



Legislation Text

File #: 16-198, **Version:** 1

Receive an update regarding the Aquatic Center indoor pool tile.

Background:

There has been an ongoing issue with a white residue gradually building up on the indoor pool deck tile at the Aquatics Center since October 2015. The Aquatics Center staff's daily procedure is to wash the tile down with water, along with a light brushing to rinse the pool water on the deck in to the sanitary sewer and to take off any material on the tile. When the white residue buildup was noticed, staff tried performing cleaning tests to attempt to find a chemical to clean the white residue, but was unable to find a solution. On January 20, 2016 a warranty claim was submitted through Gallagher Construction on this issue.

The following is the sequence of events since the claim was filed:

- On January 31st, a vendor was contracted to clean the tile. The vendor could not clean the tile with the standard chemicals or the chemicals recommended by Trinity flooring.
- On March 15, 2016, Gallagher Construction arranged a meeting at the Aquatics Center with all Aquatics Center project contractors involved with the design, specifications, tile, and installation. In this meeting, the tile vendor attempted to clean and scrub test areas with five different chemicals and was unable to clean it. The focus from that meeting was to find the cause of the white residue on the tile.
- Gallagher Construction voluntarily sent out and paid for testing on the tile and the white residue on tile. Dallas Laboratories test results dated May 16, 2016 stated the white residue was efflorescence and the report discussion stated, "Tile was well-fired non-porous tile, but the blue glaze appears to be susceptible to chlorine attack which causes a whitish efflorescence to appear on the tile surface."
- Gallagher Construction provided the test results to the Aquatics Center project contractors and worked to get a resolution on the issue.
- Gallagher Construction arranged a second on-site meeting on July 7, 2016 with all the Aquatics Center project contractors. The tile vendor agreed to send out and pay for testing on the tap water, pool water and tile samples. In addition, a dual step cleaning solution was presented to clean the tile.
- On July 14th, the City requested the tile be cleaned until the test results came back. Gallagher

Construction voluntarily paid for the tile cleaning.

- On July 15th the tile cleaning project started and took over 6 days involving a two-step process with two chemicals and manual scrubbing to clean it.
- On August 9, 2016 test results were received and indicated:
 - Tile - No definitive issue
 - Pool water - The results came back with the alkalinity being within the acceptable range for pools, although it is on the low end of the scale and could lead to calcium buildup. This is currently being addressed.

Recommendation

It is recommended to clean the tile floor one more time and apply a water based sealant. At the same time increase the pool water alkalinity to the high end of the range and change the daily cleaning procedure in using a recommended cleaning product. The water based tile sealant would have to be maintained at a maximum of twice a year. Staff will evaluate the effectiveness of this process over the next six months. If the process does not work, tile replacement funding is available in remaining Aquatic Center bond contingency funds.

The recommendation is based on:

- Test results - not conclusive in determining the exact cause of the white residue.
- Non-slip aspect of the existing tile with no slip fall accidents since opening.
- Other standard pool deck options with increased slip aspects.
- Test tile area with sealant applied having no signs to date of a white residue buildup and maintains the non-slip aspect.

Attachments

1. Pictures - Before and After Cleaning