



Memorandum

Date: 24 February 2016 (Revised 29 February 2016)

To: William Smith, Boyd/Smith Inc.

From: Tyler M. Meek, Paul M. Millette

Project: 151755 – Facade Inspection, The Carillon, 185 Massachusetts Avenue, Boston, MA

Subject: GFRC Coatings, Repair Options

Phoenix Bay State Construction Co., Inc. (Phoenix), with Simpson Gumpertz & Heger Inc. (SGH) guidance, has completed installation of the KEIM coating products on the west face of the building. Photo 1 shows the state of the mockup area prior to cleaning of the GFRC panels and installation of the KEIM products. Photos 2 through 4 show the mockup area after completion of the coating installation and replacement of the sealant joints. Photos 3 and 4 show existing conditions on the level above the mockup area that are similar to the condition of the mockup area prior to our work.

As part of our research on GFRC panels and their performance in the New England environment, we reviewed two similar projects: The Center of the Arts building at Endicott College (Photo 5) and The St. George condominiums in Revere, Massachusetts (Photo 6).

The Center of the Arts building at Endicott College has similar cracking (Photo 7) and a small amount of efflorescence staining (Photo 8) similar to The Carillon. It appears the GFRC panels have been cleaned in some areas of the building. However, where the panels have not been cleaned, cracks, stains, and environmental buildup are clearly visible (Photo 9).

The St. George condominiums also have GFRC panel cracking (Photo 10) similar to The Carillon and some staining below windows and other areas with water runoff (Photo 11). The panels at St. George condominiums are coated with what appears to be an acrylic coating. The coating is blistering and peeling in a number of locations (Photos 12 and 13).

I:\BOS\Projects\2015\151755.00-INSP\WP\004TMMeek-M.151755.00.eac.docx



Photo 1

Mockup area prior to cleaning and coating installation (5 November 2016).



Photo 2

Mockup area, coating installation complete (18 February 2016).



Photo 3

Mockup area and deterioration of level above.



Photo 4

Mockup area and deterioration of level above.



Photo 5

The Center of the Arts building, Endicott College, Beverly, MA.



Photo 6

St. George condominiums, Revere, MA.



Photo 7

GFRC cracks, Endicott College.



Photo 8

Efflorescence staining, Endicott College.



Photo 9

Uncleaned portion the GFRC panels, Endicott College.



Photo 10

GFRC panels cracks,
St. George condominiums.



Photo 11

Staining on GFRC panels,
St. George condominiums.



Photo 12

Blistered GFRC coating,
St. George condominiums.

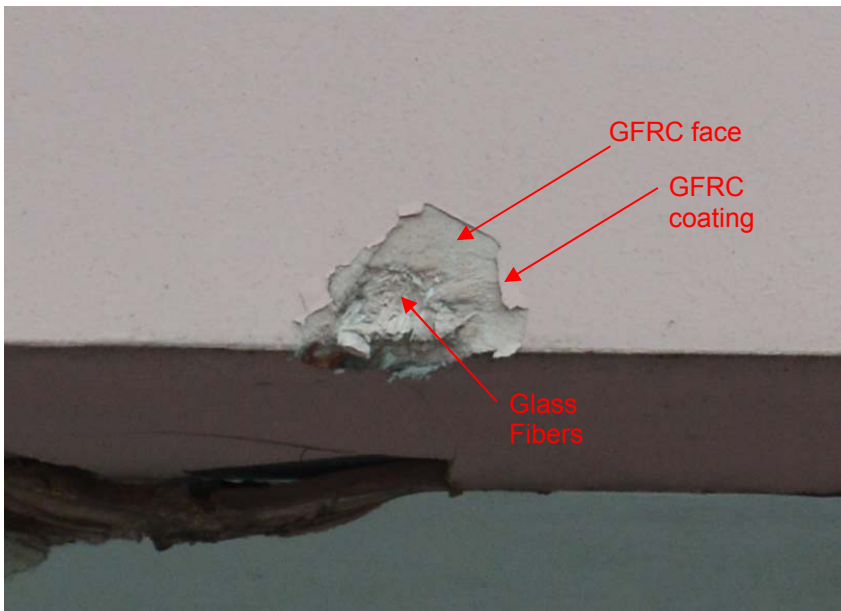


Photo 13

Peeled GFRC coating,
St. George condominiums