

The current proposal is:

Preservation Department – Item 9, LPC-23-03274

768 Fifth Avenue – The Plaza Hotel – Individual and Interior

Landmark

Borough of Manhattan

Note: this is a Public Meeting item. No public testimony will be received today as the hearing on this item is closed

The Plaza Hotel

768 Fifth Avenue

Howard L. Zimmerman Architects & Engineers - Architect and Engineer of Record
Acheson Doyle Partners Architects - Preservation Consultant

Landmarks Preservation Commission Public Meeting
January 31, 2023

The Plaza Hotel & Residences

Building Info

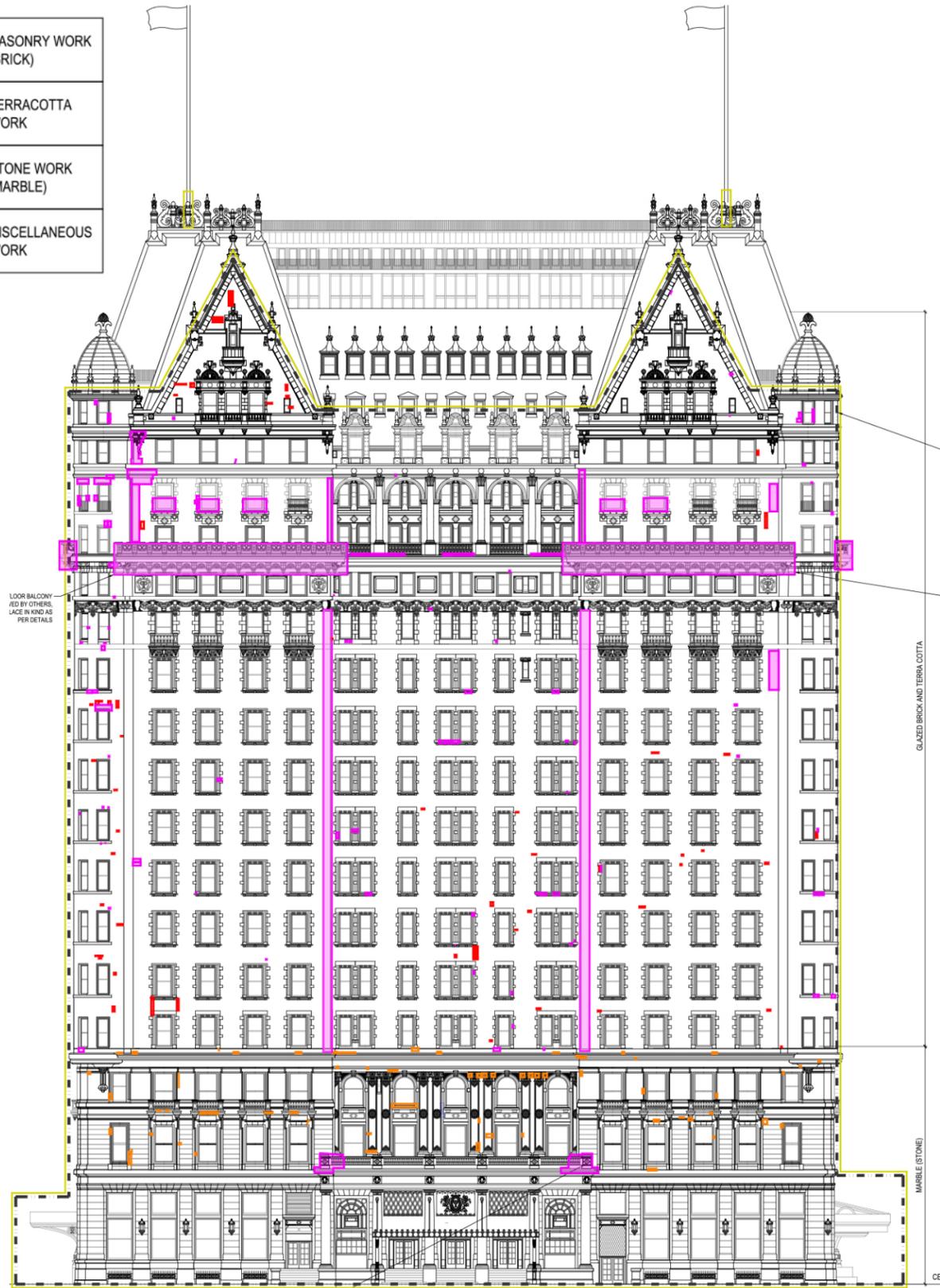
- Address:** One Central Park South
New York, NY 10019
- Cross Streets:** Fifth Avenue & 59th Street (Central Park South & Grand Army Plaza)
- Built:** 1905 - 1907
- Architect:** Henry Janeway Hardenbergh
- Style:** French Renaissance Revival
- Facade Materials:** White Brick & Marble, White Granite, Terracotta, Black Wrought Iron
- Landmark Status:** Exterior & Interior Landmark



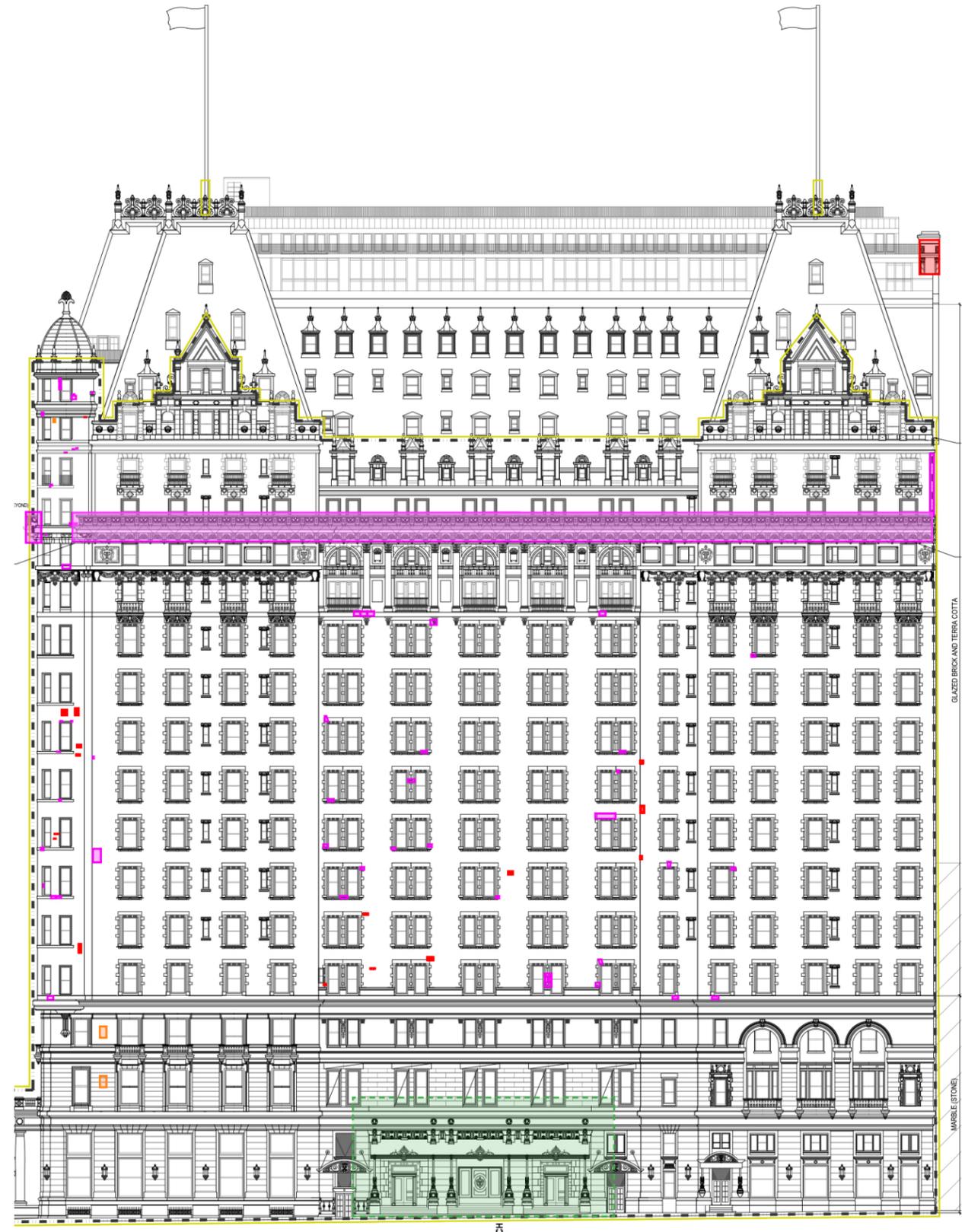
Introduction & Existing Conditions

LEGEND

	MASONRY WORK (BRICK)
	TERRACOTTA WORK
	STONE WORK (MARBLE)
	MISCELLANEOUS WORK

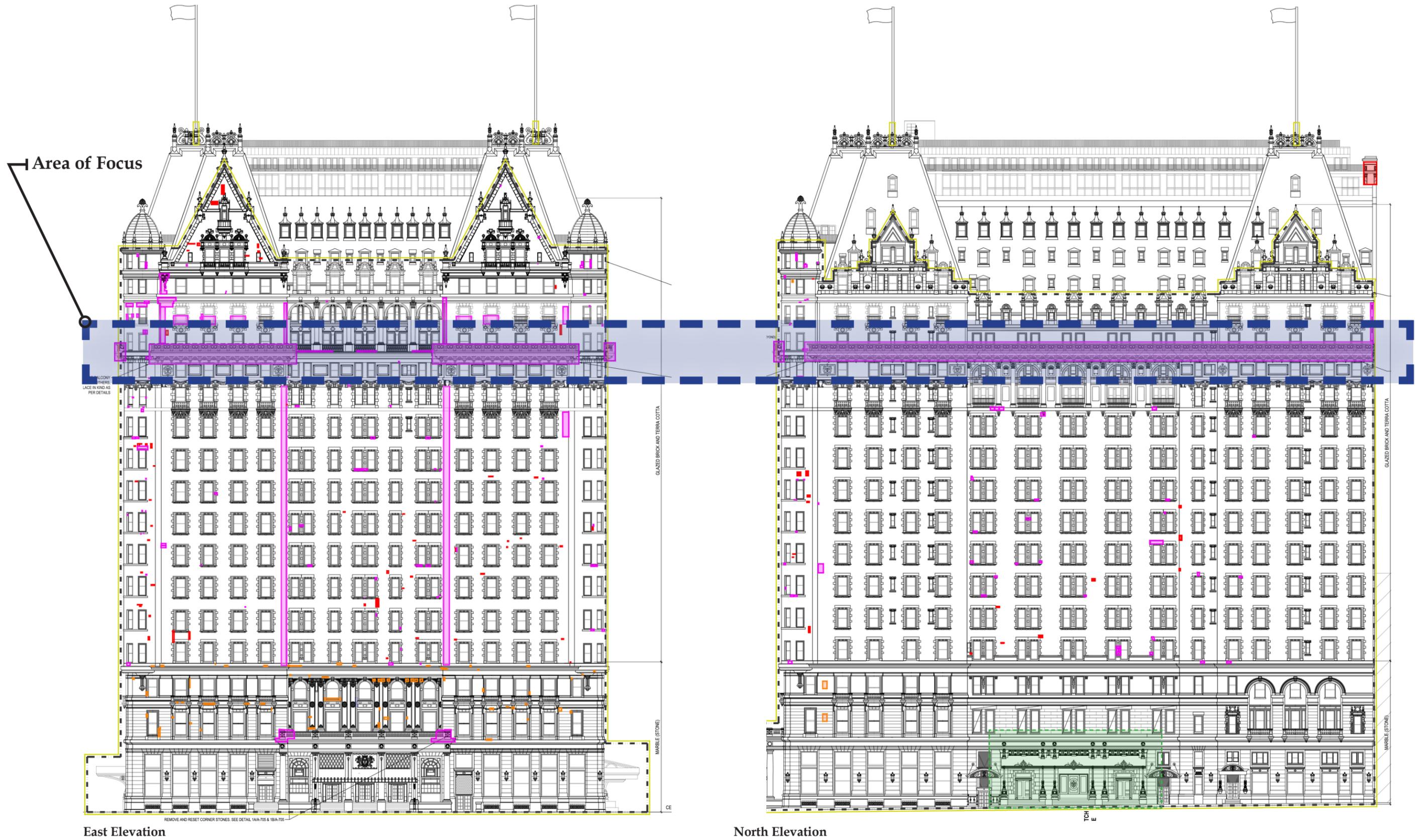


East Elevation



North Elevation

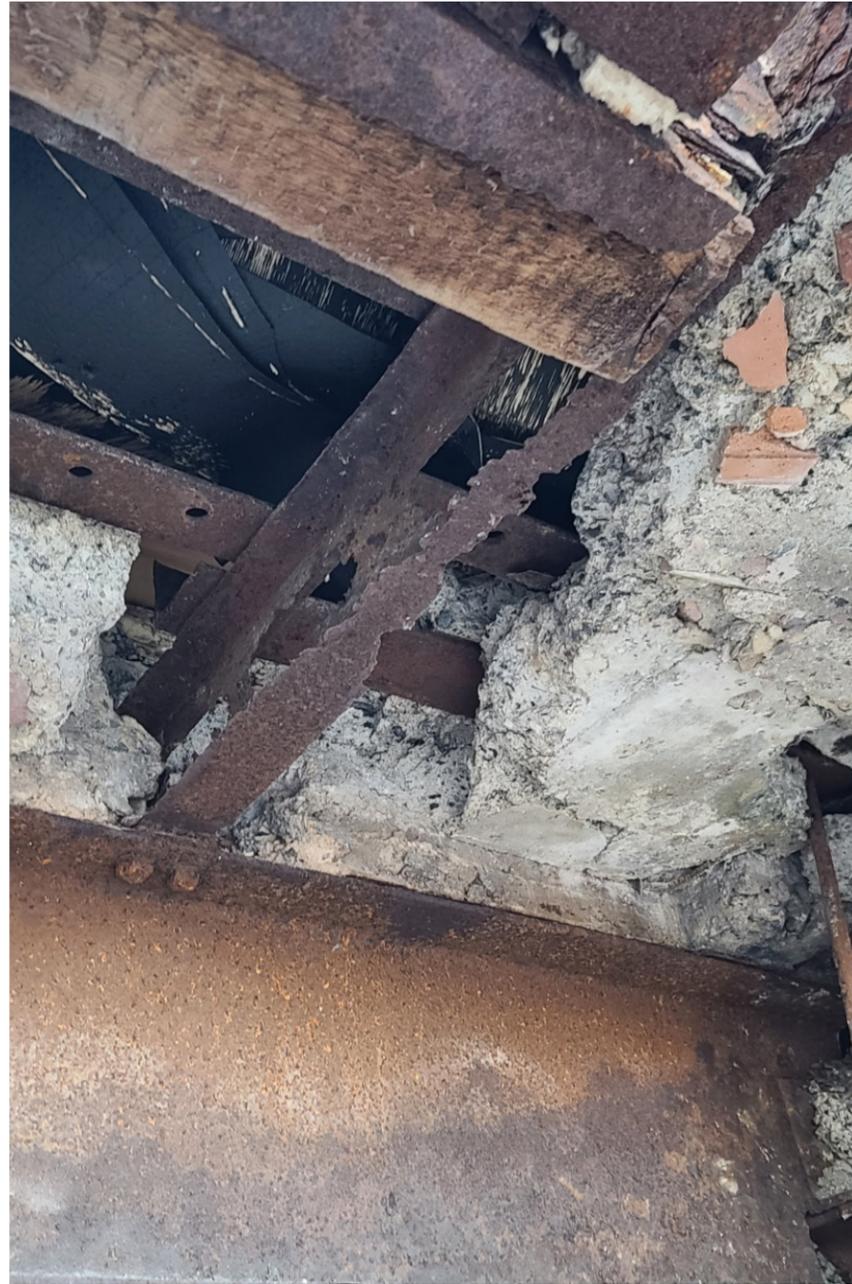
Overall Project Scope - Full Facade Restoration



Area of Focus: 15th Floor Balcony



Damaged Terra Cotta

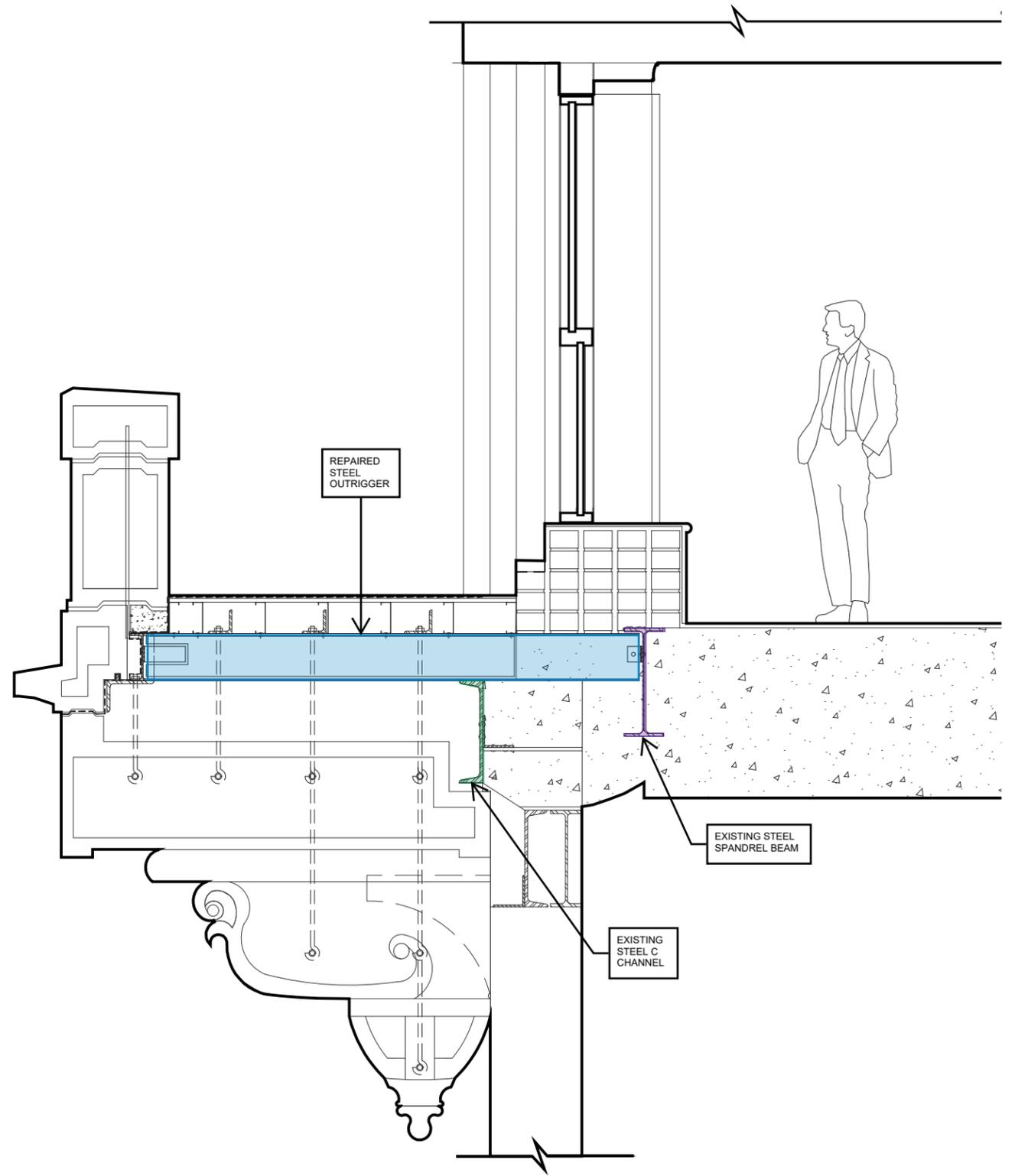
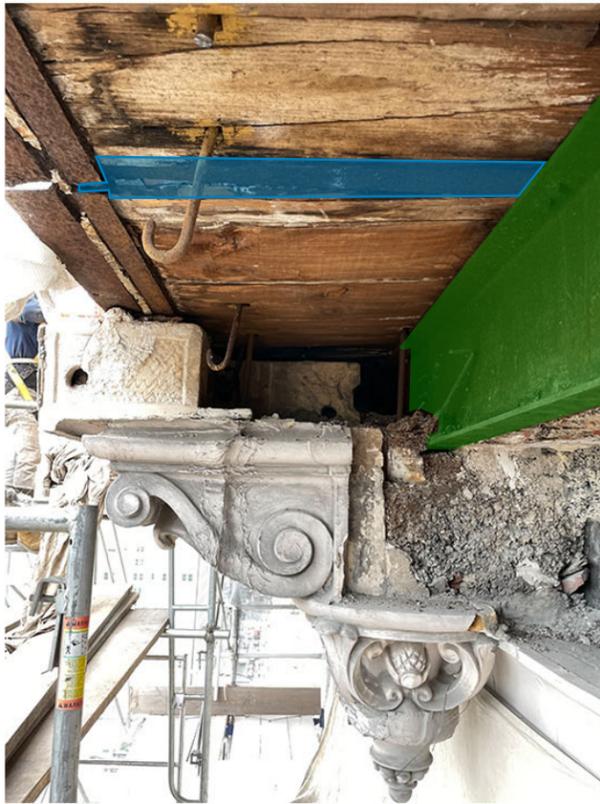
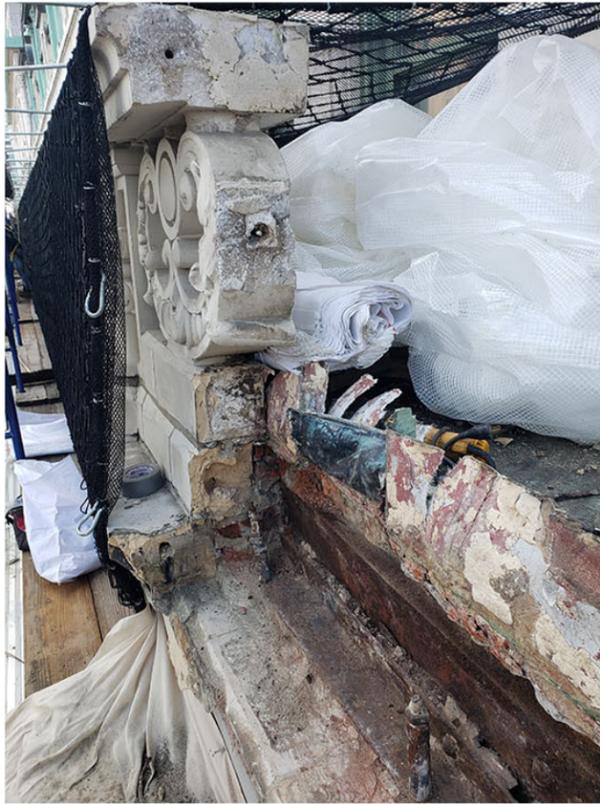


Deteriorated Steel Outrigger



Fiberglass Repair - 1982

Previous Condition of Balcony



Structural Components of Balcony



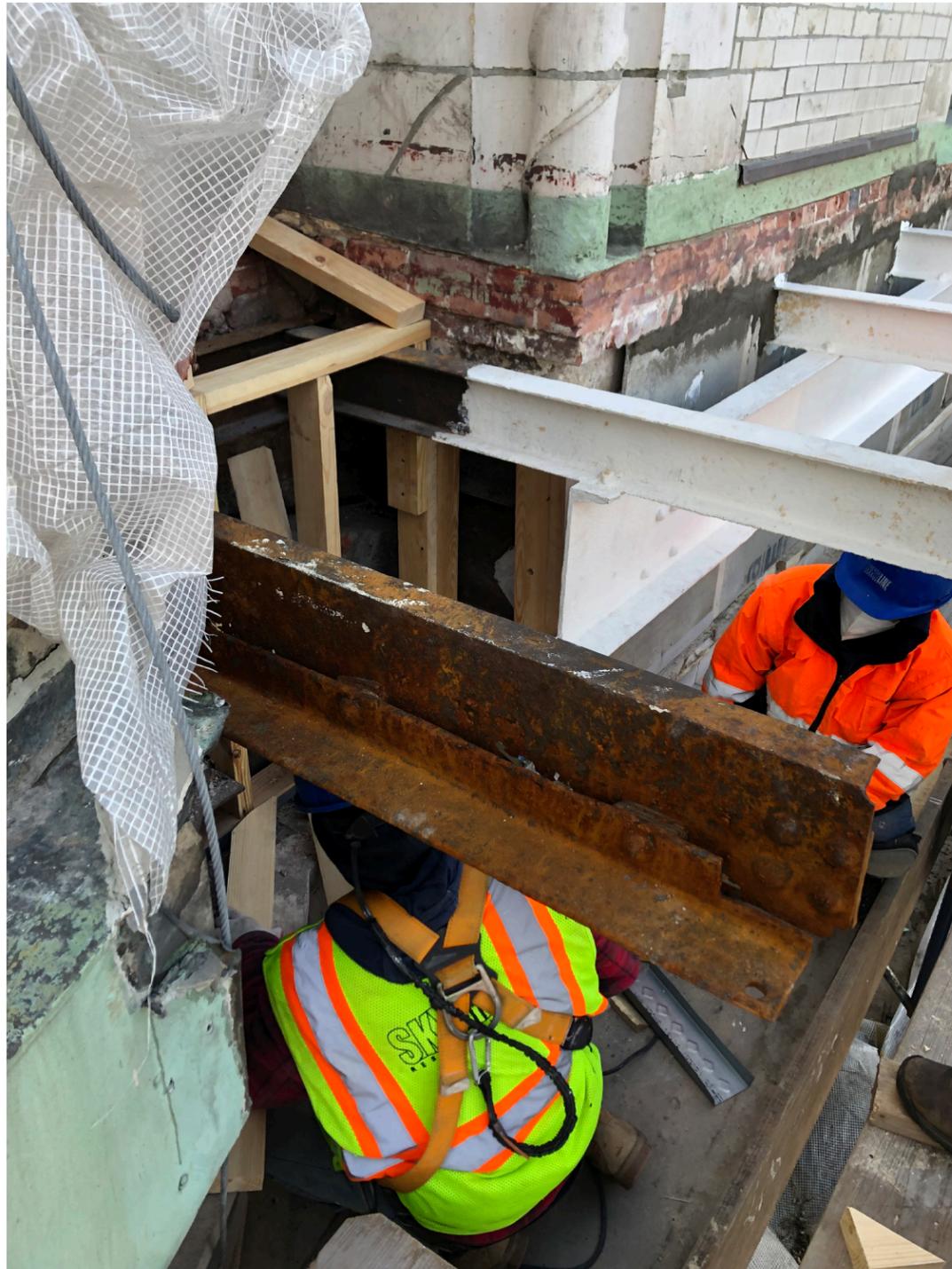
Existing Outriggers with Waterproofing



Existing Outriggers at North Facade

Current Condition of Balcony

**Balcony Reinstallation
&
Overview of Preservation Approach**

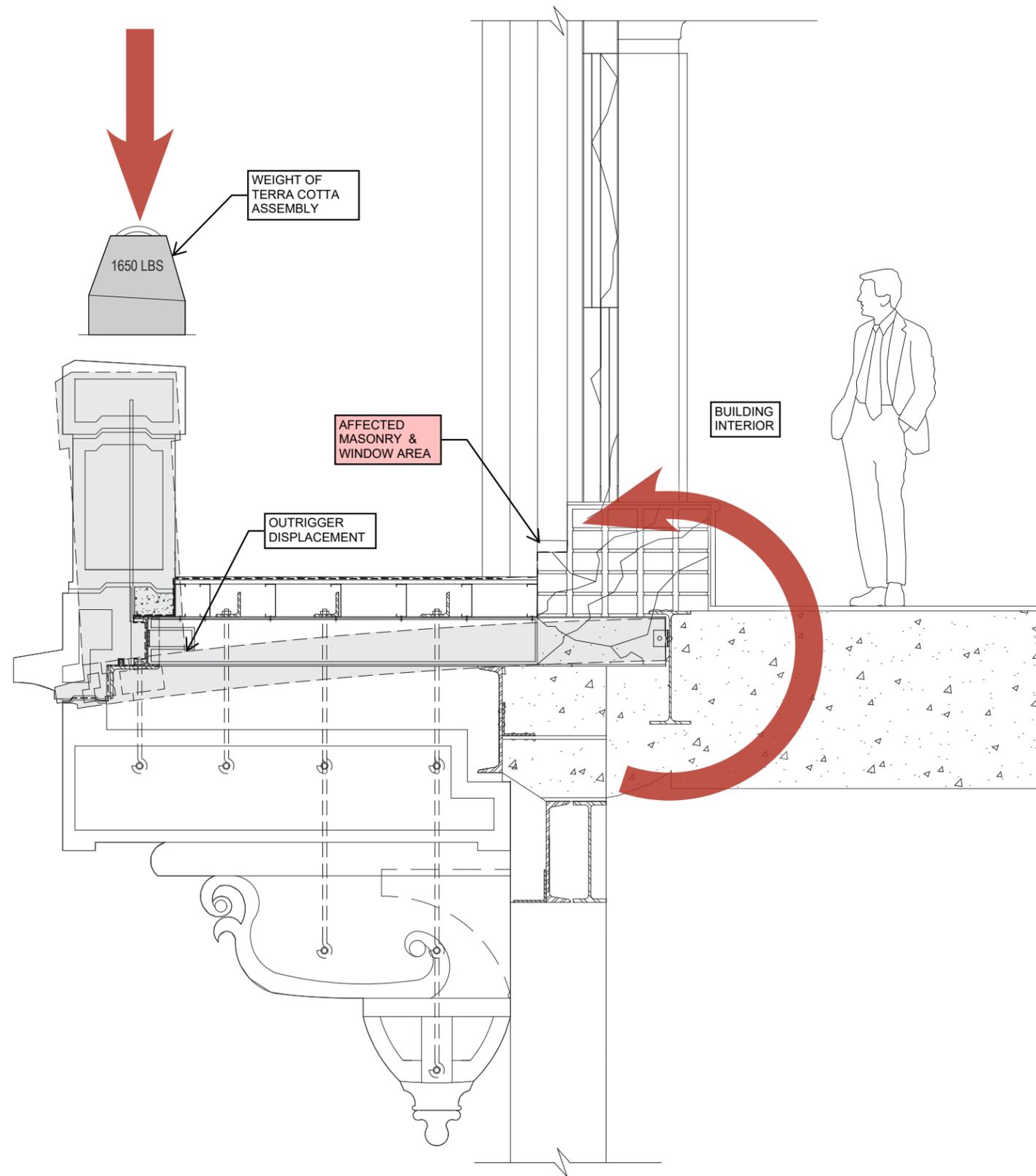


Minor Section Loss



Significant Section Loss

Outrigger Deterioration



Steel Outrigger Moment Diagram



Material Key

-  Brick Masonry
-  Terra Cotta
-  Stone Window Sill
-  Concrete Infill
-  Aluminum Window Unit
-  Steel Outrigger

Historic Fabric Disturbed for Outrigger Replacements

	GFRC	Terracotta
Density	120 lbs/cf	135 lbs/cf
Average Wall Thickness	0.75"	1.25" - 1.50"



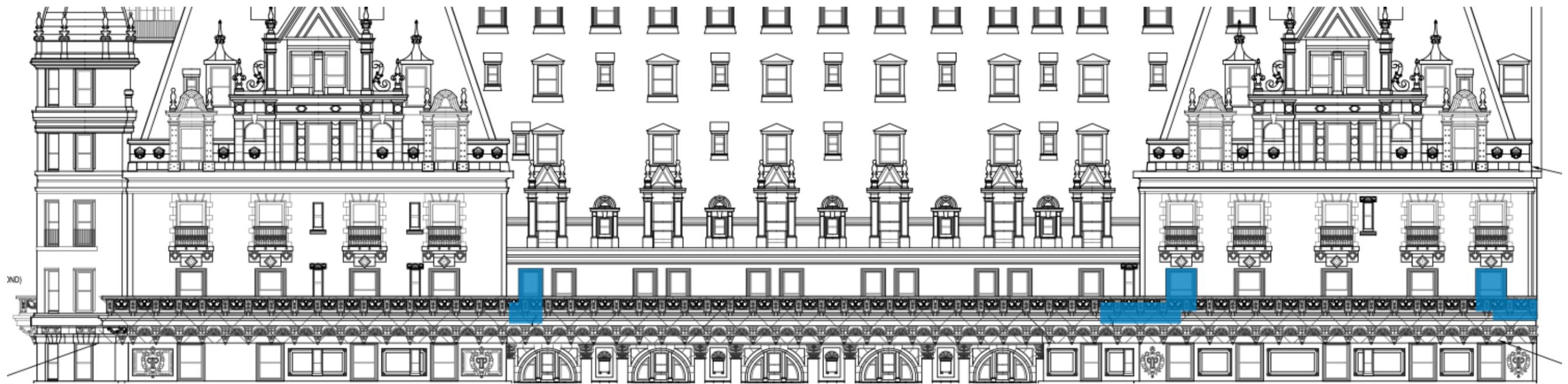
**GFRC Sample Unit
(25.2 lbs)**

**Original Terracotta Unit
(33.0 lbs)**

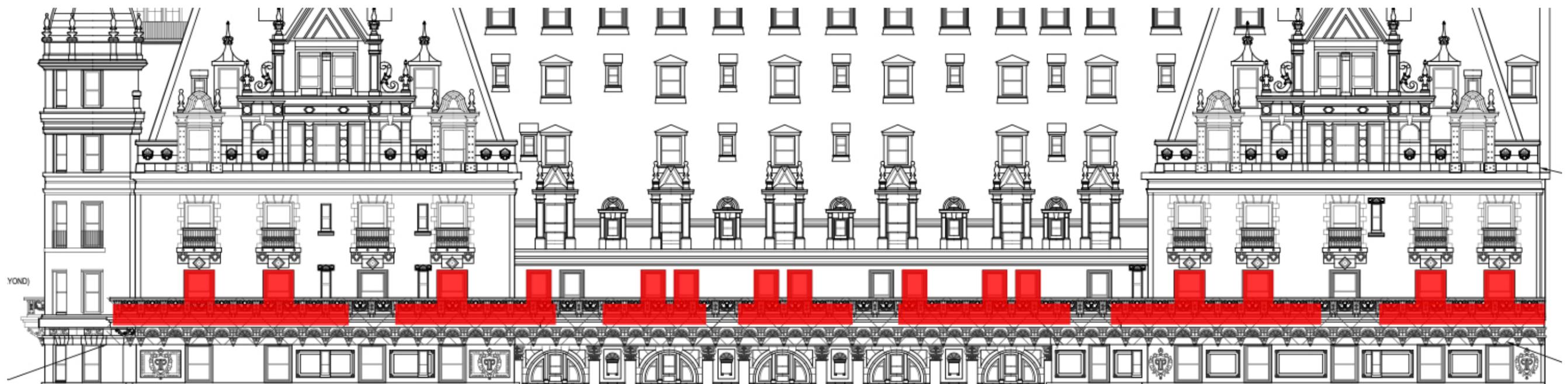
Alternate Material - GFRC

	Minor Section Loss ($< 10\%$)	Moderate Section Loss ($10 - 20\%$)	Significant Section Loss ($> 20\%$)	Total Outrigger Replacement
# of outriggers	37	70	16	
Terracotta (1650 lbs/outrigger)	No Reinforcing Work	Replace (Load Capacity = 1650 lbs)	Replace	86
GFRC (1100 lbs/outrigger)	No Reinforcing Work	Repair (Load Capacity = 1400 lbs)	Replace	16

GFRC vs Terracotta Required Work

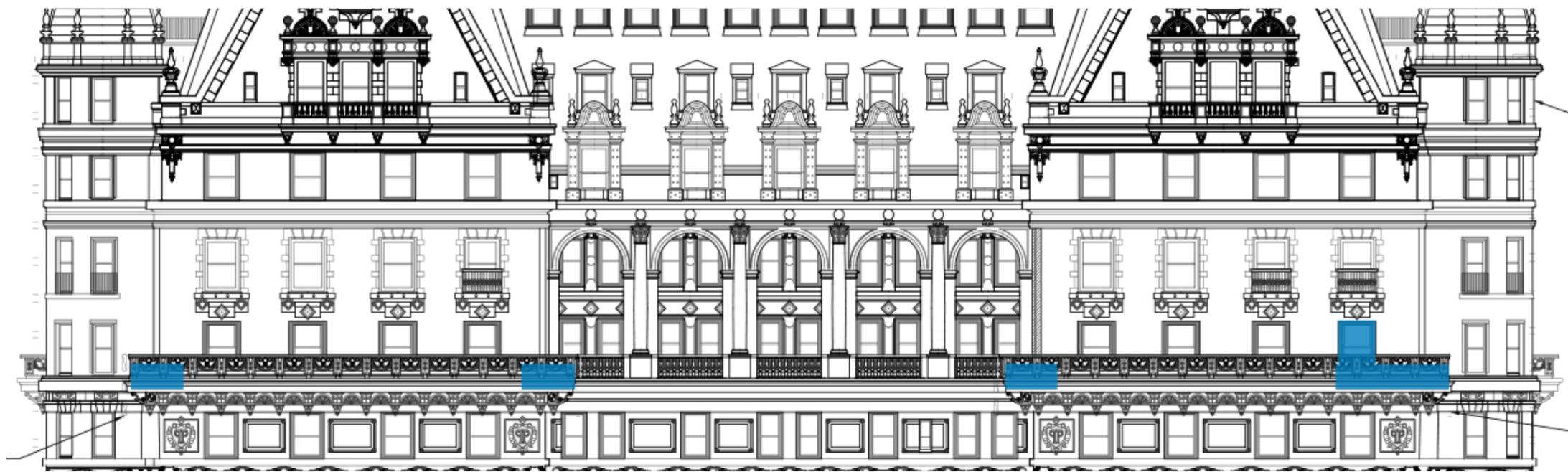


GFRC

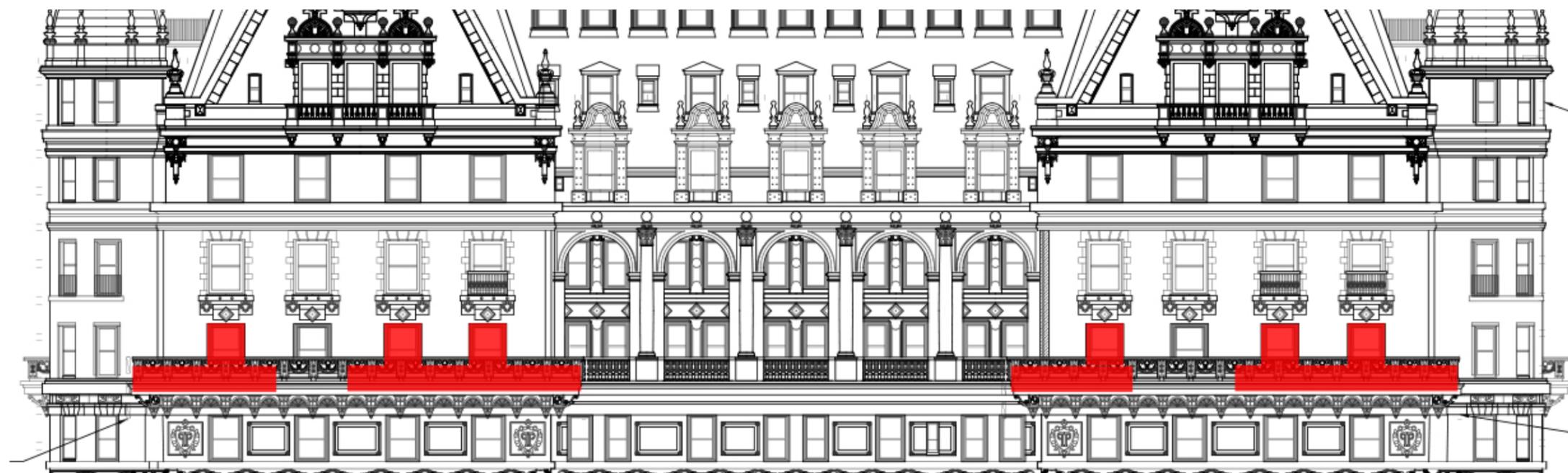


Terracotta

North Facade - Areas of Disturbance



GFRC



Terracotta

East Facade - Areas of Disturbance



GFRC

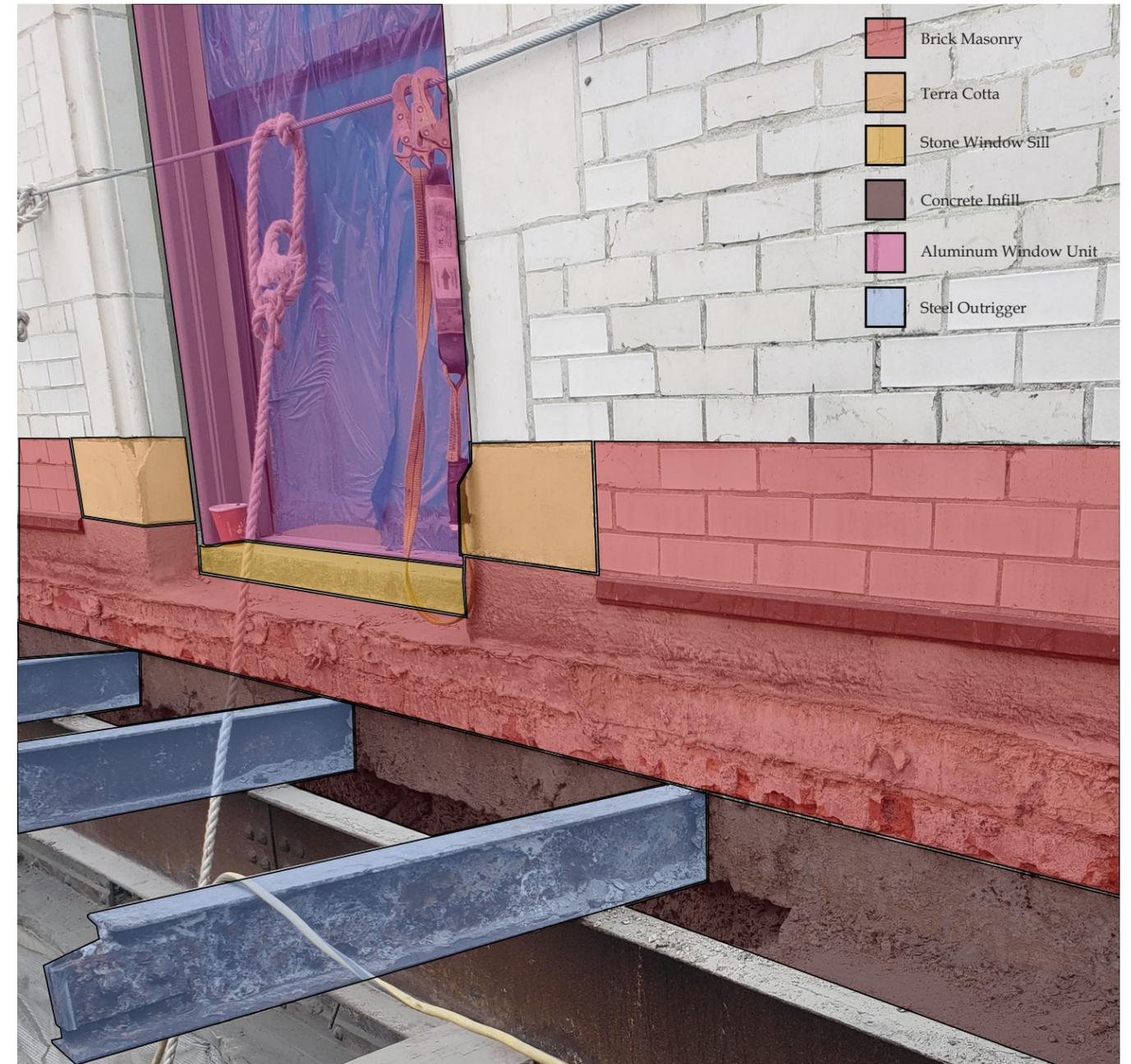
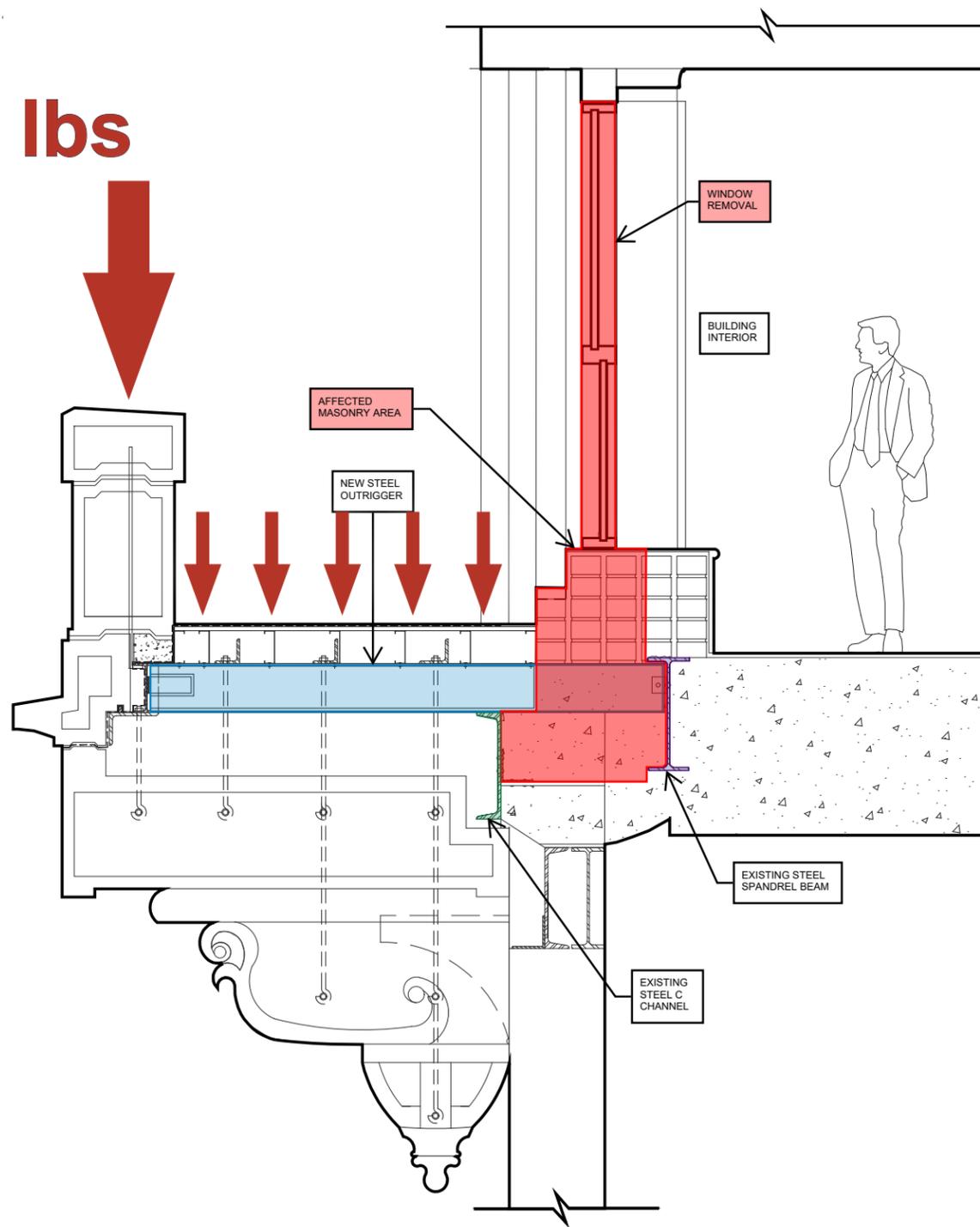


Terracotta

South Facade - Areas of Disturbance

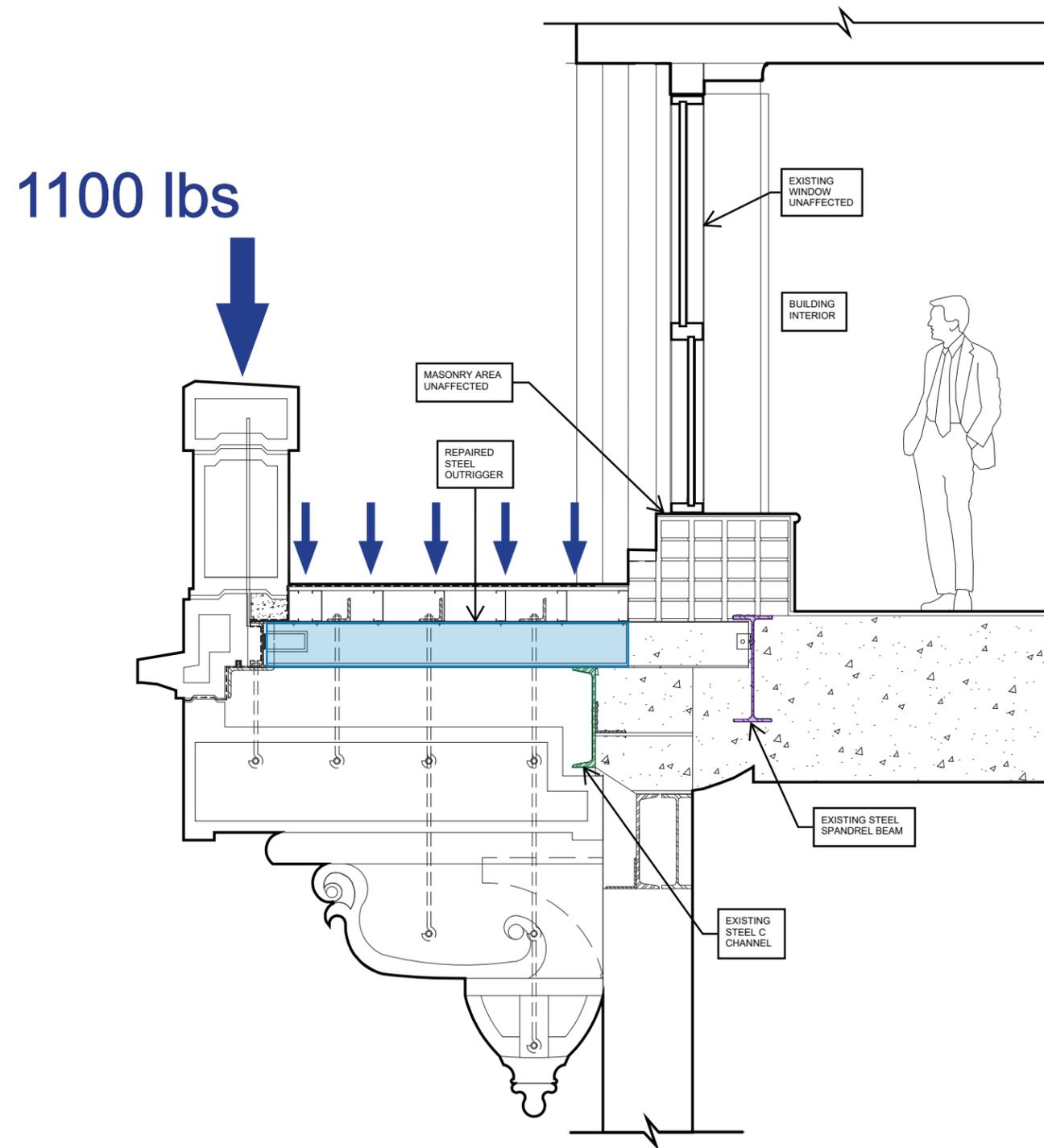
Details of Preservation Approach

1650 lbs

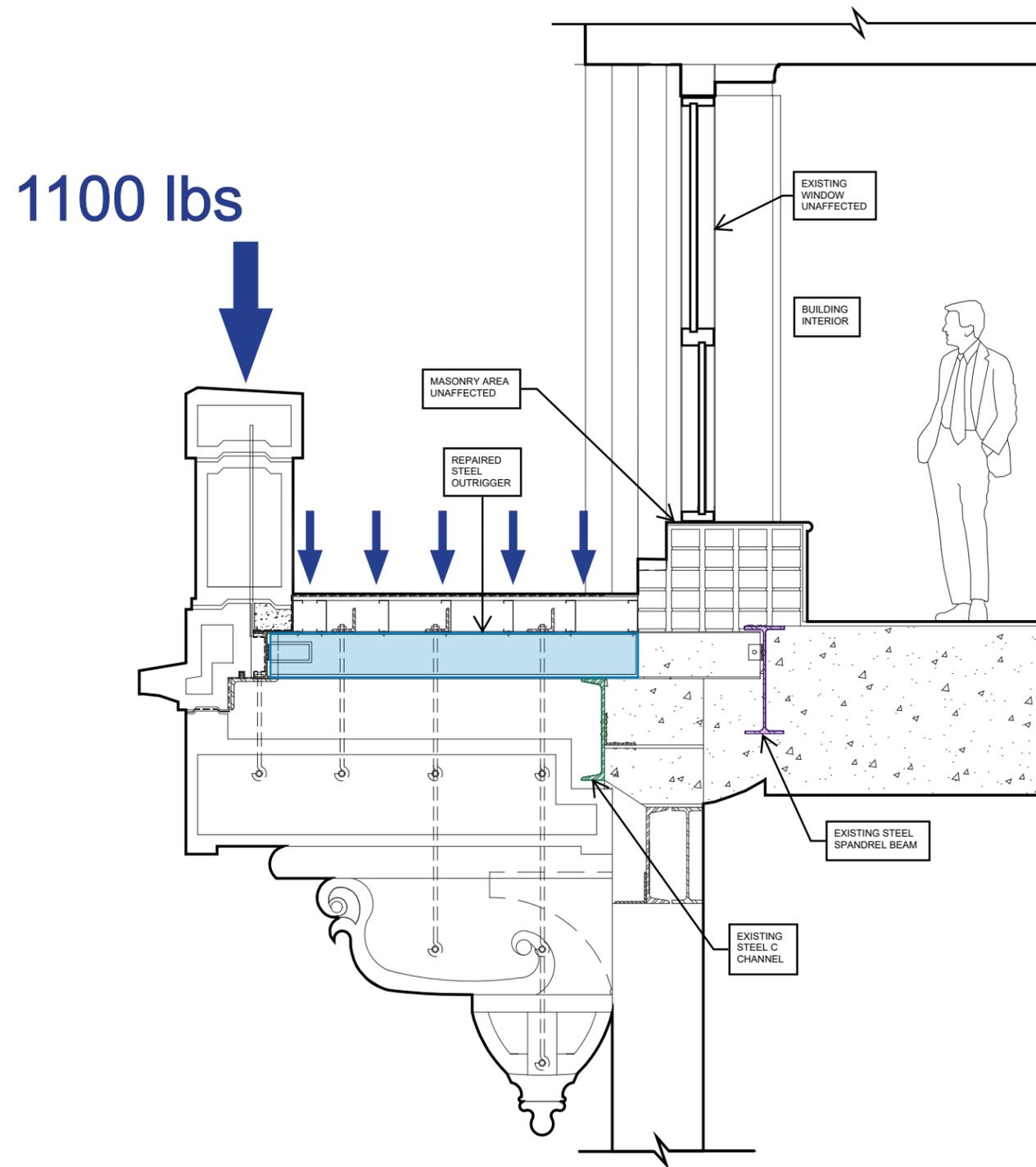


NOTE: FOR TERRACOTTA USE 70% OF ALL OUTRIGGERS REQUIRE REPLACEMENT

Terracotta - Outrigger Replacement



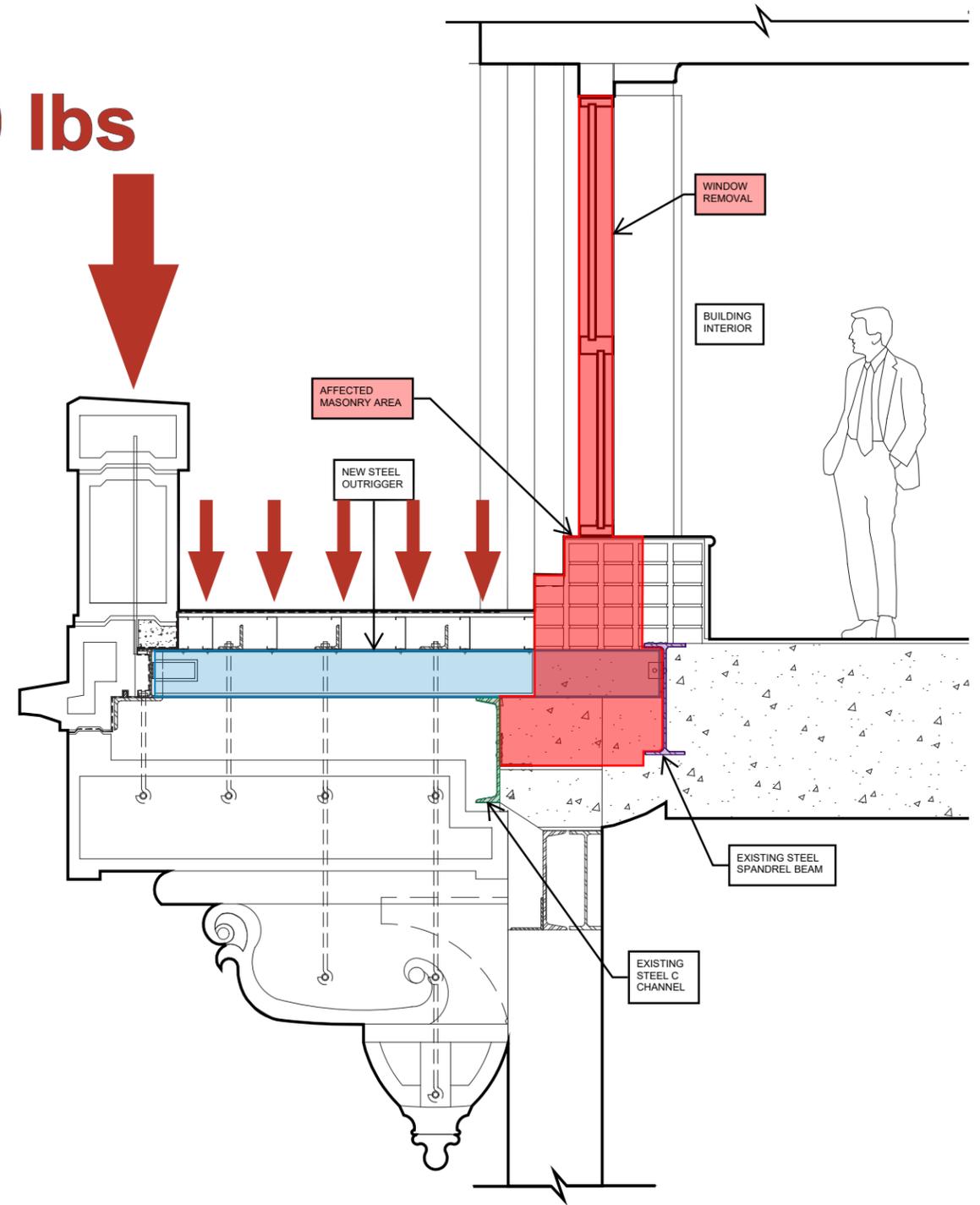
GFRC - Outrigger Repair



(Repair Load Capacity = 1400 lbs)

GFRP - Outrigger Repair

1650 lbs



(Replacement Load Capacity = 1650 lbs)

Terracotta - Outrigger Replacement



Outrigger Repair - Area of Disturbance

Steel Outrigger Repair



Outrigger Replacement - Area of Disturbance

Brick Masonry
 Terra Cotta
 Stone Window Sill
 Concrete Infill
 Aluminum Window Unit
 Steel Outrigger

	GFRC	Terracotta
Outriggers Replaced	16 13% of all outriggers	86 70% of all outriggers
Brick Masonry Area Disturbed	240 SF	1,290 SF
Terra Cotta Units Disturbed	8	48
Stone Window Sills & Flashings Disturbed	4	24
Aluminum Windows Disturbed	4	24

GFRC vs Terracotta Disturbance



GFRC Sample Unit

Original Terracotta Unit

GFRC Sample Unit For The Plaza Balcony



GFRC Color Match



Original Terracotta Rosette



Replacement GFRC Rosette



GFRC Next to Terracotta

GFRC Examples - Saint Barbara's Church



Yale Club of New York City



Sherry Netherland Hotel



Jarmulowsky Bank Building

LPC Approved GFRC

GFRC application at the 15th floor balcony:

- Preserves 1,050 SF (1,750 CF) of original historic brick masonry
- Preserves 40 original terra cotta jamb units
- Prevents the disturbance of 20 aluminum windows w/ stone sills



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