



**PROJECT DATA SHEET:**  
**The Detroit Hotel**

**PRESERVING AN AREA LANDMARK FOR REDEVELOPMENT**



*Masonry Preservation  
and Enhancement Specialists*

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# Repair and enhance without changing the aesthetics.



## The Detroit Hotel

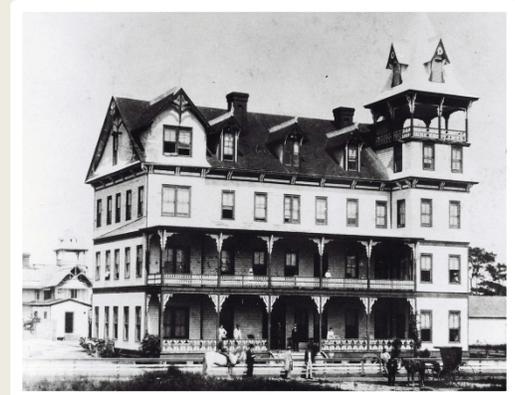
**Location:** St. Petersburg, FL

**Age:** Built 1888

**Key Topics:** Adaptive reuse, historic stabilization, water infiltration, NDE, CIF injection

### Project Background:

- The Detroit Hotel is the oldest building in St. Petersburg, a designated contributor to the St. Petersburg National Register Historic District and an elected city landmark
- Accommodated a number of famous historical figures including Eleanor Roosevelt, Will Rogers and Babe Ruth
- As part of a \$3.7 million campaign to convert the Detroit Hotel into upscale businesses and condominiums while preserving as much of its original fabric as possible



### Challenges Presented:

- Several areas of the heritage masonry construction, including the basement, front façade and side walls, were suffering from severe moisture permeation
- Structural deterioration and instability had resulted from the prolonged water infiltration
- Multiple areas of concern were in, over and around operating businesses, including a popular neighborhood restaurant, creating difficulties for operation continuity, health and safety
- Additionally any remedial efforts needed to avoid changes to the building's historic appearance

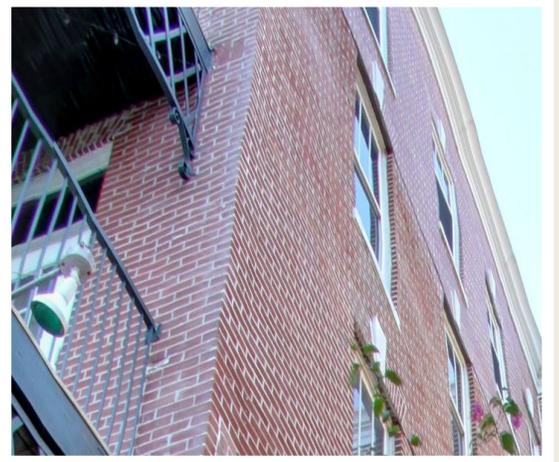




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## Services and Solutions:

- Non-destructive evaluation was conducted to determine the pathways and causes of moisture infiltration, with Masonry Solutions' technicians using microwave radar to pinpoint internal void patterns
- Utilizing material characteristics testing and NDE, MSI's laboratory engineers then developed two different types of compatible injection materials, one fine and one coarse, that matched the host masonry's properties such as vapor transmission and compressive strength
- Masonry Solutions then commenced with a low-pressure injection protocol, which was complicated due to both the historic nature of the walls and the ultra-thin mortar joints present within them
- CIF injection of the front façade and street level walls took place above a fully operating restaurant, which required careful consideration throughout the project
- MSI created a temporary gutter and filtration system outside to prevent runoff into businesses, roads and neighboring areas, collecting and filtering all liquids before disposing of them
- Further NDE and fiber optic borescoping confirmed that injection was successful, the voids had been solidified and thus the affected walls were now moisture resistant
- The Hotel Detroit is currently home to 5 successful businesses and 24 fashionable condominiums



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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.*