



Malas Engineering LLC

Integrated Innovative Solutions and Excellence in Engineering

January 21, 2016

Peter C. Daniels, P.E.
Principal Engineer
City of West Allis Engineering Department
7525 W. Greenfield Avenue
West Allis, WI 53214

Subject: Final Report - City Hall building façade inspection
Project ID: PUM1018CWESTALLIS

Dear Mr. Daniels:

Attached for your review and use are the West Allis City Hall façade examination and the results of the cut granite spandrel panel testing we performed on each of the two (2) panels that were previously removed from the north and south elevations of the City Hall as a result of your observations and our façade examination.

As you will note in the façade report, there is significant facade repair work required and as well as additional information needed in the design phase on the Council Chambers precast concrete/granite faced panels and further assessment of the cut granite spandrel panel installation repair and/or alternatives.

There is also the issue of the insulation, or lack of, the underside of the cantilevered office areas, which can be addressed in conjunction with the spandrel repair work.

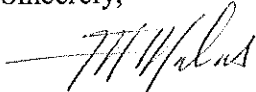
Based on our assessment and examination information we have to date, we recommend the following design phase action:

1. Scan the Council Chamber wall panels using ground-penetrating radar (GPR) in order to determine placement of prestressed panel cables. This information will allow us to determine a repair methodology, if any, for the stabilization of the panels.
2. Assess the insulation of the cantilevered office floors/soffits, which have been problematic and chronically cold. Perform a prototype repair and assess performance and costs.

3. Determine repair alternatives and costs for the cut granite spandrel panels including modified concealed anchors, exposed anchors, helical anchors, panel removal, EIFS (exterior insulation and finishing system), precast concrete, metal panels, etc. (see listing of local examples under Note).
4. Prepare detailed plans and specifications for all repair work identified in the façade examination report and obtain bids for the work to be executed in 2016.

Please do not hesitate to contact me on any questions you may have regarding any of this information. Thank you.

Sincerely,



Mahmoud (Mac) N. Malas, PE
Senior Engineer/Principal Engineer

Note: EIFS Examples

Columbia St. Mary's/Gateway Medical Clinic
801 S. 70th Street
Trim/parapet walls

MATC Building A
801 S. 70th Street
Trim/parapet walls

BMO Harris Bank
70th Street and Greenfield Avenue
Fascia/trim

Walgreens
8333 W. Greenfield Avenue
Fascia/trim

Lamplight Inn of West Allis
7400 W. Greenfield Avenue
South façade

Hampton Inn & Suiters
8201 W. Greenfield Avenue
Trim

Precast Concrete Examples

Poblocki Sign Company
922 S. 70th Street
Walls

Gustave A. Larson Company
6736 W.
Walls

Milwaukee Journal Sentinel Building
231 W. State Street
Parapet walls

Metal Panel Examples

Heiser Chevrolet
10200 W. Arthur Avenue
Walls

International Autos
2400 S. 108th Street
Walls

EXECUTIVE SUMMARY

The West Allis City Hall building is located at 7525 West Greenfield Avenue, in West Allis, Wisconsin. The building was designed by the West Allis architectural firm of Darby, Bogner and Associates. Phase 1 construction, consisting of the main office building structure began in October of in 1967 followed by the demolition of the adjacent original City Hall structure (constructed in 1921) and construction of Phase 2, the council chambers annex. The building was formally was dedicated in May of 1970.

As the result of the observed movement of a cut granite spandrel panel on the north elevation at the cantilevered second floor and soffit, the City of West Allis authorized an examination to determine the complete façade condition and identify any issues and/or repair work that is necessary.

Between November 23, 2015 and November 25, 2015 a “Critical Examination” was conducted for this building’s three story high exterior walls. The program was performed in accordance with the latest City of Milwaukee Façade Critical Examination Ordinance requirements. The building frame is primarily reinforced cast-in-place concrete construction. The building exterior walls consist of exposed cast-in-place concrete columns, window/curtain wall window assemblies, split face mortared granite veneer, cut granite panels, precast concrete granite faced panels and plastered soffits.

The building exterior walls are classified as “Category III Building”, (a building constructed with exterior walls and parts thereof that are primarily reinforced with or are in direct contact with corrodible metal).

Based on the “Critical Examination” program, all distress conditions were classified as either “Safe” condition or “Safe with a repair and maintenance program” condition with the exception of the cut granite spandrel panels, one of which was removed on the north elevation, that are on both the north and south cantilevered and soffit areas. All of these panels are identified as “Safe with repair” but they have a problematic installation method that does not comply with current building code requirements for stone panel anchorage. We recommend further investigation in order to determine a proper long term repair methodology.

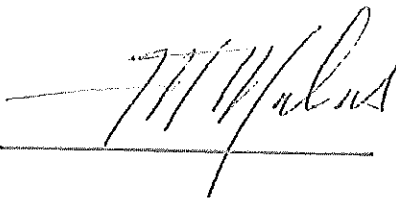
DISCLAIMER

This critical examination report update was prepared jointly by Inspec and Malas Engineering. We worked closely with Mr. Peter Daniels, Principal City Engineer, and were also assisted by the Department of Public Works staff and utilized City equipment. Due to physical properties of the many materials commonly used for constructing facades and the limitations on detecting concealed internal wall distresses, “Unsafe and imminently hazardous conditions” in the façade that are not visible from the exterior, may exist. Therefore, submittal of this critical examination report is not a representation that all “Unsafe and imminently hazardous conditions” in the façade have been identified.

The repair recommendations provided are general in nature and require further engineering analysis and detailing to determine economical repair alternatives and associated probable construction cost estimates to complete the required repairs.

SIGNATURE AND SEAL OF PROFESSIONAL

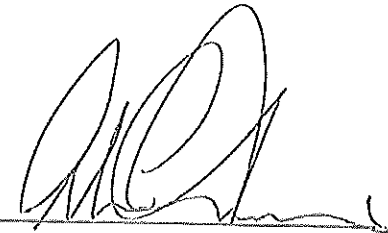
The critical examination and report of this building was performed and prepared by Mahmoud N. Malas, PE and Allan C. Francois, AIA, duly licensed to practice engineering and architecture in the State of Wisconsin.

SIGNATURE 

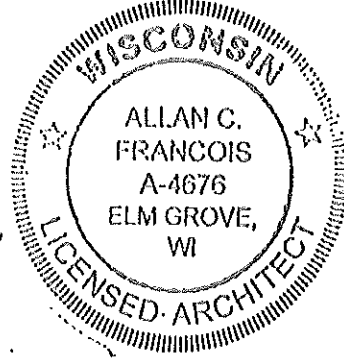
SEAL



DATE 1/21/2016

SIGNATURE 


SEAL



DATE 1/25/2016

OWNER/AGENT SIGNATURE

The Owner/Agent hereby acknowledges the building's façade condition and the responsibility to maintain the building in a safe condition in accordance with the findings of this report.

SIGNATURE 
Michael G. Lewis
Director of Public Works

DATE 1/27/2016