

The Spencer Building – Case Study

BCBEC AGM

Presented by Marcus Dell, P.Eng, MASc.

October 26, 2018

Designed by McCarter and Nairne Architects Constructed in late 1920's



Historical Significance



Originally Spencer's Department Store
Eaton's
Sears
SFU Downtown Campus



Condition Assessment (CA) - 2014



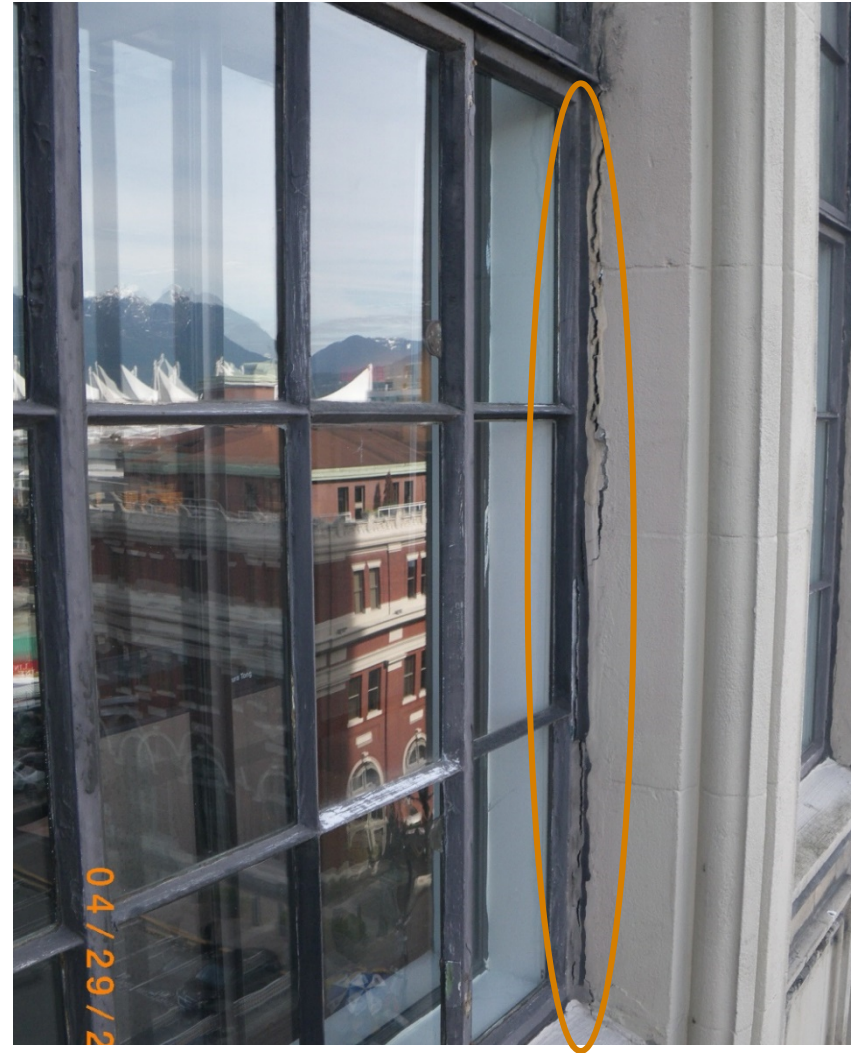
CA - Cast Stone



CA - Masonry

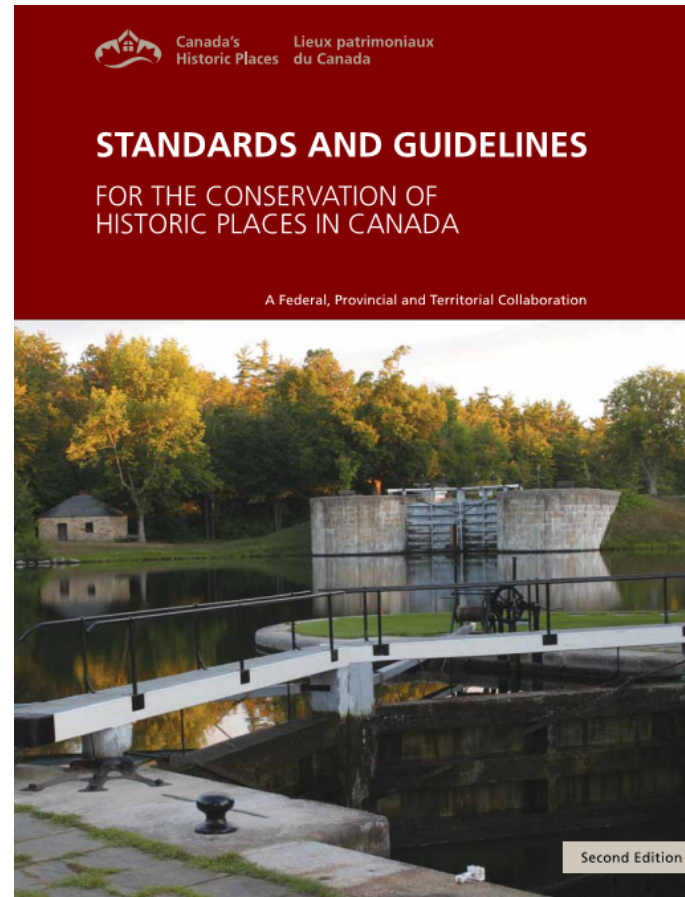


CA - Windows



Heritage Conservation and Restoration

- The Standards and Guidelines for the Conservation of Historic Places in Canada is the primary resource for heritage conservation in Canada.
- Restoration – Accurately revealing, recovering or representing the state of an historic place while protecting its heritage value.
- Do not remove, replace or substantially alter a character defining element.



Historic Conservation vs Energy Conservation

- Approx. 1/4 of energy use is existing buildings.
- Approximately two-thirds of the building area that exists today will still exist in 2050.
- “The most sustainable building is an existing building.”
- Parks - Do not remove, replace or substantially alter a character defining element
- Conflict between conservation principals and energy conservation, particularly as it pertains to energy use.



Trial Repair - 2015



Trial Repair – Location Selection



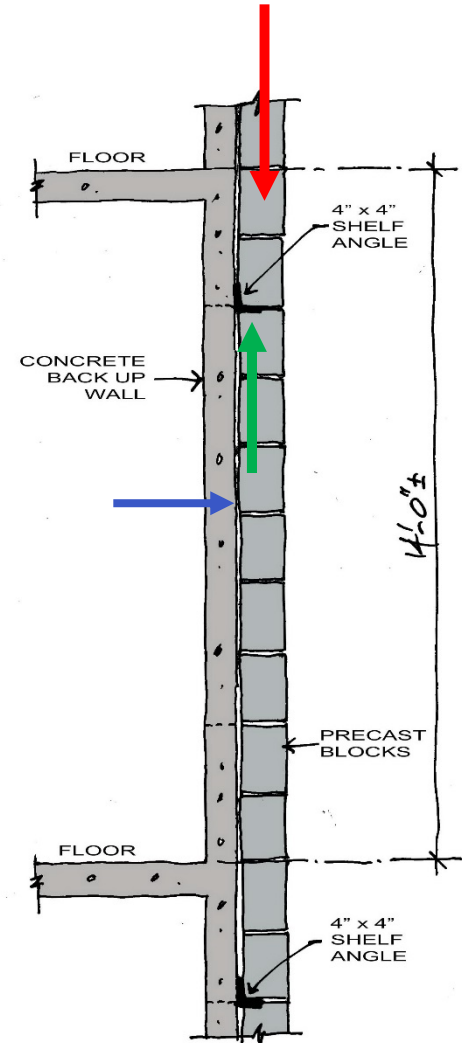
Trial Repair – Pre-cast



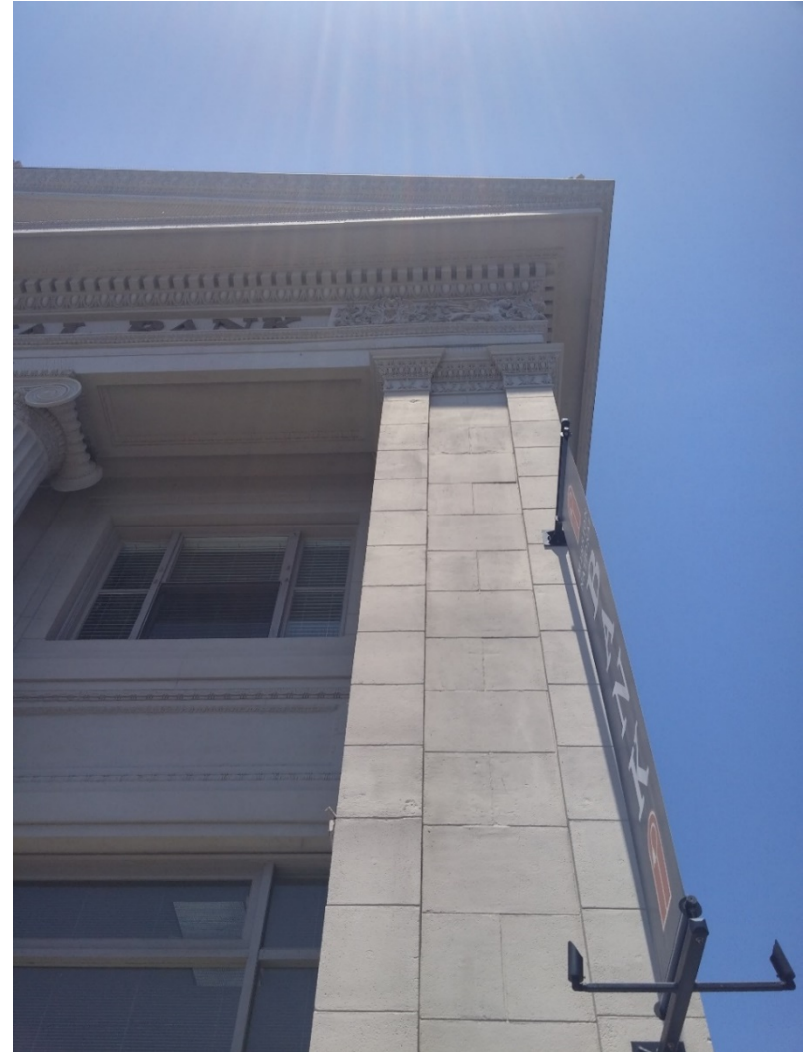
Trial Repair – Pre-cast



Spencer Building



Trial Repair – Keim Materials



Trial Repair



Conservation Plan



THE SPENCER BUILDING

HERITAGE CONSERVATION PLAN



Prepared by: RDH Building Science Inc.
224 West 8th Avenue
Vancouver, BC V5Y 1N5



Harbour Centre

For: Harbour Centre Complex Limited
2000 - 555 West Hastings Street
Vancouver, BC V6B 4N6

February 2016

Conservation and Restoration 2016 - 2018



Brick Masonry Repairs



Bay 1 completely dismantled to better determine as-built conditions

Brick Masonry Repairs



Cast Stone – Decorative Panels



Cast Stone – Decorative Panels



Cast Stone – Decorative Panels



Cast Stone



Window Installation and Cast Stone Support



Pre-Patinated Flashings



Decorative Griffins



Final Product



Final Product



Then and Now



Circa 1930



2018

Discussion and Questions

CA - Stucco Cladding (West Elevation)

- Displacement of stucco panels
- Cracking of stucco at multiple locations
- Cracks spanning ¼"-½" width
- Evidence of water ingress behind stucco

Staining at window head from behind gasket/caulking

CA - Precast Concrete



Trial Repair



CA - Masonry

→ Corrosion of shelf angles
causing spalling



East Elevation

CA – Cast Stone



Trial Repair - Masonry



Trial Repair - Masonry



Trial Repair – Pre-cast



West Wall - Stucco



Stucco Wire



Stucco Scratch Coat

Site Storage



CA – Stucco Cladding (West Elevation)



CA - Stucco Cladding (West Elevation)



CA - Stucco Cladding (West Elevation)



West Wall - Stucco



West Wall - Stucco



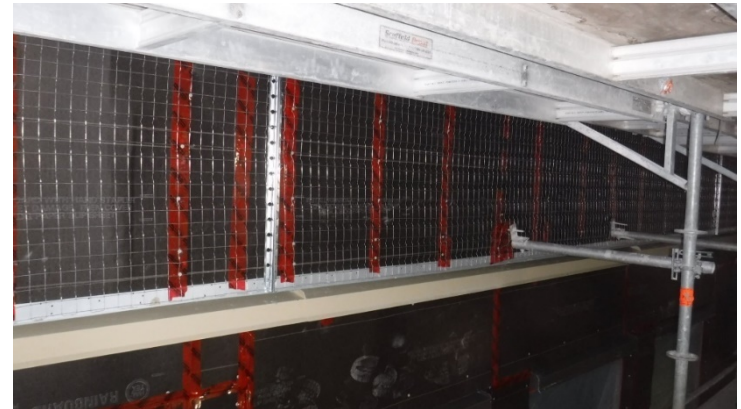
Membrane and Girts



Insulation



Stucco Backing Board



Stucco Wire

West Wall - Stucco



Scratch and Brown Coats



Primer for Finish Coat



Window Install and Testing



CA - Windows



Southwest - New Griffin



Thank you to all Participants



CA - Cast Stone



South Elevation – Niche



Bay 1 completely dismantled to determine
As-built conditions

Trial Repair – Keim Materials



Trial Repair - Windows



South Elevation – Niche

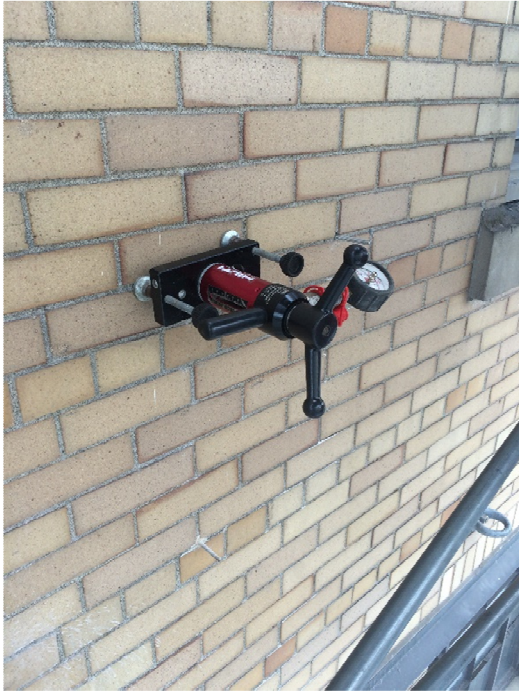


Bay 2 – individual cast stone blocks removed

New Cast Stone



New Cast Stone



South Elevation – Niche



Bay 1 completely dismantled to determine
As-built conditions

East Elevation – General Conditions



South – Base or Wall



Final Product



South Elevation – Cast Stone



South Elevation – Cast Stone



Variety of masonry infill/back-up

South Elevation – Niche



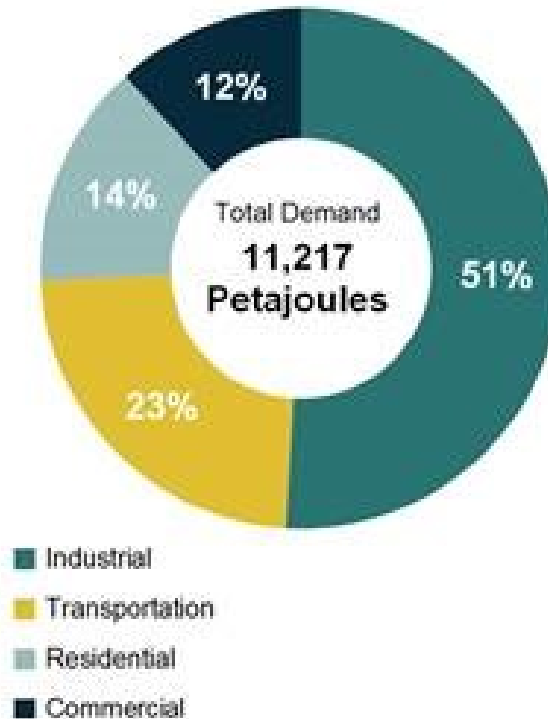
Bay 2 – individual cast stone blocks removed

Pre-Patinated Flashings



Energy use in Canada

→ Approx ¼ of energy use in Canada is associated with existing buildings (National Energy Board).



Griffins



Griffins

