

CASE HISTORY

Restoration of Ben-Gurion Street Residential Building



PROBLEM

Stone cladding tiles began detaching and falling off a residential building only 15 years after construction. An initial repair done to re-anchor the tiles was conducted without MCI®. In the following years, tiles continued to fall, and exposed concrete began to delaminate. The cause of the damage was identified as corrosion of the building's concrete reinforcement and cladding anchors. As the rebar corroded it expanded, pushing out on the tiles and making them wobble. A second repair was in order only 25 years after construction following an expensive and ineffective first repair.

DATE

2014

DISTRIBUTOR

Glimmer – Industrial Consultation

CONTRACTOR

Rorman Engineering

LOCATION

Givatayim, Israel

PRODUCTS

MCI®-2006 NS

MCI®-2020

CorPak® Tablets

APPLICATION

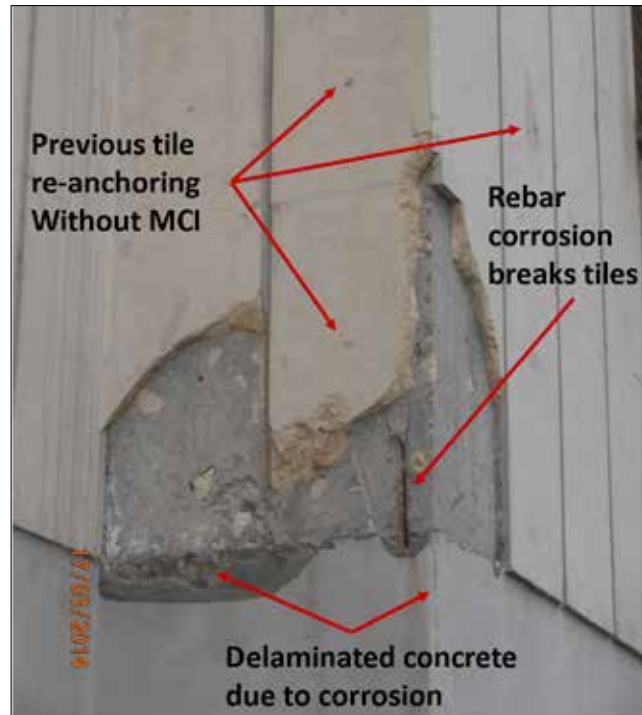
The second repair plan included the application of MCI® (Migrating Corrosion Inhibitors) to areas of detached stone cladding, delaminated concrete, and other exposed concrete. Wobbling and cracked cladding tiles were removed. CorPak® Tablets were inserted into holes drilled through the grout lines to avoid additional cosmetic damage to the building's appearance. The holes were then sealed with cementitious capping, and the grout lines were renewed. All tiles were re-anchored by new screws. Delaminated concrete was repaired using mortars containing MCI®-2006 NS corrosion inhibitors. MCI®-2020 was applied to all exposed concrete surfaces on the ground floor, which was subject to an aggressive environment of multiple wet-dry cycles, and fertilizer and pesticide application.



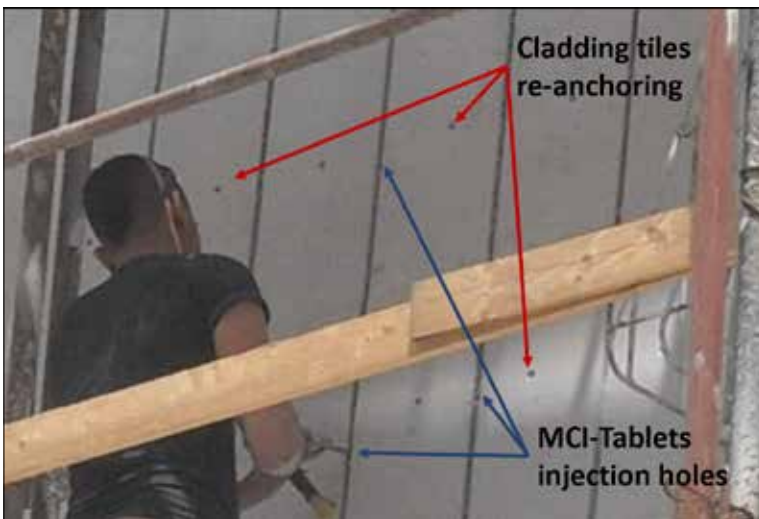
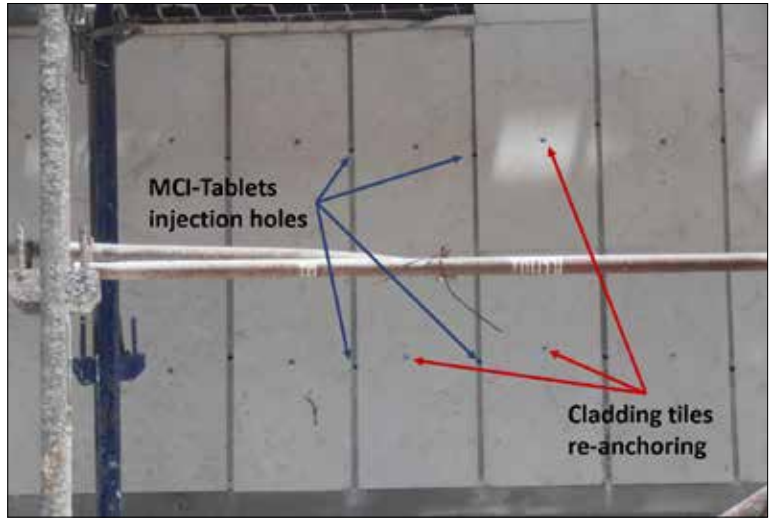
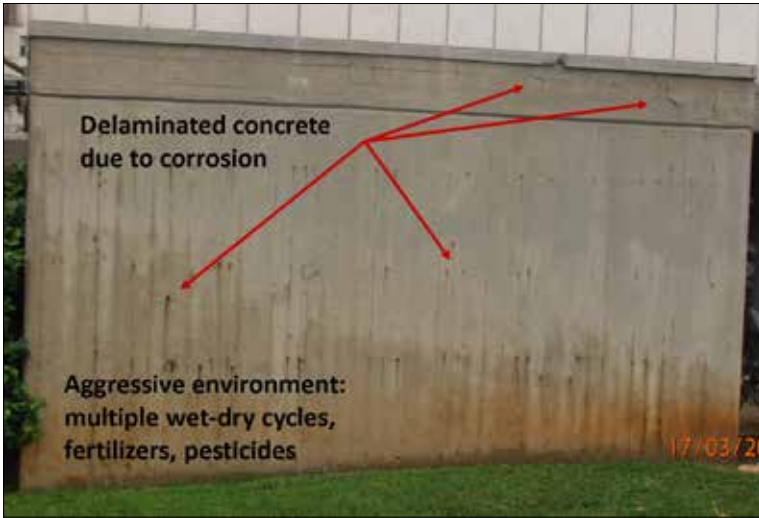
MIGRATING CORROSION INHIBITORS
FROM GREY TO GREEN

CONCLUSION

The contractor was able to choose a corrosion inhibiting technology based on the success of previous projects of a similar nature. This plan allowed the contractor to repair the residential building with minimal cosmetic damage while addressing the underlying corrosion problem. Exposed concrete surfaces on the ground floor that did not yet require repairs will also be fortified with additional protection against future corrosion in an aggressive environment.



MIGRATING CORROSION INHIBITORS
FROM GREY TO GREEN



MIGRATING CORROSION INHIBITORS
FROM GREY TO GREEN