

WELCOME

THE WEBINAR WILL BEGIN SOON



Adaptive Reuse Trends

in the Commercial Real Estate Market and Implications
for Environmental Due Diligence

Adaptive Reuse Trends

in the Commercial Real Estate Market and Implications
for Environmental Due Diligence



Thursday, November 18, 2021
2:00 PM ET

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CANADA'S ONE-STOP SHOP

FOR ENVIRONMENTAL ASSESSMENT
DATA AND RESEARCH

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Presenters

Urban Planning



Mary W. Rowe
Canadian Urban Institute

Developer



Alex Speigel
Windmill Development Group

Architect



Dev Mehta
BDP Quadrangle

Environmental Consultant



Paula Hutchison
Geosyntec Consultants

Moderator



Eric Pringle, Milestone Environmental Contracting



ERIS Webinar

Adaptive Reuse Trends

Mary W. Rowe, President and CEO
Canadian Urban Institute

November 18, 2021



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Overview of Adaptive Reuse and CRE Market Drivers

Adaptive Reuse in a nutshell:

Repurposing the primary function of a building

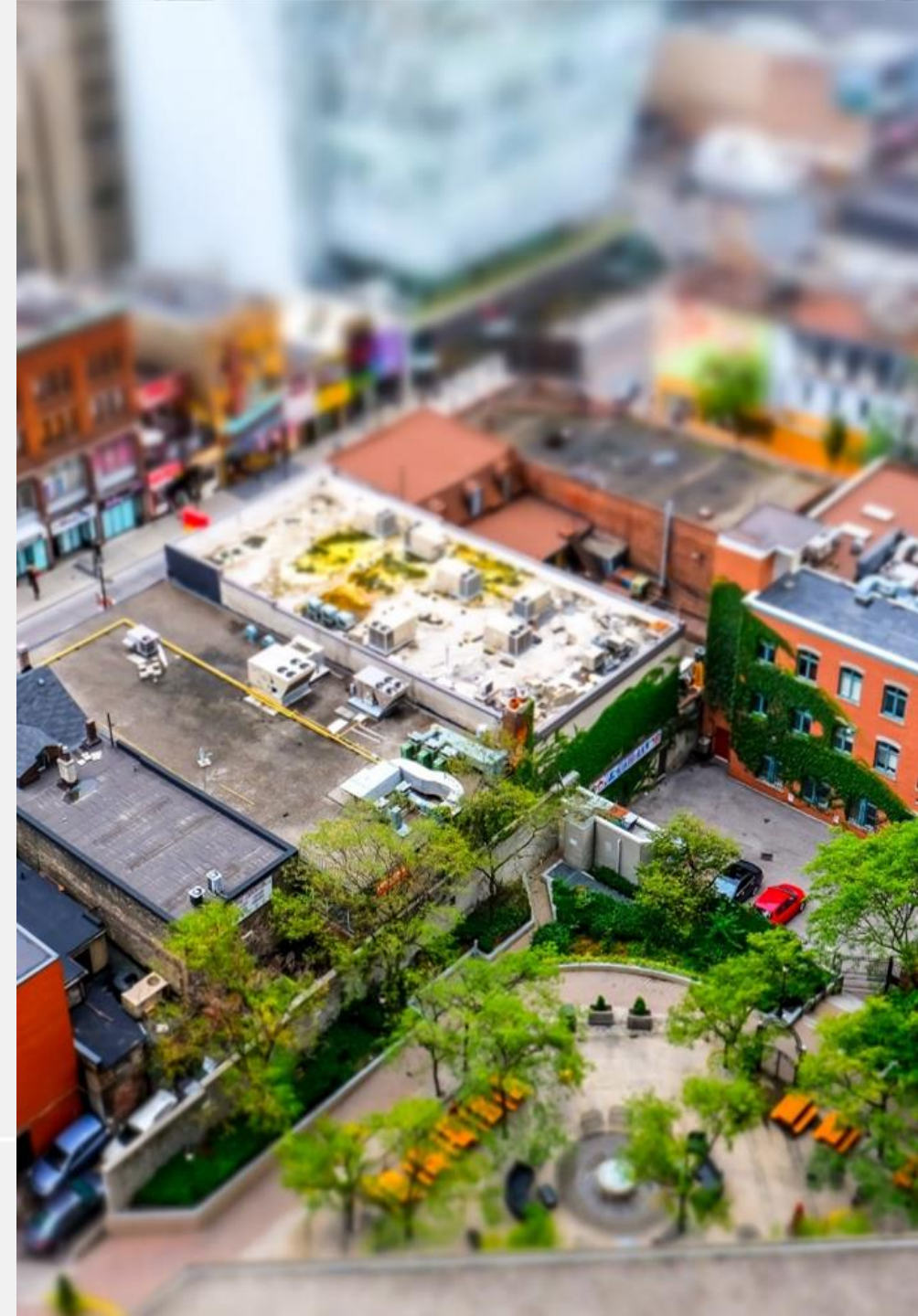
COVID-19 has accelerated the need for adaptive reuse



Findings from CUI's Bring Back Main Street & Restore the Core

*Bring Back Main Street (**BBMS**) and Restore the Core (**RTC**) studies found that:*

- Teleworking trend will continue years after the pandemic.
- Adaptive reuse can help our downtowns and main streets recover from the economic impact of COVID-



Benefits of adaptive reuse

- Keeping our **downtowns and main streets** vibrant
- Creating **multi-faceted neighbourhoods**
- Reducing office **vacancy rate** to support property values of the non-residential property tax assessment base

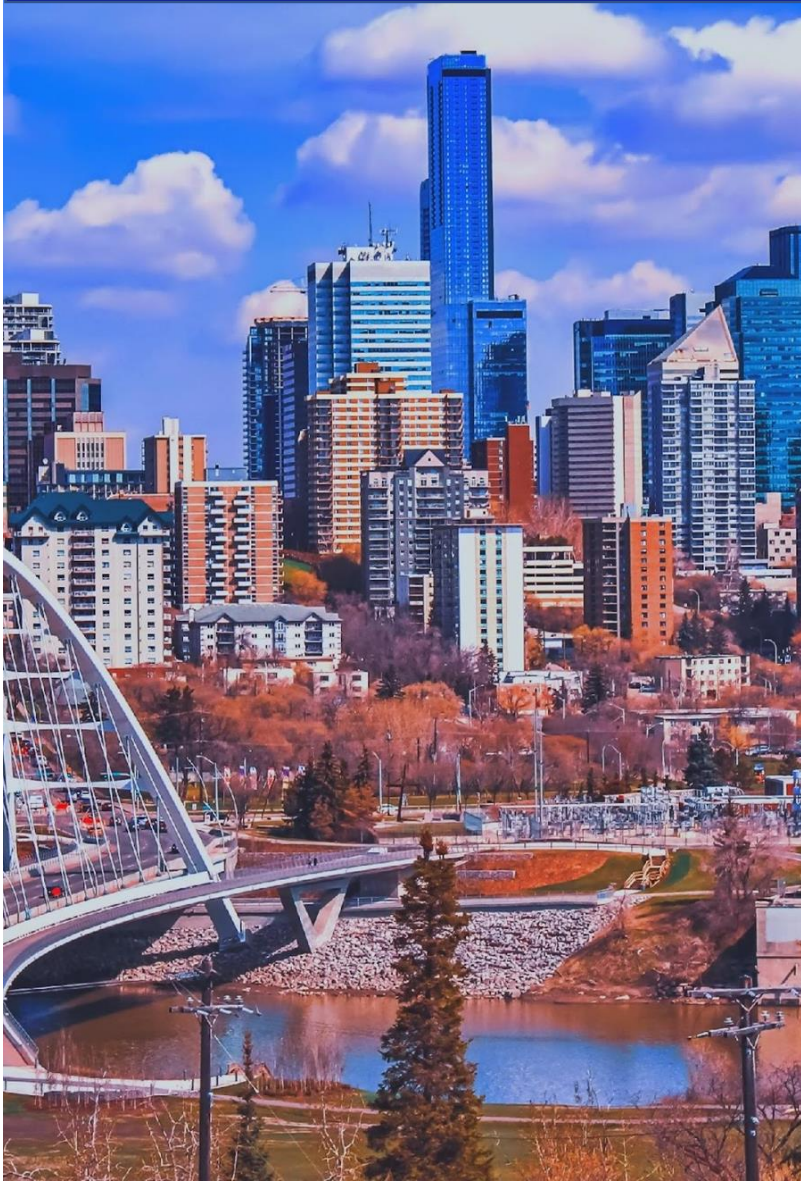


Enabling conditions for adaptive reuse

- Policy (e.g land use and zoning)
- Financial
- Design



CRE Market Drivers



Macro trends in adaptive reuse

Teleworking reduces demand for office spaces

Long-term economic impact of COVID

Area-specific economic conditions (i.e: Calgary)

Housing crisis



Thank you

Mary W. Rowe, President and CEO
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Adaptive Re-use:

Alex Speigel
Windmill Developments

alex@windmilldevelopments.com



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Adaptive Re-use

- Benefits
- Challenges
- Case Studies:
 - Kensington Market Lofts
 - Tip Top Lofts
 - The Loretto
 - Arch Lofts



Benefits

Social:

- Historical continuity, heritage
- Neighbourhood context, scale

Green / Sustainability

- Retain embodied energy
- Minimal demolition: less landfill, less new material
- Infill sites support intensification

Planning

Existing envelope, height, density, window openings

Neighbourhood acceptance

Marketing

- Appeal of unique building: higher sale value
- Benefit of unique features: ceiling heights, detailing



Challenges

Limitations in Design

- Building envelope
- Floor plan
- Parking

Additional Cost and Time

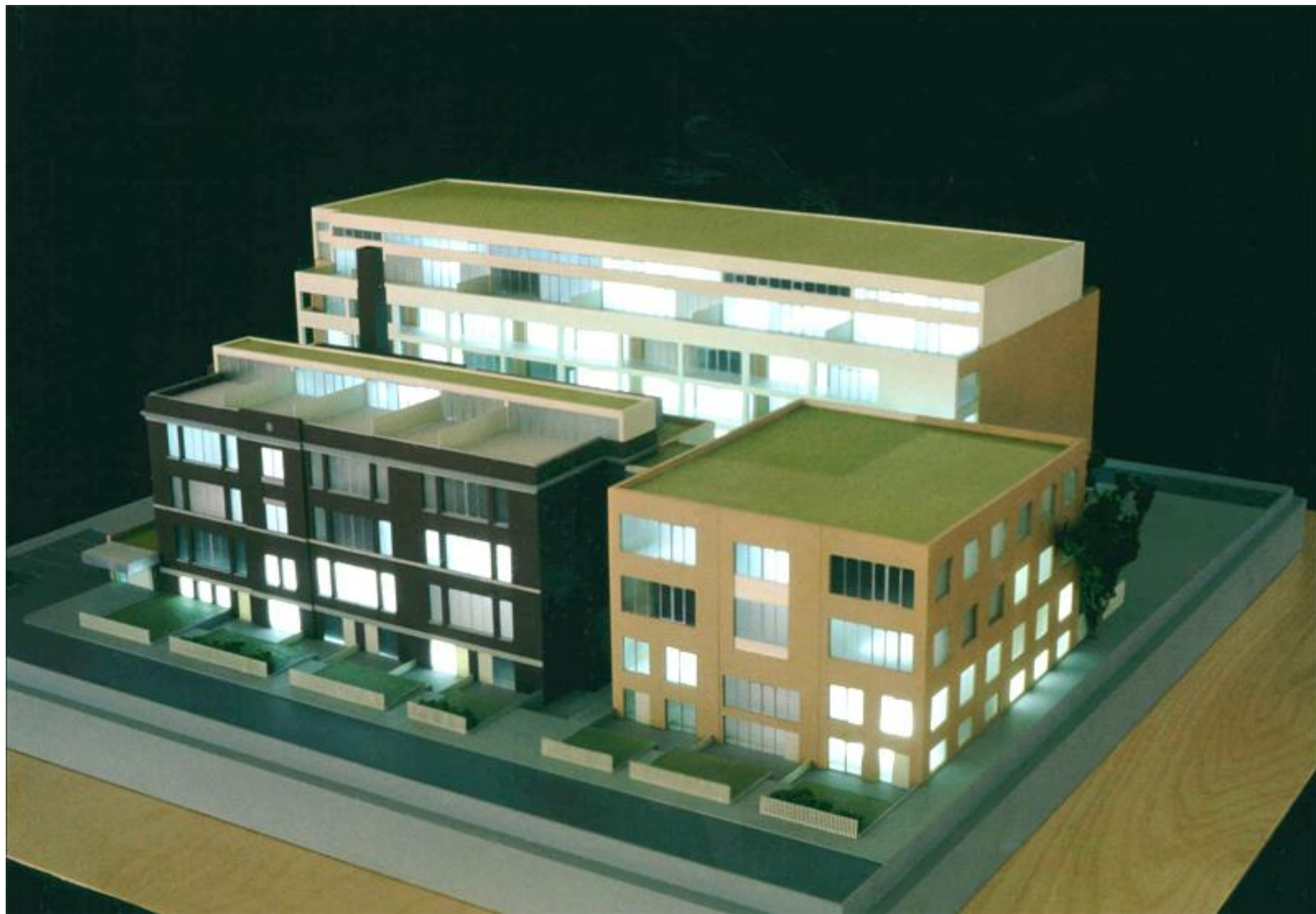
- Approvals (HEA)
- Construction

Unknown factors

- Environmental
- Surprises











THE LORETTO
CONDOMINIUMS & TOWN HOMES
in the annex



Designed by George

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THE LORETO
CONDOMINIUM & TOWNHOMES
IN THE AREA

THE CONSTRUCTION PHASE
FROM 2001-2002

THE LORETO TOWNHOMES
13 very special residences located
behind the historic Loreto building

CONTEXT

LEGEND























ONE
PLANET
LIVING



ZERO CARBON
ZÉRO CARBONE



SUSTAINABLE TRANSPORT
TRANSPORTS DURABLES



LOCAL & SUSTAINABLE FOOD
ALIMENTS LOCAUX ET DURABLES



LAND USE & WILDLIFE
HABITATS NATURELS ET LA FAUNE



EQUITY & LOCAL ECONOMY
ÉQUITÉ ET COMMERCE ÉQUITABLE



ZERO WASTE
ZÉRO DÉCHETS



SUSTAINABLE MATERIALS
MATÉRIAUX LOCAUX ET DURABLES



SUSTAINABLE WATER
GESTION DURABLE DE L'EAU



CULTURE & COMMUNITY
CULTURE ET PATRIMOINE



HEALTH & HAPPINESS
SANTÉ ET BONHEUR

Kensington Market Lofts

Developer	C+A Developments / Orenda Development (with Equivest, ORDC)
Architects	RB Barnet, Paul Oberst Kohn Shnier Architects
Structural	Blackwell Bowick
Mechanical	Enso Consulting
Electrical	DeCaria Engineering
Contractor	Richard and BA Ryan

Tip Top Lofts

Developer	Tip Top Lofts Inc (Context Development, Deutschebank)
Architect	architects Alliance
Heritage Architect	ERA Architects
Structural	Yolles
Mechanical	MCW
Electrical	MCW
Construction Manager	Lomax Management

The Loretto

Developer	Context Development
Architect	architects Alliance Quadrangle Architects
Heritage Architect	ERA Architects
Structural	RJC
Mechanical	Able Engineering
Electrical	Able Engineering
Construction Manager	Veismann Consulting Ltd.

Arch Lofts

Developer	Windmill Development Group
Architect	Caricari Lee Architects
Heritage Architect	Goldsmith Borgal
Structural	Blackwell
Mechanical	Integral
Electrical	Integral
Construction Manager	Ledcor

Adaptive Re-use:

Alex Speigel
Windmill Developments

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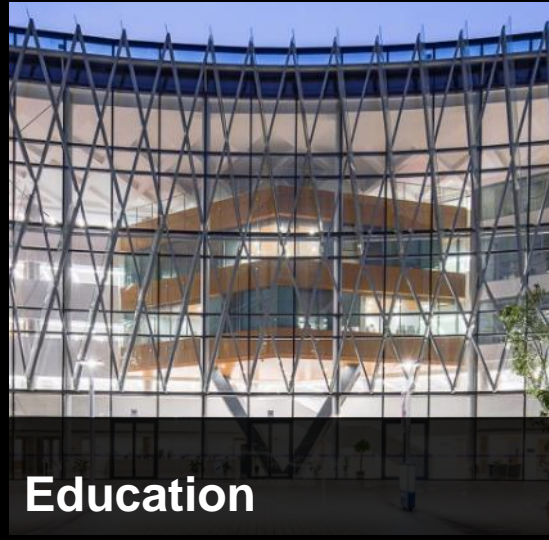
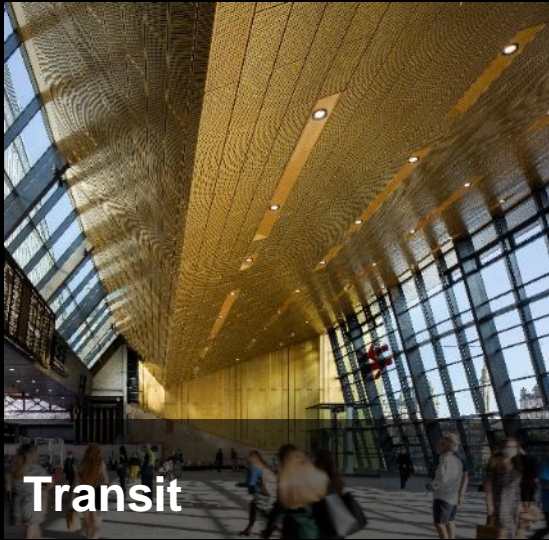
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Innovating on History

BDP.
Quadrangle



Services

Architecture

Design

Urbanism

human—space

Markets

Mixed-Use

Residential

Workplace

Retail

Transit

Media

Education

Health

Expertise

Adaptive Reuse

Universal Design

Sustainability











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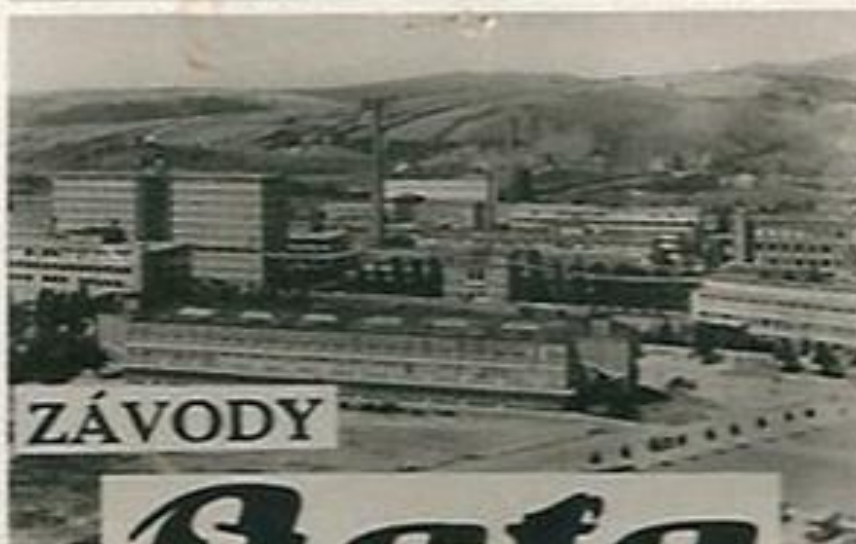


Bata Shoe Factory





BATA SHOE FACTORY



ZÁVODY

Rata

ZLÍN





BATAWA SHOPPING CENTRE



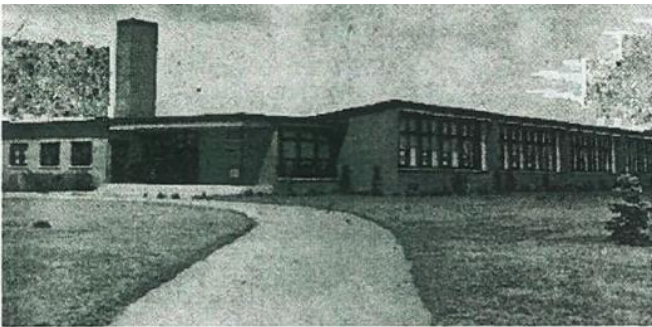
TRENT RIVER



WARTIME HOUSING IN BATAWA



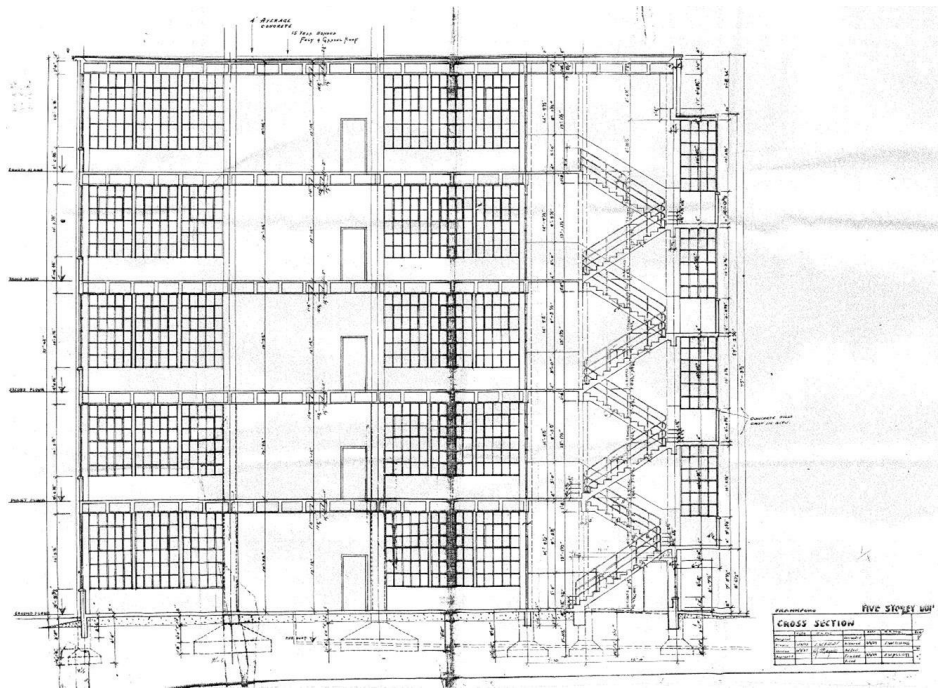
THE SACRED HEART CATHOLIC SCHOOL



BATAWA PUBLIC SCHOOL

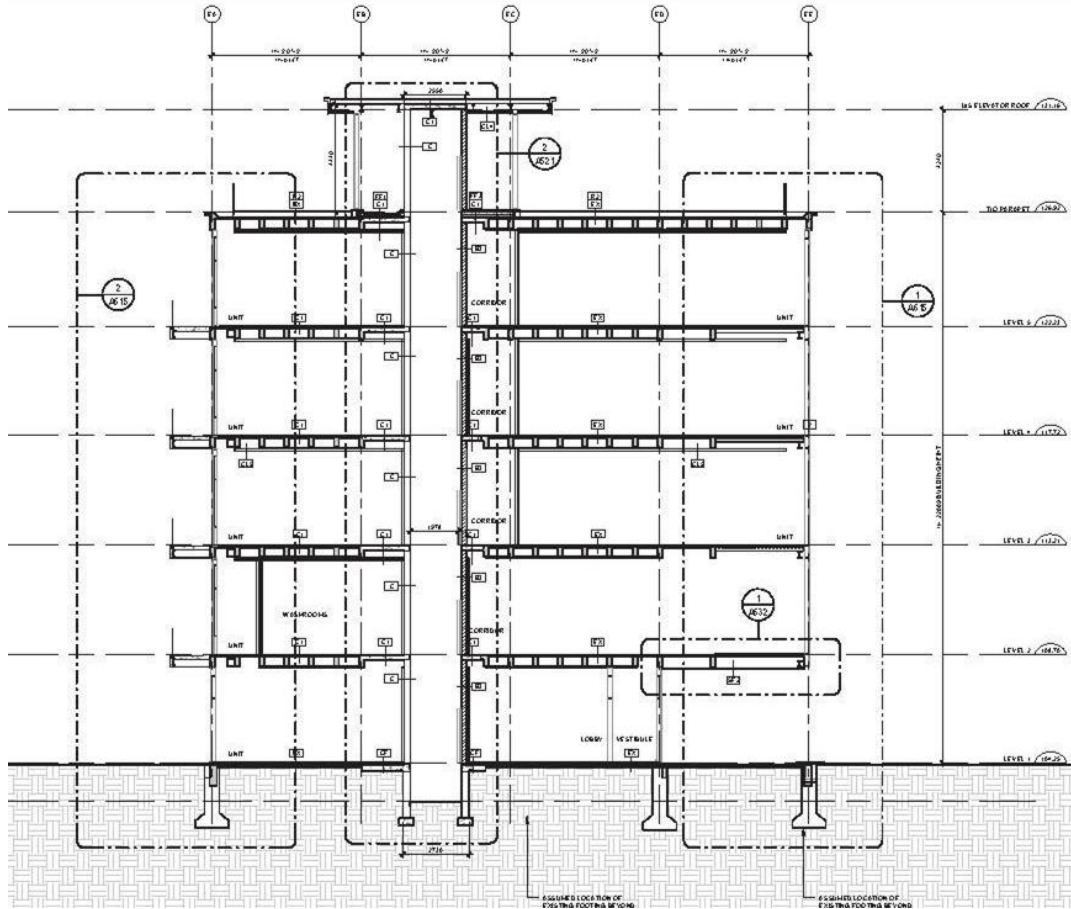






Phase 1

Remediation, Exterior Envelope & Elevator Core

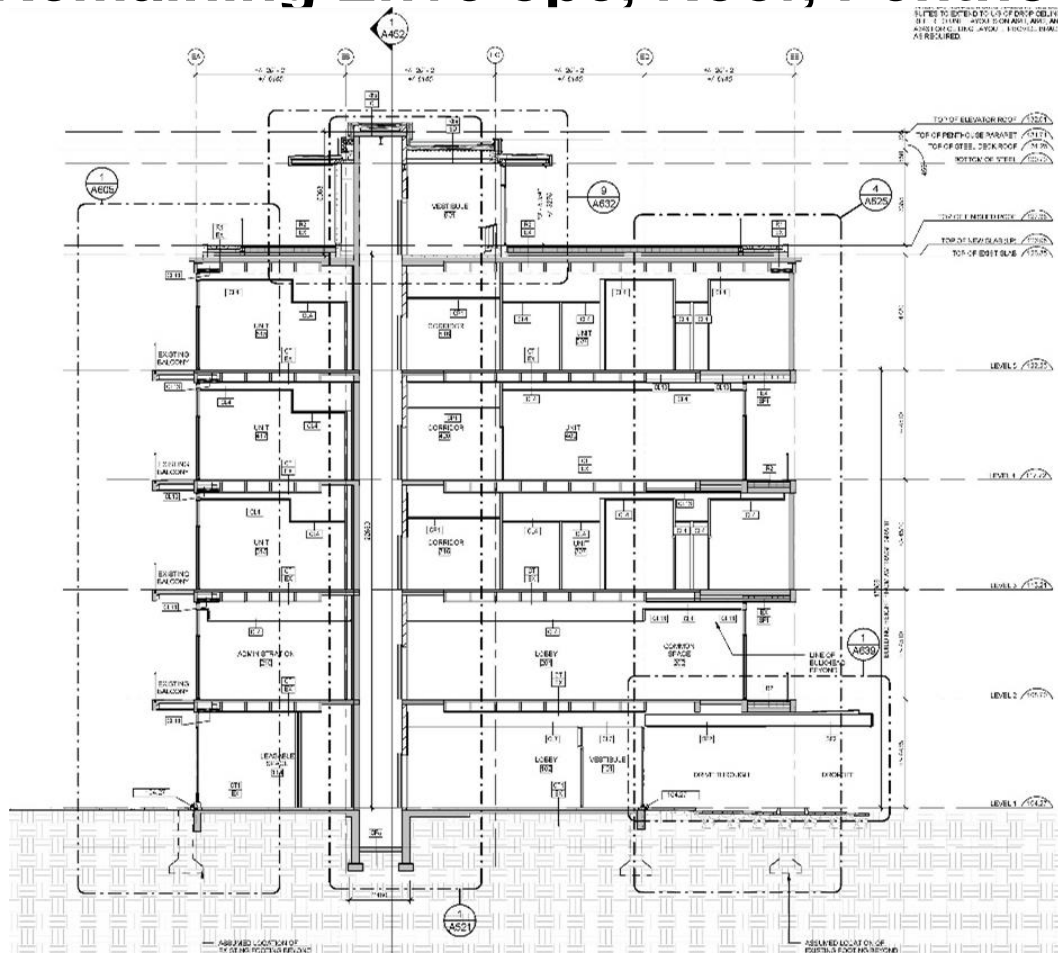


2014 - 2015



Phase 2

Remaining Envelope, Roof, Penthouse, Servicing, Landscaping & Interiors

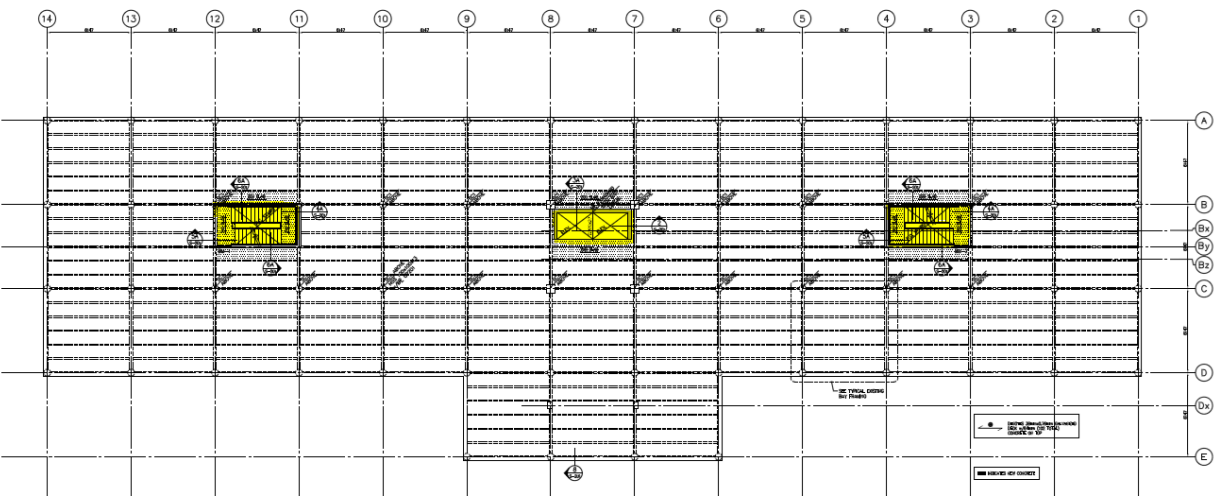


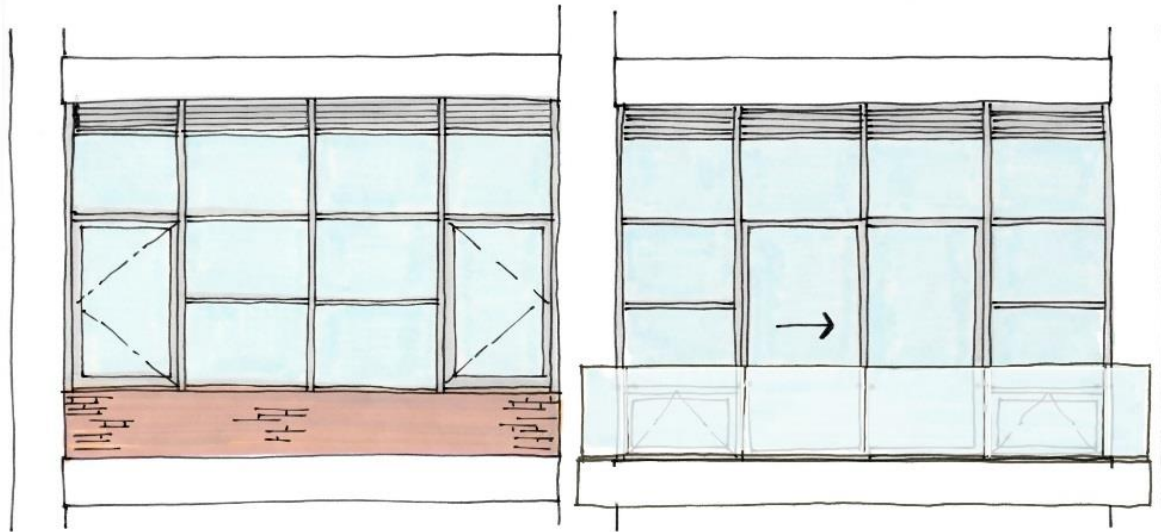
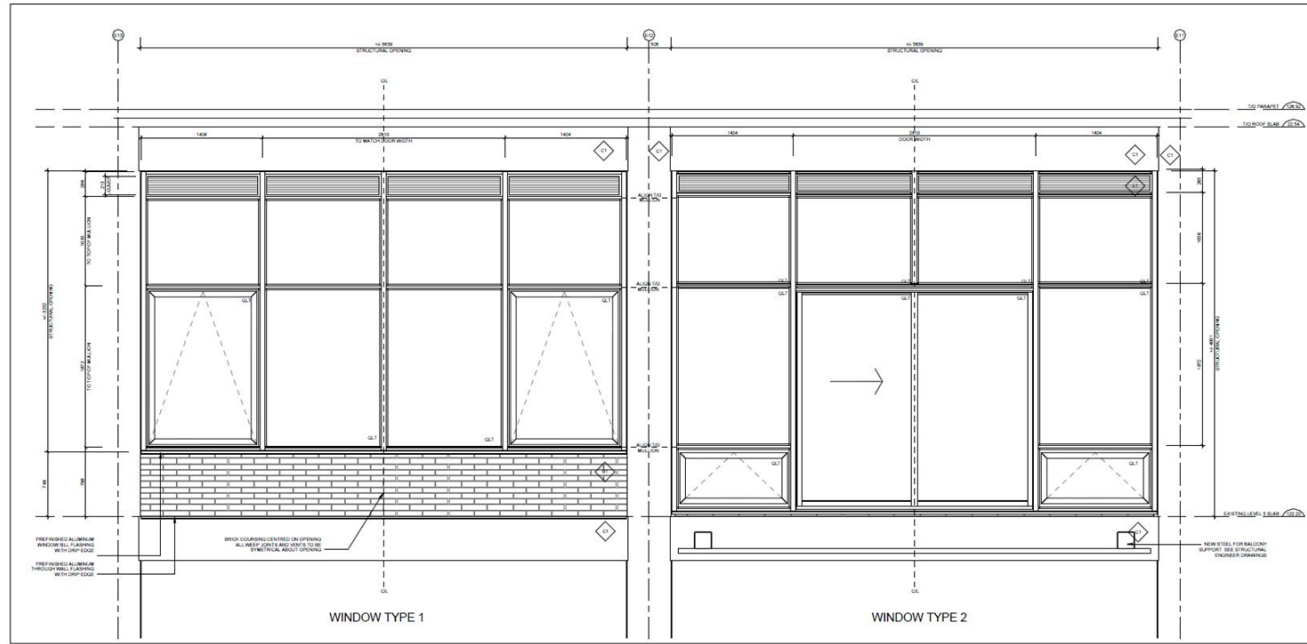
2016 - 2019

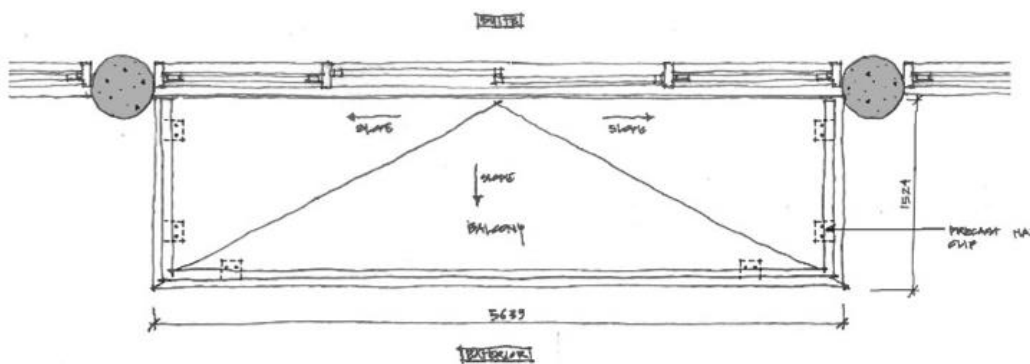
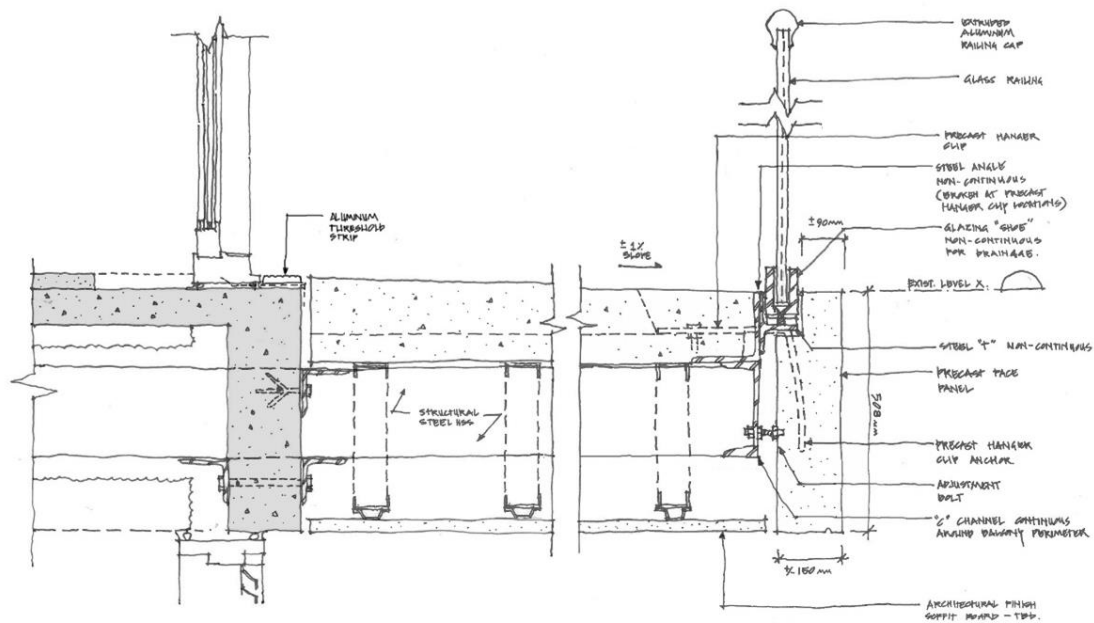
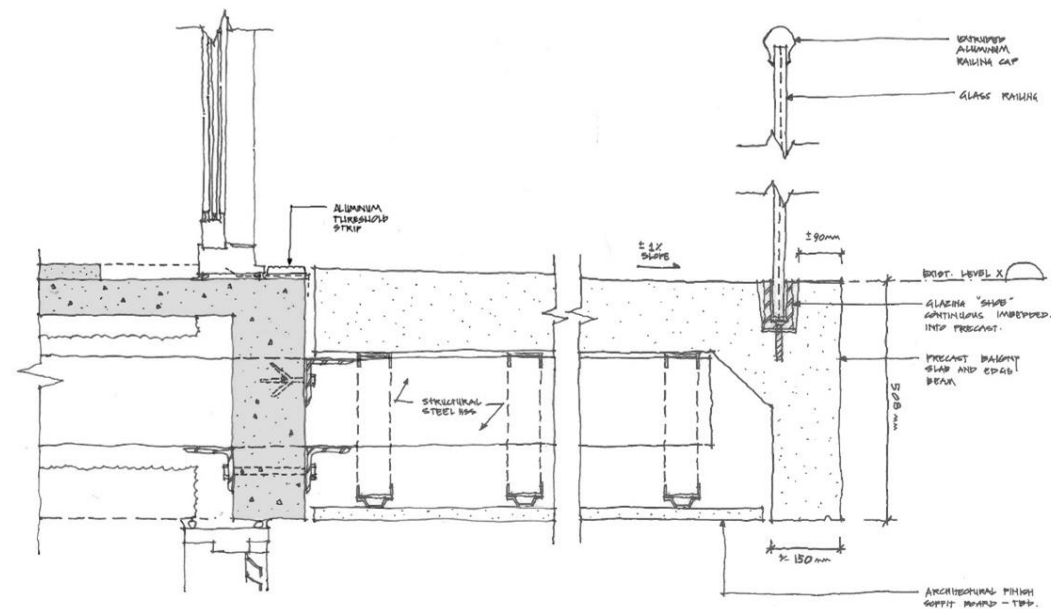
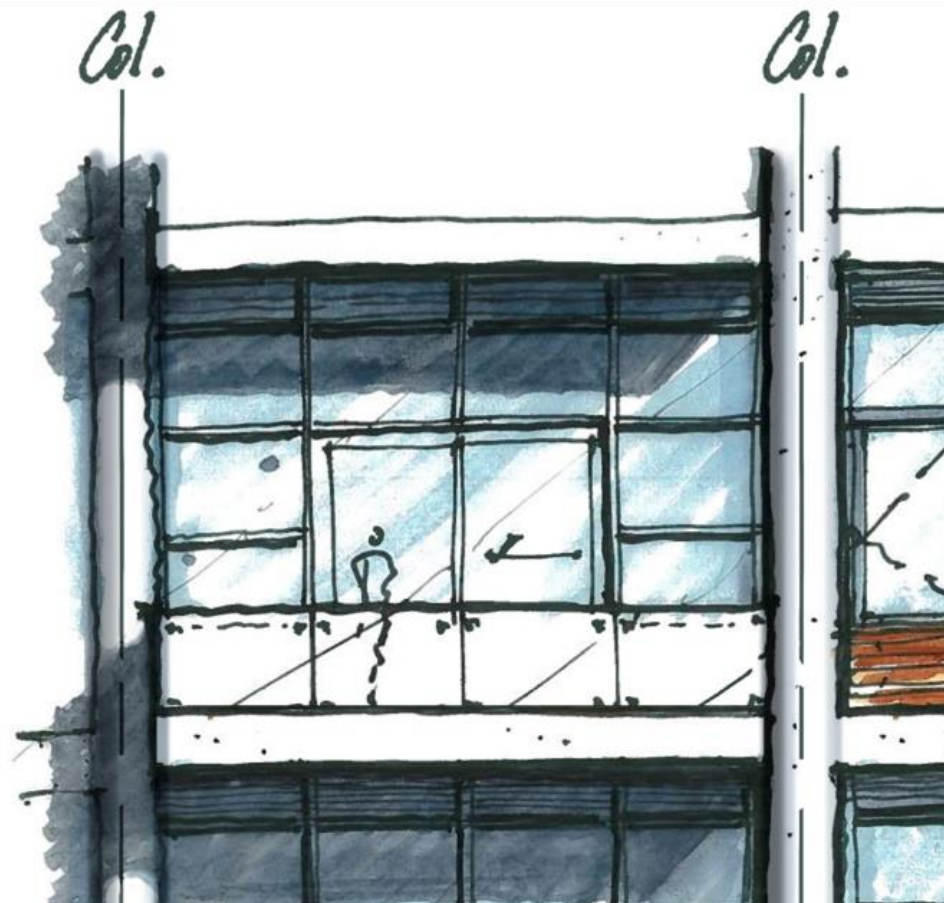


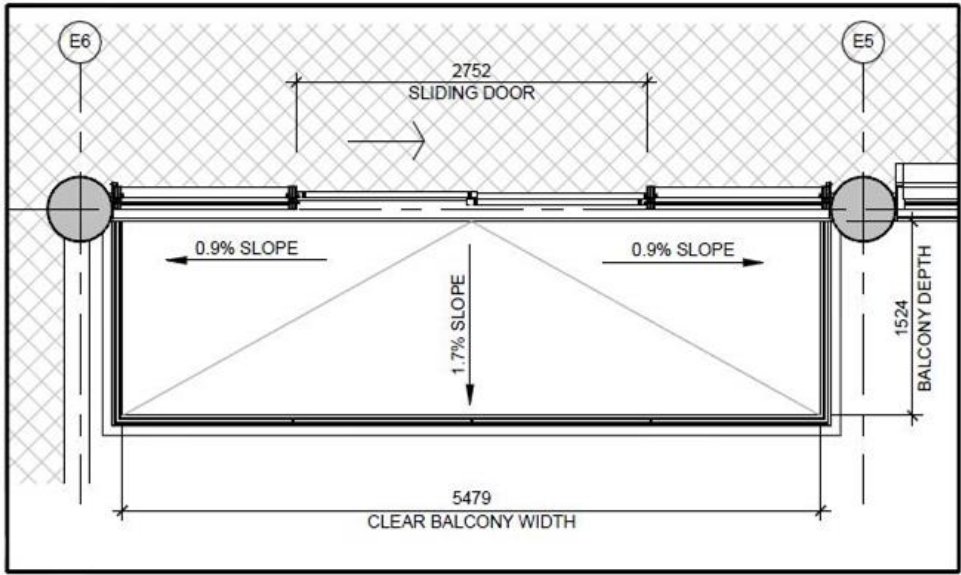
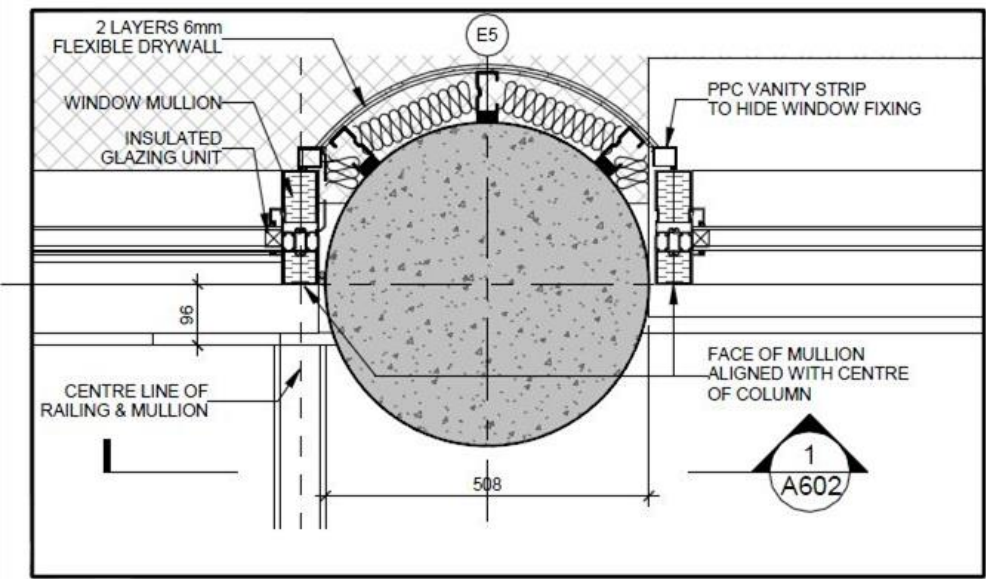
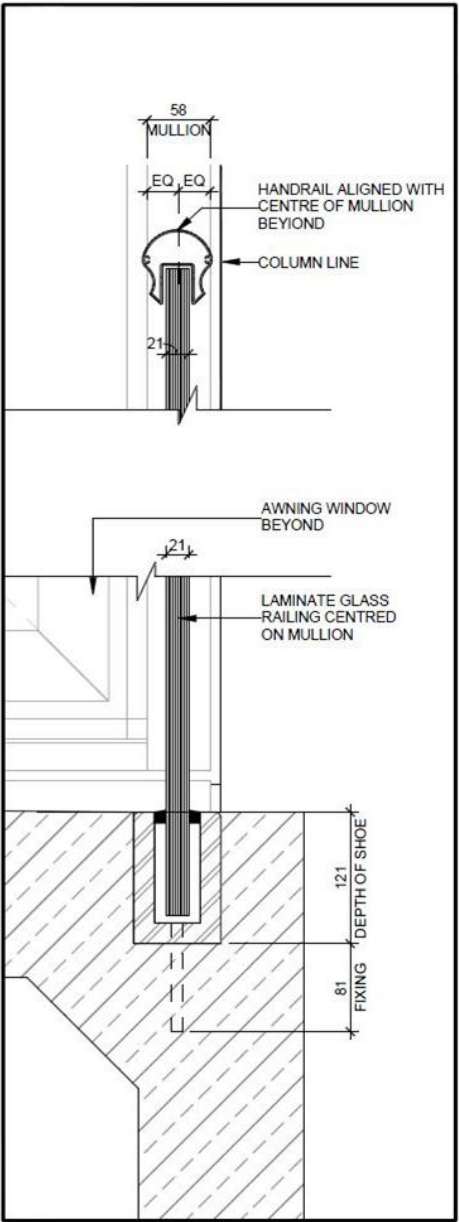
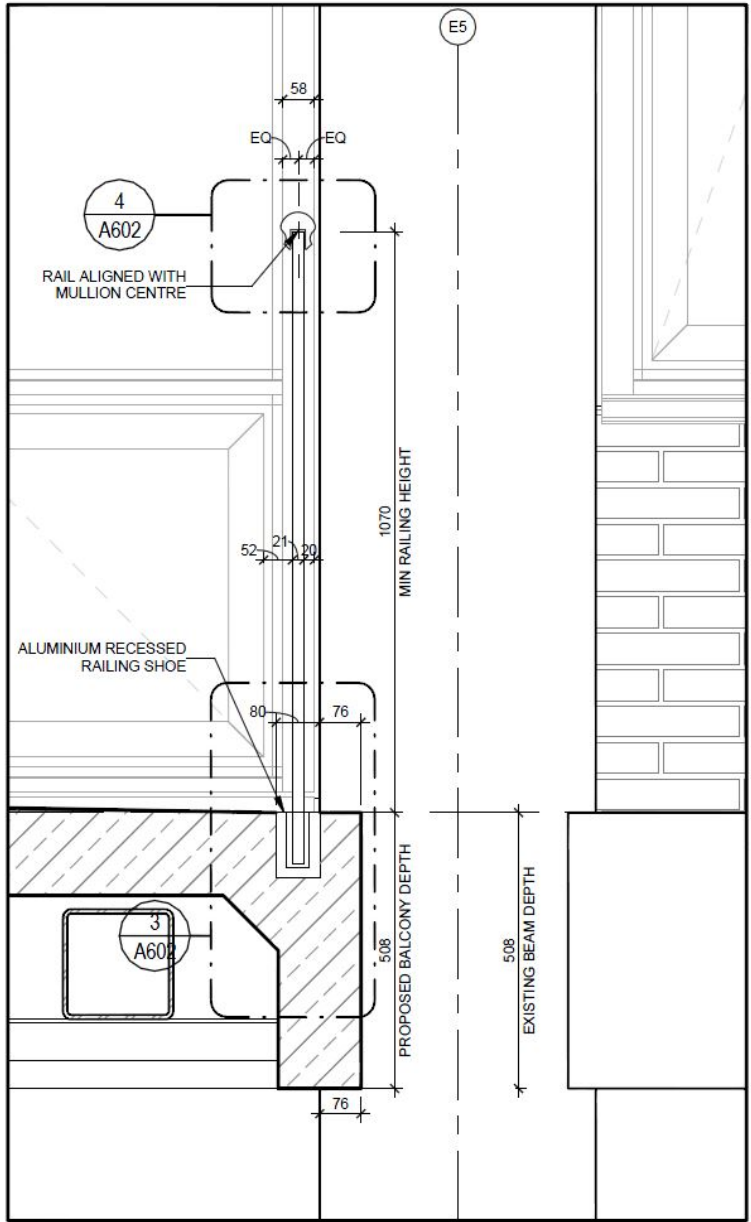


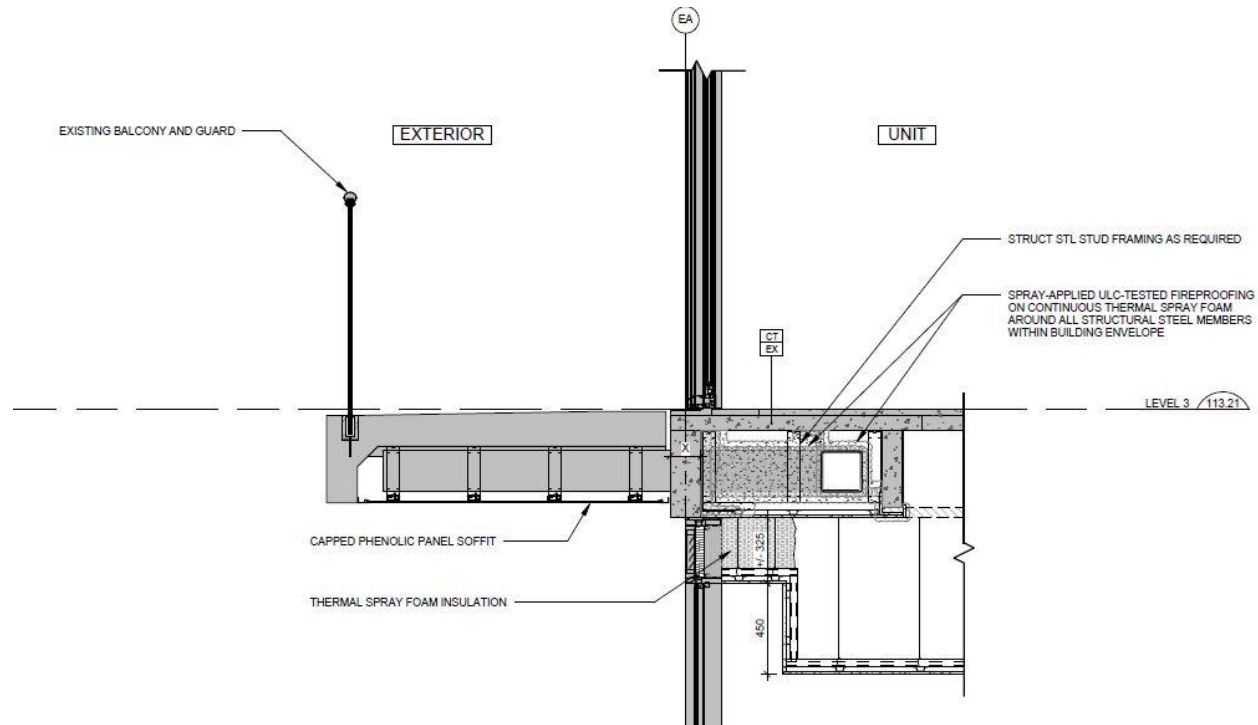


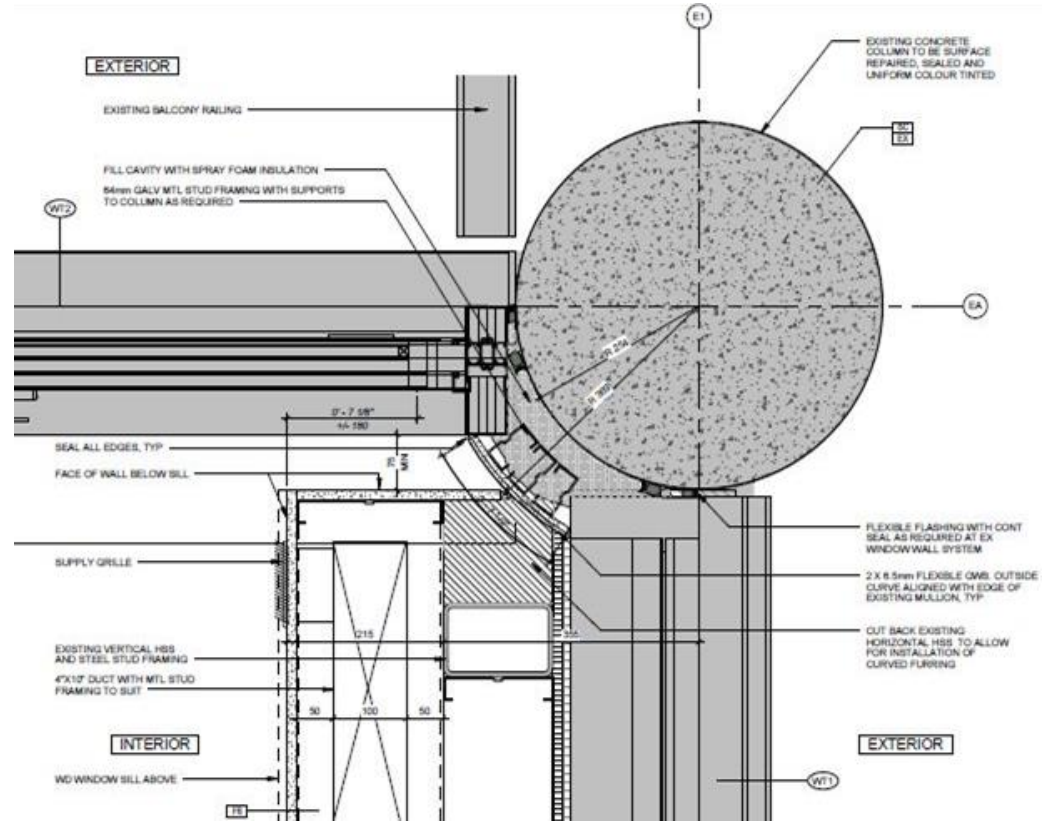










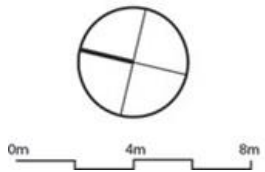


Residential Suite – Interior





TYPICAL FLOOR PLATE







The image shows the exterior of the Bata Shoe Factory, a modern multi-story building. The facade is composed of large glass panels and concrete columns. A prominent entrance canopy with a wooden ceiling and integrated lighting extends over the glass-fronted entrance. The building has multiple levels with balconies and large windows that reflect the sky. The overall design is industrial yet contemporary.

BATA SHOE FACTORY





BATA SHOE FACTORY

Thank You

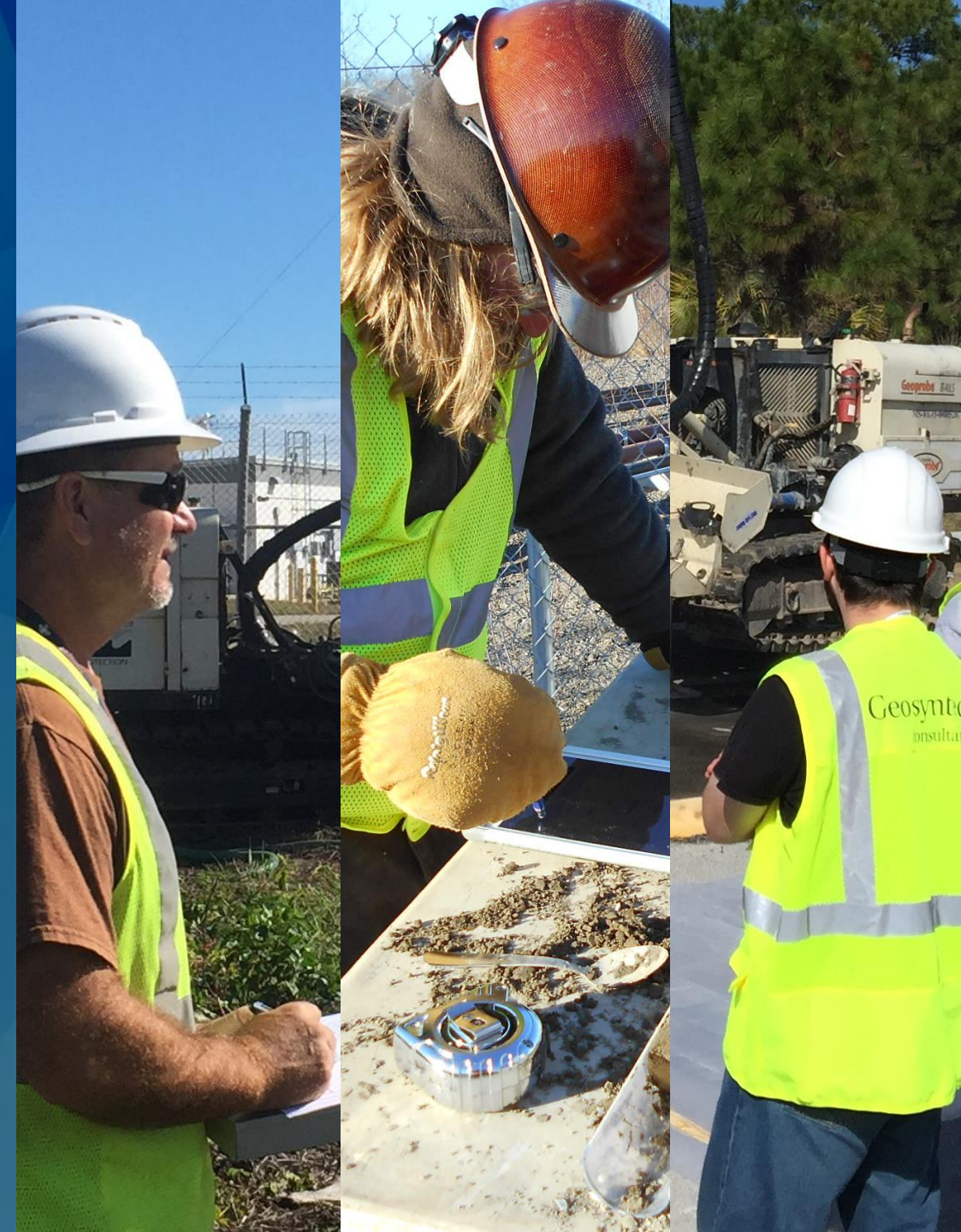
**BDP.
Quadrangle**



ERIS/CBN Webinar Adaptive Reuse

Paula Hutchison, P.Eng._(ON), QP_{ESA}, QP_{RA} |

November 18, 2021





Is Adaptive Reuse Considered Sustainable Development?



Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.



For sustainable development to be achieved, it is crucial to harmonize three core elements: economic growth, social inclusion and environmental protection.



Environmental, Social, and Governance (ESG)



Environmental Stewardship

- Good environmental practices
- Transparency
- Energy efficiency
- Eco-friendly and energy performance technologies
- Carbon footprint
- Compliance with requirements
- Sustainable materials in supply chain
- Habitat protection and improvement
- Strategies to reduce risk and cost

Social Responsibility

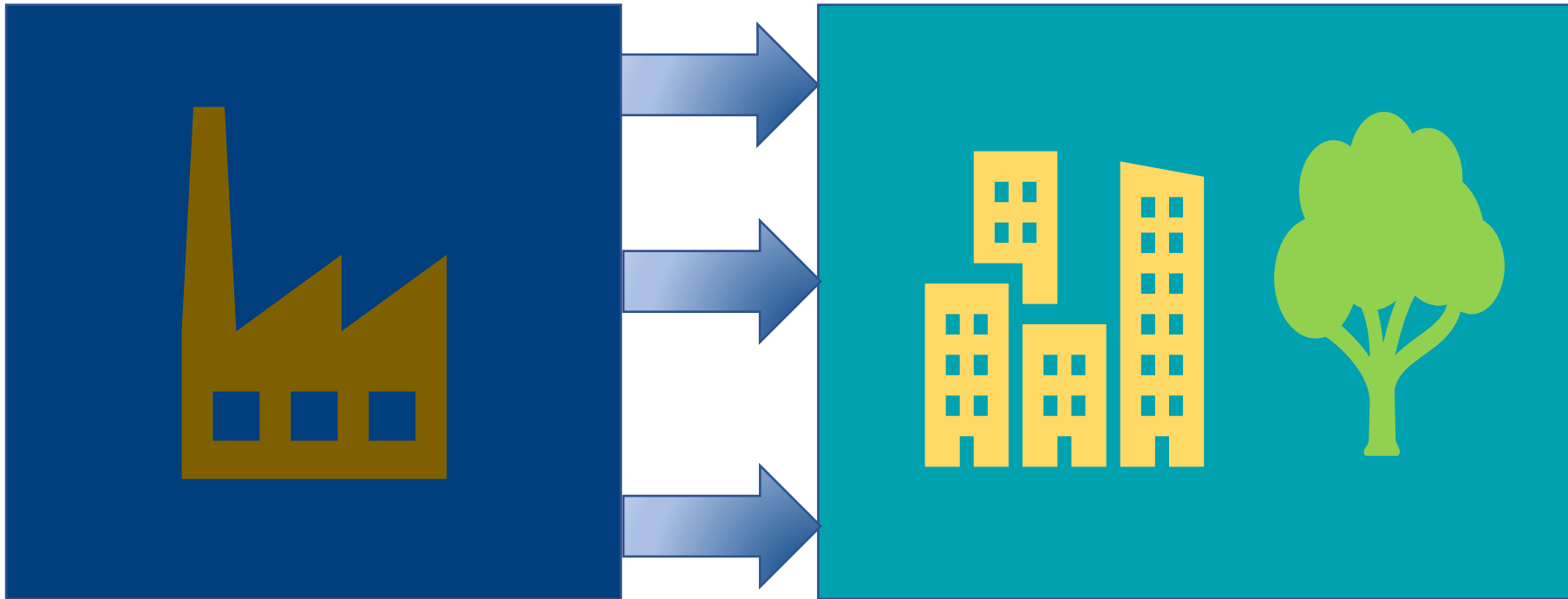
- Safety and security at work
- Improved health and occupational health
- Human factors
- Organization structure, leadership, compensation
- Community service, involvement and development
- Stakeholder identification and engagement
- Human rights, labor practices, consumer issues and protection
- Employee benefits, hiring and retention
- Promoting diversity, equity and inclusion

Governance and Economics

- Employee benefits and compensation
- Financial viability of organization (profitability)
- Transparency and ethics
- Executive compensation
- Dissemination of new technologies
- Good business practices, including procurement
- Relations between economic actors
- Supporting local economies
- Cost effective strategies
- Risk reduction strategies
- Cybersecurity

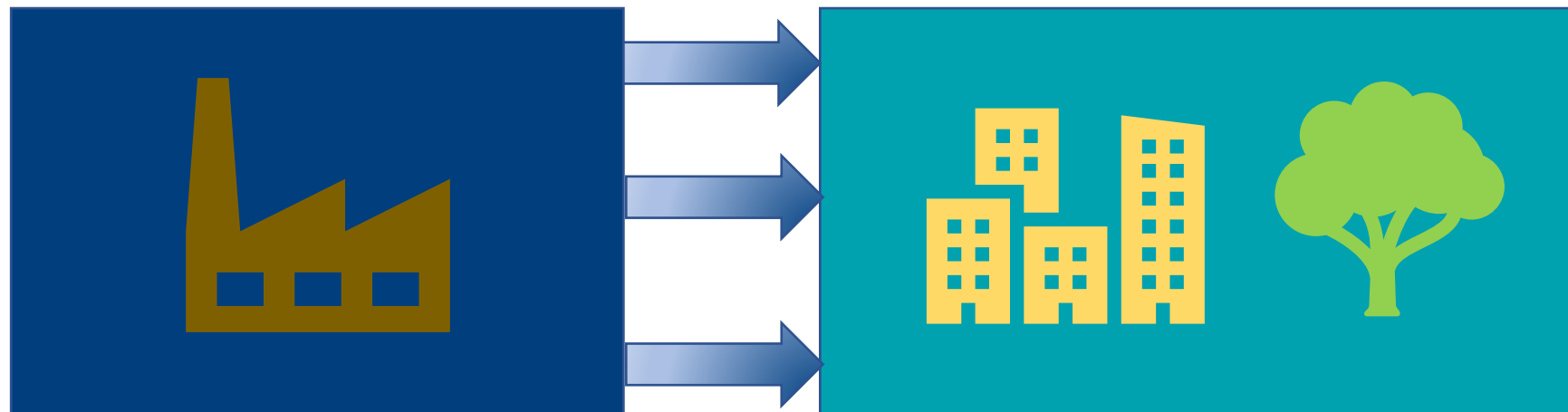


Hypothetical Adaptive Reuse Project





Adaptive Reuse Project Phases





Planning Considerations

Planning

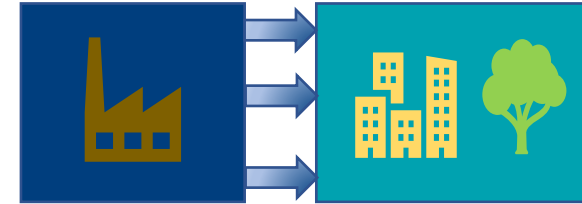
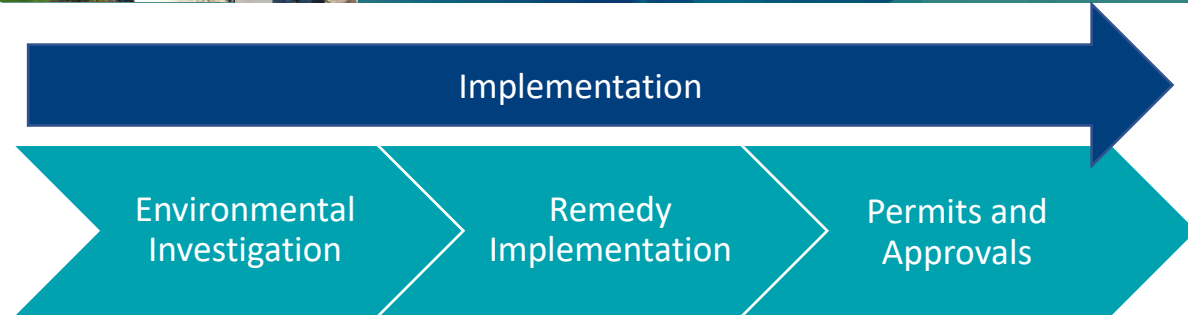
Environmental Due
Diligence

- **Phase I Environmental Site Assessment, per CSA Z768-01**
 - To identify actual and potential site contamination
 - Involves evaluation and reporting of existing information collected through records review, site visits, and interviews
 - Can include special attention items: PCBs, ACMs, lead, ODS, UFFI, radon, mould, noise, etc.
- **Phase II Environmental Site Assessment, per CSA Z769**
 - Confirm the presence of and characterization of the substances of concern at a given site.
 - Consider potential exposure pathways to contaminants in soil, groundwater, and soil/sub-slab vapour
- **Hazardous Materials/Designated Substances Assessment**
 - Confirm the presence of and characterization of the regulated building materials at a given site.





Implementation Considerations



- The following can result in overall project successes in terms of duration and effort:
 - Innovative sampling and advanced characterization techniques should be considered as they can offer strategic advantages over conventional methods.
 - A remedial alternatives evaluation should be conducted in consultation with project team.
 - Alternative and innovative remedial solutions may be considered (e.g., beneficial reuse of soil, in-situ remediation, boundary control, phytoremediation, vapour intrusion mitigation systems, etc.).
- Multi-disciplinary project meetings can help to provide informed and collaborative approaches to complex Sites. Where possible, consider engaging in pre-consultation with stakeholders.
- Expectations should be managed appropriately for scheduling drivers associated permits and approvals.



Risk Assessment & Sustainability

Management

Longer Term
Obligations

- What are the long-term obligations for operation, maintenance, and monitoring associated with risk management measures (RMMs) and institutional controls?
- How could your RMMs impact the sustainability of your development?
- For example,
 - overengineering of a VIMs could cause unnecessary energy demand; and, alternatively,
 - a VIMs designed for hydrocarbon and methane could enhanced to promote contaminant degradation, thereby causing a future potential for reduction of energy demand.
- Consideration of RMMs under the lens of ESG should be assessed (e.g., energy consumption, social impacts associated with assignment to condominium board, economic considerations for future property value, etc.).





Adaptive Reuse is Sustainable Development!

- For successful implementation of a sustainable development Adaptive Reuse project the following key considerations should be included:
 - Stakeholder engagement and understanding of drivers and objectives
 - Diverse and multi-disciplinary project teams should be engaged from project initiation and consulted throughout the project
 - Innovative and advanced characterization and remediation techniques can support project execution
 - Respect the future beneficial users of the project

QUESTIONS?



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