

PROJECT: UNDER GARDINER

Public Information Centre #2

Waterfront Neighbourhood
Centre

Tuesday, May 31, 2016

TONIGHT'S AGENDA

6:30-8pm	Presentations
8pm-9pm	Open House



Public Information Centre #2

AGENDA

1. Welcome & Introduction
2. Report Back on Stakeholder & Public Feedback
3. Air Quality Assessment
4. Design Update
 - Proposed Scope for Phase One
 - Walk-through Design Detail
 - Feedback and Comments
5. Environmental Assessment Update
 - Design Alternatives
 - Evaluation Criteria
 - Feedback and Comments
6. Open House

Chris Glaisek
Waterfront Toronto

Report Back on Stakeholder & Public Feedback

Chris McKinnon
Waterfront Toronto

Public Consultation Update

Stakeholder & Public Meetings – Winter/Spring 2016

SAC #1 – January 11, 2016

SAC #2 – March 22, 2016

PIC#1 – April 7, 2016

SAC #3 – May 19, 2016

PIC #2 – May 31, 2016

We are here

**Waterfront
Neighbourhood
Centre**

Online Consultation

Round #1 – May, 2016

Round #2 – June, 2016

Walking Workshops

Tour #1 – April, 2016

Tour #2 – May, 2016

Tour #3 – June 2, 2016

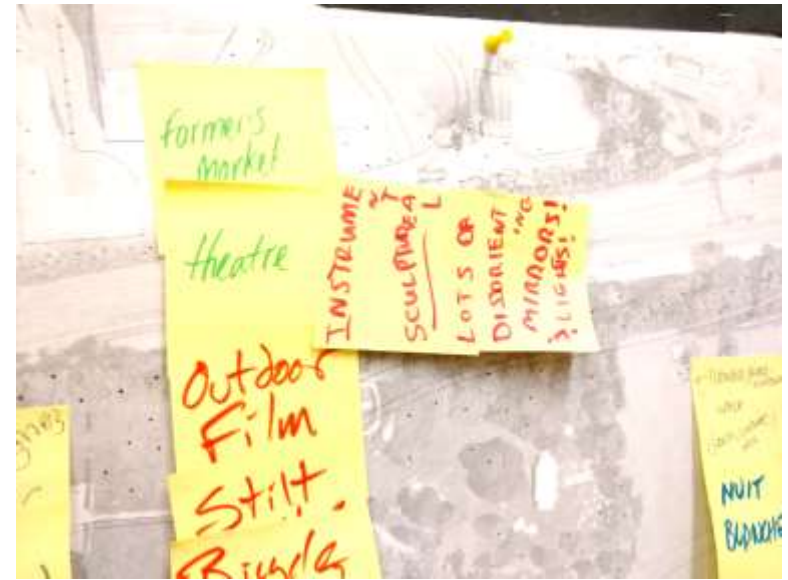
Tours #4 – June 26, 2016

Public & Stakeholder Feedback

Feedback related to the Municipal Class Environmental Assessment

- Support for bridge alternative solution for Fort York Boulevard pedestrian and cycling crossing, however:
 - Consider connectivity across the site for cycling, in particular a bridge crossing at Fort York Boulevard that requires switchbacks
 - Any requirement to dismount reduces accessibility of the cycling route for all cyclists, but especially those may have difficulty walking their bikes – e.g. people with disabilities, parents with kids in trailers, etc.
 - May need to look at alternative, at-grade routes for cyclists
 - Consider at-grade, signalized crossing options
 - May be a more cost-effective solution than grade-separated options

Public & Stakeholder Feedback



Excitement about the project, new programming spaces and community amenities

Public & Stakeholder Feedback



- Desire for food programming, cafes and restaurant spaces
- Positive response to design elements, including water features and lighting
- Skepticism that ambient noise from Gardiner Expressway and nearby roadways can be sufficiently mitigated for performance spaces
- Weave indigenous stories and history of the land into the design and programming

Public & Stakeholder Feedback

- Desire to see more and understand the evolving design
 - Especially as it relates to:
 - Pedestrian experience
 - Cycling experience and safe cycling infrastructure
 - Universal design (i.e. inclusive design) and accessibility
- Consider transportation requirements for this new programming space
 - Improved transit
 - Taxi queueing locations
 - Parking requirements
- Ensure supporting amenities are in place for visitors
 - Warming areas, bathrooms, street furniture



Public & Stakeholder Feedback



- Need for play spaces for kids to close to Fort York Neighbourhood, Liberty Village and CityPlace
 - Active play spaces, playground equipment and structures, opportunities for structured and unstructured play
- Desire to understand what model will be used to deliver enhanced operations and maintenance over the long-term
 - Including maintenance of landscape elements, as well as fixtures and features of the public spaces

Public & Stakeholder Feedback



- Air quality is a concern in the area
- Worry that this project could result in displacement of people experiencing homelessness
- Questions about how to balance comfort and safety of pedestrians and cyclists in shared spaces
 - Calls to learn from how other shared spaces are working in Toronto (e.g. Kensington Market, Queens Quay, parks and trails)
 - Desire for separation of cycling and walking

Public & Stakeholder Feedback

- Desire to improve north-south connections through the site and down to the waterfront
- Some respondents thought a new model for operations and maintenance would be needed in order to achieve the high standard of public realm proposed in the design framework
 - Suggestion that maintenance duties would be managed through a private entity or not-for-profit organization



Ravi Mahabir
Dillon Consulting

Air Quality Assessment

Confirming Scope of Air Quality (AQ) Assessment within the project area. This work is being done in partnership with Toronto Public Health.

On-Site Air Quality Monitoring

- Opportunities to start the monitoring program as early as possible – affected by Gardiner rehab work
- Schedule and duration
- Confirming compounds that will be monitored (NO₂, PM_{2.5}, VOCs, etc.)

AQ Characterization

- Using data from the on-site monitoring and complimentary modelling tool(s)
- Review of data from existing/comparable MOECC monitoring stations in the City to provide an understanding of how the AQ in the project area relates to other areas of the city.
- If necessary, modelling used to better understand how air moves through the project area

Design Considerations

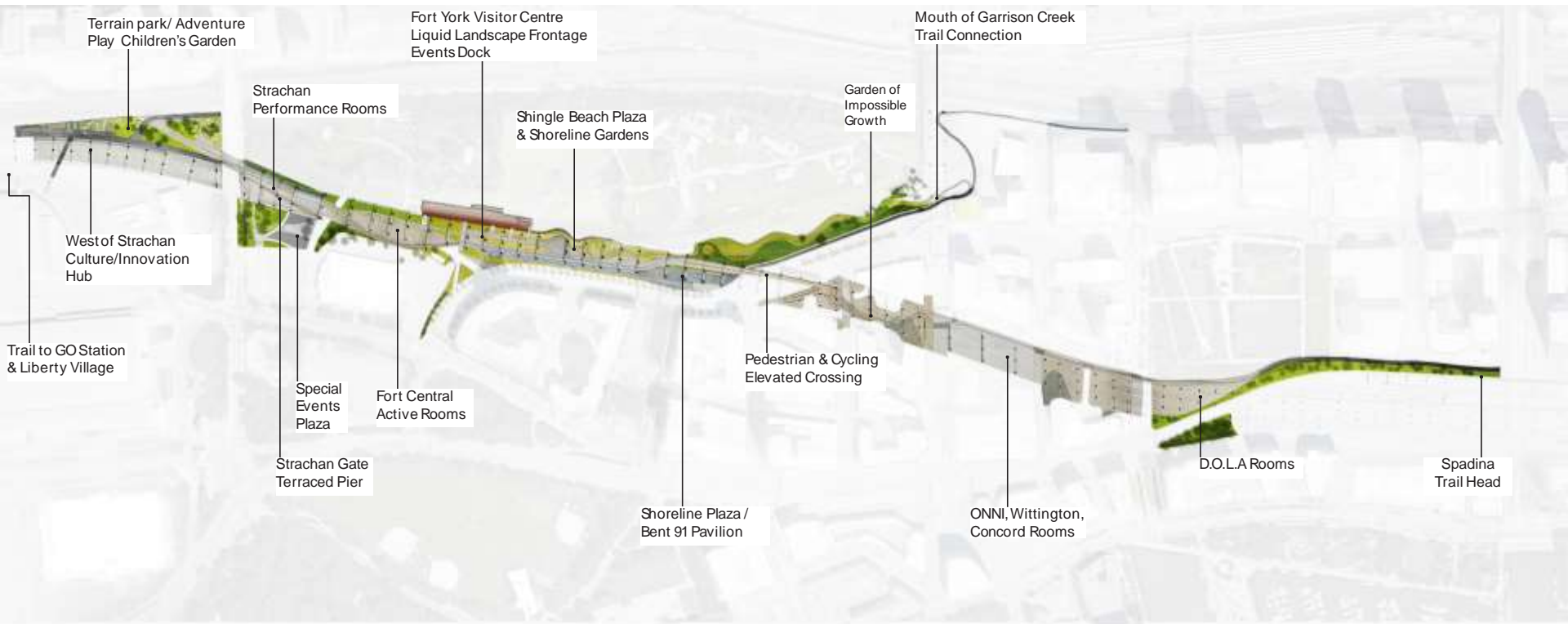
- Based on AQ findings/characterization, outline mitigation options if feasible, make adjustments to design if necessary.

Design Update

Marc Ryan
PUBLIC WORK

Ken Greenberg
Greenberg Consultants

MASTER PLAN VISION - All Phases



Bents 38-52

West Edge
Creative Action Hub

Bents 53-97

Fort Central
Programmed Landscape

Bents 98-118

East Community
Community Link and Amenities

CORE PROJECT - Phase 1 Priorities

1. Fully Connected Trail - Strachan to Spadina



2A. Iconic Infrastructure: Strachan Gate



2B. Iconic Infrastructure: Bridge over Fort York Blvd



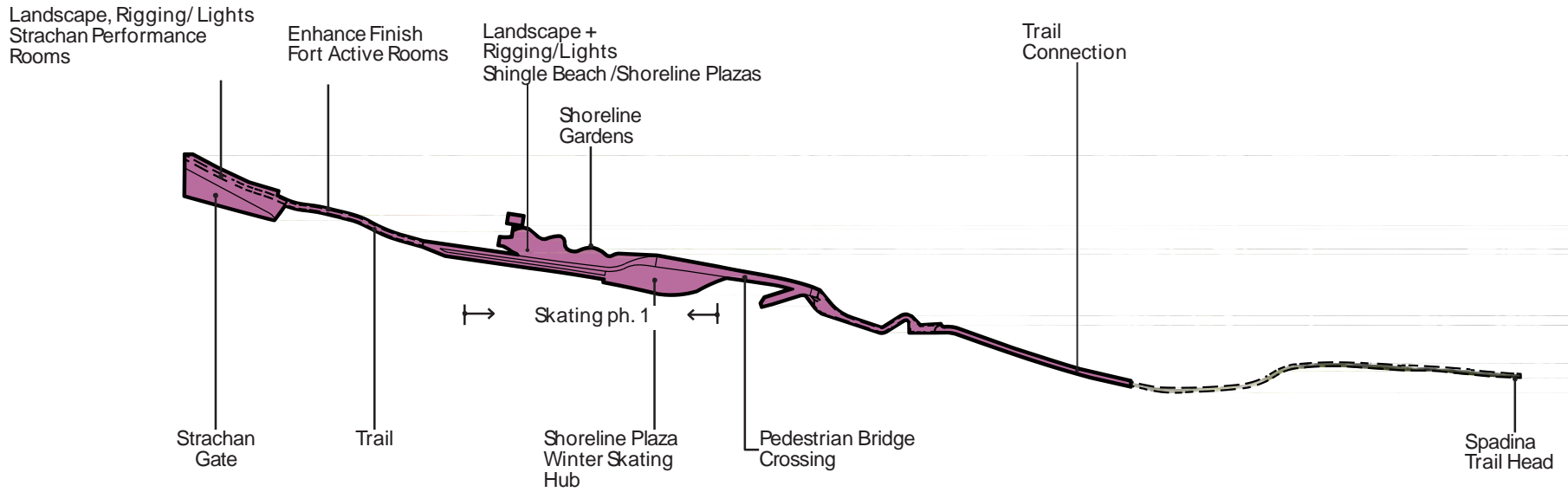
3. Toronto's Ultimate Skating Experience



4. Strategic Enabling Programming Infrastructure



CORE PROJECT - Phase 1



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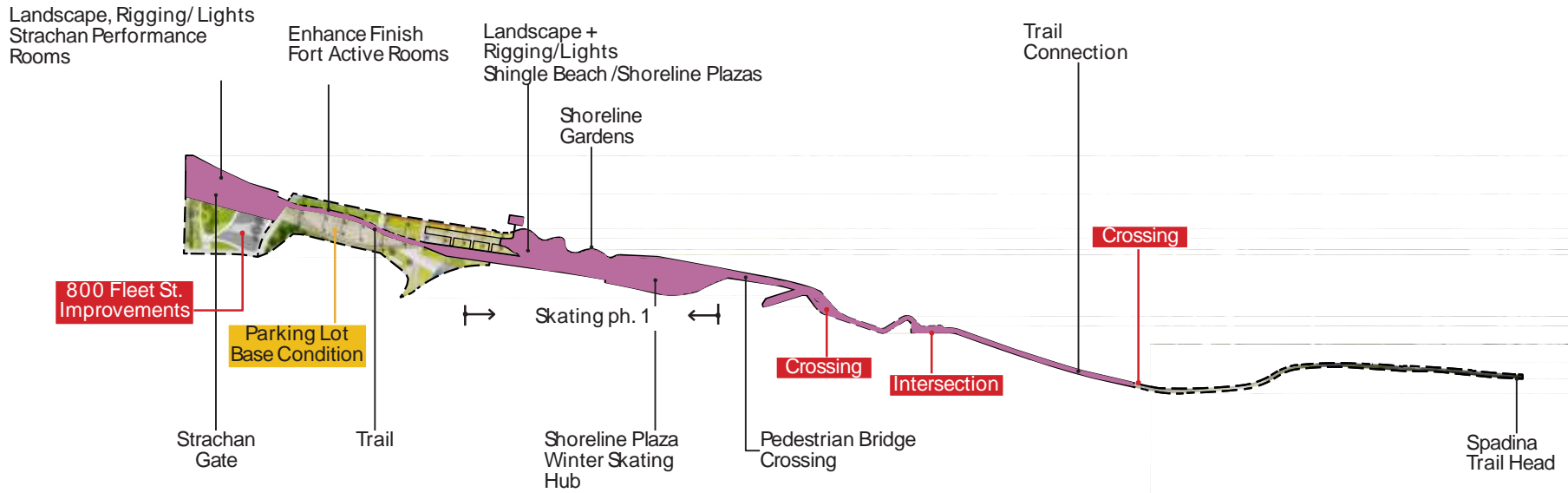
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Fort Central
Programmed Landscape

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East Community
Community Link and Amenities

PARTNERSHIPS- Coordinated Projects

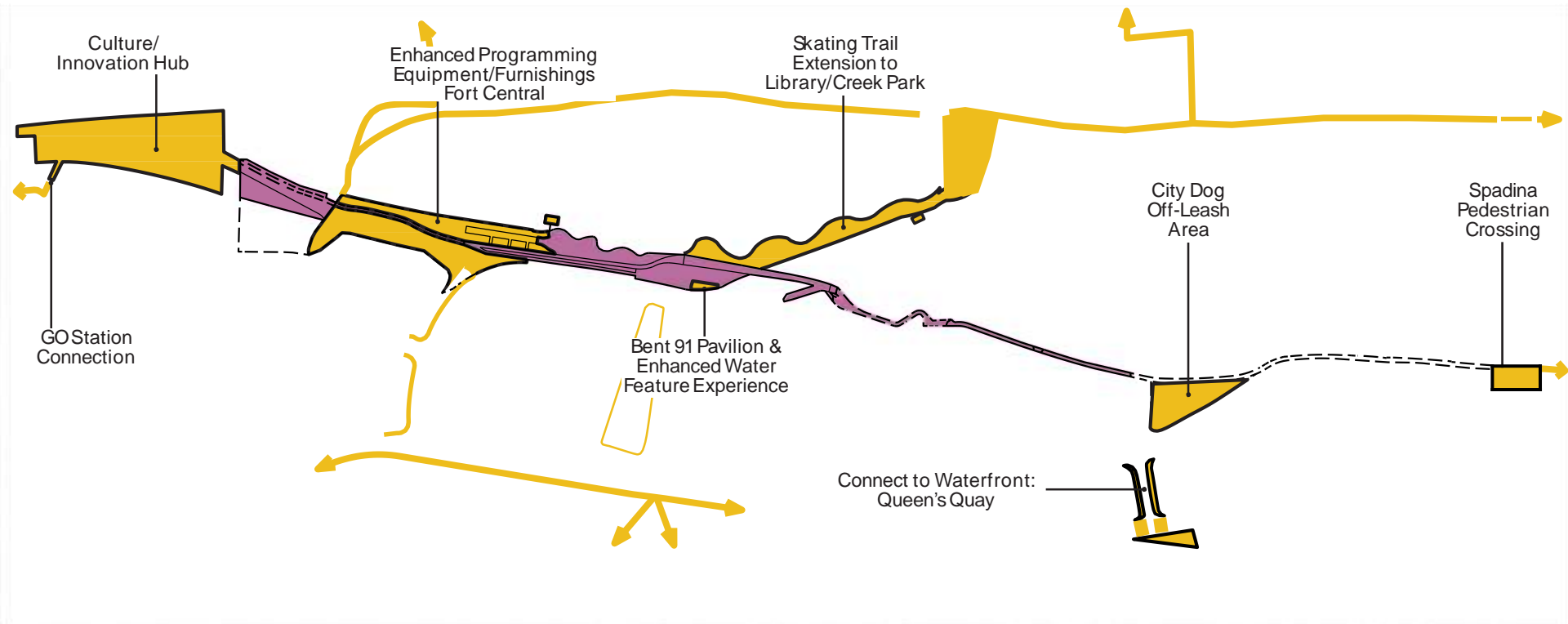


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Future Opportunities



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East Community
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1. FULLY CONNECTED TRAIL - STRACHAN TO SPADINA

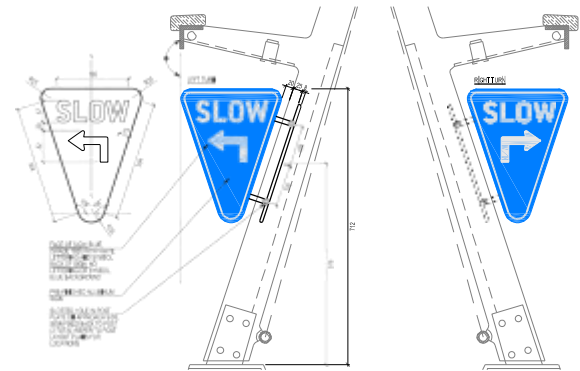
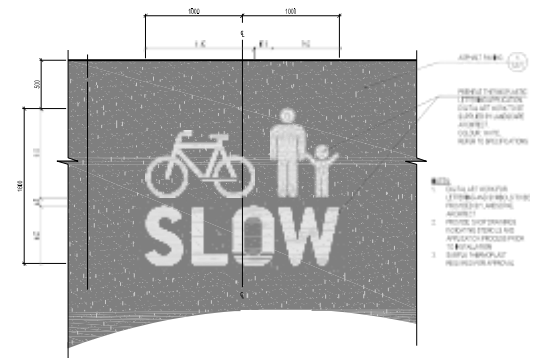


-  Phase 1 Trail Construction
-  Phase 1 Trail Construction - Interim Finishes
-  Future Phase Connection

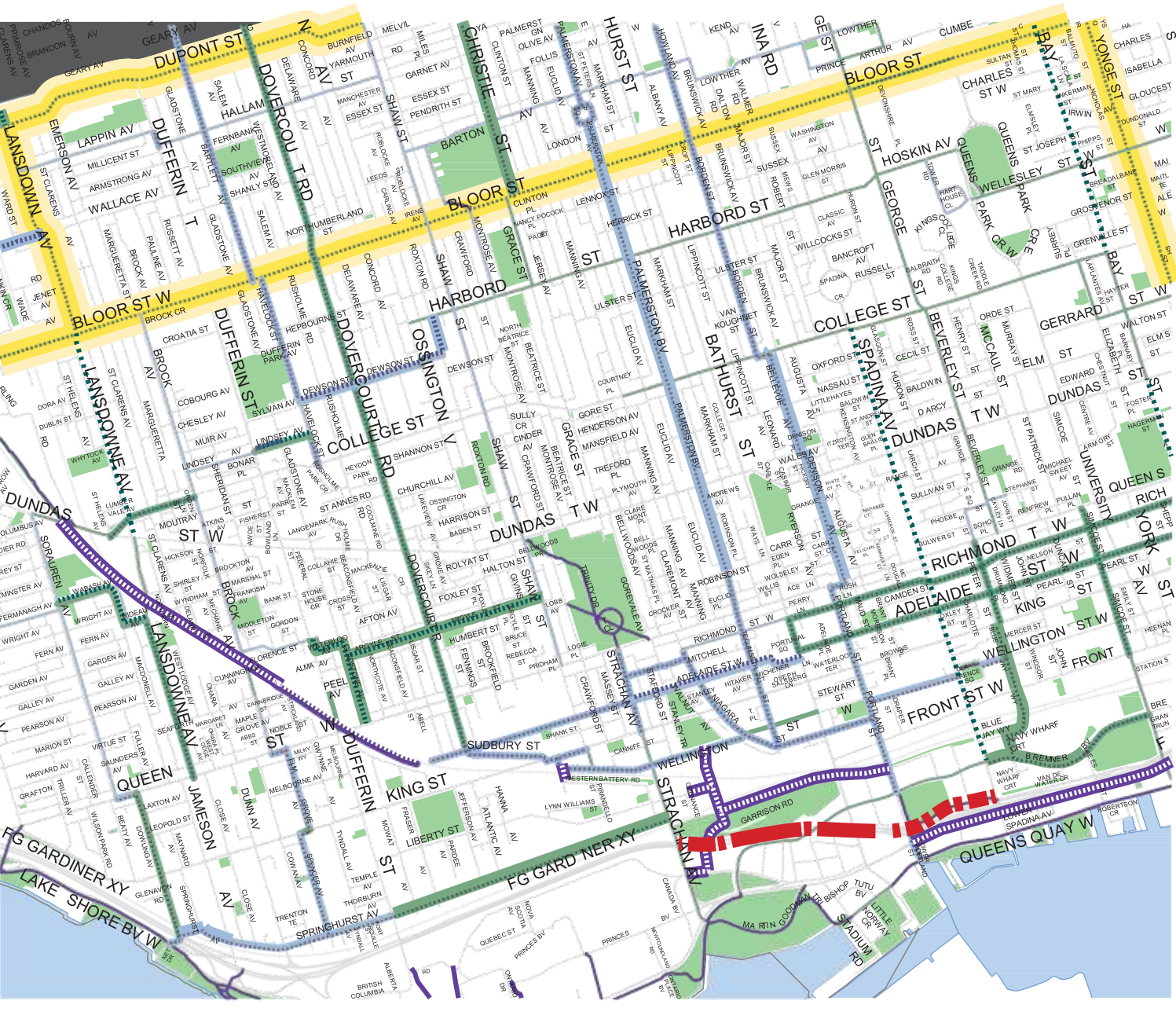
Mixing Zones-
Slow Shared Spaces



Mixing Zones- Slow Shared Spaces



Existing and Planned Cycling and Trails Network

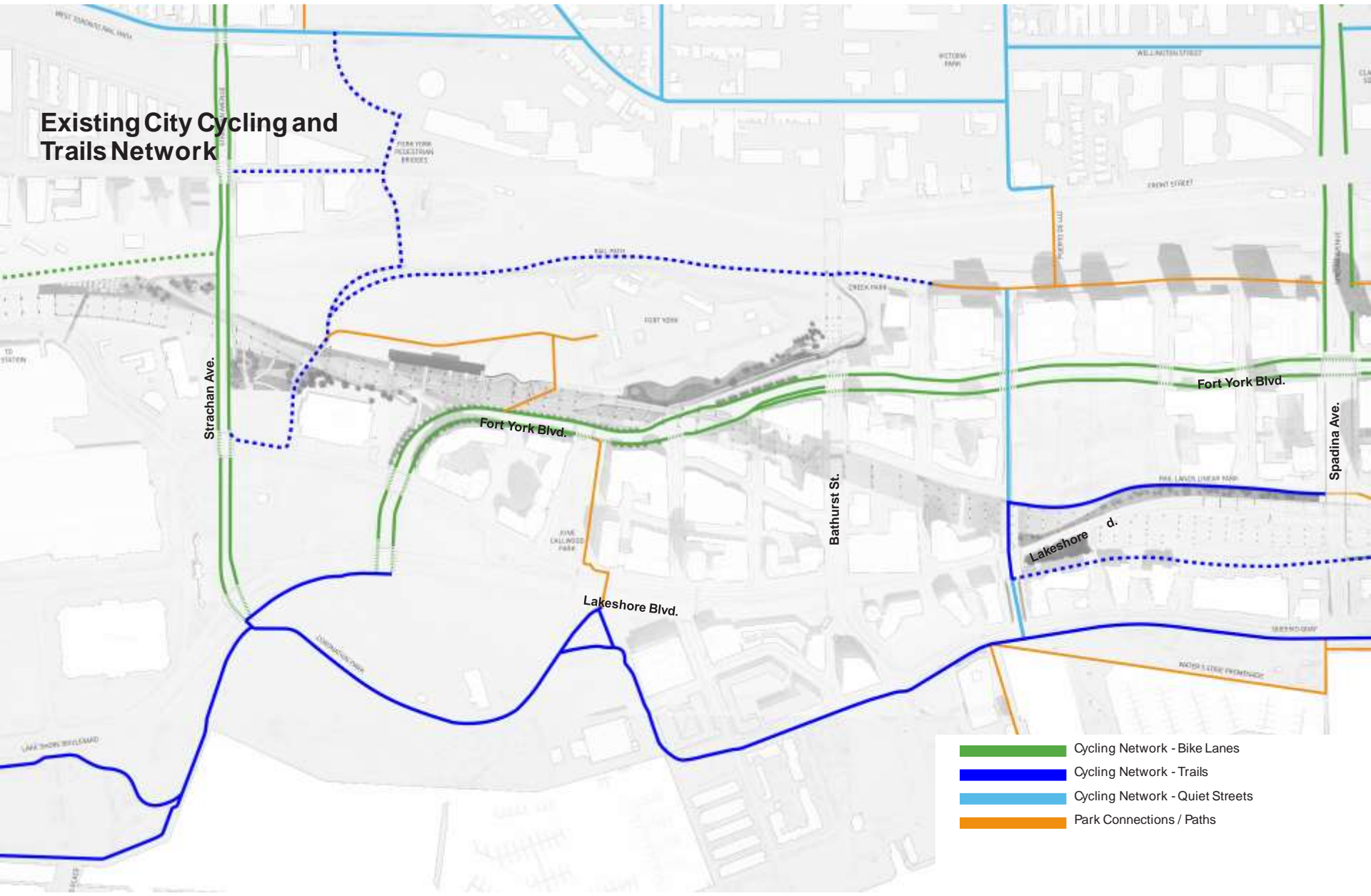






- Under Gardiner Shared Space

- Existing Cycling Network**
- Bike Lanes | Cycle Tracks
- Trails | Boulevard Trails
- Quiet Street Routes

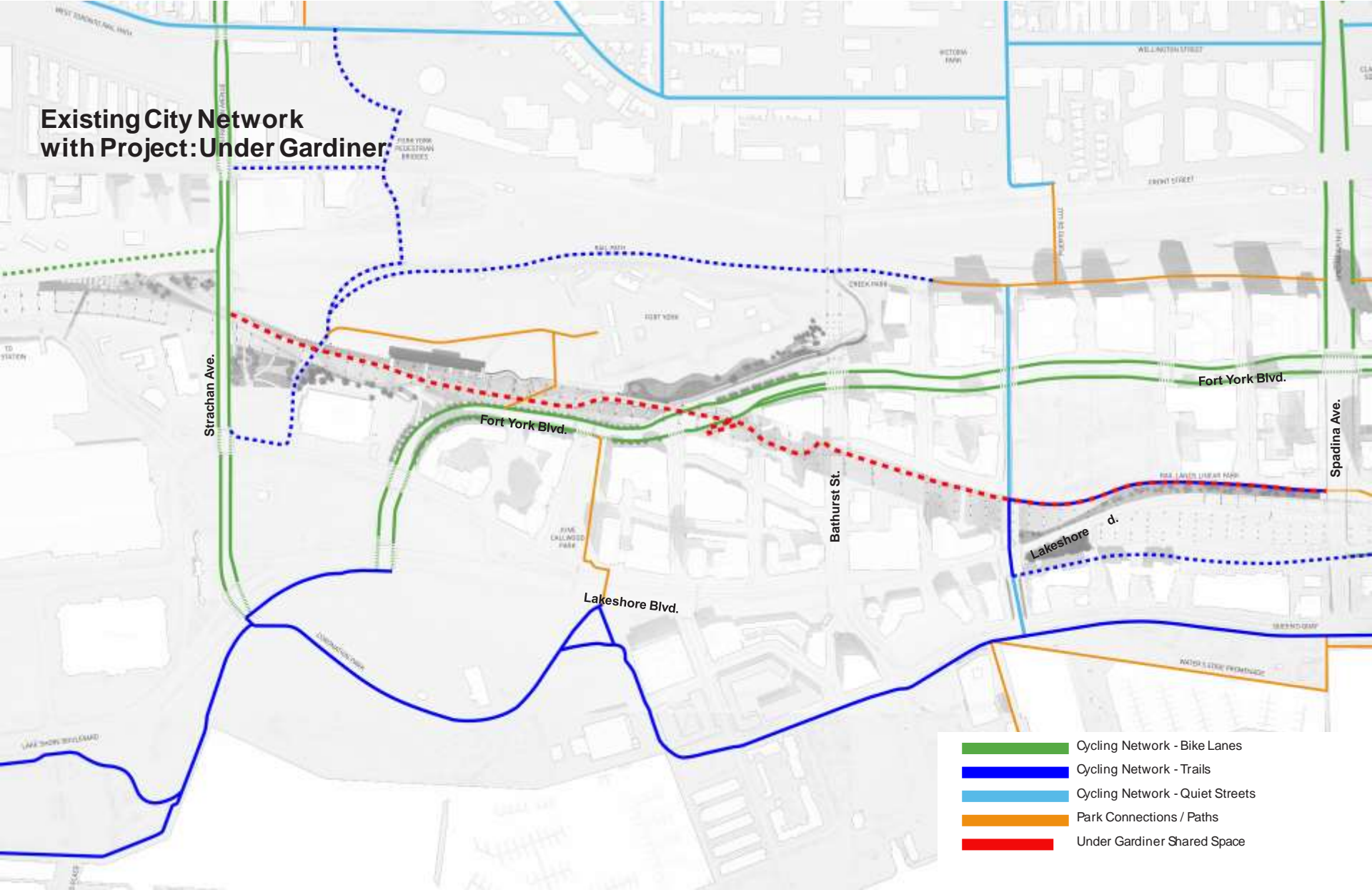
- Cycling Network and Trails Plan**
- Bike Lanes | Cycle Tracks
- Trails | Boulevard Trails
- Quiet Street Routes
- Tunnels and Bridges
- Major Corridor Studies

Existing City Cycling and Trails Network



-  Cycling Network - Bike Lanes
-  Cycling Network - Trails
-  Cycling Network - Quiet Streets
-  Park Connections / Paths

Existing City Network with Project: Under Gardiner



- Cycling Network - Bike Lanes
- Cycling Network - Trails
- Cycling Network - Quiet Streets
- Park Connections / Paths
- Under Gardiner Shared Space

Materiality of the Ground
Smooth Textured Aggregate Floors
Recycled Materials
AODA Compliant Paving



Concrete Paving - Special Finish



Exposed Aggregate Concrete Paving



Resin Bound Aggregate Paving



PAINT to Provide Interim Trail Identity at East Link



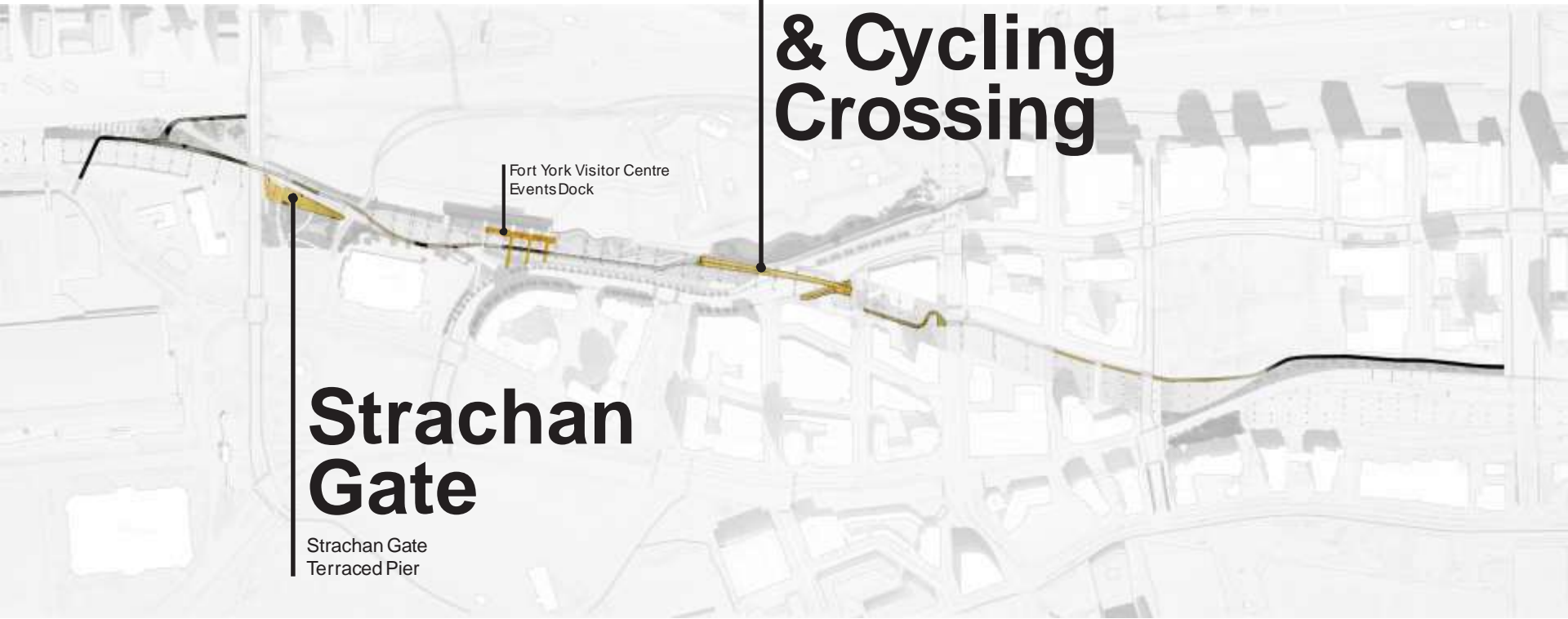
2. ICONIC MOMENTS
Infrastructure Anchors

**Pedestrian
& Cycling
Crossing**

**Strachan
Gate**

Strachan Gate
Terraced Pier

Fort York Visitor Centre
Events Dock



**2A. Strachan Gate
Timber Pier**



**Accessible Gateway,
Gathering Place,
Stage and Theatre.**



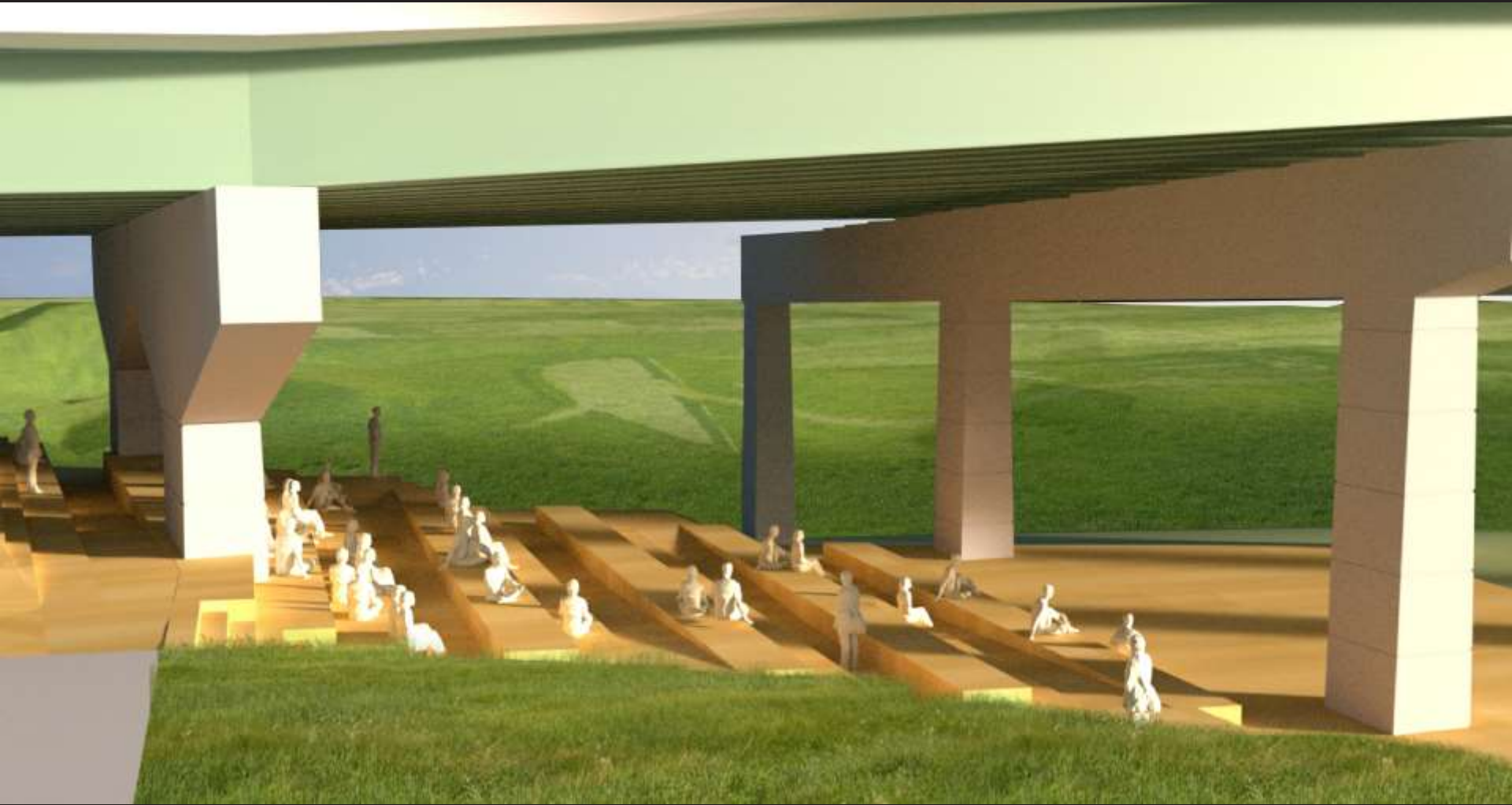
'Stramp' References



**Accessible Gateway,
Gathering Place,
Stage and Theatre.**



 Accessible Movement Zone (<5% Slopes)
 Accessible Route

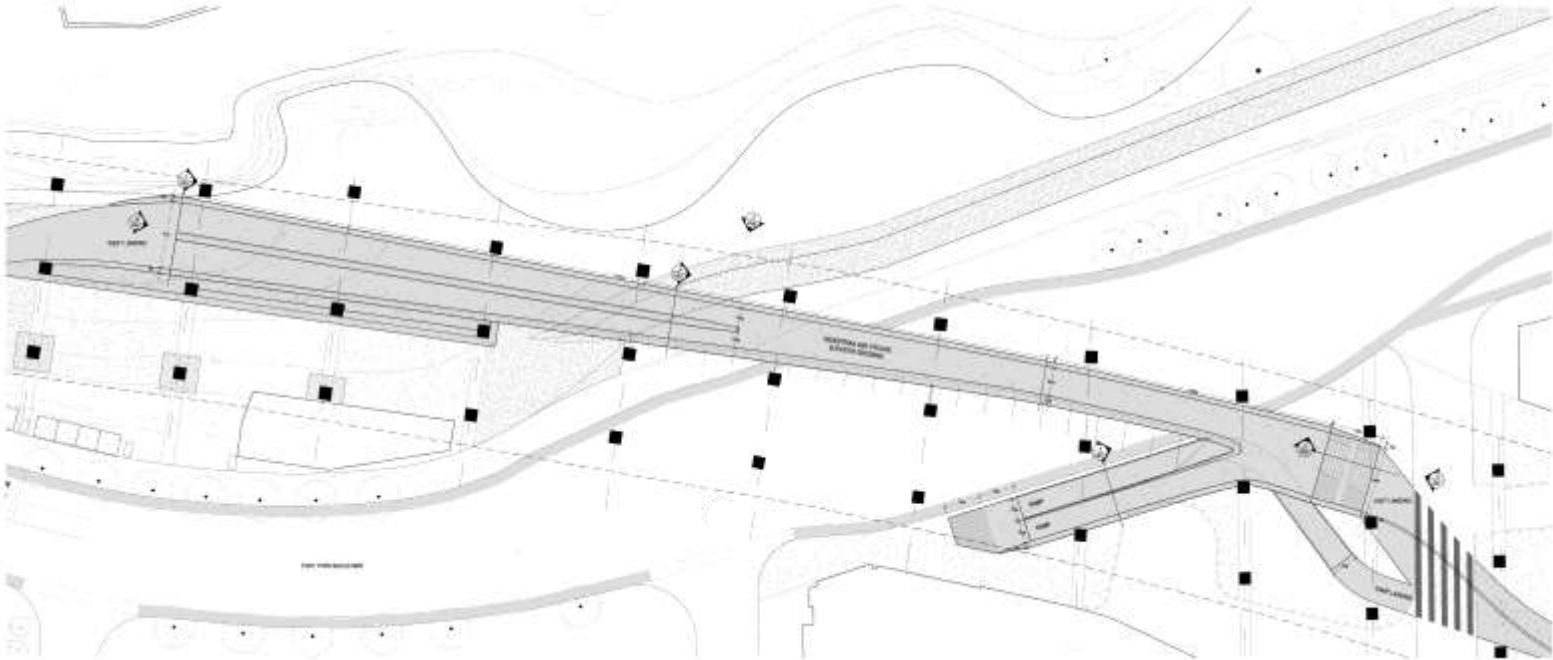




**2B. Bridge over
Fort York Boulevard**

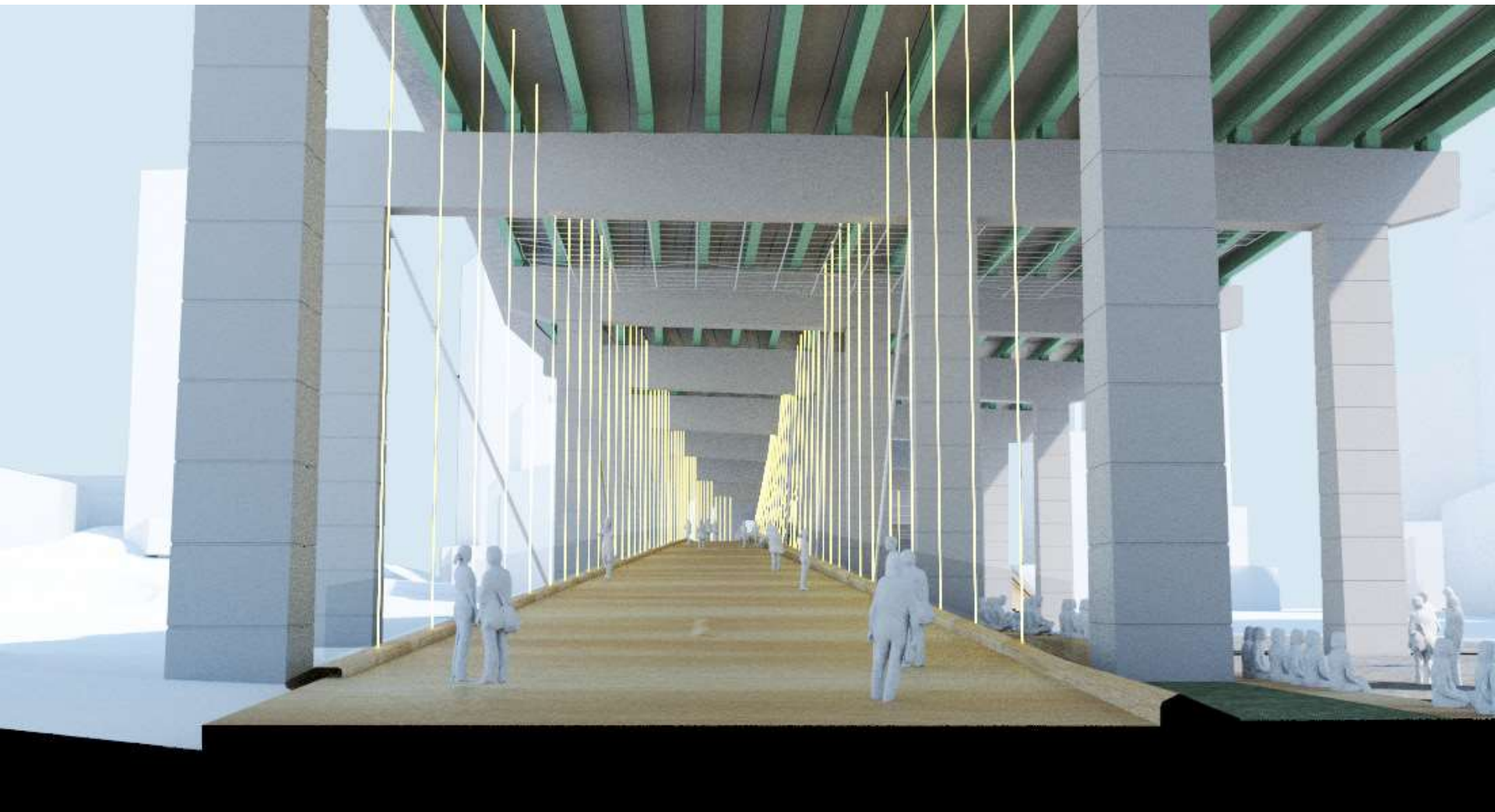


Bridge as part of the Telescopic Experience



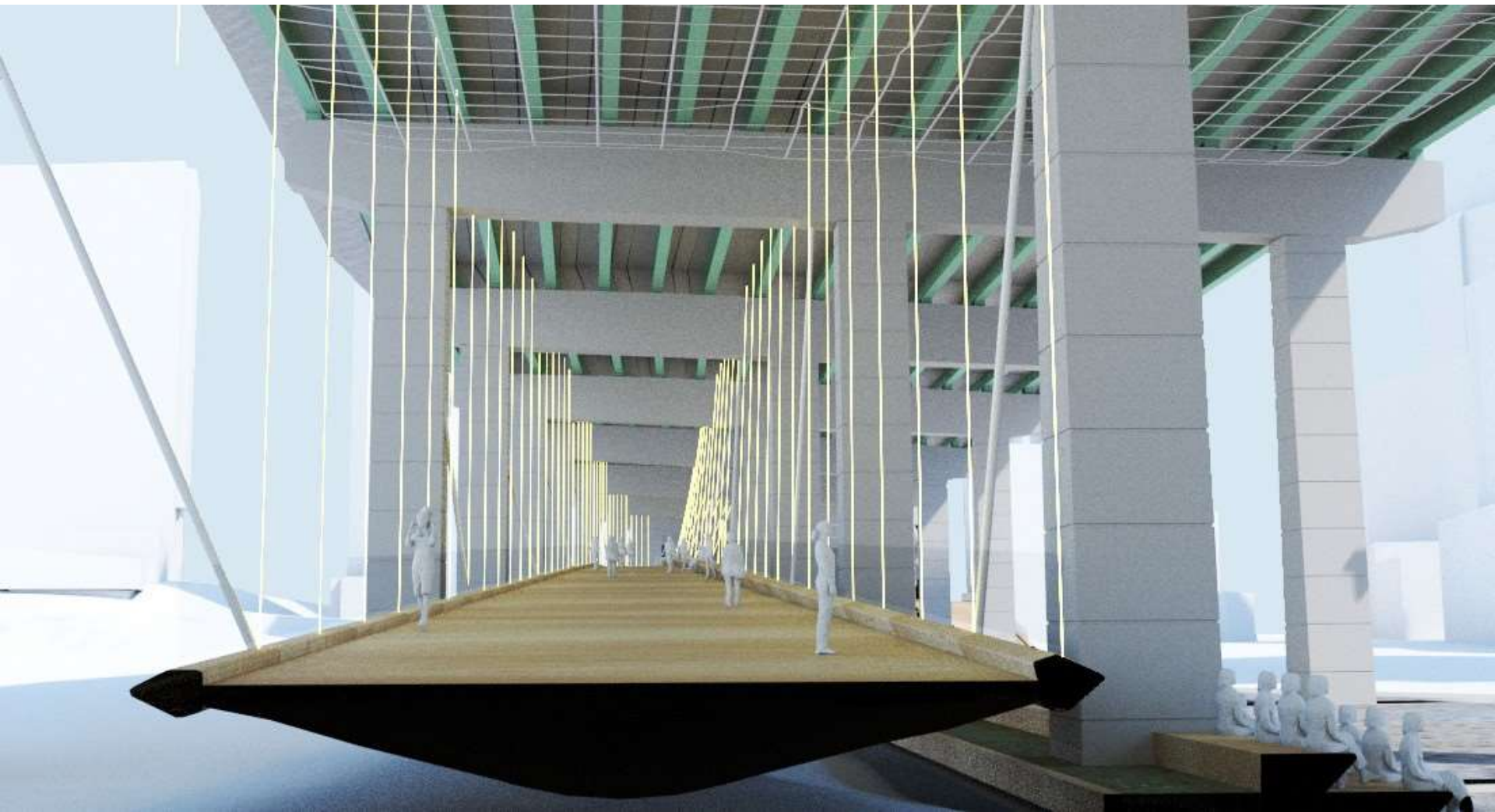










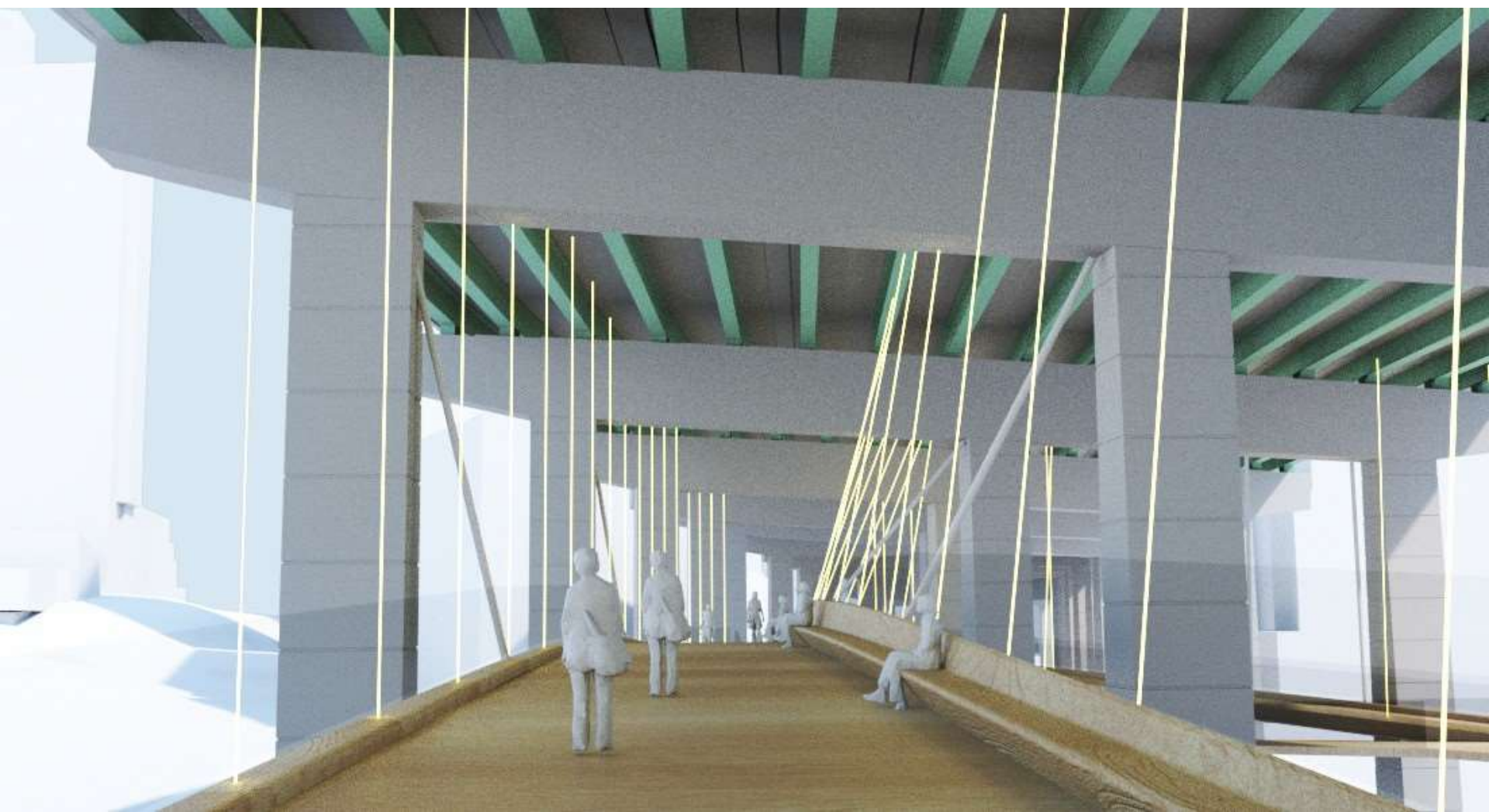


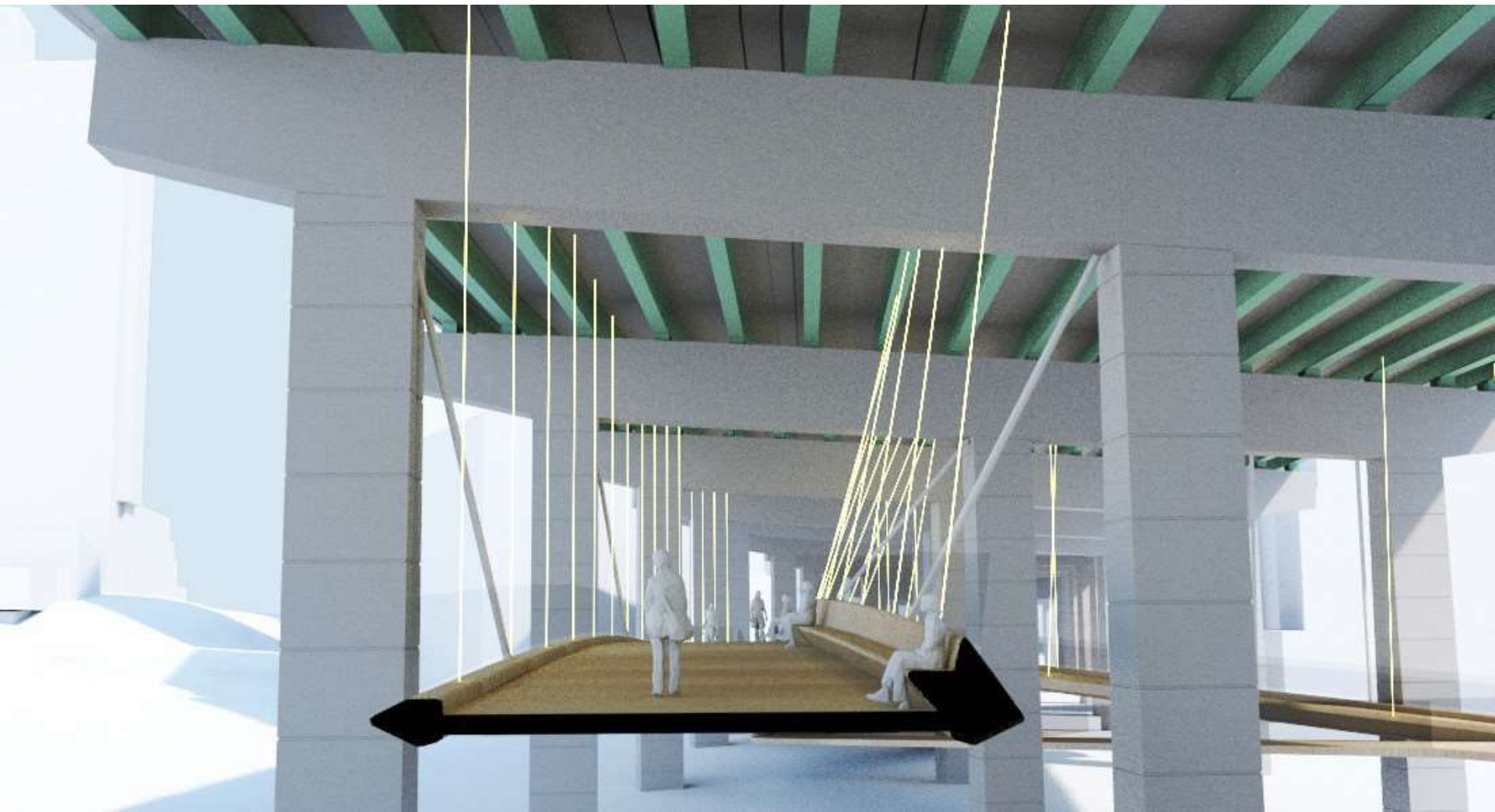






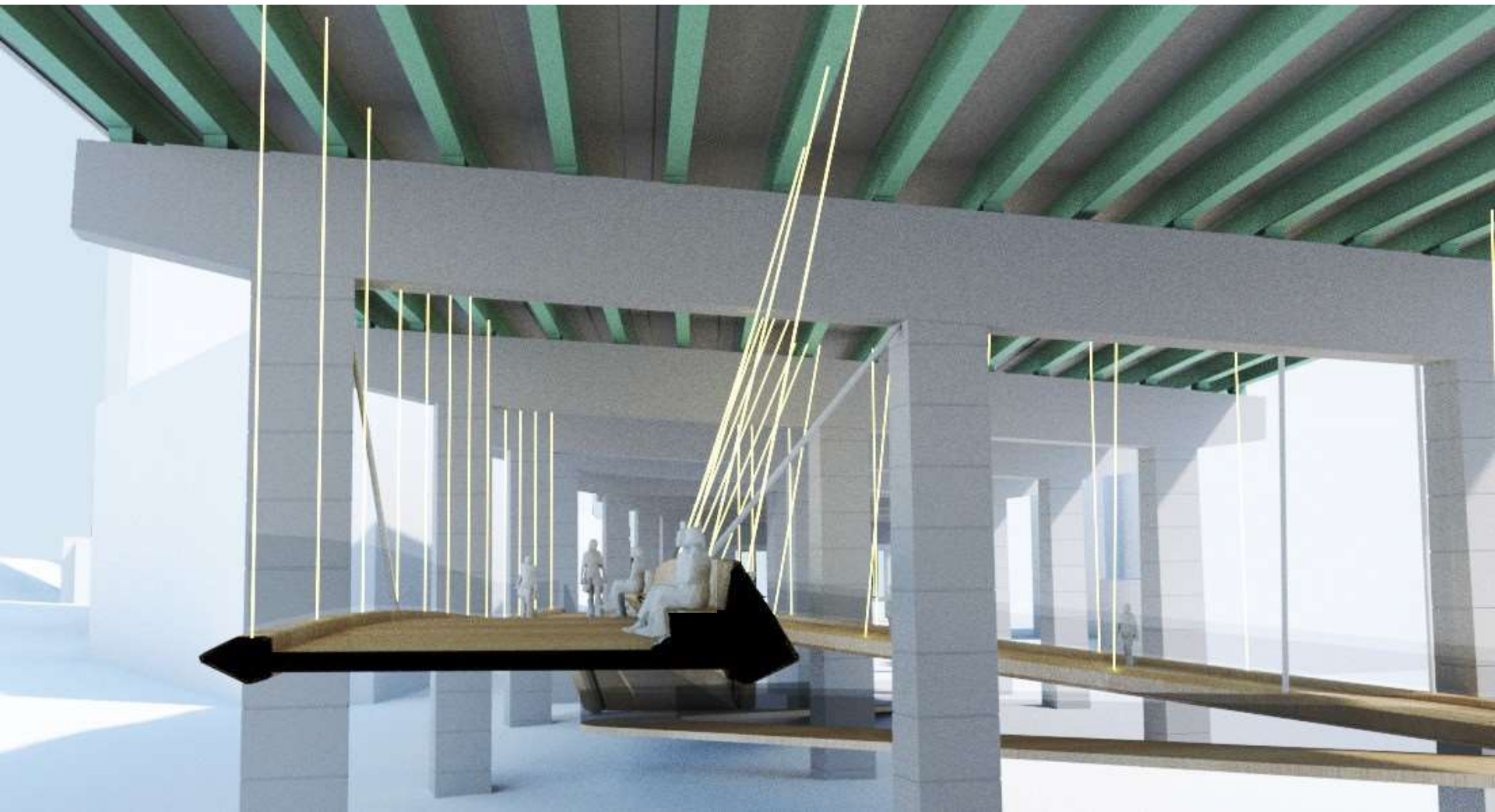




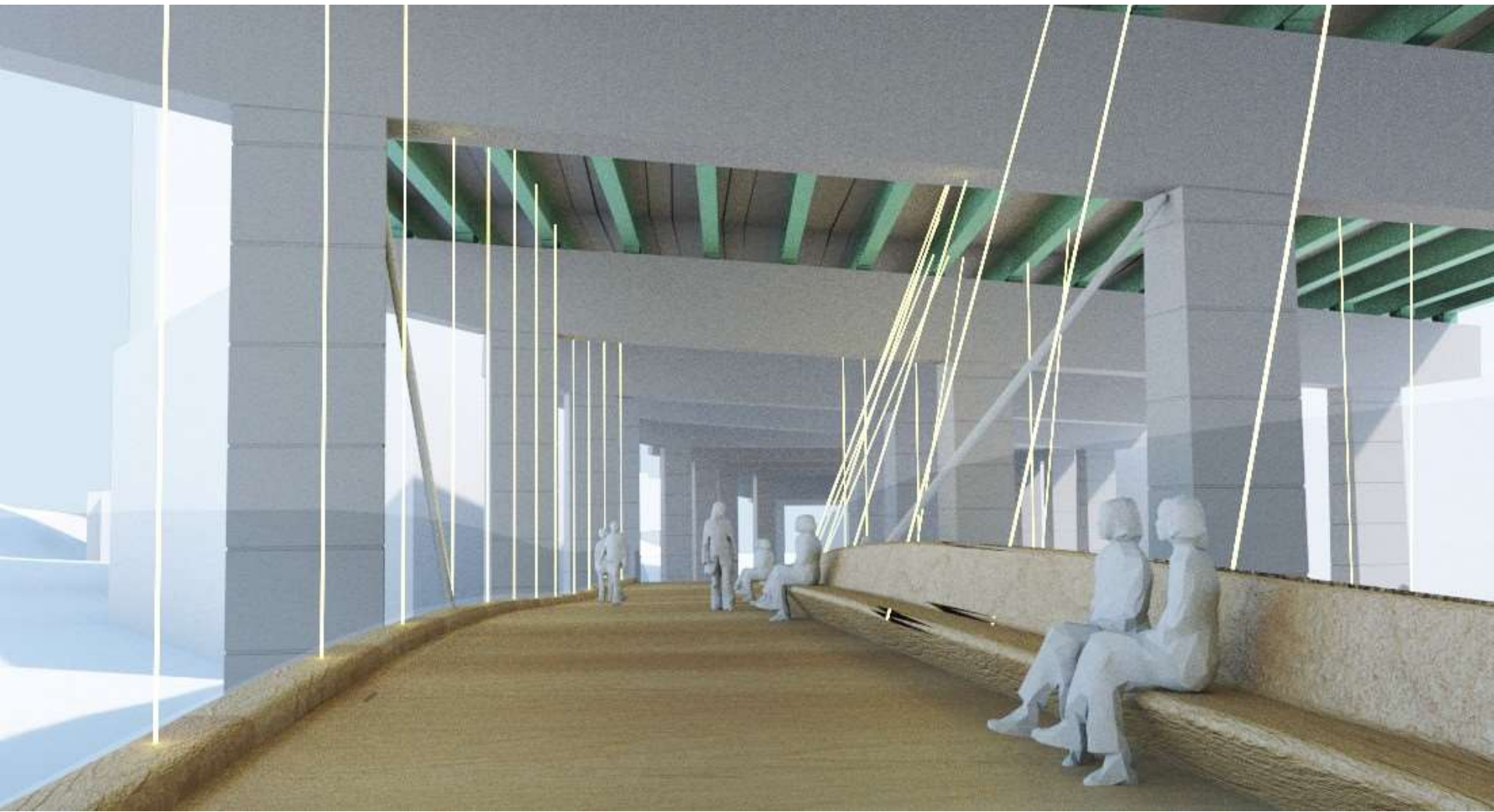


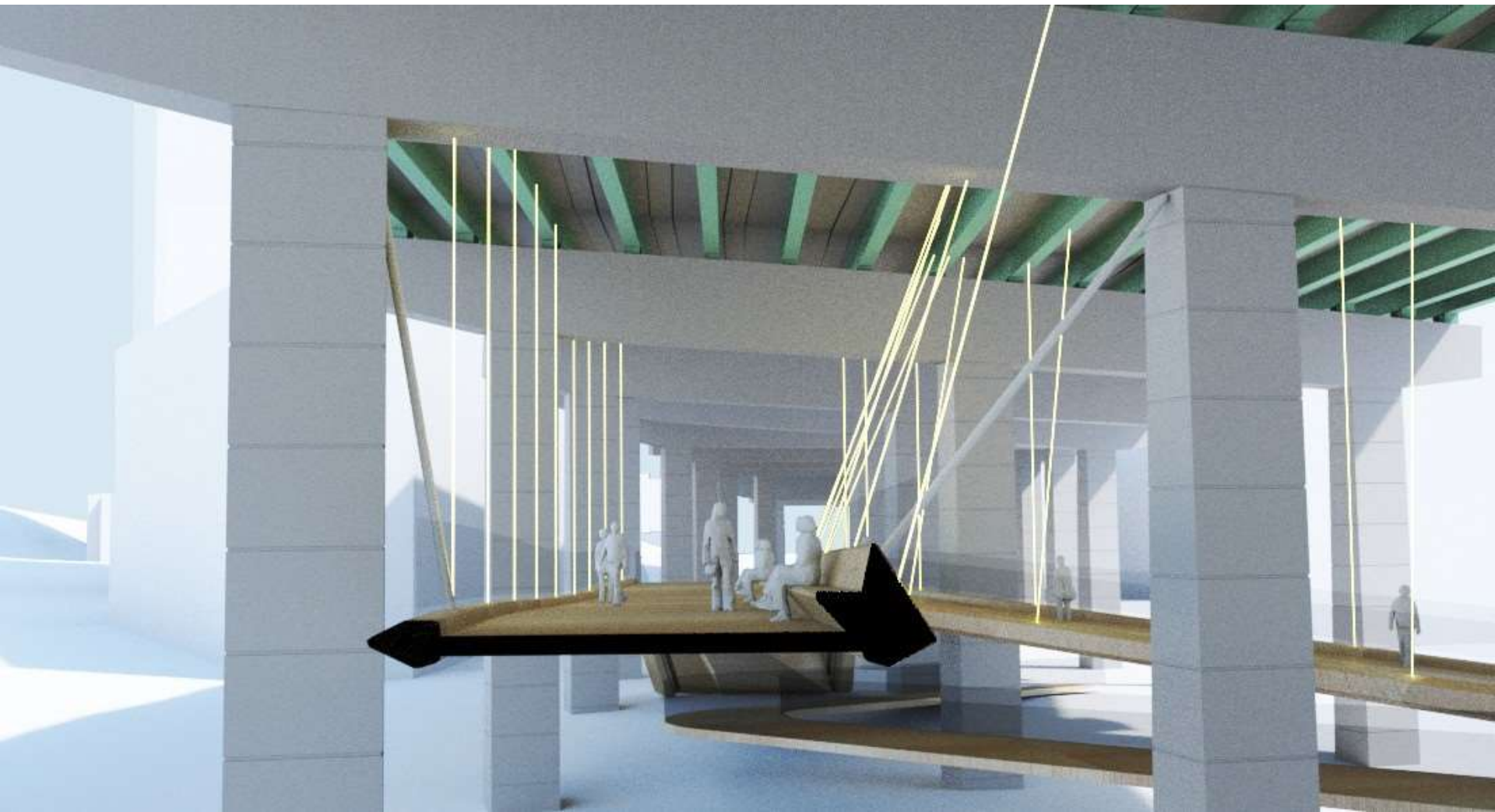






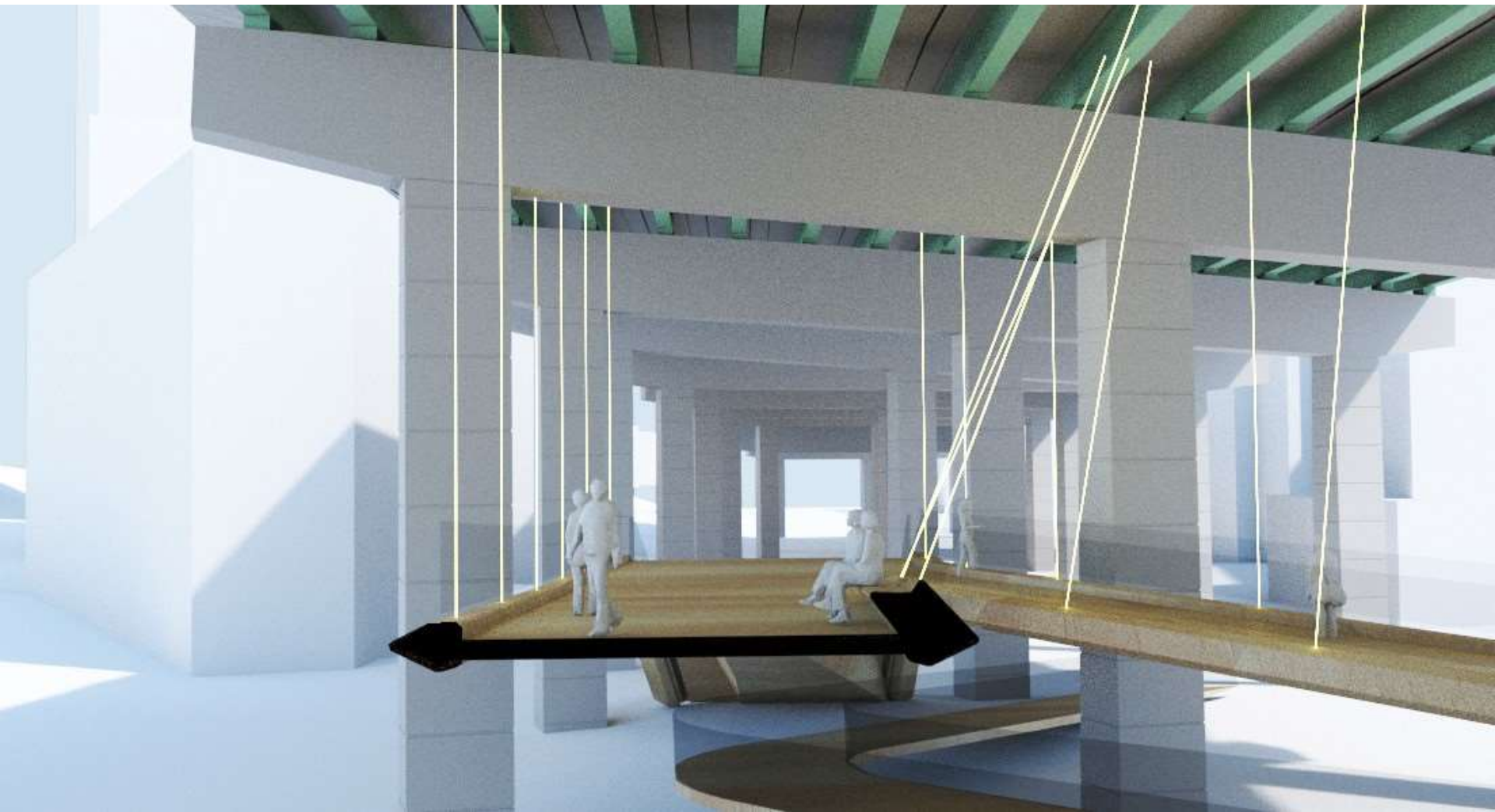






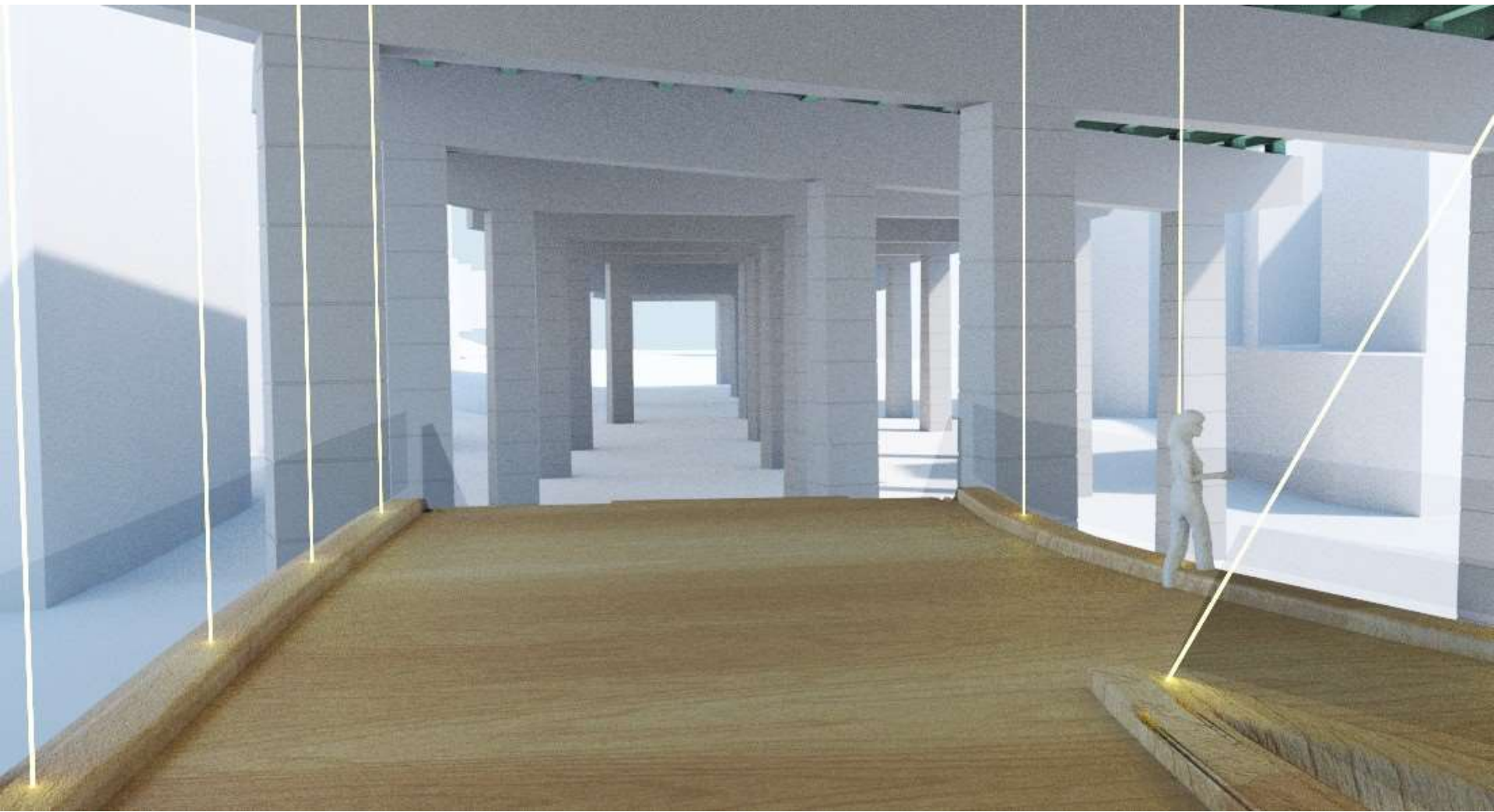




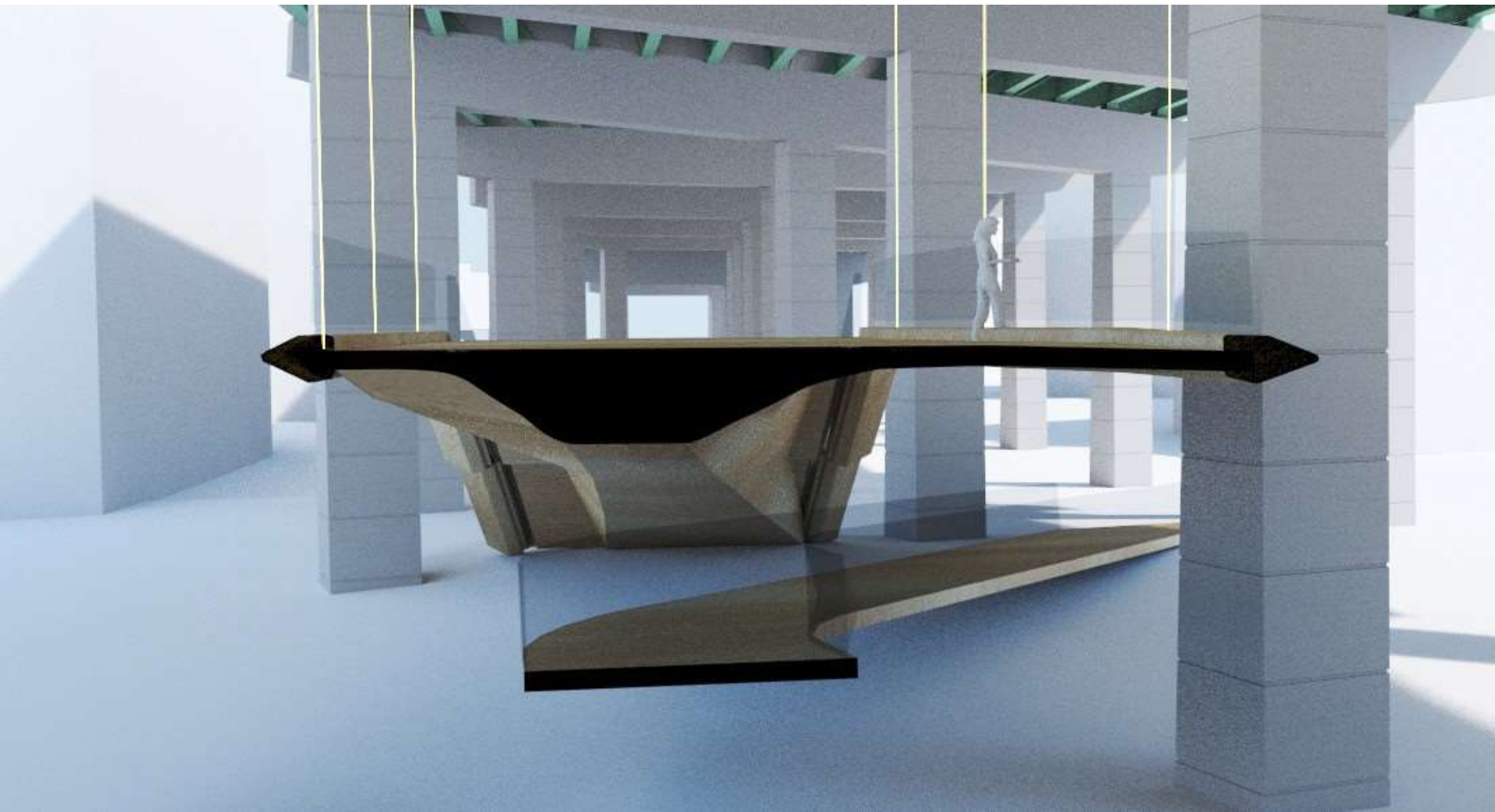












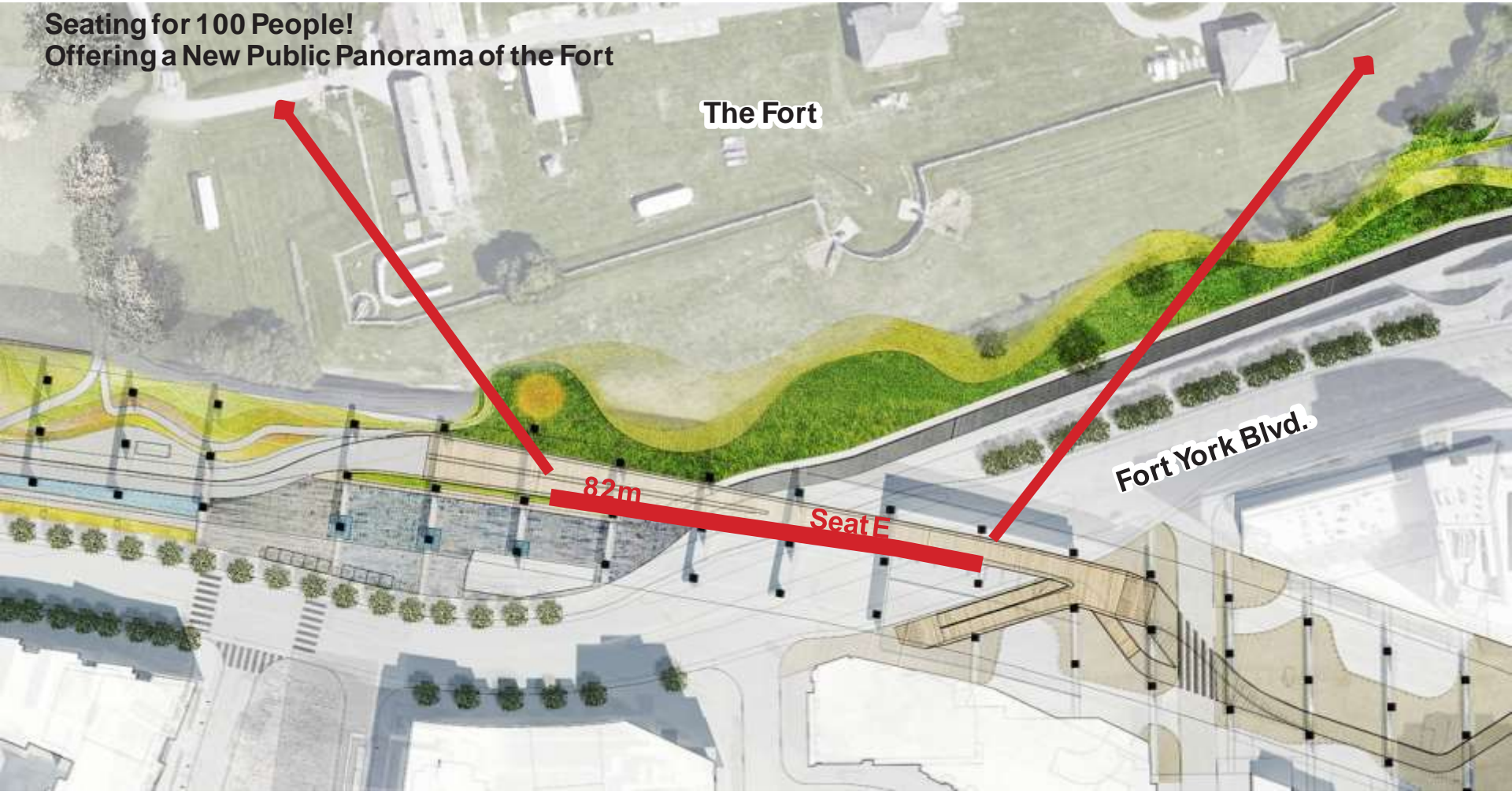




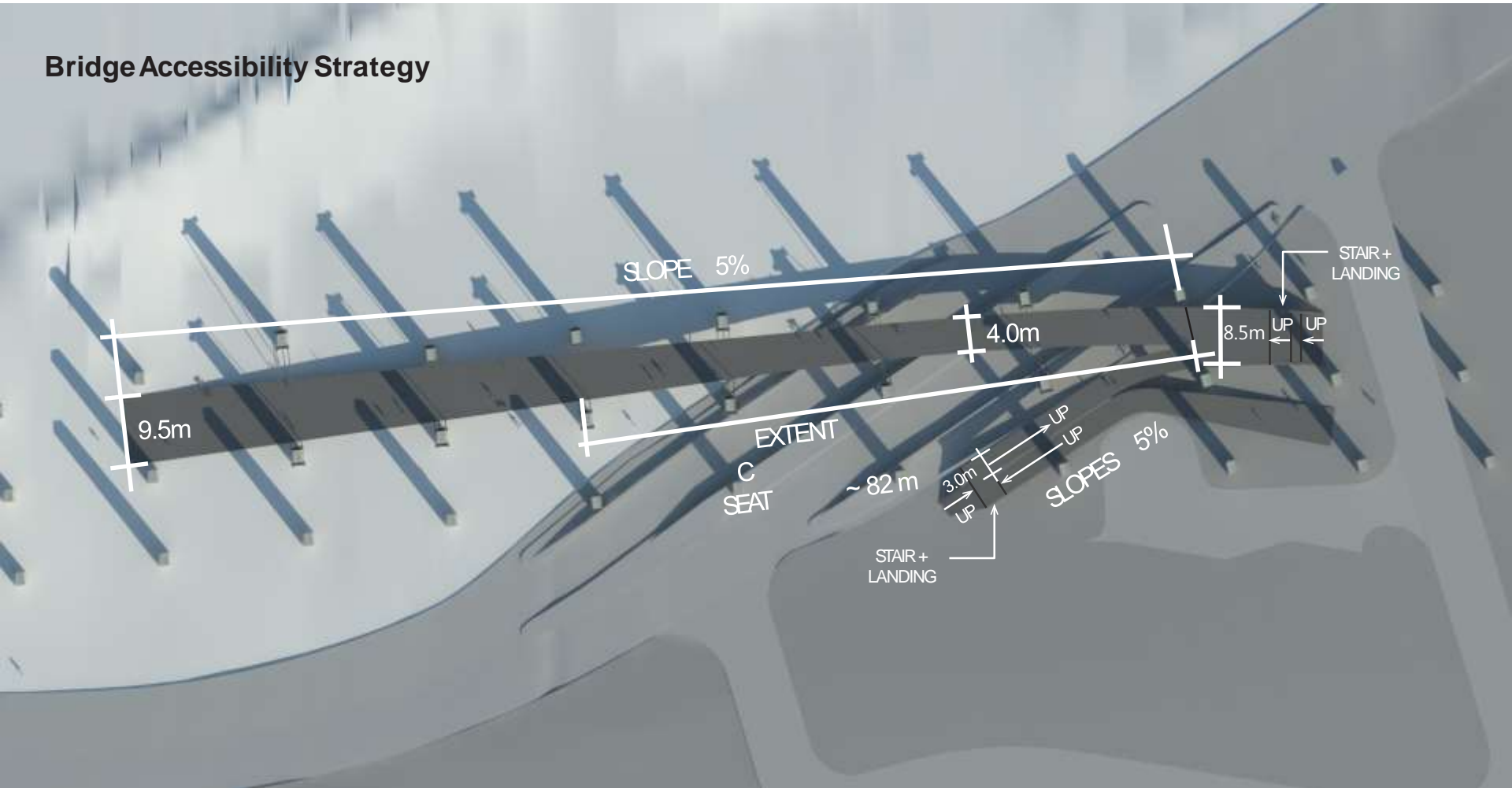




**Seating for 100 People!
Offering a New Public Panorama of the Fort**



Bridge Accessibility Strategy

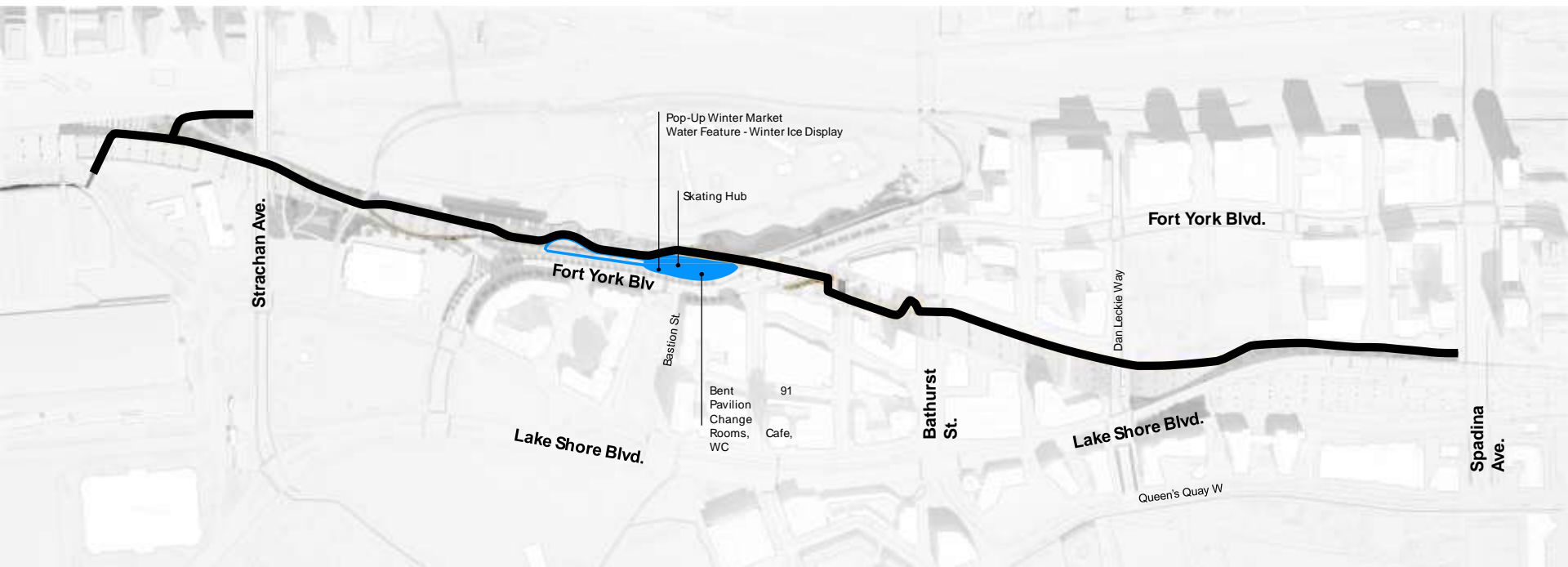




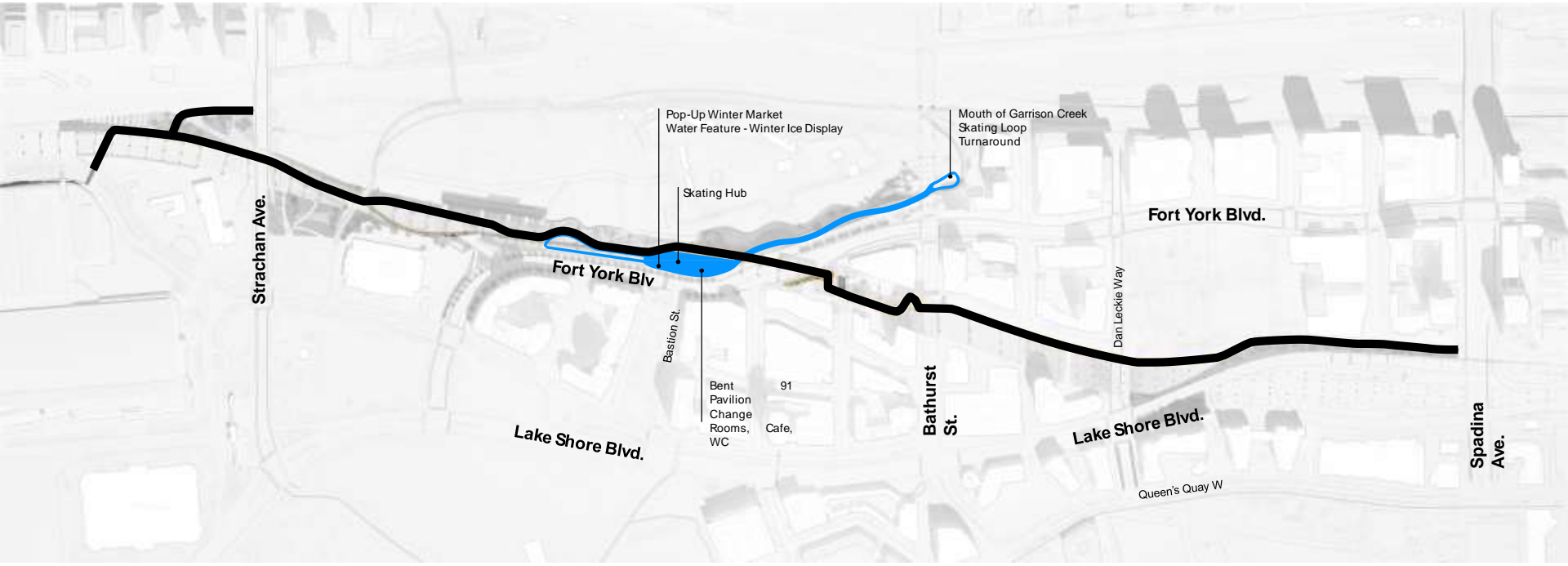




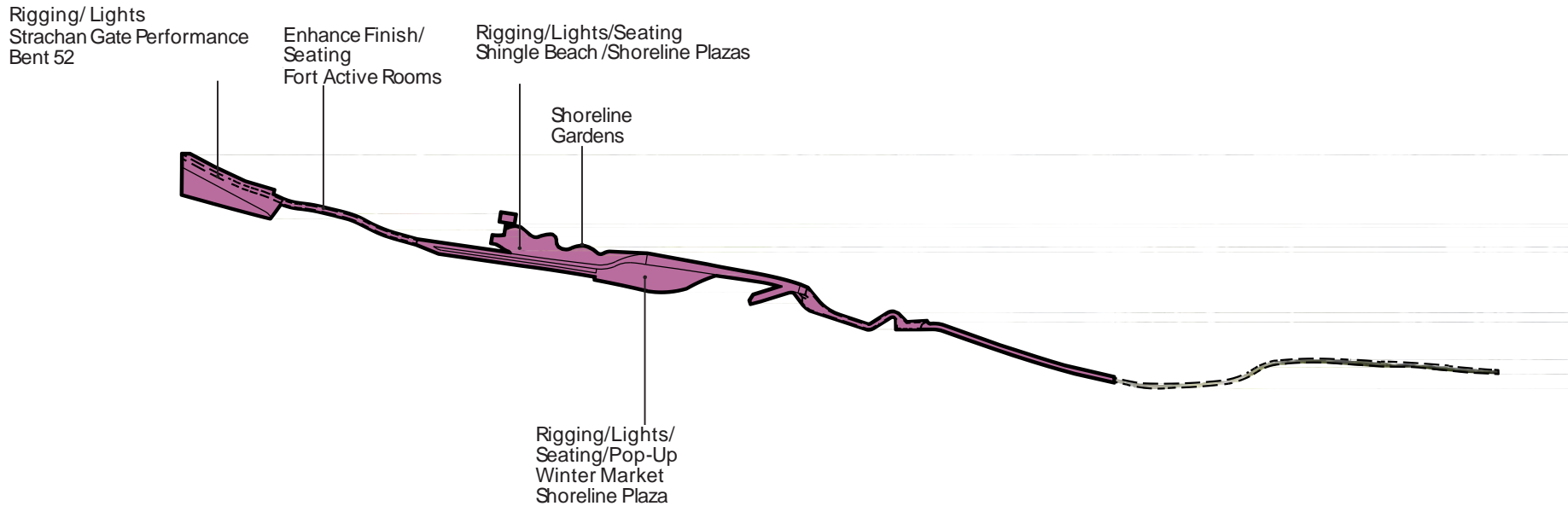
3. Toronto's Ultimate Skating Experience Skating Trail Phase 1 - 450m Loop



3. Toronto's Ultimate Skating Experience Skating Trail - Future Expansion - 1km Loop



4. Strategic Enabling Programming Infrastructure



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Fort Central
Programmed Landscape

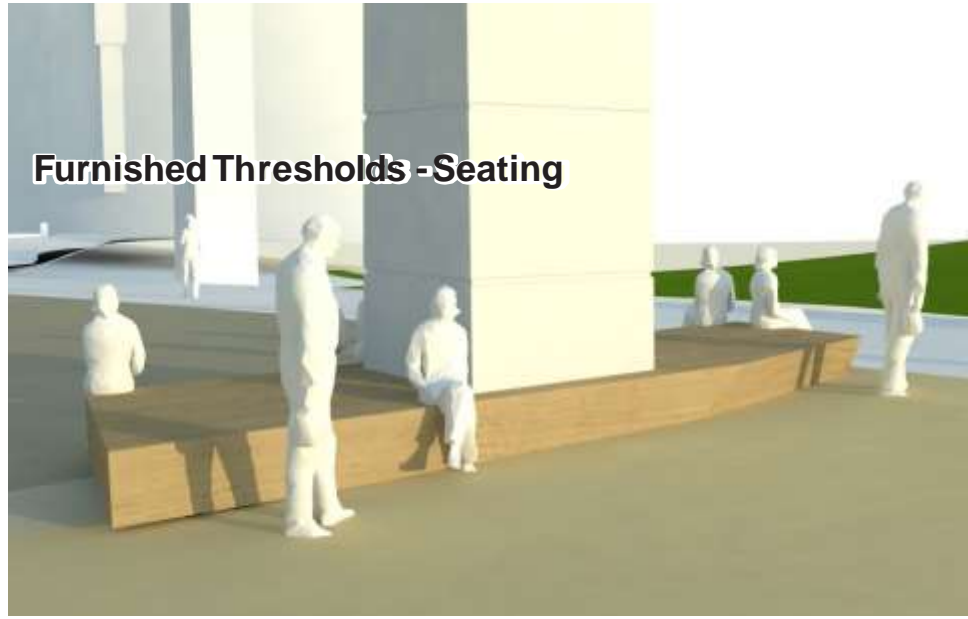
Bents 98-118

East Community
Community Link and Amenities

Fort Central Active Rooms



Furnished Thresholds - Seating





Rotational Installations & Fabrication in Bent 52 House
Reference: MoMA PS1 Young Architects Program



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Programming Think-Tank - April 29, 2016
Facilitated by LORD Cultural Resources



INTERSECTIONS

- CONFLUENCE OF THE ORDINARY & EXTRAORDINARY
- MANY HISTORIES OF THE SITE/ AN ONGOING STORY
- RELATIONSHIPS
- CURATOR / SPECTATOR

THEMES

- ART & PERFORMANCE
- MAKER / TAKER
- SPATIAL ACTIVATION
- COMMUNITY OWNERSHIP
- INCLUSIVITY / DIVERSITY
- SAFE EXPERIMENTATION
- ENABLING
- INDIGENITY
- STRATEGICALLY PRINCIPLED / TACTICALLY FLEXIBLE

INTERSECTIONS, THEMES, PARTNERSHIPS, IMPACT.

Programming Think-Tank - April 29, 2016



KENNETH MONTAGUE
Art Collector/Curator



HELEN MARRIAGE
Director, Artichoke (UK)



CHARLES LANDRY
Urbanist, Author



ALI HOSSAINI
Artist & CEO of
Cinema Arts Network (UK)



ALEX GILLIAM
Founding Director Public Workshop



GERALD McMASTER
OCAD Professor, Curator & Artist

Programming
Think-Tank
Informing
LORD's
Preliminary
Programming
Framework

PRELIMINARY PROGRAM MIX



FOUNDATION PROGRAMS



Activities



Events/ Festival



Performance



Visual Art/ Experiential



Recreational



MID LEVEL



Activities



Events/ Festival



Performance



Visual Art/ Experiential



Recreational



EXTRAORDINARY



Activities



Events/
Festival



Performance



Visual Art/
Experiential



Recreational



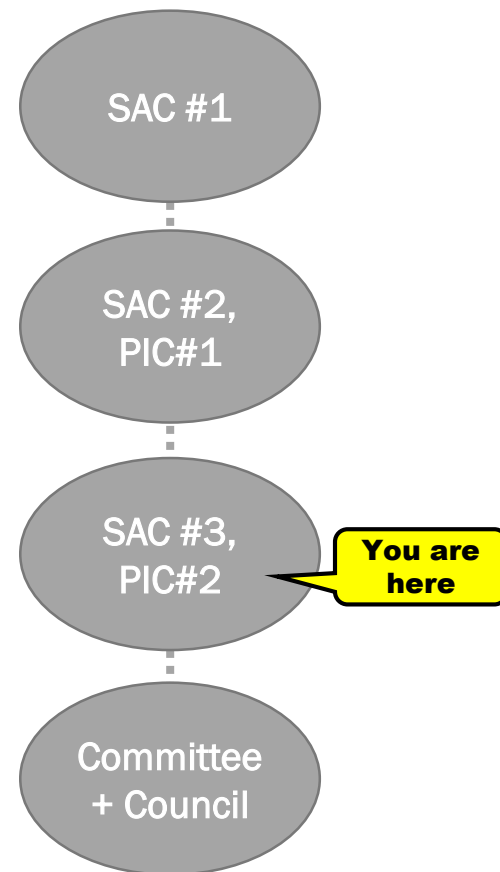
Merrilees Willemse
Dillon Consulting

EA Update: Overview

1. Recap from SAC #2 and PIC #1
2. EA - Alternative Design Options
3. EA - Evaluation Criteria Review
4. Next Steps

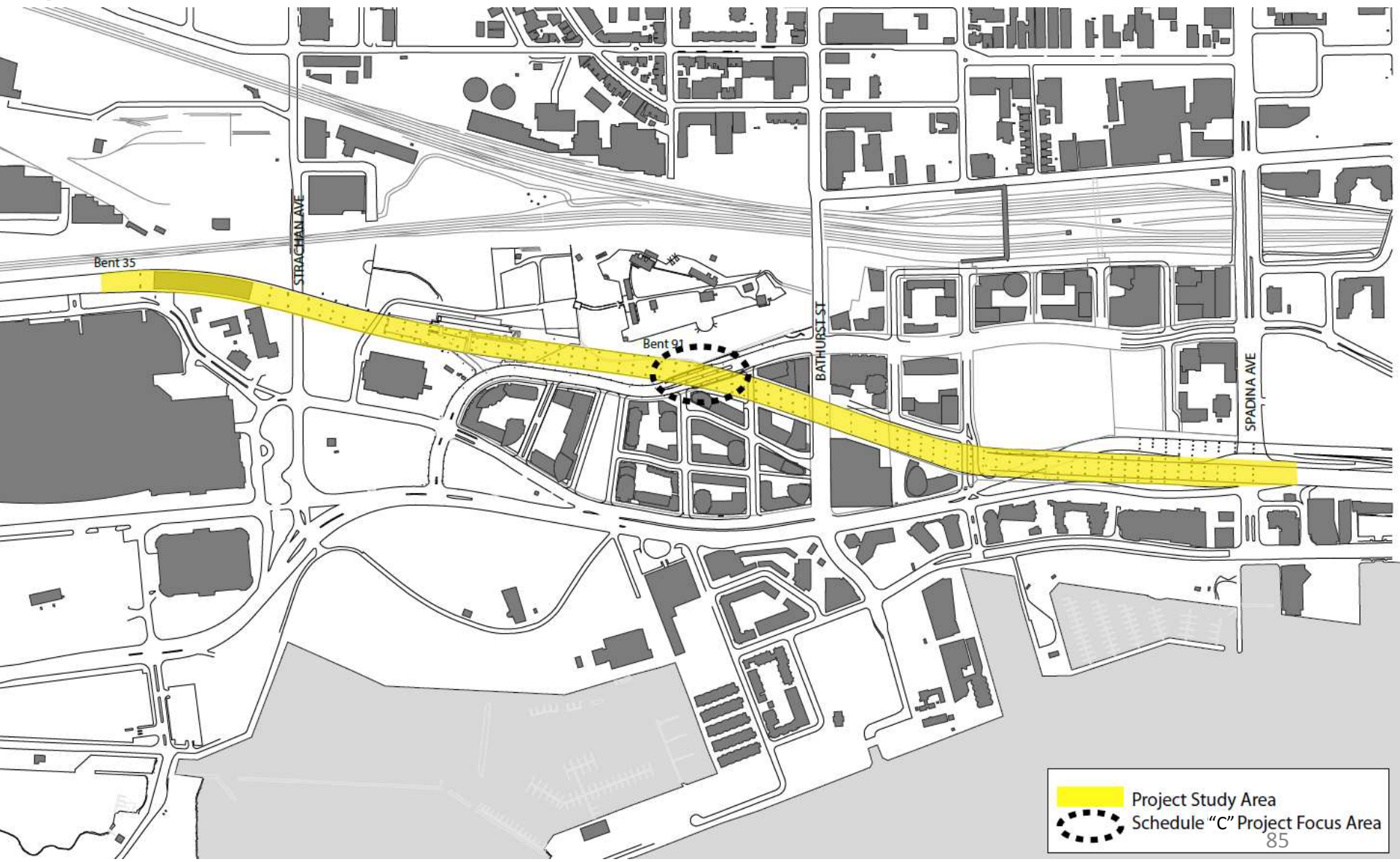
Schedule 'C' Municipal Class EA Process



Completing a Schedule C Class EA for a new crossing of Fort York Blvd



Crossing Location

Figure 1



 Project Study Area
 Schedule "C" Project Focus Area
85

Problem/Opportunity

Problem and Opportunity:

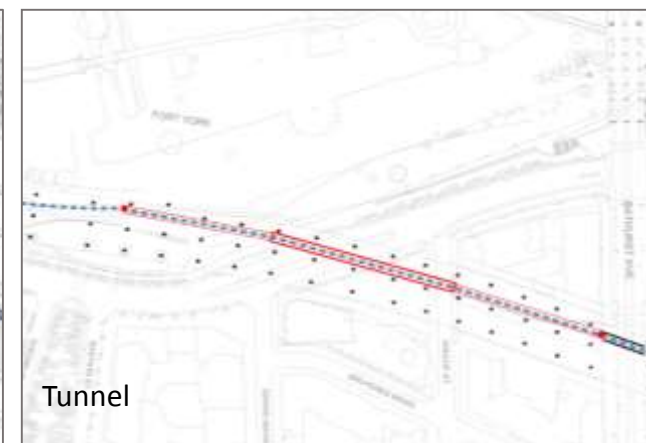
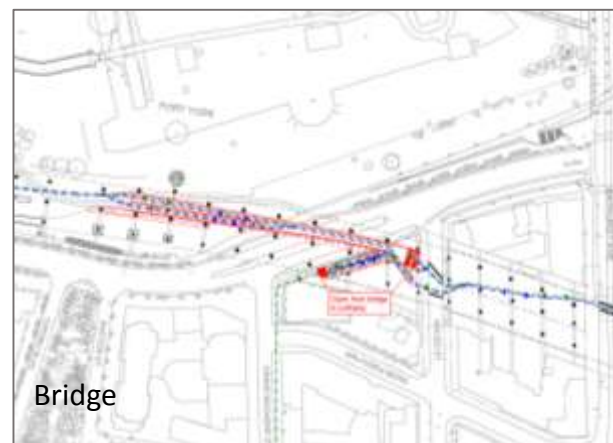
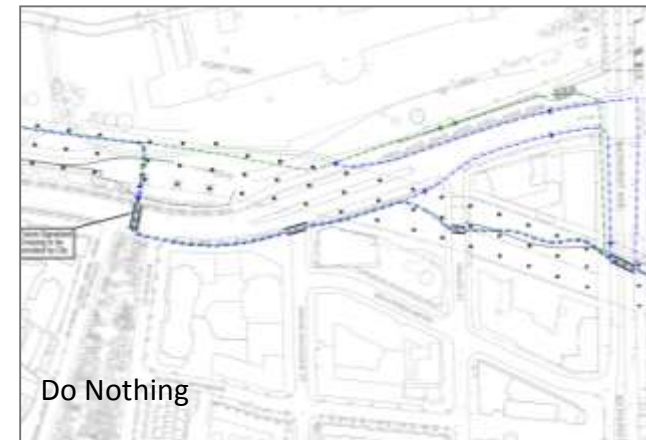
- Fort York Boulevard presents a **significant gap** separating the new public spaces with no safe pedestrian/cycling crossing within the Under Gardiner study area.
- Opportunity to provide a **safe connection that signifies Project: Under Gardiner** without compromising the function of the roadway, and provide new connection to Fort York Historic Site



Alternative Solutions





4 Alternative Solutions developed based on technical feasibility:

- 1. Do Nothing – direct pedestrians and cyclists to existing crossings
- 2a. At-Grade Crossing at mid-block (through traffic barrier)
- 2b. At-Grade Crossing at Grande Magazine Street
- 3. Bridge Crossing Switchback
- 4a. Tunnel Straight
- 4b. Tunnel Switchback



Alternative Solutions Evaluation

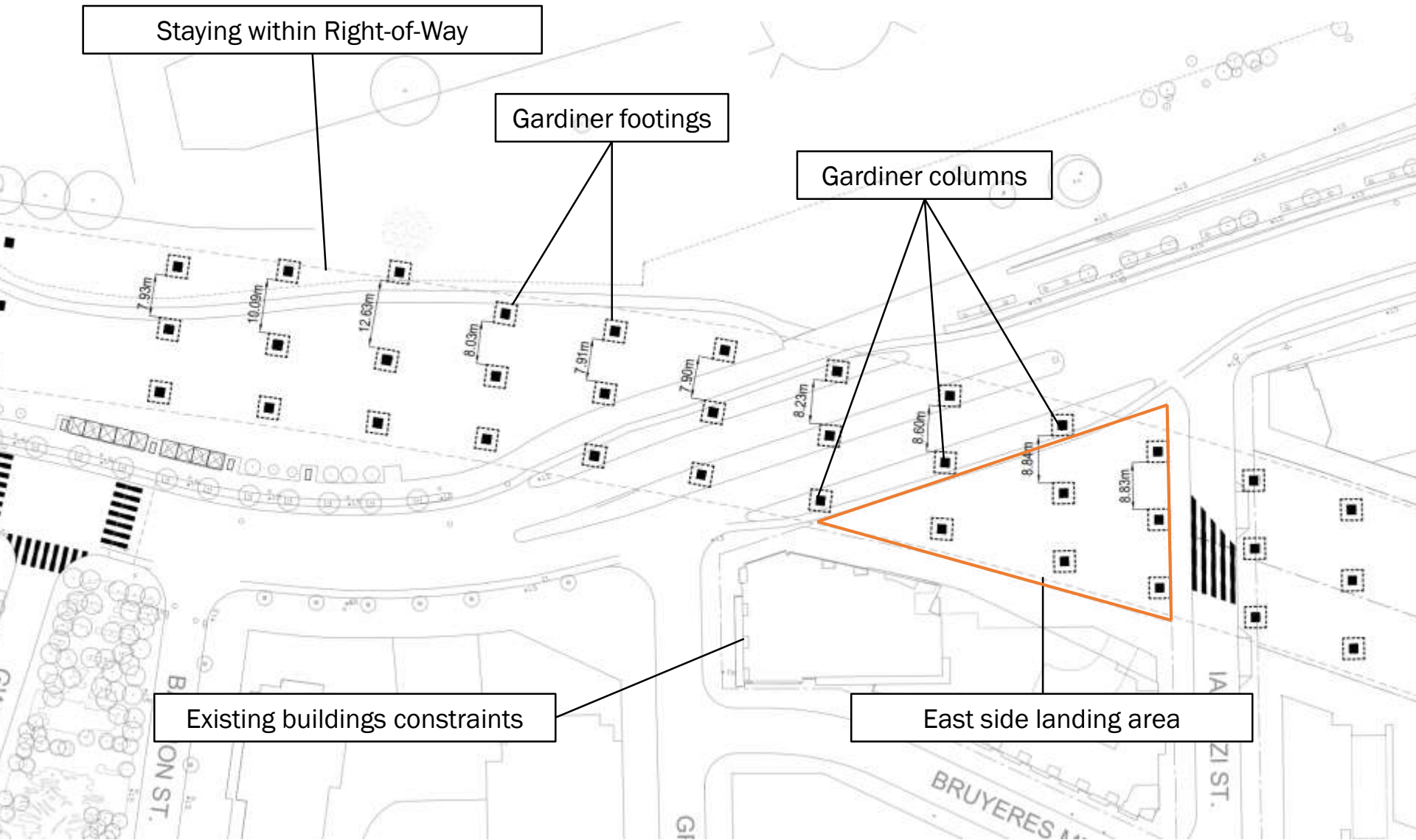
Evaluated under four lenses: Transportation and Infrastructure, Urban Design, Environment (Natural, social and cultural), Economics

- **Do-Nothing** does not solve problem of providing a safe new connection and provides no new opportunities. 
- **At-grade** crossings provide the most affordable connection, however, will disrupt traffic, provide no urban design enhancement, less safe crossing due to sightlines. Impacts potential for future LRT along Fort York Blvd. 
- **Tunnel** crossings are technically challenging and costly. Achieves safe separated crossing but compromises urban design. Personal security is a concern and greatest impact to cultural heritage. 
- **Bridge** crossing achieves safe separated connection while enhancing urban design opportunities with moderate additional cost. Manageable impact to Fort York landscape and enhances experience of historic site. 

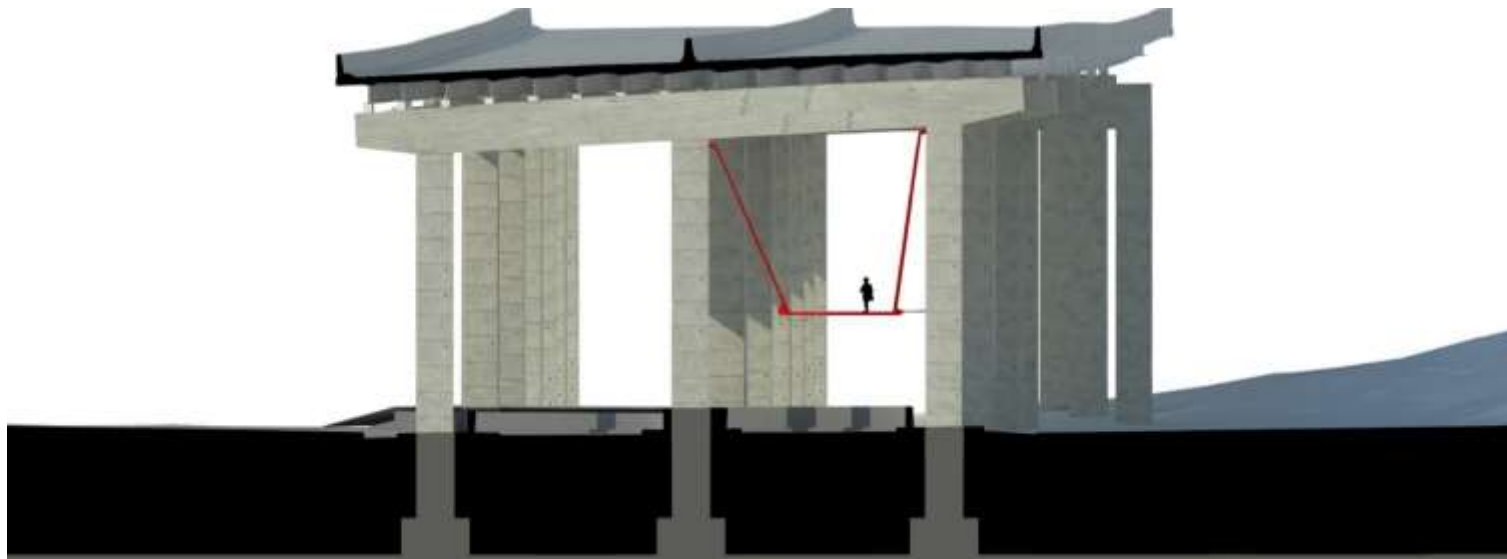
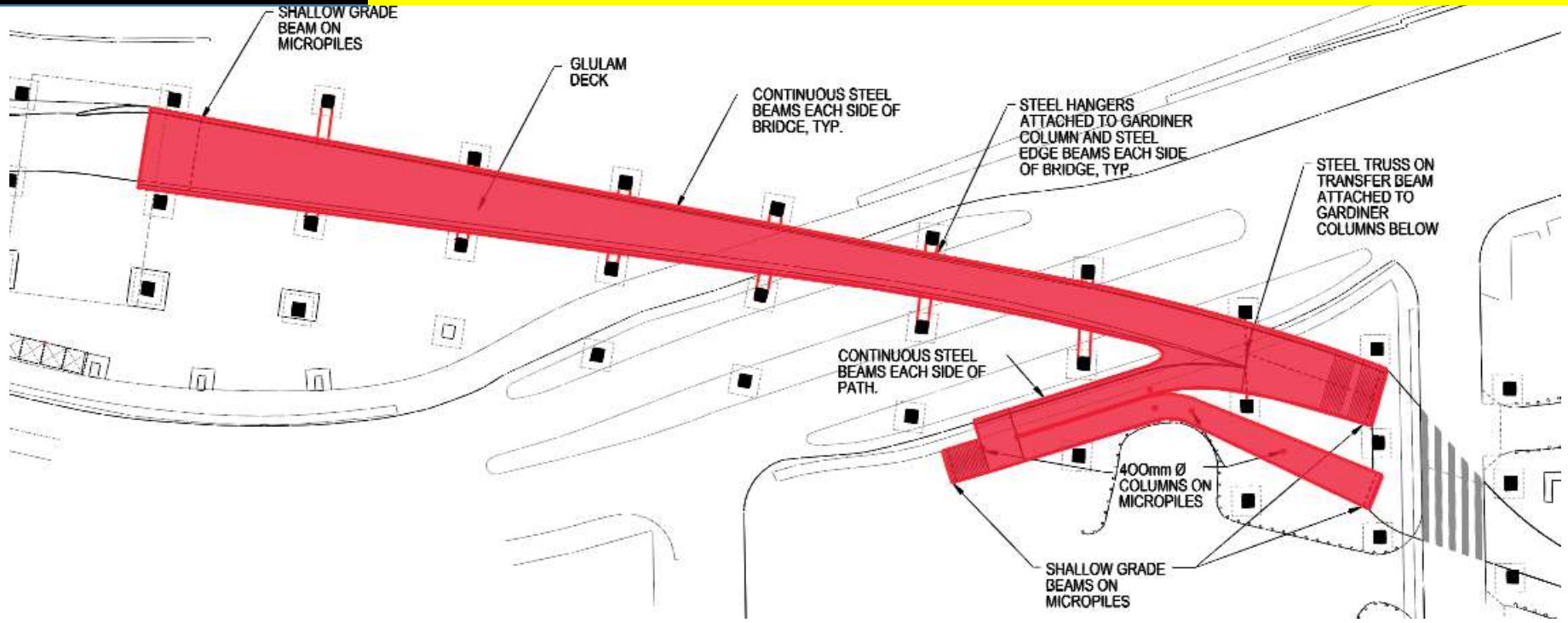
Focus for EA Alternative Designs

- Consideration of alternative alignments
 - Staying within the Gardiner ROW
 - Impacts to surrounding property
 - Extended connection vs. switchback connection (southeast side)
- Consideration of alternative structural systems
 - Suspended Bridge
 - Grounded Bridge
- Structural interaction with Gardiner
 - Maintenance program
 - Relationship of two structures

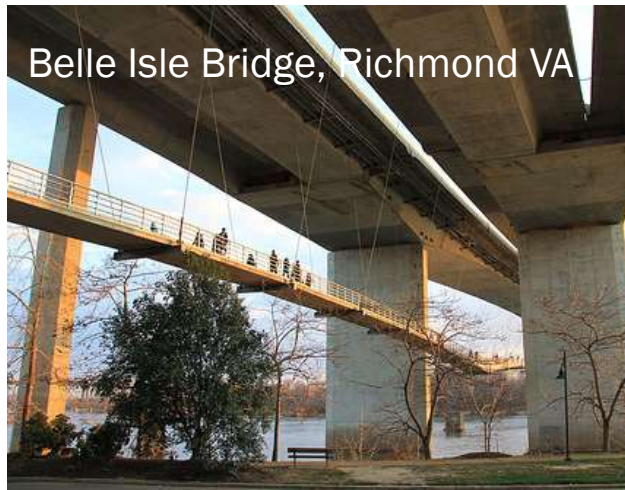
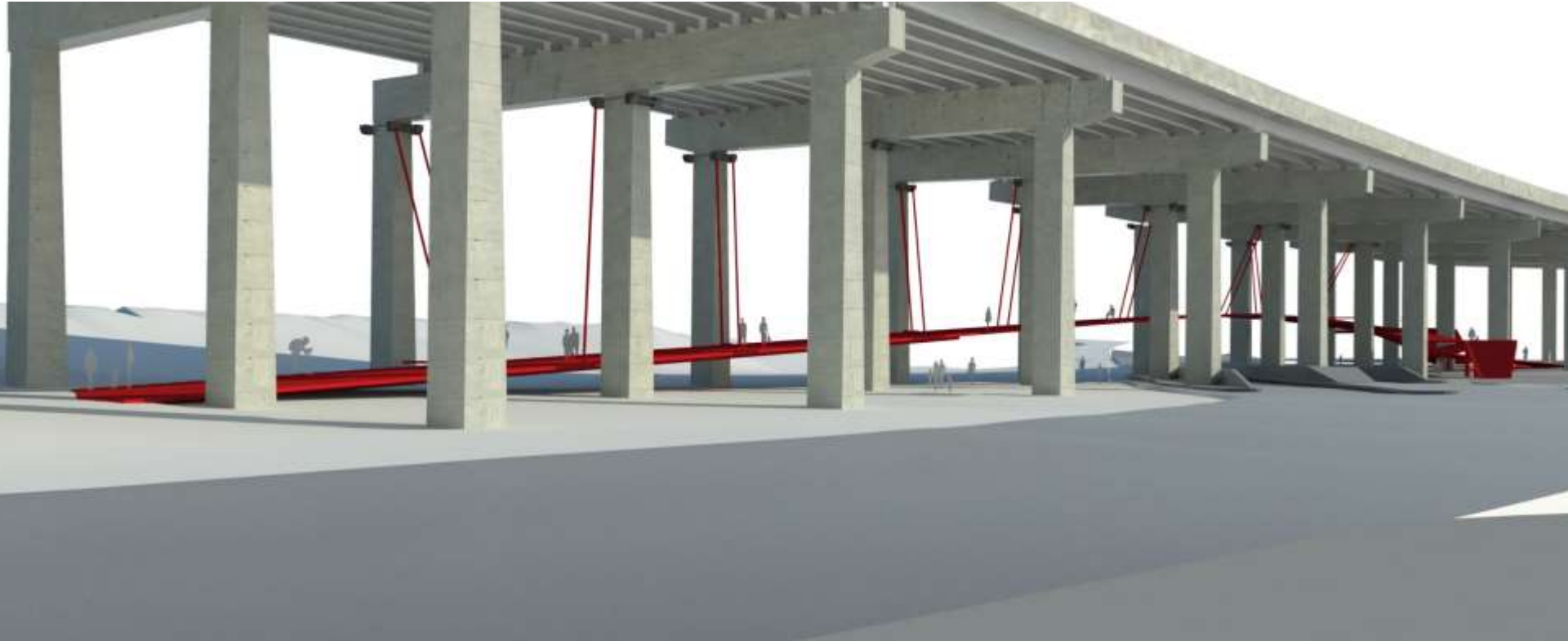
Physical Constraints for Alignment and Structure



Suspended Bridge



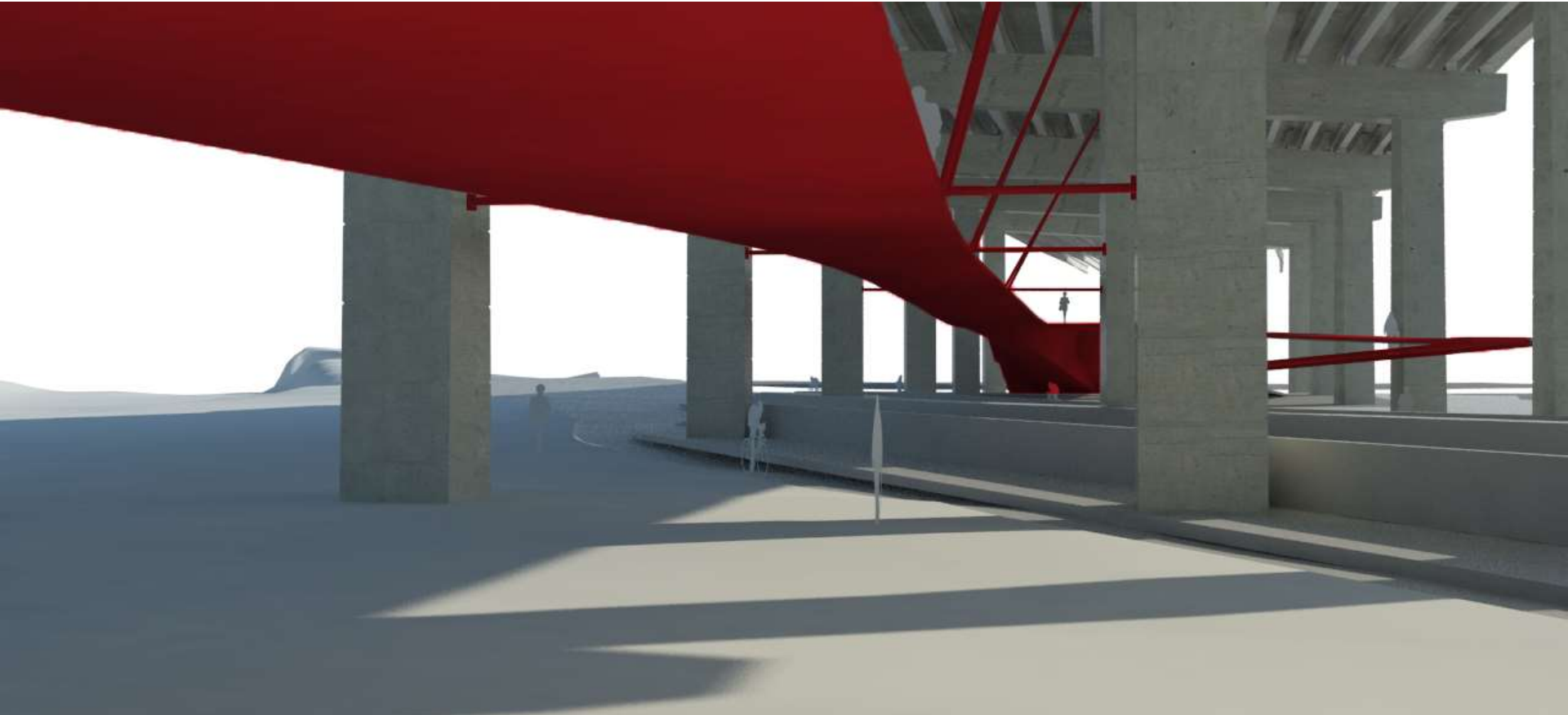
Suspended Bridge



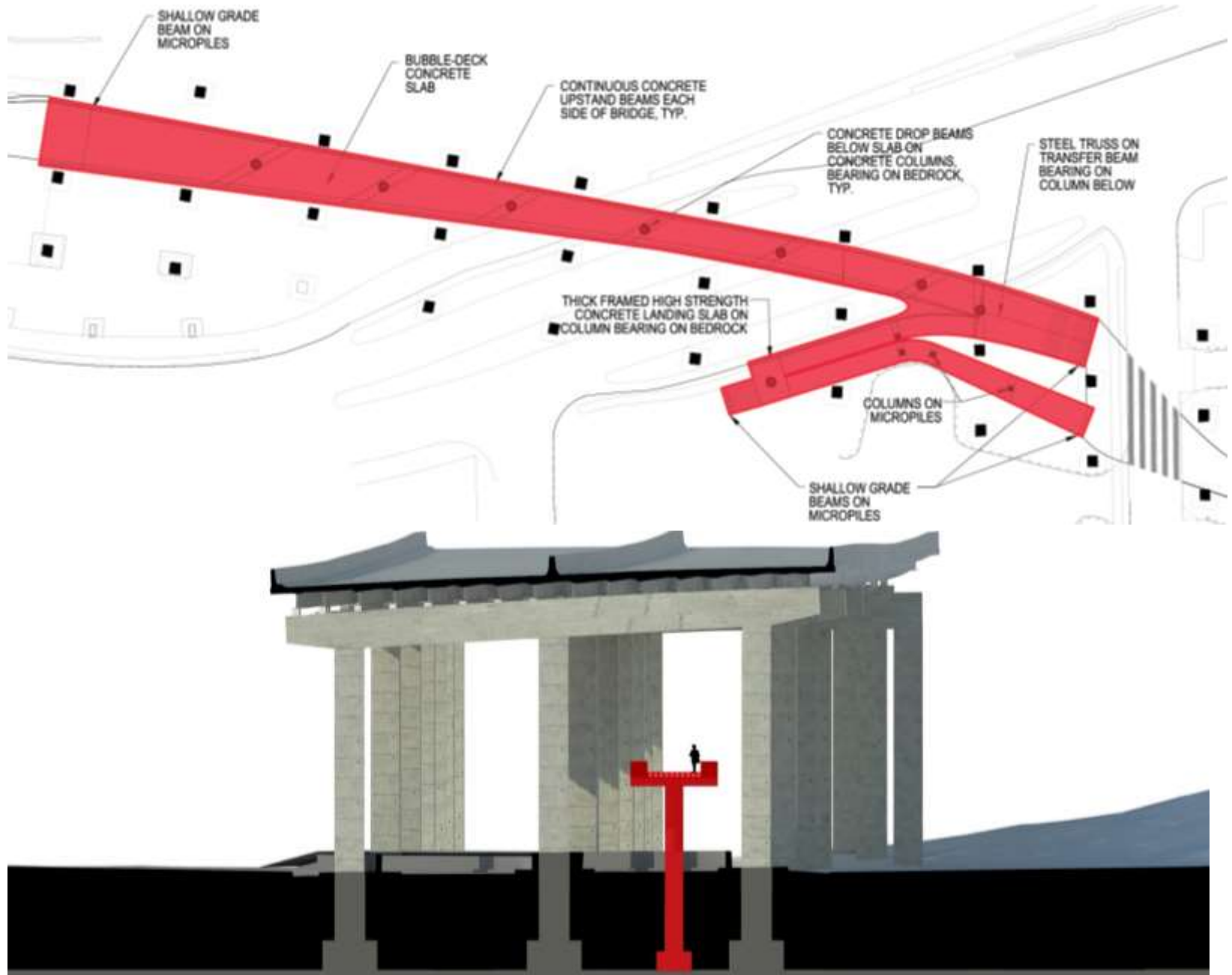
Belle Isle Bridge, Richmond VA



Suspended Bridge



Grounded Bridge



Grounded Bridge



Switzerland

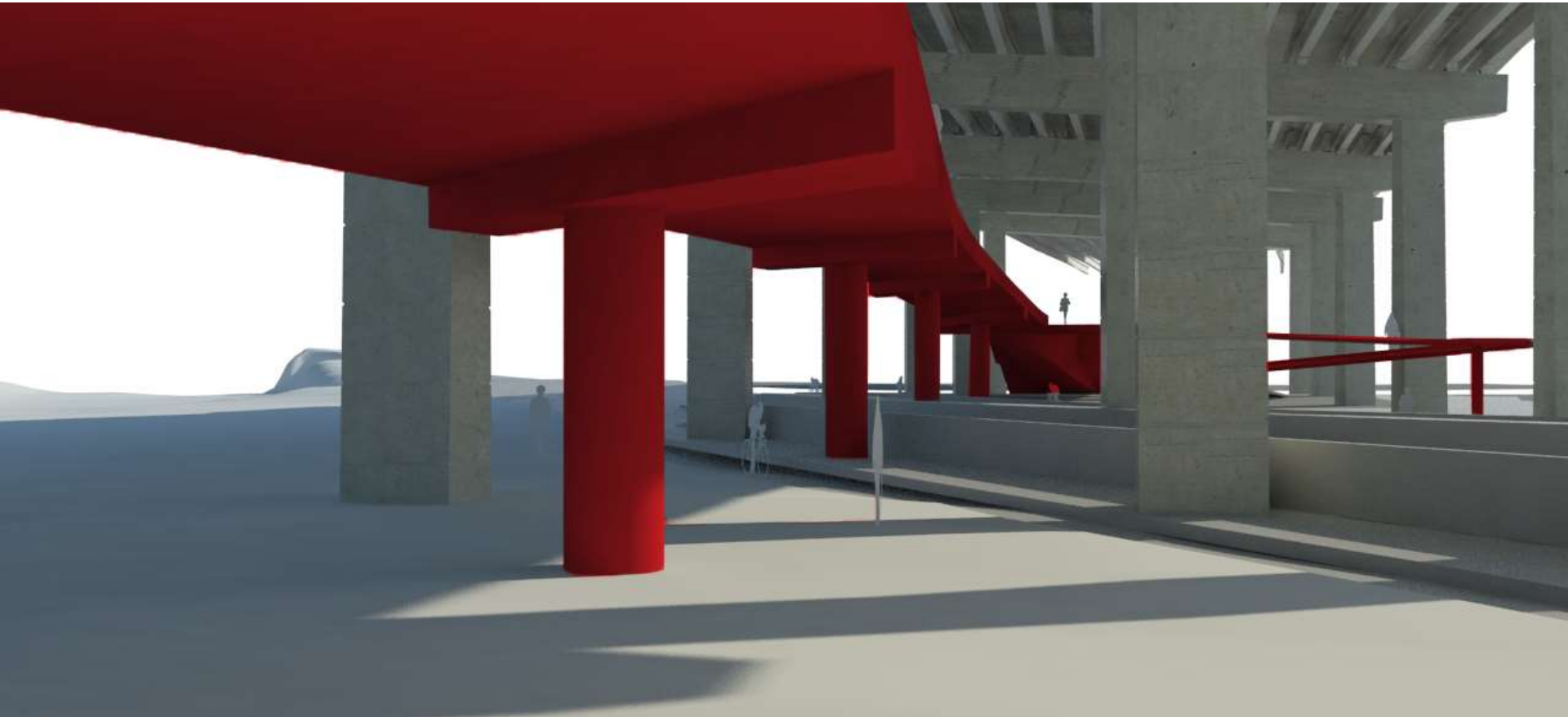


Toronto



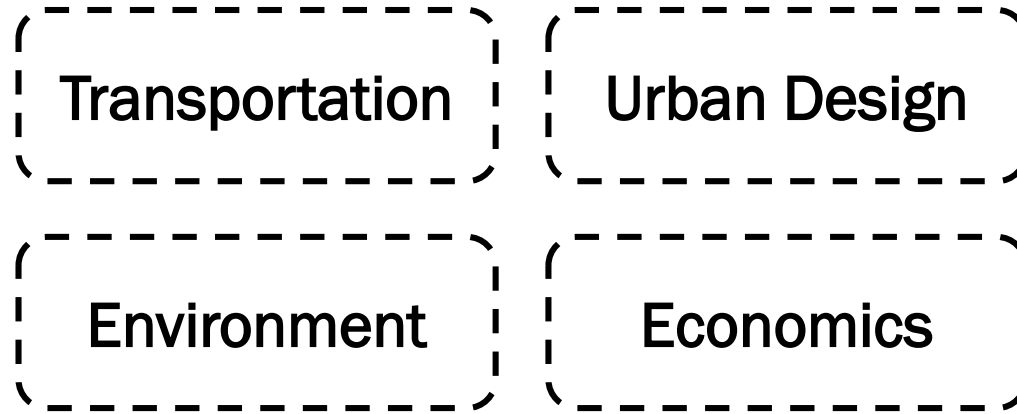
Belgium

Grounded Bridge



Design Alternatives Evaluation Criteria

- Keep the 4 Lenses and most of the Criteria Groups from the evaluation of alternative solutions:



- Revise criteria to reflect factors in decision making between alternative designs (e.g. transit, aquatic environment, etc.)
- Flexibility to accommodate detailed design modifications (i.e. criteria not so specific that it would restrict design modifications related to final details)

Transportation Lens Evaluation

Criteria Group	Criteria	Suspended Bridge	Grounded Bridge
Safety	<ul style="list-style-type: none"> Safety Risk for Pedestrians, Cyclists, Motorists 	<ul style="list-style-type: none"> Equal – both options provide safe and accessible connections. These bridges would both be designed to meet accessibility standards and bridge code in order to provide a safe connection for all users. 	
	<ul style="list-style-type: none"> Safety of Infrastructure Design 		
Connectivity	<ul style="list-style-type: none"> Accessible Connections 		
Infrastructure & Constructability	<ul style="list-style-type: none"> Construction Duration 	<ul style="list-style-type: none"> Shorter (1-2 weeks of on-site work) 	<ul style="list-style-type: none"> Slightly longer (4-5 weeks on-site)
	<ul style="list-style-type: none"> Construction Impact on Pedestrians, Cyclists and Auto Traffic 	<ul style="list-style-type: none"> Less impact to users of Fort York Blvd 	<ul style="list-style-type: none"> Greater impact due to on-site works to construct columns
	<ul style="list-style-type: none"> Construction Impact on Private Property 	<ul style="list-style-type: none"> Minimal potential impact 	<ul style="list-style-type: none"> Greater potential impact based on staging needed

Transportation Lens Evaluation

Criteria Group	Criteria	Suspended Bridge	Grounded Bridge
Infrastructure & Constructability	<ul style="list-style-type: none"> Construction Impact to Gardiner Structure 	<ul style="list-style-type: none"> Minor impact to Gardiner columns at location of steel hanger friction attachments and cables 	<ul style="list-style-type: none"> Minor impact may occur due to new column construction
	<ul style="list-style-type: none"> Permanent Impact on Gardiner Structure 	<ul style="list-style-type: none"> Impact due to physical connection to Gardiner columns and reduced excess load capacity 	<ul style="list-style-type: none"> No impact
	<ul style="list-style-type: none"> Gardiner Maintenance Program Impact 	<ul style="list-style-type: none"> Greater impact on Gardiner maintenance due to bridge attachments to columns and encroachment around Gardiner structure 	<ul style="list-style-type: none"> Minor impact on Gardiner maintenance due to encroachment around Gardiner structure

Less Preferred

Preferred

Urban Design Lens Evaluation

Criteria Group	Criteria	Suspended Bridge	Grounded Bridge
Public Realm & Architectural Design	Urban Design Quality	<ul style="list-style-type: none"> Suspension system is unique and presents greater opportunity to enhance urban design quality 	<ul style="list-style-type: none"> Structure can be designed with high urban design quality but does not present a unique structural design
	Public Space and Infrastructure Footprint	<ul style="list-style-type: none"> Lighter infrastructure footprint means reduced impact on public space 	<ul style="list-style-type: none"> Bridge footings present a greater infrastructure footprint on surrounding public space
	Visual Impact	<ul style="list-style-type: none"> Unobstructed views through the bridge; minor view obstructions from the bridge due to suspension cables 	<ul style="list-style-type: none"> Columns present greater visual obstacle through the bridge; enhanced views from bridge due to lack of suspension cables
	Activation/ Animation	<ul style="list-style-type: none"> Similar animation opportunities, e.g. lighting 	
	Project: Under Gardiner Design Continuity	<ul style="list-style-type: none"> Reflects design intent of Project: Under Gardiner to provide a unique relationship between the user and the Gardiner structure 	<ul style="list-style-type: none"> Separation between new bridge and the existing Gardiner structure is not in keeping with the design intent of Project: Under Gardiner

Preferred

Less Preferred

Environment Lens Evaluation

Criteria Group	Criteria	Suspended Bridge	Grounded Bridge
Social & Health	• Quality of Life	• Equal – both options provide improvements to quality of life through advancing walkability, cycling, legibility of area.	
Natural Environment	• Terrestrial Environment	• Equal – limited potential for impacts	
	• Water Quality & Quantity	• No columns creates reduced impact with smaller ground footprint	• Larger but minimal ground surface and sub-surface impact due to reduction of permeable ground area (~250sq.m.)
	• Soil	• Less impact	• Greater impact as requires greater excavation for columns/footings/piles
Cultural Resources	• Cultural Heritage Landscape	• Less impact to cultural landscape and design is sensitive to historical setting	• Greater impact due to physical ground footprint
	• First Nation People and Activities	• Equal – limited potential for impacts	
	• Archaeology	• No impacts anticipated	• Potential impact due to greater excavation

Preferred

Less Preferred

Economics Lens Evaluation

Criteria Group	Criteria	Suspended Bridge	Grounded Bridge
Local Economics	<ul style="list-style-type: none"> Visitor/Tourism Attractiveness 	<ul style="list-style-type: none"> Relatively Equal – both designs present opportunities to attract visitors to area. May be more potential with suspended because of unique structural system. 	
Direct Capital Cost & Maintenance Cost	<ul style="list-style-type: none"> Capital Cost 	<ul style="list-style-type: none"> Relatively equal - slightly lower capital cost (estimate \$5.0 - \$6.0 million) 	<ul style="list-style-type: none"> Relatively equal - slightly higher capital cost (estimate \$5.5 - \$6.5 million due to soil and utilities management)
	<ul style="list-style-type: none"> Lifecycle Operations and Maintenance Cost 	<ul style="list-style-type: none"> Relatively equal – no significant differences in maintenance costs for bridge components. 	
	<ul style="list-style-type: none"> Change/Impact to Maintenance Costs for Gardiner Structure 	<ul style="list-style-type: none"> Some impact due to more complicated access for routine Gardiner maintenance; Minor impact to locations for hanger attachments. Column maintenance required approximately every 15 years. 	<ul style="list-style-type: none"> Some impact due to more complicated access for routine Gardiner maintenance.

Less Preferred

Preferred

Summary of Design Alternatives Evaluation

	Suspended Bridge	Grounded Bridge
Transportation	Less Preferred	Preferred
Urban Design	Preferred	Less Preferred
Environment	Preferred	Less Preferred
Economics	Less Preferred	Preferred

Summary of Design Alternatives Evaluation

Suspended Bridge

- Unique design opportunity that celebrates the Gardiner structure and is consistent with intent of Project: Under Gardiner
- Minimal temporary construction impact to traffic and property
- Greater impact to Gardiner Expressway maintenance and operations
- Sensitive heritage design and interaction with cultural landscape

Grounded Bridge

- Separation of old and new infrastructure is not capturing intent of Project: Under Gardiner
- Temporary construction impact to traffic and property
- Less impact to Gardiner Expressway maintenance and operations
- Greater challenge to manage heritage impact and interaction with cultural landscape

Next Steps

Environmental Assessment

- Review public input to Draft Alternative Designs and Preliminary Evaluation
- Revise alternative designs and evaluation based on feedback and identify preferred design
- Committee and Council presentation
- Complete Environmental Study Report