

STRENGTHENING AND PRESERVING THE WORLD'S FIRST JOURNALISM SCHOOL



Masonry Preservation and Enhancement Specialists

10815 Beaver Dam Rd, Suite D Cockeysville, MD 21030 USA Tel: 877-815-7906 Fax: 410-771-1942



# Repair and enhance without changing the aesthetics.



## University of Missouri – School of Journalism

Location: Columbia, MO

Age: Built 1908

**Key Topics:** Historic stabilization, adaptive reuse, point loading, CIF Injection, GS Anchorage, NDE

#### **Project Background:**

- The University of Missouri's School of Journalism is the oldest formal journalism school in the world, founded in 1908 at the insistence of Joseph Pulitzer
- As part of the largest grant in the university's history, a new institution of journalistic excellence was to be created, incorporating the original journalism buildings
- A massive multi-million dollar renovation was undertaken to achieve this vision

#### **Challenges Presented:**

- During the course of renovation, the project team had gutted the interior of the journalism buildings
- It was discovered that the historic masonry was severely unstable and the design team determined the buildings would fail under the additional structural loads intended
- MSI was contracted to carefully evaluate the structure, as well as determine and implement a course of action that would allow the existing masonry walls to support the new additions
- The appearance of the iconic structures could not be altered in the process







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#### **Services and Solutions:**

- MSI laboratory technicians began by evaluating the buildings through a battery of tests, including flatjack testing to determine the existing walls' compressive strengths and Lugeon testing to determine whether CIF injection would be an appropriate course of action
- The flatjack testing uncovered very low wall strengths
- The Lugeon testing found a number of large interconnected voids and an 83% high flow rate among ports, indicating CIF injection would greatly increase the wall's structural capacity
- MSI laboratory techs then used this onsite testing to create a mockup wall to simulate the buildings' construction in order to aid in CIF development
- From this CIF development process came an injection material that would match the properties of its host, including vapor transmission and compressive strength
- This CIF was then injected under low pressure to maximize bond and fill the voids inside the buildings' walls, with over 15,000 sq. ft. of injection successfully completed
- The reinforcement approach was equally complex and consisted of over 18 different types of anchorage, with extreme angles of entry that further complicated coring
- In total MSI installed over 5,600 ft. of reinforcement, including Gruenstark (GS) diagonal stitching and stainless steel heritage fabric anchors
- NDE confirmed that all project goals were achieved and the renovations could proceed







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Masonry Solutions International has worked in the field of masonry preservation and enhancement for over 20 years. It has pioneered a number of advanced techniques, including compatible masonry injection and undercut fabric anchorage.