alternative drainage method is provided that prevents the accumulation or pooling of water. The slope for decks, other than wood decks, shall be not greater than $^1/_2$ inch per foot (1 mm per 24 mm) except for ramps. The slope for wood and wood/plastic composite decks



For SI: 1 inch = 25.4 mm.

Commentary Figure 305.4(2)
ALARM DEACTIVATION DEVICE LOCATION FOR OPENING IN STRUCTURE OR DWELLING WALL SERVING AS BARRIER TO A POOL OR SPA

302.9 Defacement of property. A person shall not willfully or wantonly damage, mutilate or deface any exterior surface of any structure or building on any private or public property by placing thereon any marking, carving or graffiti.

It shall be the responsibility of the *owner* to restore said surface to an *approved* state of maintenance and repair.

SECTION 303
SWIMMING POOLS, SPAS AND HOT TUBS

303.1 Swimming pools. Swimming pools shall be maintained in a clean and sanitary condition, and in good repair.

303.2 Enclosures. Private swimming pools, hot tubs and spas, containing water more than 24 inches (610 mm) in depth shall be completely surrounded by a fence or barrier not less than 48 inches (1219 mm) in height above the finished ground level measured on the side of the barrier away from the pool. Gates and doors in such barriers shall be self-closing and self-latching. Where the self-latching device is less than 54 inches (1372 mm) above the bottom of the gate, the release mechanism shall be located on the pool side of the gate. Self-closing and self-latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6 inches (152 mm) from the gatepost. An existing pool enclosure shall not be removed, replaced or changed in a manner that reduces its effectiveness as a safety barrier.

Exception: Spas or hot tubs with a safety cover that complies with ASTM F1346 shall be exempt from the provisions of this section.

SECTION 304
EXTERIOR STRUCTURE

304.1 General. The exterior of a structure shall be maintained in good repair, structurally sound and sanitary so as not to pose a threat to the public health, safety or welfare.

304.1.1 Unsafe conditions. The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the *International Building Code* or the *International Existing Building Code* as required for existing buildings:

1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength.
2. The *anchorage* of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects.
3. Structures or components thereof that have reached their limit state.
4. Siding and masonry joints including joints between the building envelope and the perimeter of windows, doors and skylights are not maintained, weather resistant or water tight.
5. Structural members that have evidence of *deterioration* or that are not capable of safely supporting all nominal loads and load effects.
6. Foundation systems that are not firmly supported by footings, are not plumb and free from open cracks and breaks, are not properly *anchored* or are not capable of supporting all nominal loads and resisting all load effects.
7. Exterior walls that are not *anchored* to supporting and supported elements or are not plumb and free of holes, cracks or breaks and loose or rotting materials, are not properly *anchored* or are not capable of supporting all nominal loads and resisting all load effects.
8. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of *deterioration*, fatigue or without proper anchorage and incapable of supporting all nominal loads and resisting all load effects.
9. Flooring and flooring components with defects that affect serviceability or flooring components that show signs of *deterioration* or fatigue, are not properly *anchored* or are incapable of supporting all nominal loads and resisting all load effects.
10. Veneer, cornices, belt courses, corbels, trim, wall facings and similar decorative features not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects.
11. Overhang extensions or projections including, but not limited to, trash chutes, canopies, marquees, signs, awnings, fire escapes, standpipes and exhaust ducts not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects.
12. Exterior stairs, decks, porches, balconies and all similar appurtenances attached thereto, including *guards* and handrails, are not structurally sound, not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects.
13. Chimneys, cooling towers, smokestacks and similar appurtenances not structurally sound or not properly *anchored,* or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

1. Where substantiated otherwise by an *approved* method.
2. Demolition of unsafe conditions shall be permitted where *approved* by the *code official.*

304.2 Protective treatment. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition. Exterior wood surfaces, other than