

Petition for Declaratory Statement
Before the Florida Building Commission

Company: Aquatic Design Services, LLC
Address: 2681 NE 23rd Court
Pompano Beach, FL 33062

Name: John (JC) Centera, CPC 056755
Title: Owner
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DS 2017-070

Petitioner's Attorney or Representative: Jennifer Hatfield
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Statute(s), Agency Rule(s), Agency Order(s) and/or Code Section(s) on which a Declaratory Statement is sought:

Florida Building Code, Building – 5th Edition (2014) & 6th Edition (2017)
Chapter 4, Section 454.1.2.1 Pool Structure

Background:

Aquatic Design Services, LLC provides commercial pool and spa design, construction and remodeling services. Services include designing what type of tile will be installed at the water line of commercial swimming pools and spas. Aquatic Design Services, LLC is in the process of finalizing the design of a condominium commercial pool project that will include application of 1" x 1" tiles. Prior to finalizing the project and moving forward with permitting, Aquatic Design Services, LLC is seeking clarification on whether the 1" x 1" measurement includes the grout to ensure that when designing and finalizing plans for said project, they are doing so in compliance with section 454.1.2.1 of the Code. Petitioner seeks these clarifications as a "substantially affected person" under the procedures set for in Section 553.775, F.S.

Both the current 5th edition (2014) and upcoming 6th edition (2017) code provide the following:

454.1.2.1 Pool structure. Pools shall be constructed of concrete or other impervious and structurally rigid material. All pools shall be watertight, free from structural cracks and shall

have a nontoxic smooth and slip-resistant finish. All materials shall be installed in accordance with manufacturer's specifications unless such specifications violate Chapter 64E-9, Florida Administrative Code, rule requirements or the approval criteria of NSF/ANSI Standard 50 or NSF/ANSI Standard 60.

(a) Floors and walls shall be white or pastel in color and shall have the characteristics of reflecting rather than absorbing light. Tile used in less than 5 feet (1524 mm) of water must be slip resistant. A minimum 4-inch (102 mm) tile line, **each tile a minimum size of 1 inch (25 mm) on all sides**, shall be installed at the water line, but shall not exceed 12 inches (305 mm) in height if a dark color is used. Gutter-type pools may substitute 2-inch (51 mm) tile, each a **minimum size of 1 inch (25 mm) on all sides**, along the pool wall edge of the gutter lip.

(b) **One-inch (25 mm) square tile may be used** if the manufacturer has specified the adhesive for use underwater to adhere the type of tile used [vitreous (glass) or ceramic]. Tiles shall not have sharp edges exposed that could cause bather injury.

Rationale:

When pool contractors install what is sold as 1" x 1" tile, typically they find the vast number of options available are not exactly 1" x 1" until the grout line is included in the calculation. Most tile companies qualify the dimensions to allow for grout lines. For example, glass mosaics are a popular option chosen when building a commercial pool, Altoglass makes skid-resistant and regular glass tiles, but in most cases the size of the tile itself is 7/8" x 7/8". However, when you include the 1/8" grout line on each side, the tile/grout footprint is exactly 1" x 1". Another example, DAL Tile Keystone series group 3 and 4 states 1" x 1" however, the tile is less than 1". The same occurs when looking at larger tile, an example is Artistry in Mosaics tile "Blue Mix", which states the tile is a blend of 2" x 2" and 1" x 1"; however, neither tile meets the size stated, and in fact are less than the size stated in the specifications.

This nominal size or trade size is the standard practice in tile manufacturing, along with many other products such as lumber and masonry block, where a nominal size or trade size is a size "in name only" used for identification. The nominal size may not match any dimension of the product, but within the domain of that product the nominal size may correspond to a large number of highly standardized dimensions and tolerances.

North American Standard 2-by Lumber

Nominal Size (inches)	Actual Size (inches)	Actual Size (mm)
2 x 4	1 1/2 x 3 1/2	38 x 89
2 x 6	1 1/2 x 5 1/2	38 x 140
2 x 8	1 1/2 x 7 1/4	38 x 184
2 x 10	1 1/2 x 9 1/4	38 x 235

7 more rows

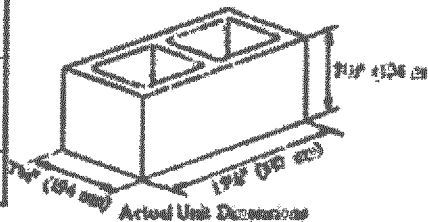
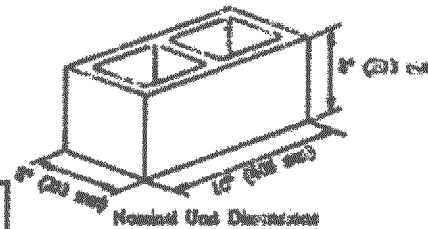
Dimensional Lumber Sizes: Nominal vs. Actual - archtoolbox.com

<https://www.archtoolbox.com/.../dimensional-lumber-sizes-nominal-vs-actual.html>

NOMINAL VS ACTUAL SIZE

thickness (inches)		width (inches)	
nominal	actual	nominal	actual
1	3/4	2	1 1/2
1 1/4	1	3	2 1/2
1 1/2	1 1/4	4	3 1/2
2	1 1/2	5	4 1/2
2 1/2	2	6	5 1/2
3	2 1/2	7	6 1/2
3 1/2	3	8	7 1/4
4	3 1/2	9	8 1/4
4 1/2	4	10	9 1/4
5*	1-2" less	11-16	2-4" less

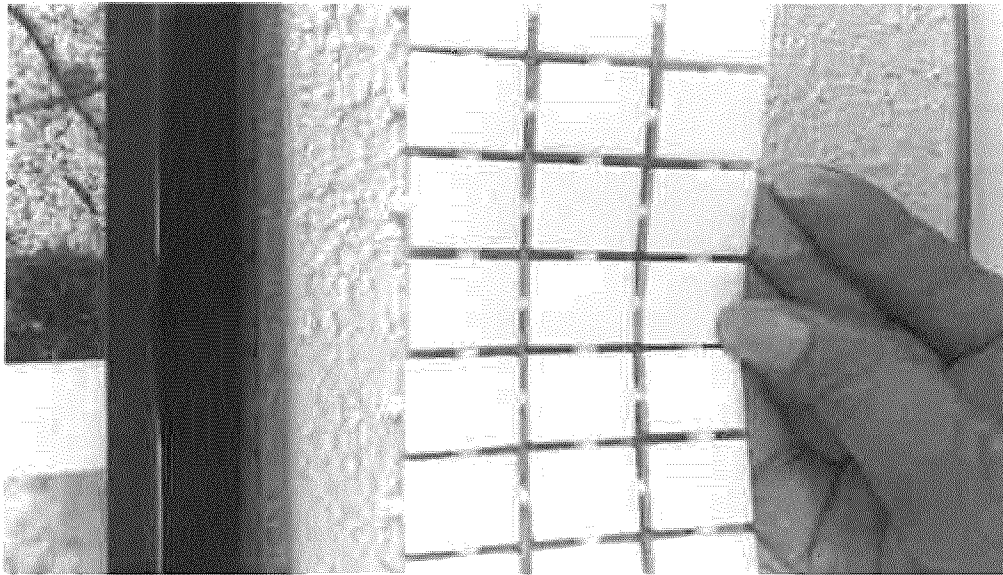
** Note: actual dimensions may vary among manufacturers of brick - dimensions noted from Graphics Standards 2000 publication



Unit	Nominal Dimension (in.) W x H x D	Actual Dimension (in.) ** W x H x D
Modular	4 x 2 2/3 x 8	3 5/8 x 2 1/4 x 7 5/8
Utility	4 x 4 x 12	3 5/8 x 3 5/8 x 11 5/8

BLD62003_MAK_STONES AND ROCKS

Additionally, tile manufacturers ship the tile in sheets – typically 2 to 6 square feet with spacing material built in. They do this to ensure that the application of the tile can be consistently 1 inch:



In summary, tile companies have sold and pool contractors have used without incident what are considered 1" x 1" tiles for decades. Recently the fact the majority of these tiles are not actually 1" x 1" without the grout line, has begged the question of whether the intent of the code was for allowance of a nominal size with the addition of the grout included in the 1" x 1" code requirement. Otherwise, a large percentage of these tiles manufactured for use on commercial pools would not be allowed.

Based on the above information and the fact designing and installing tile onto commercial pools is a significant part of the petitioner's business; therefore, clarification is needed to ensure the intent of the code requirements are followed and done so consistently in the multiple jurisdictions petitioner provides this service (including the future project that has been described), we ask the following:

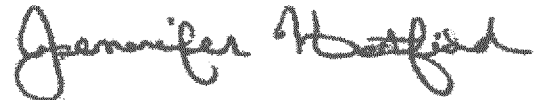
Question: Is the grout line allowed to be included in the measurement of a 1"x 1" tile installed on a commercial pool per section 454.1.2.1, when the tile is sold and distributed as 1" x 1"?

Summary:

Petitioner respectfully believes that the answer to this question should be as follows:

Recommended Answer: Yes, the grout line can be included when meeting the 1" x 1" tile requirements set forth in section 454.1.2.1 if the tile is sold and distributed as 1" x 1" nominal or trade size tile.

Respectfully submitted,

A handwritten signature in black ink that reads "Jennifer Hatfield". The signature is written in a cursive style with a large initial "J" and a prominent "H".

Jennifer Hatfield, on behalf of the petitioner

Date: 10/31/17