

**PROJECT: UNDER GARDINER**

# **DESIGN REVIEW PANEL UPDATE**

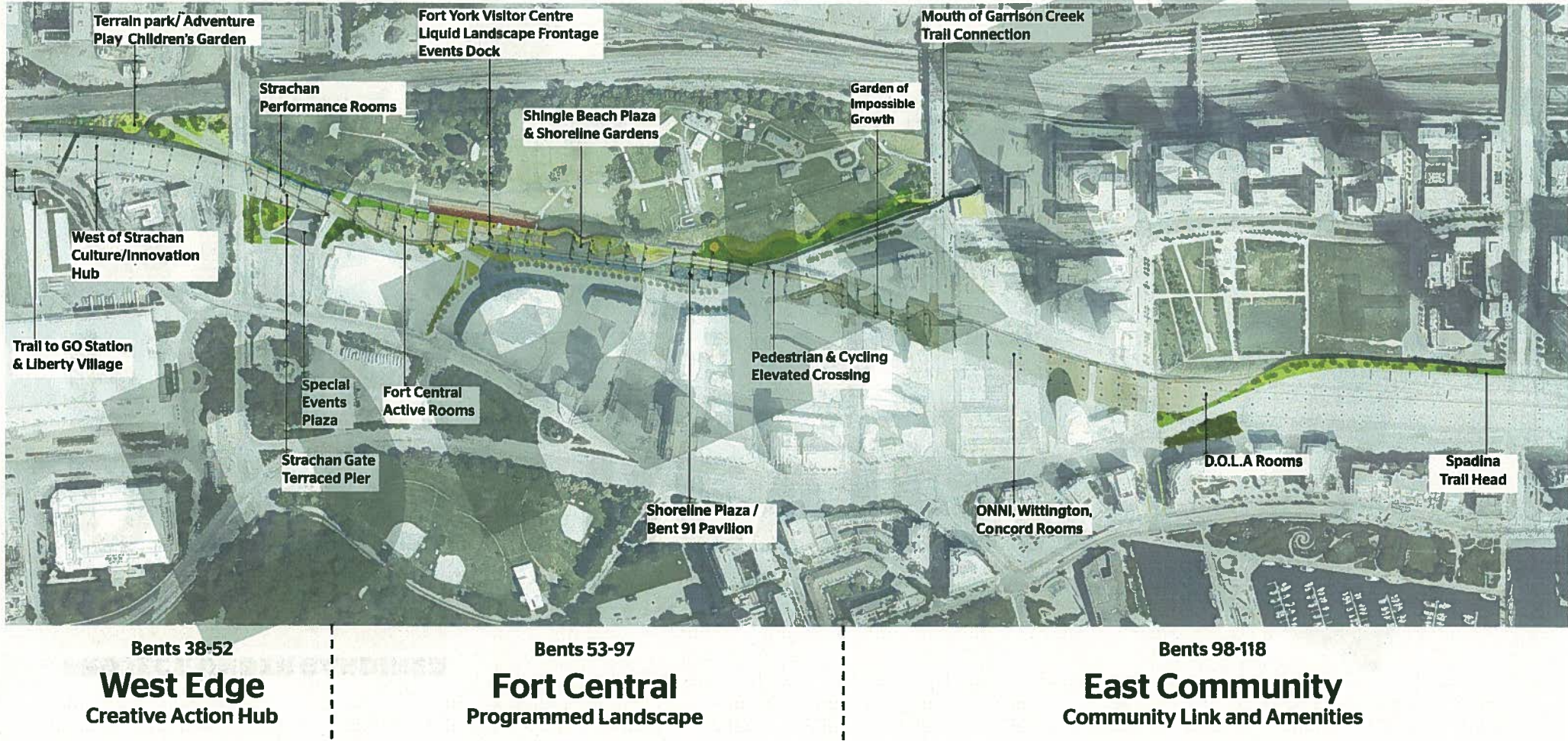
2016.05.10

**Advance Materials**

Greenberg Consultants Inc.

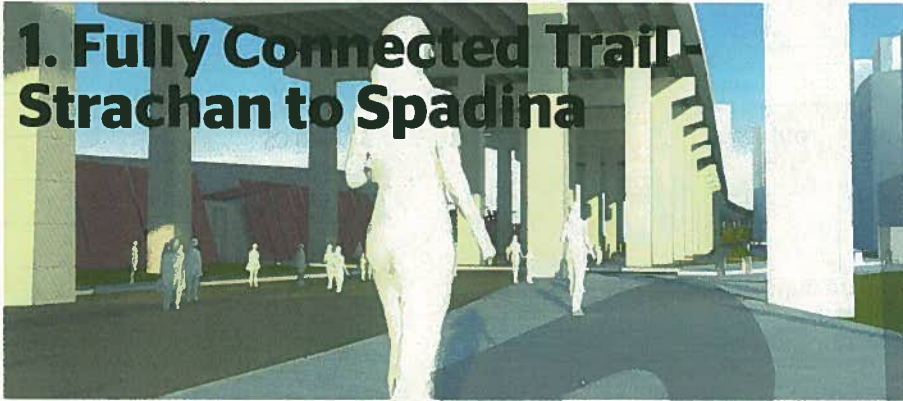
**PUBLIC WORK**

# MASTER PLAN VISION - All Phases



## CORE PROJECT - Phase 1 Priorities

### 1. Fully Connected Trail - Strachan to Spadina



### 2. Strachan Gate Timber Pier



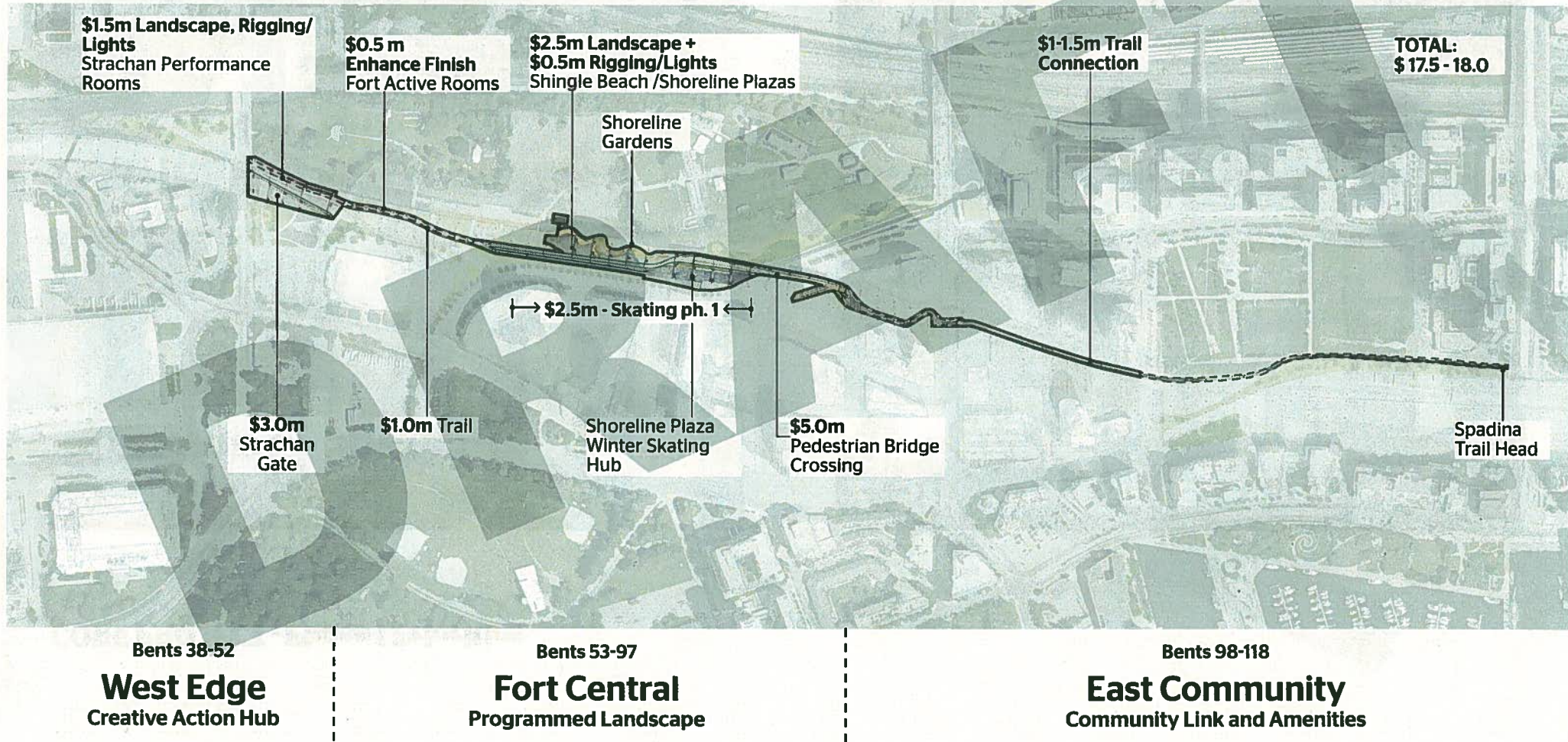
### 3. Bridge over Fort York Boulevard



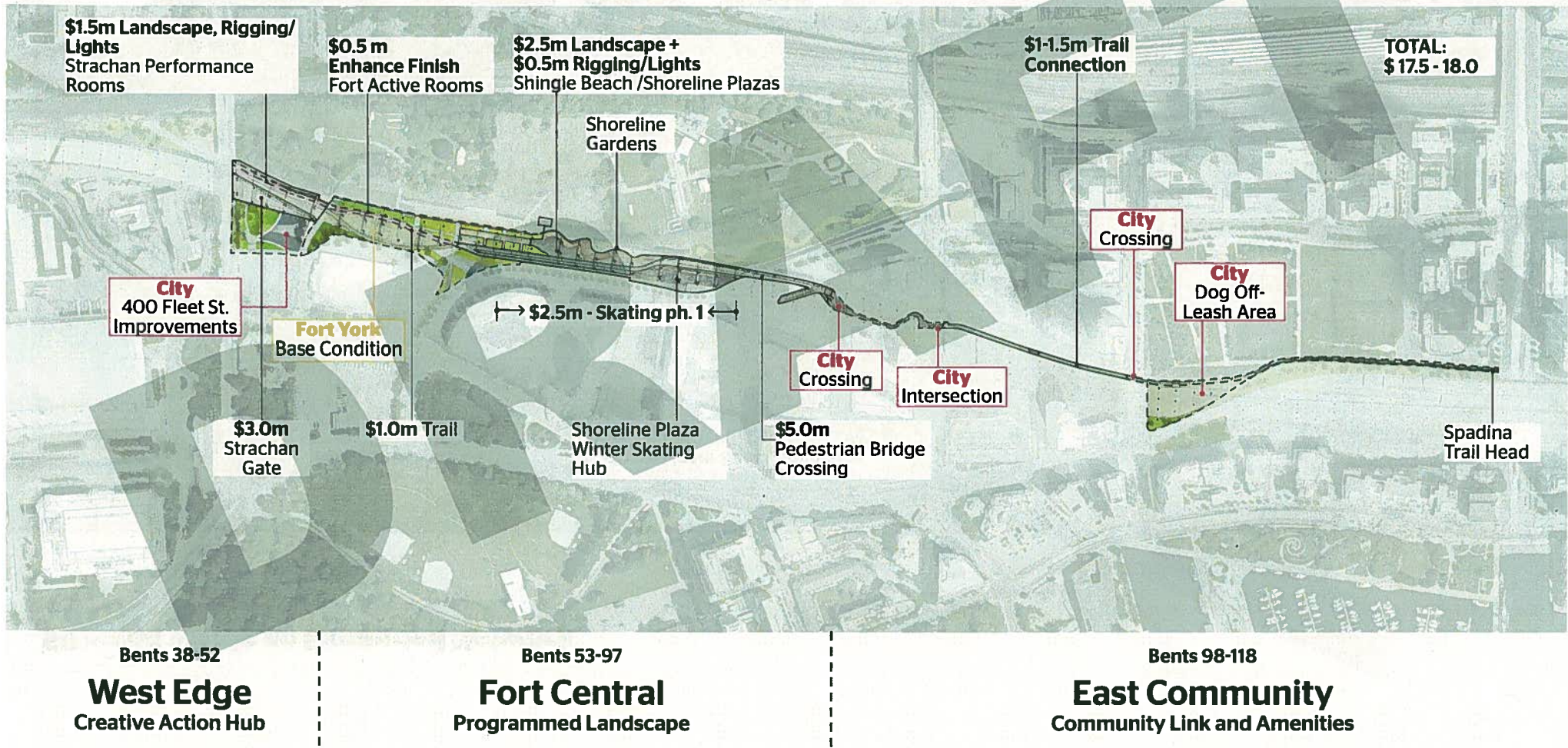
### 4. An Iconic Skating Experience



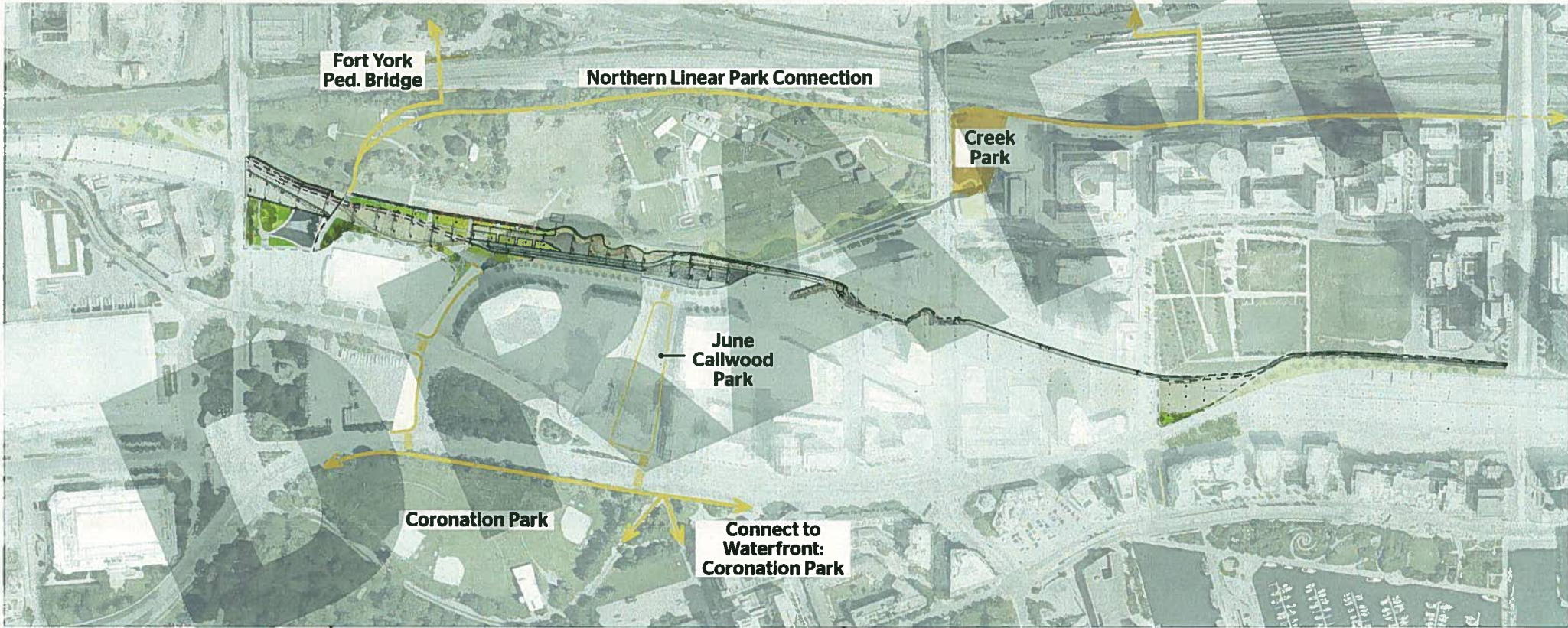
# CORE PROJECT - Phase 1



## PARTNERSHIPS - Projects Coordinated with the City and Fort York



## Situated within an Expanded Network



Bents 38-52

**West Edge**  
Creative Action Hub

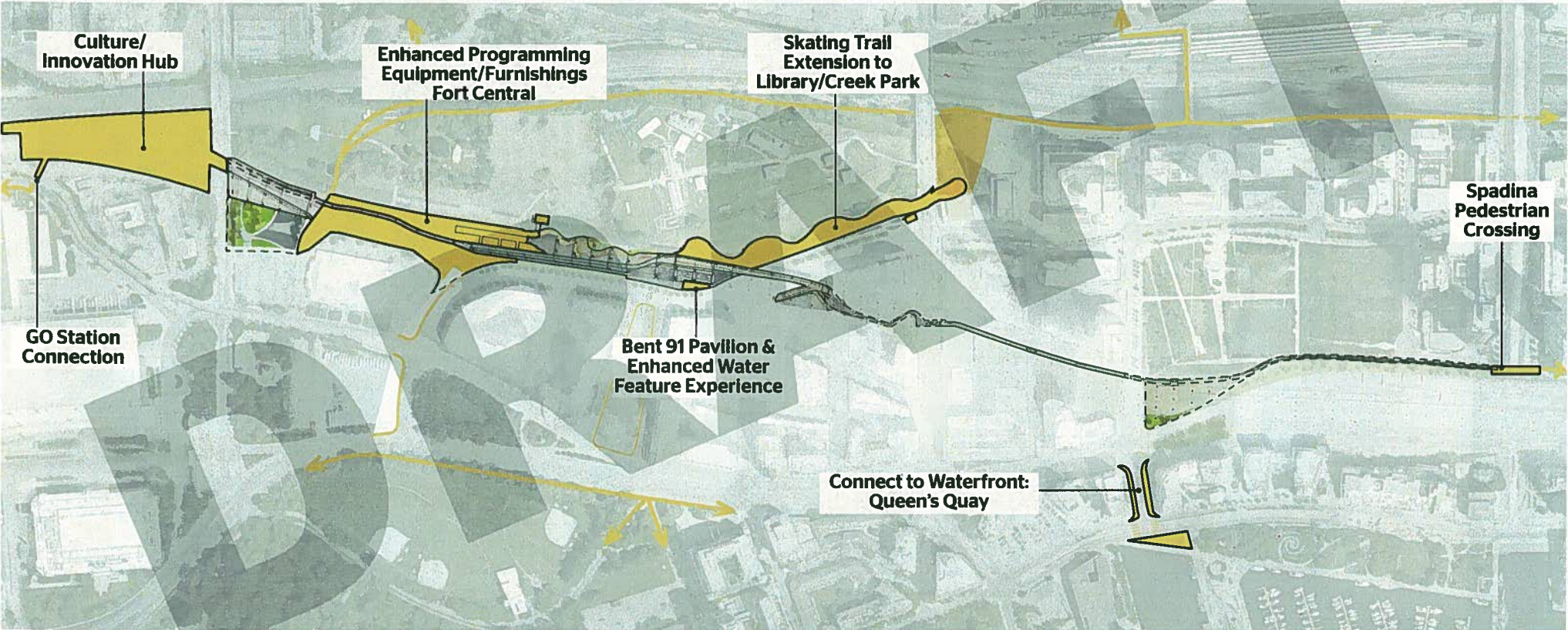
Bents 53-97

**Fort Central**  
Programmed Landscape

Bents 98-118

**East Community**  
Community Link and Amenities

# Future Funding Opportunities

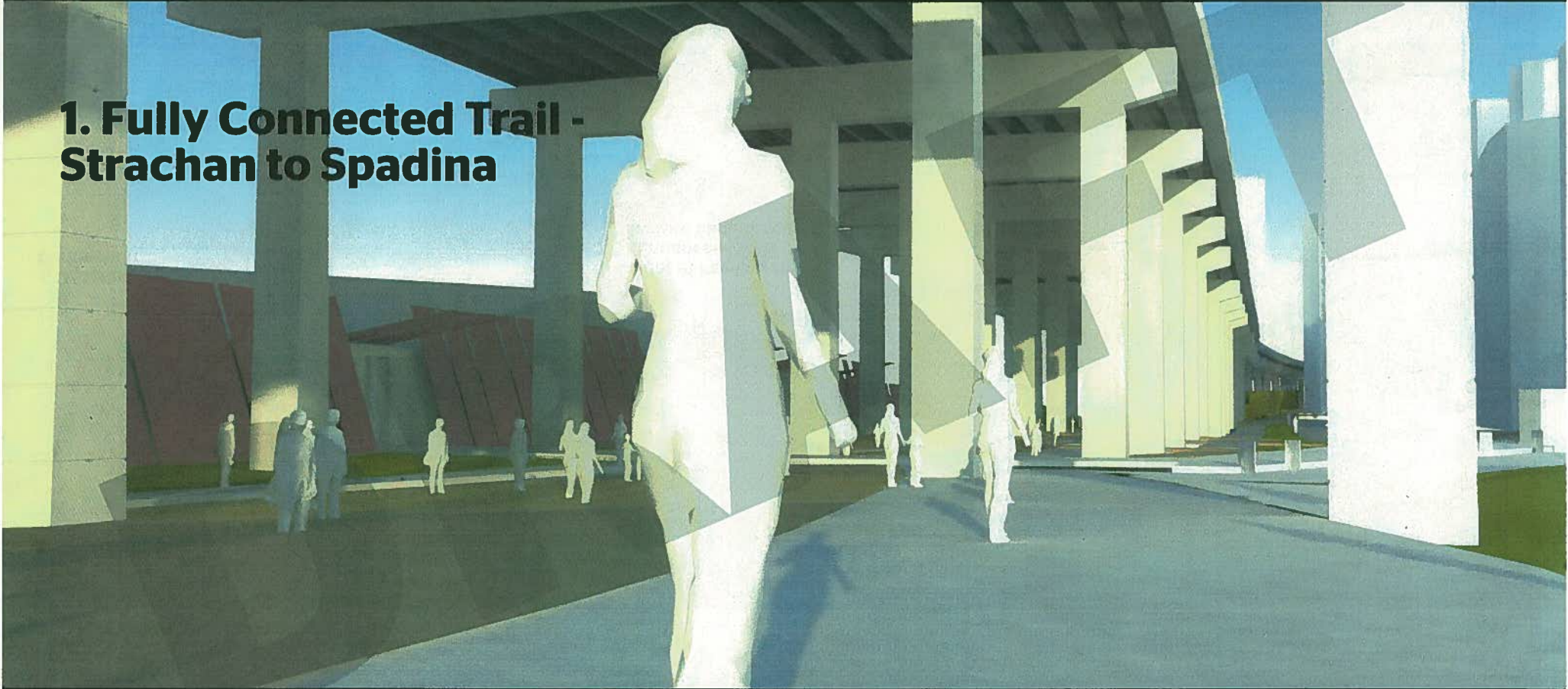


Bents 38-52  
**West Edge**  
Creative Action Hub

Bents 53-97  
**Fort Central**  
Programmed Landscape

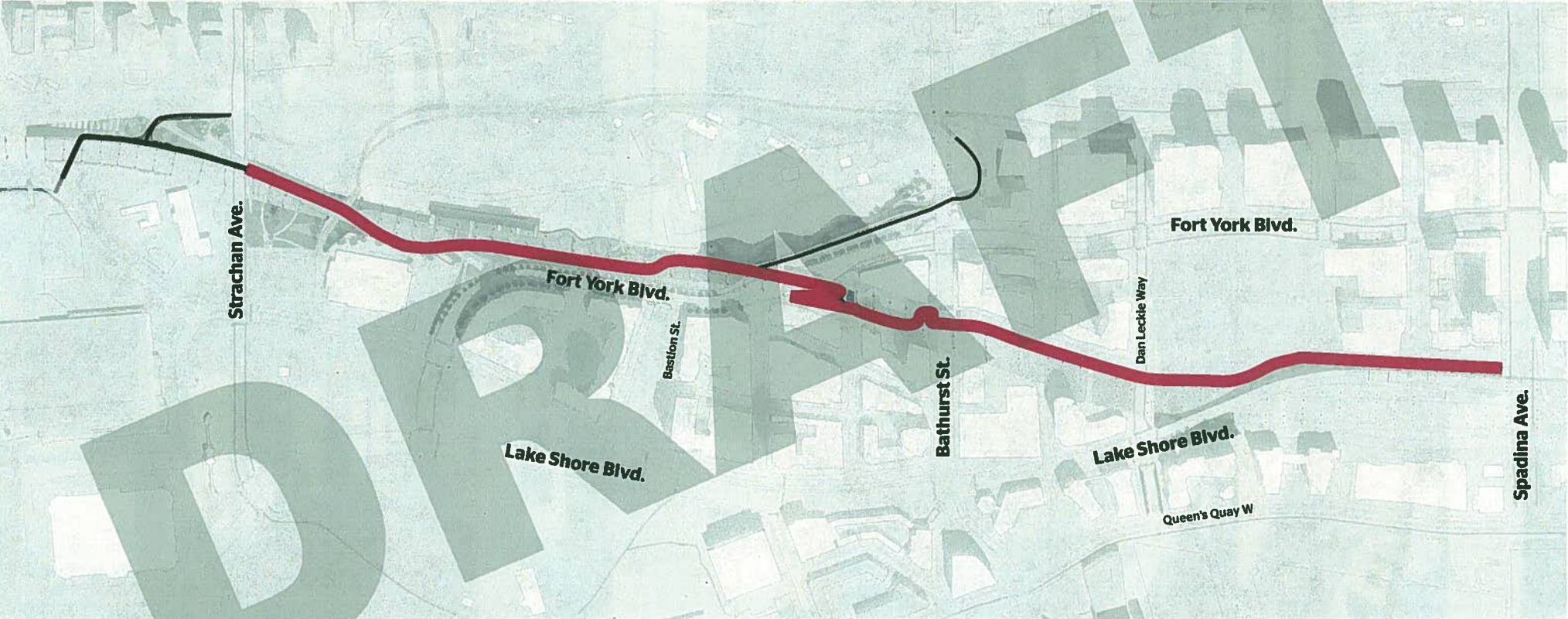
Bents 98-118  
**East Community**  
Community Link and Amenities

**1. Fully Connected Trail -  
Strachan to Spadina**





# 1. TRAIL CONNECTION - STRACHAN TO SPADINA



Phase 1 Trail Construction

Future Phase Connection







## PAINT to Provide Interim Trail Identity at East Link



## 2. Strachan Gate Timber Pier



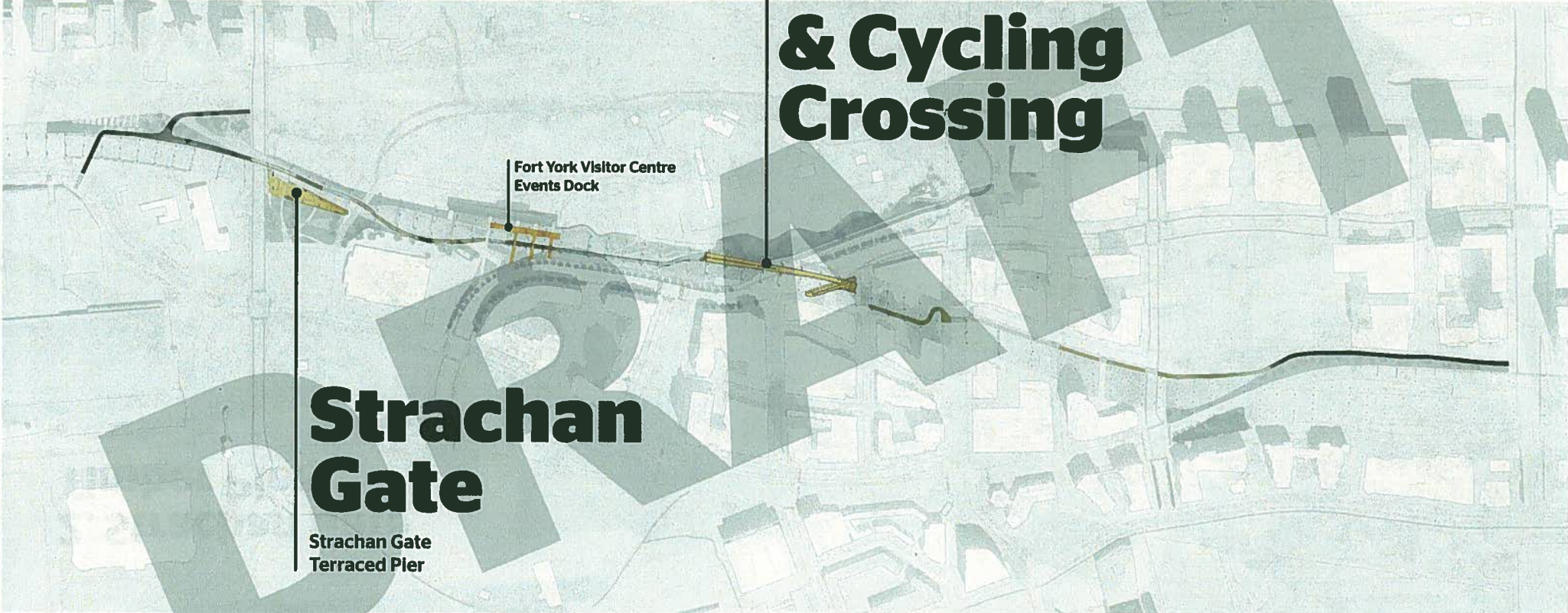
**ICONIC MOMENTS**  
**Infrastructure Anchors**

# Pedestrian & Cycling Crossing

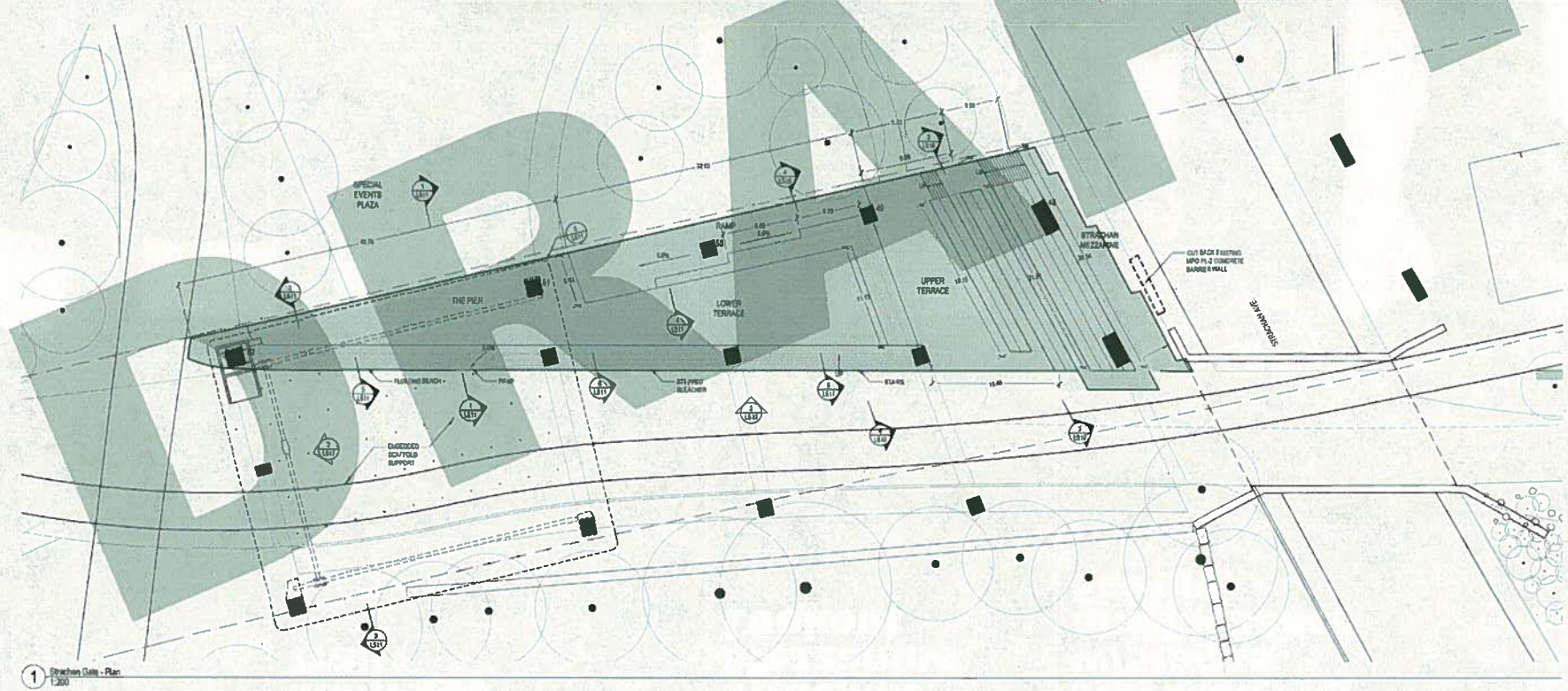
Fort York Visitor Centre  
Events Dock

# Strachan Gate

Strachan Gate  
Terraced Pier



# TIMBER STRUCTURES ROOTED IN THE PLACE

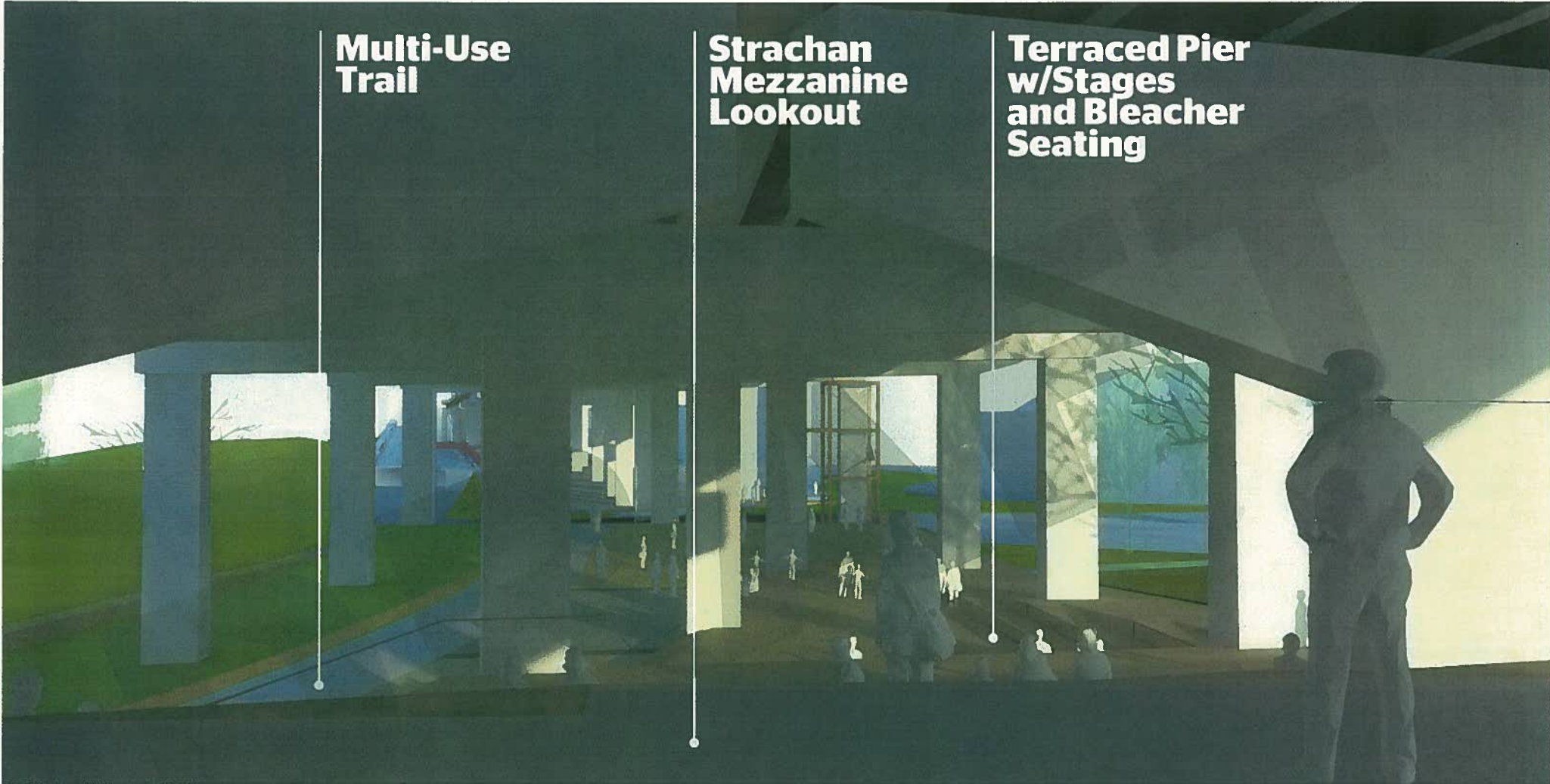


1 Strachan Gate - Plan  
1:200

**Multi-Use  
Trail**

**Strachan  
Mezzanine  
Lookout**

**Terraced Pier  
w/Stages  
and Bleacher  
Seating**

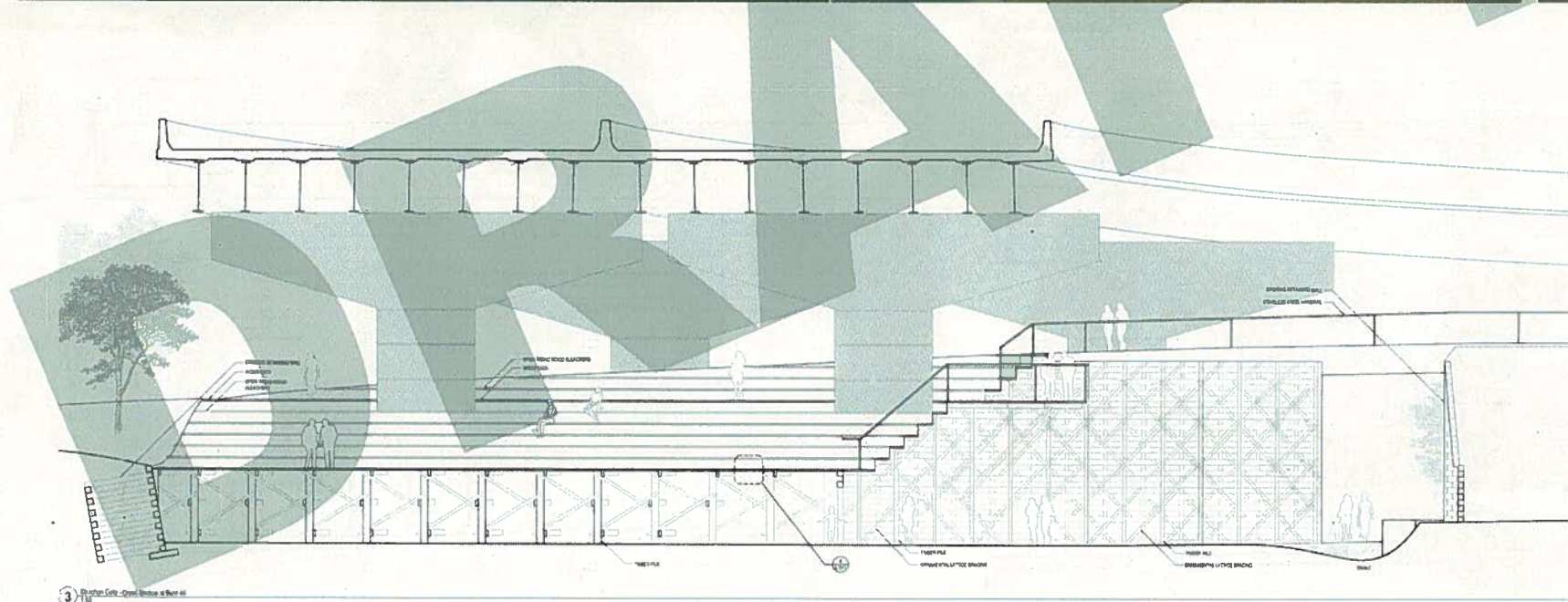


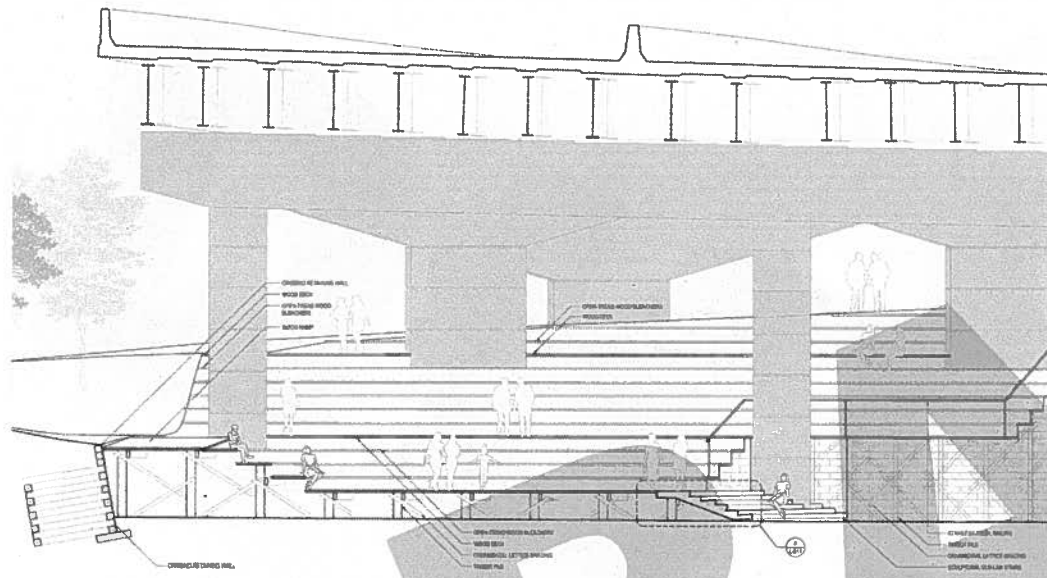
**View East - Strachan Gate Terraced Pier  
Bent**

**48**

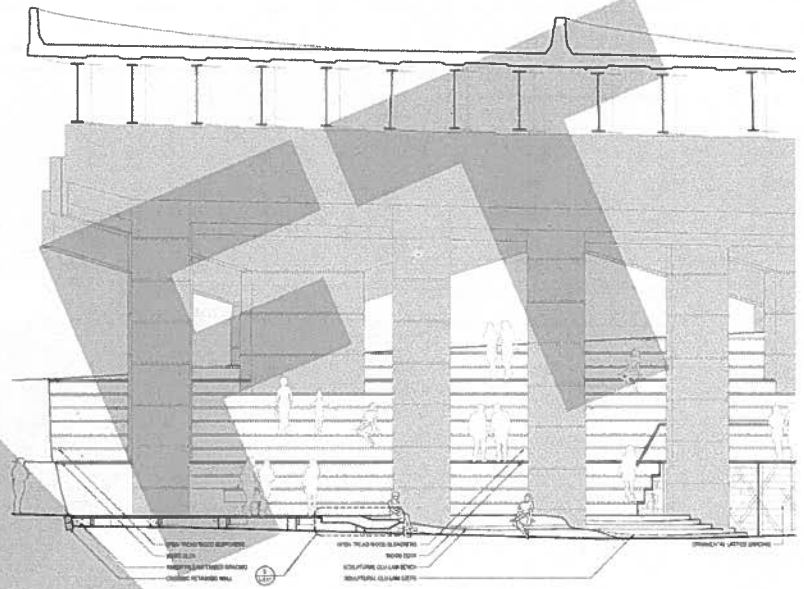




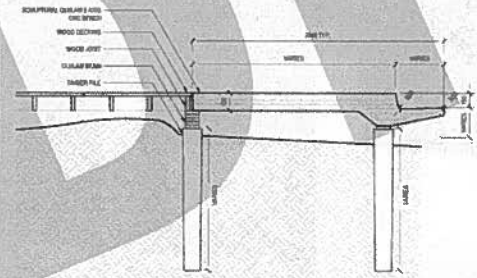




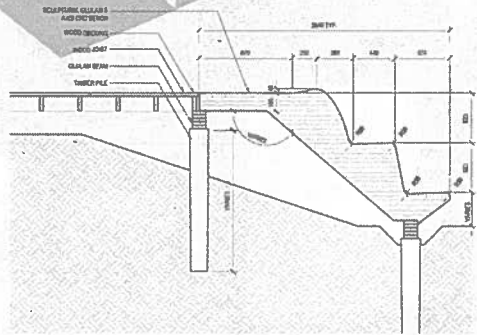
1 Braxton Gate - Copy Section at Beak 42  
1:50



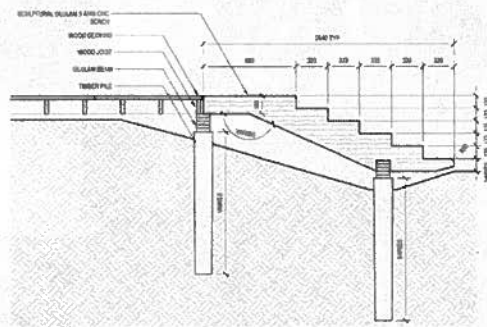
2 Braxton Gate - Copy Section at Beak 51  
1:50



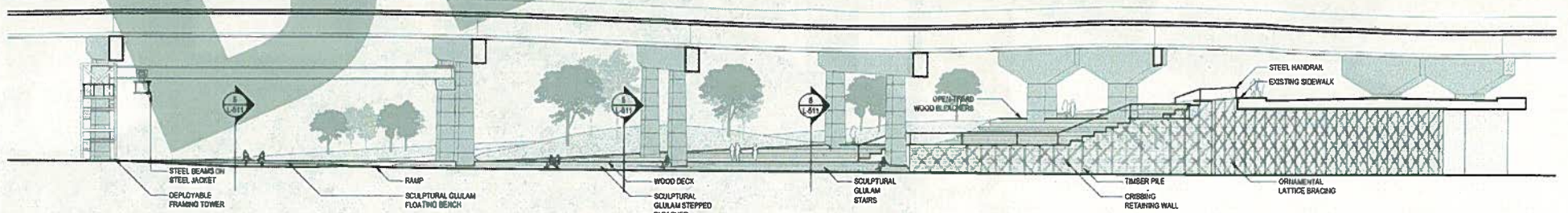
5 Edge Detail - Floating Bench  
1:20



6 Edge Detail - Tiered Bench  
1:20

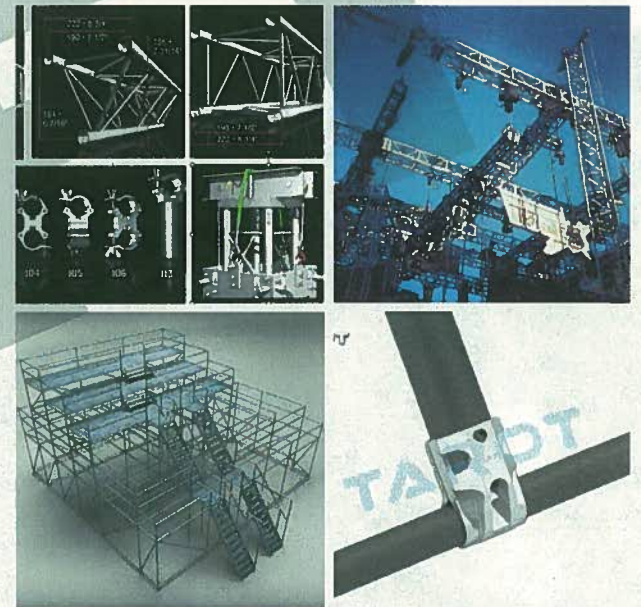


8 Edge Detail - Slant  
1:20



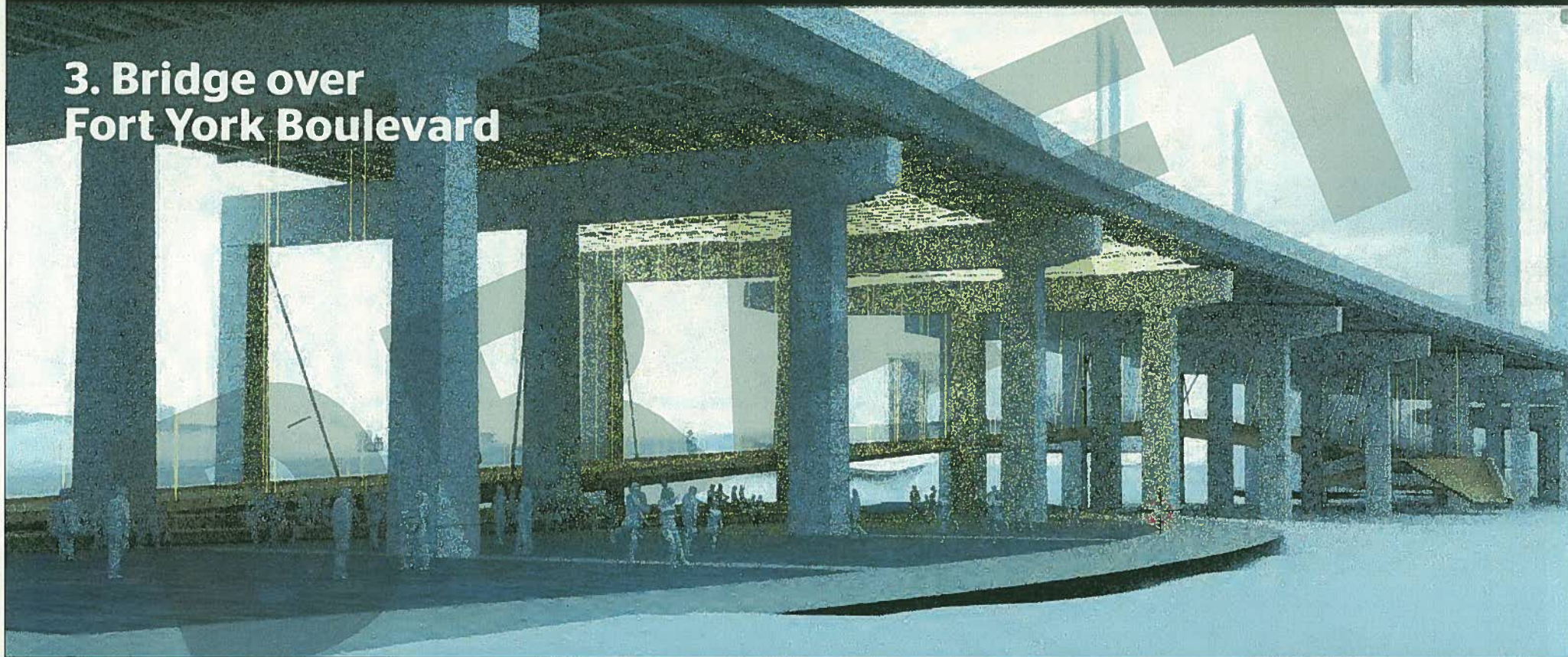


**Rotational Installations & Fabrication in Bent 52 House**  
**Reference: MoMA PS1 Young Architects Program**

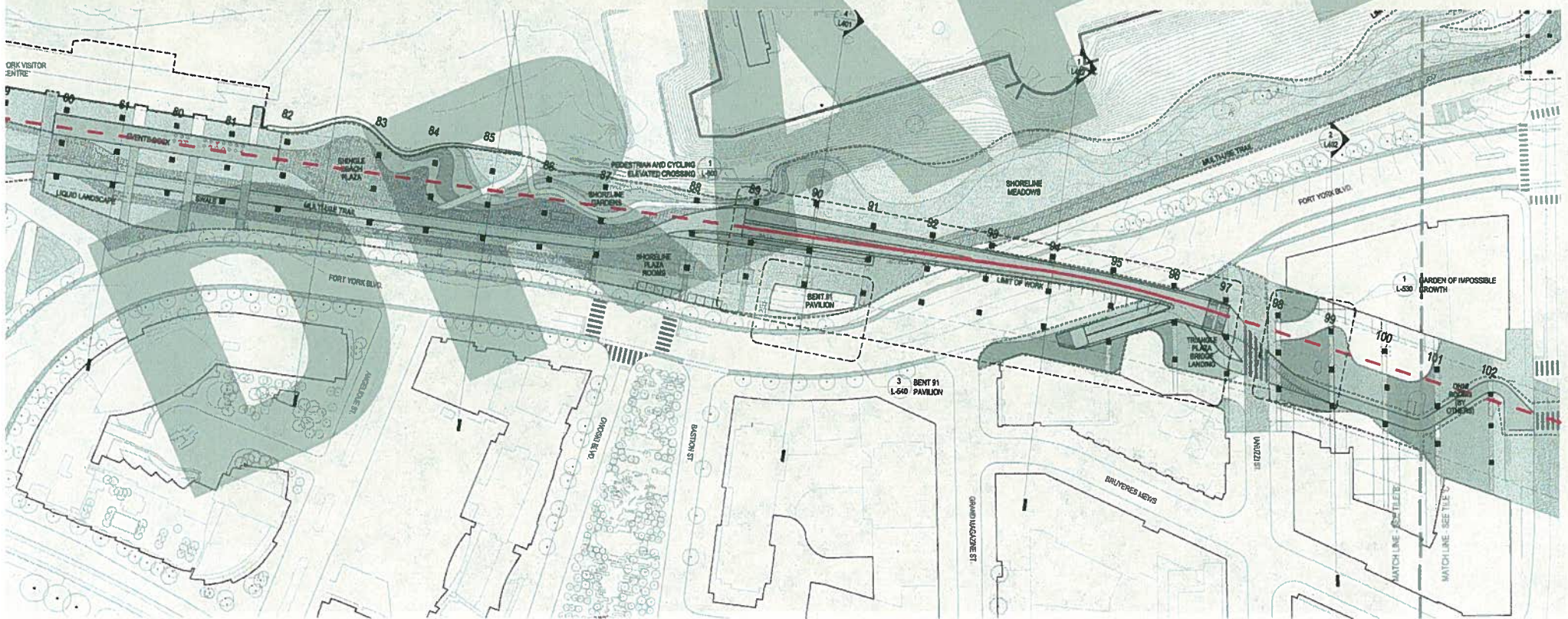




### 3. Bridge over Fort York Boulevard



# Bridge as part of the Telescopic Experience

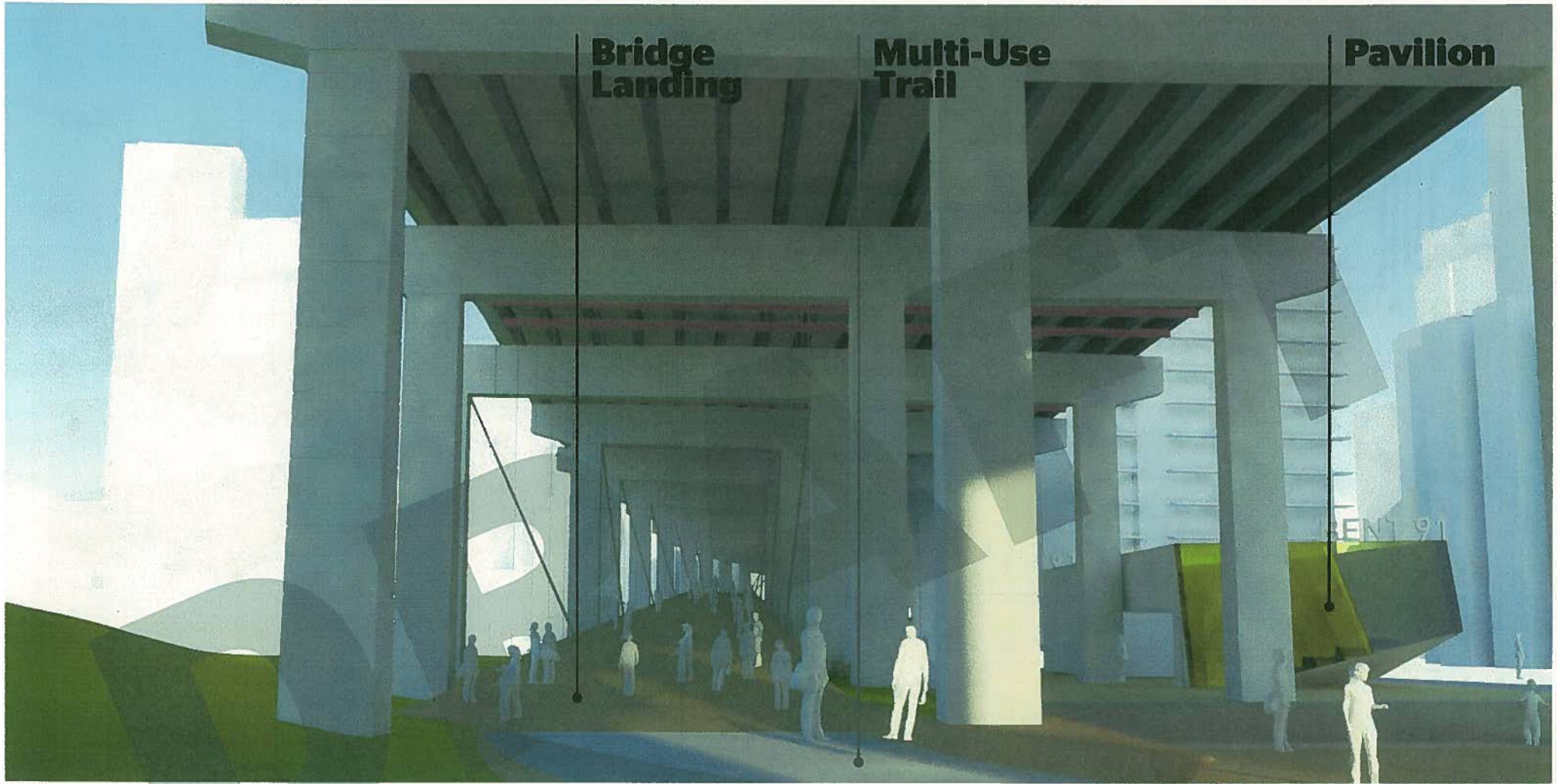




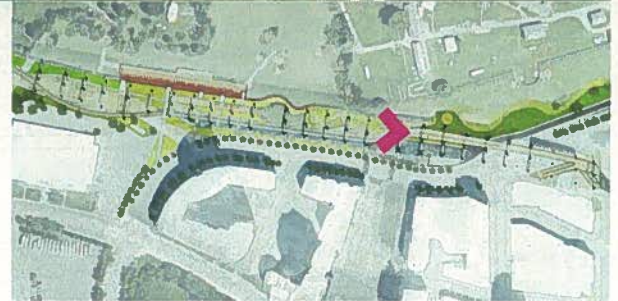
**View East - Shoreline Plaza approaching Bridge Landing**

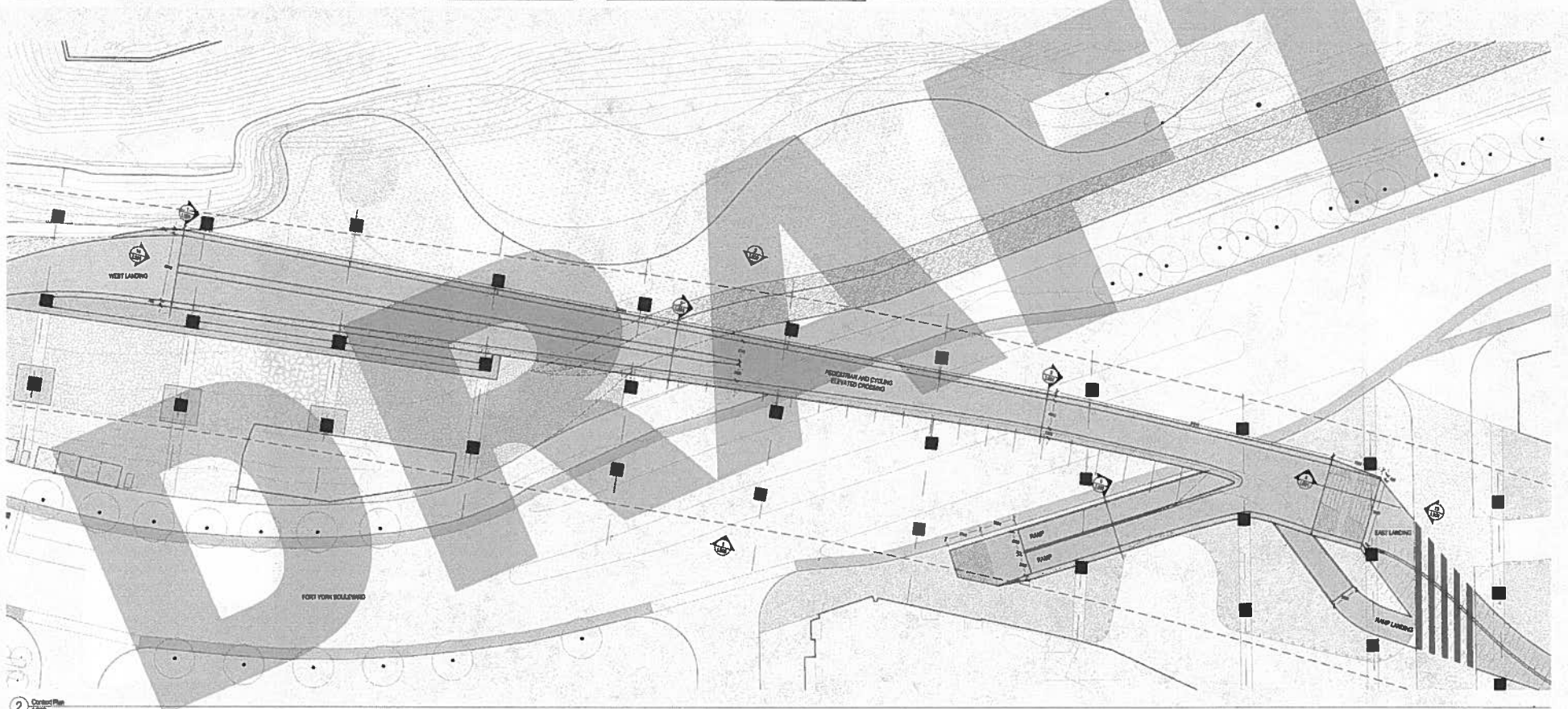
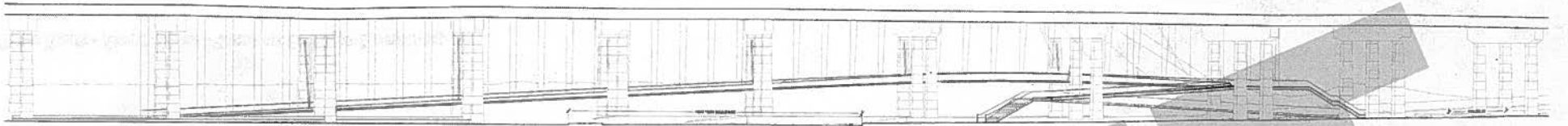


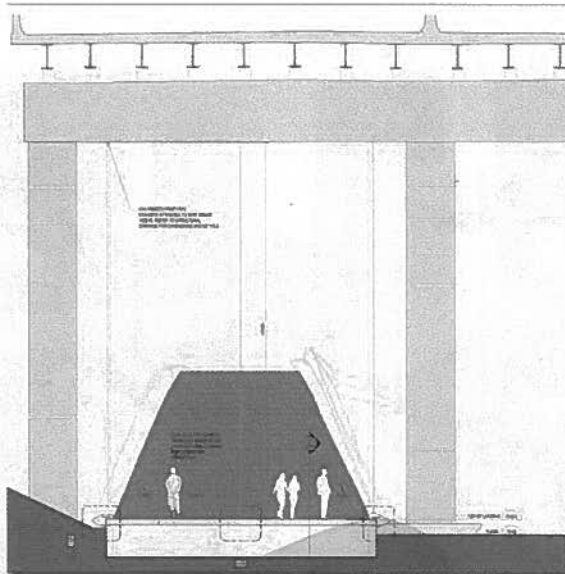




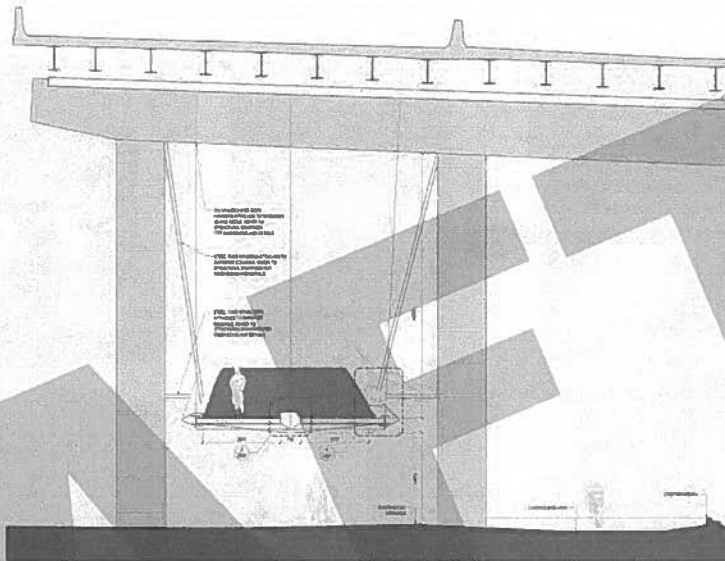
**View East - Shoreline Plaza at Bridge Landing**



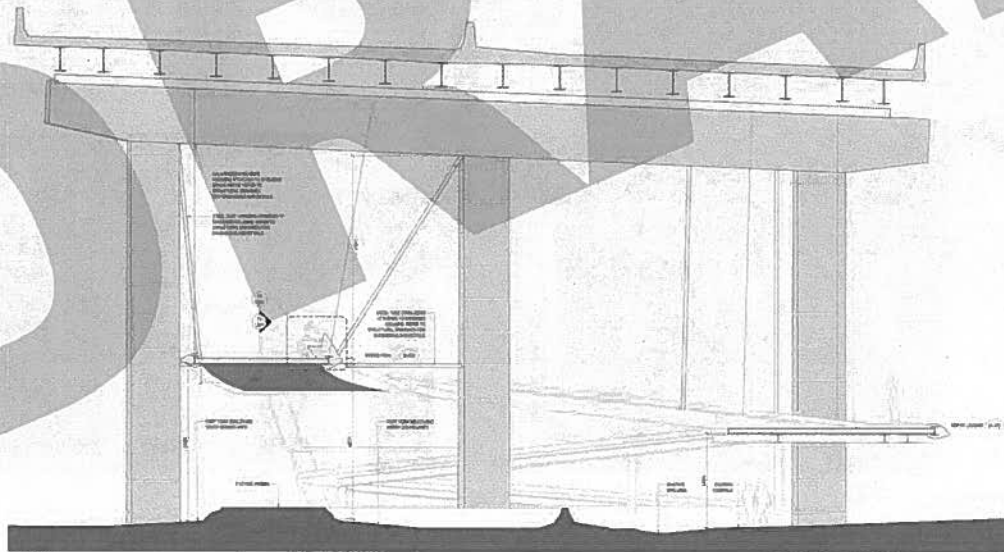




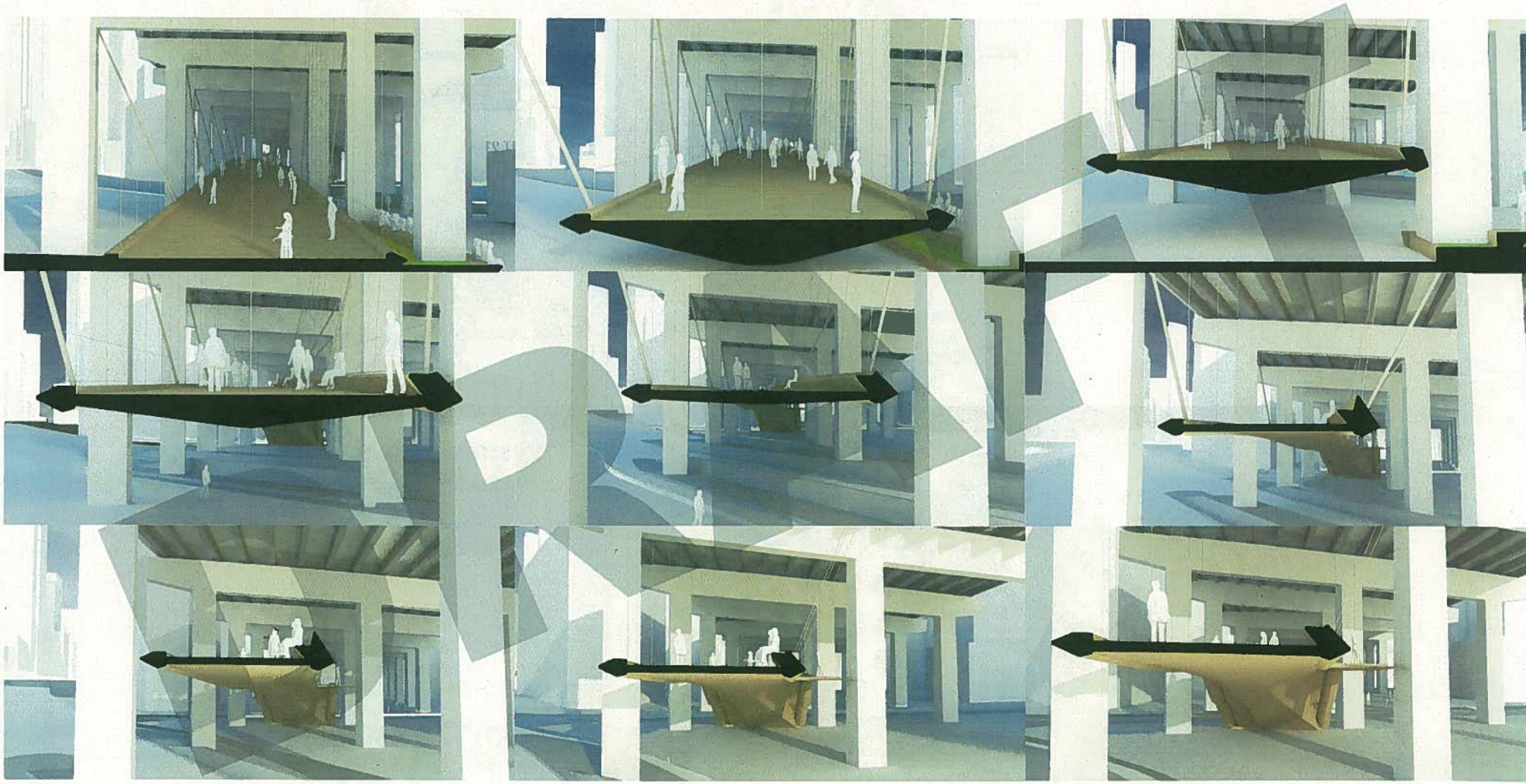
1) 1/100

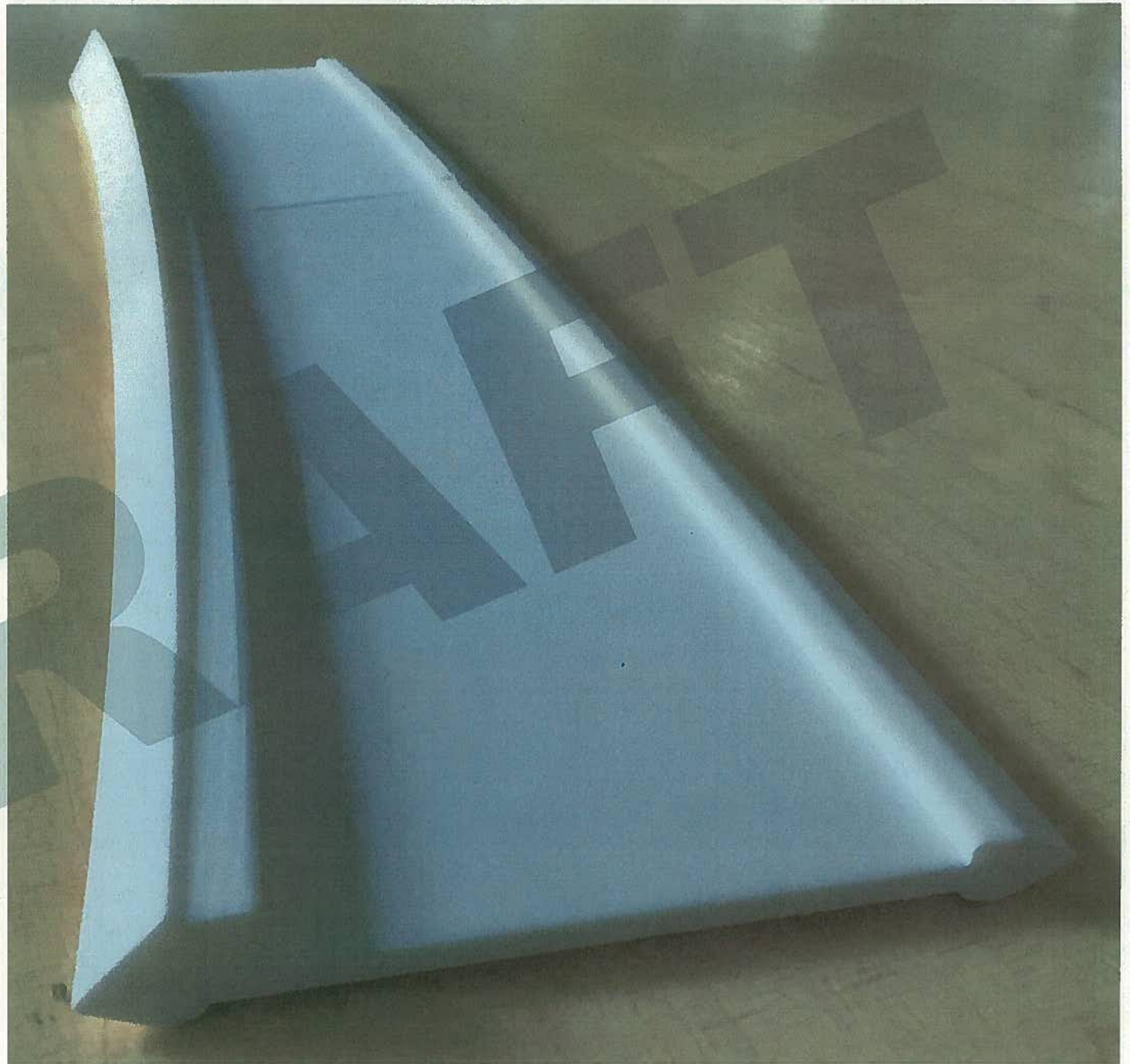
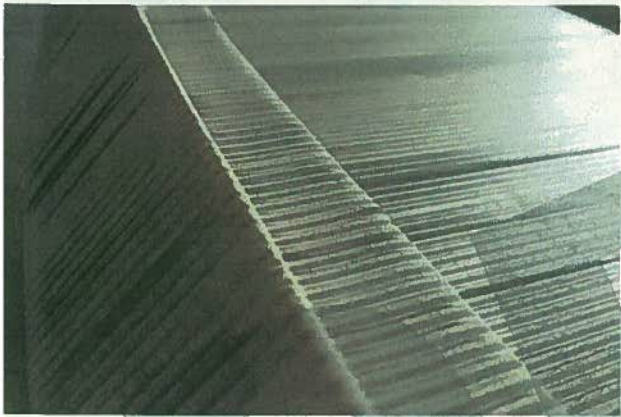
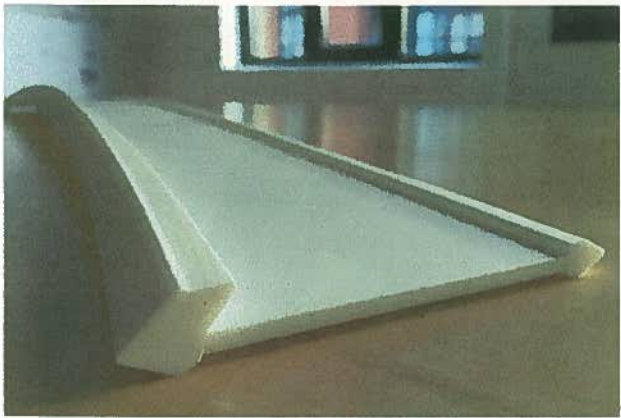


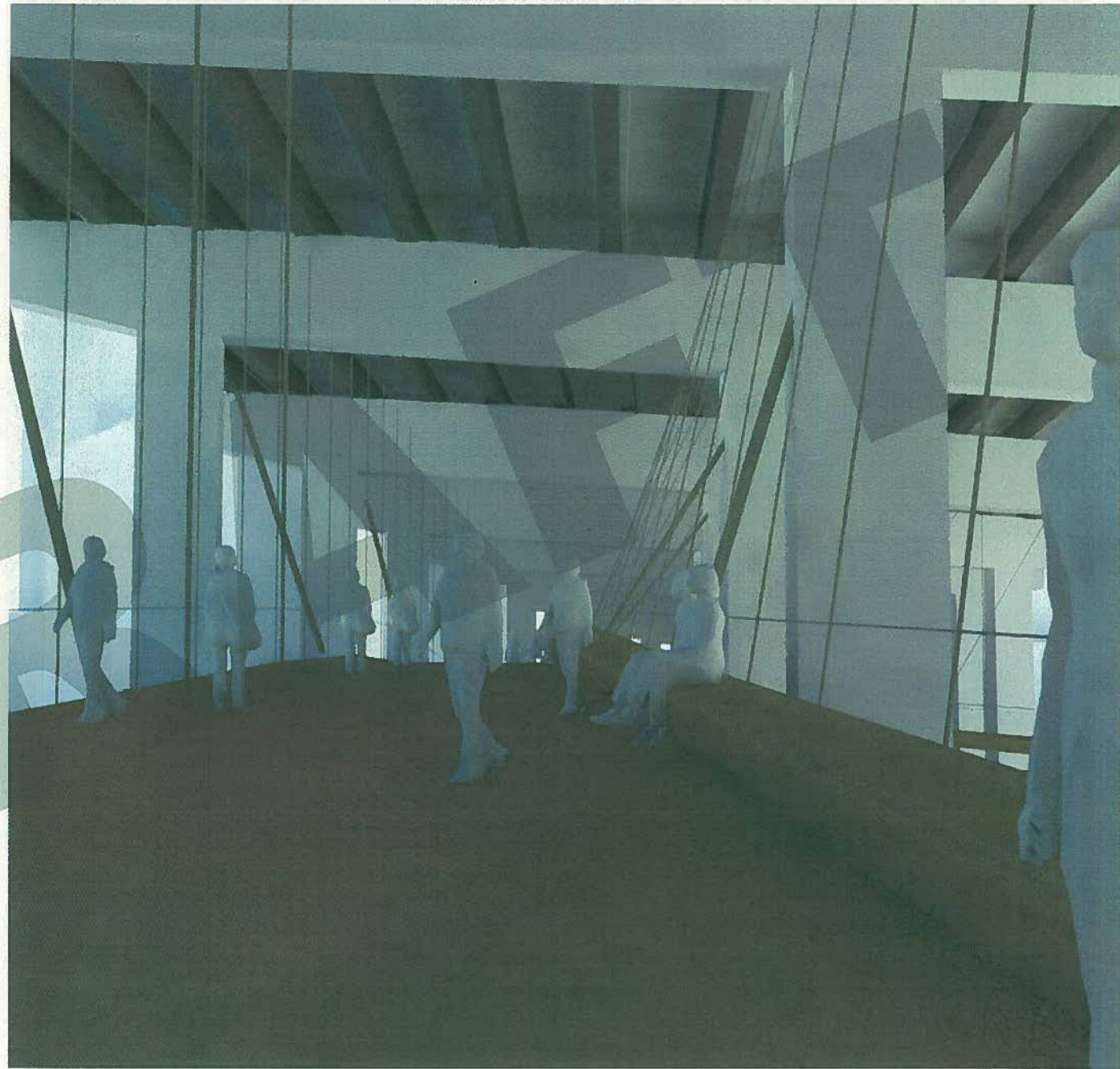
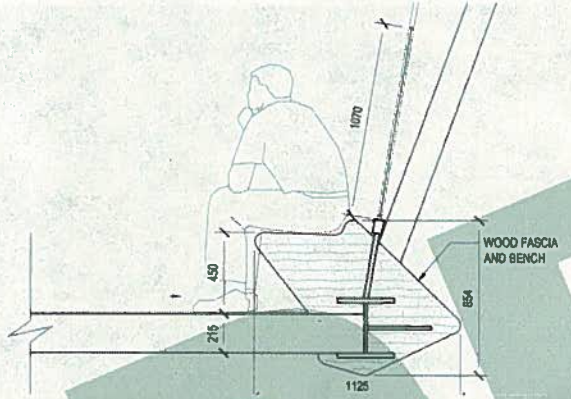
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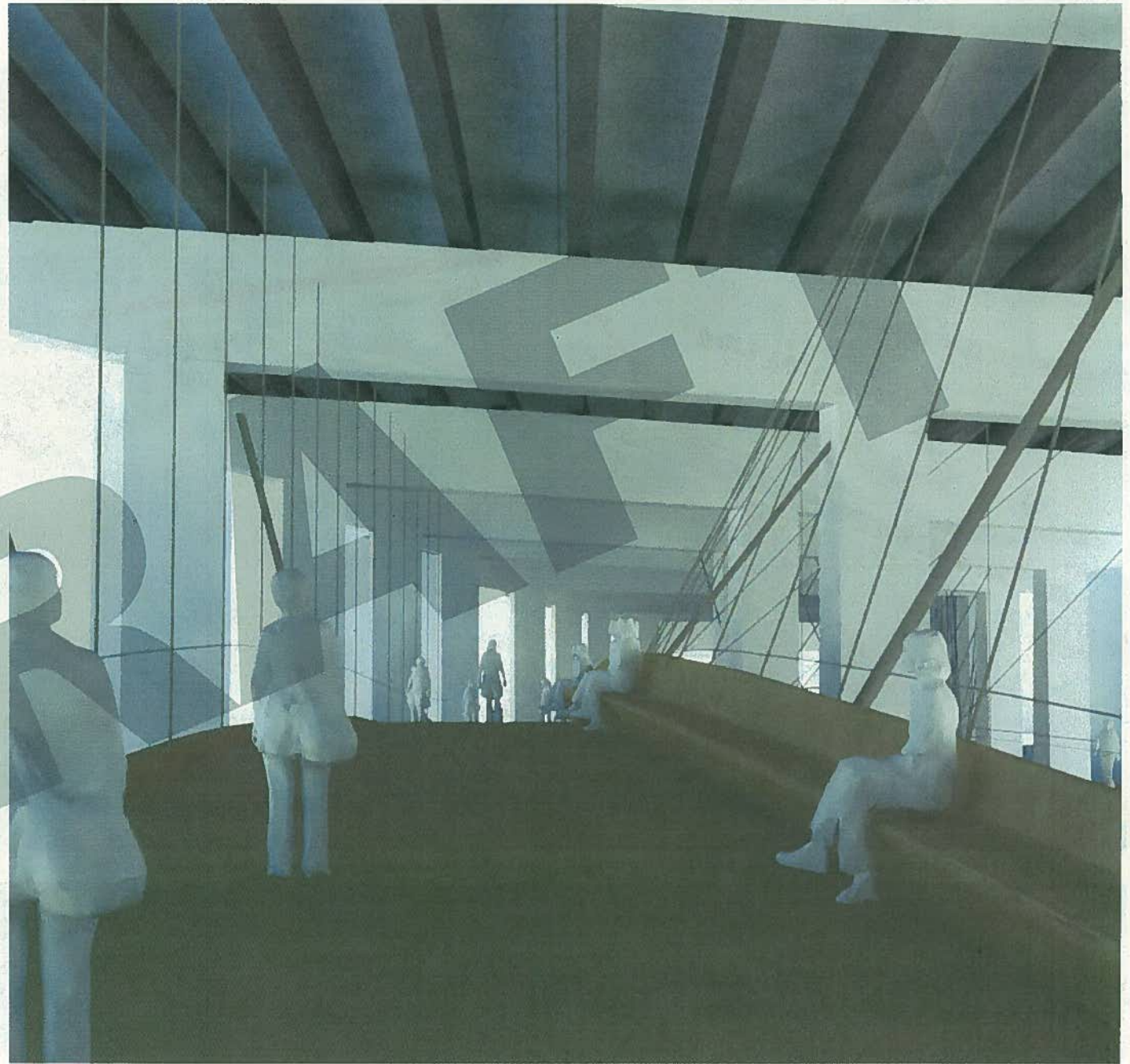
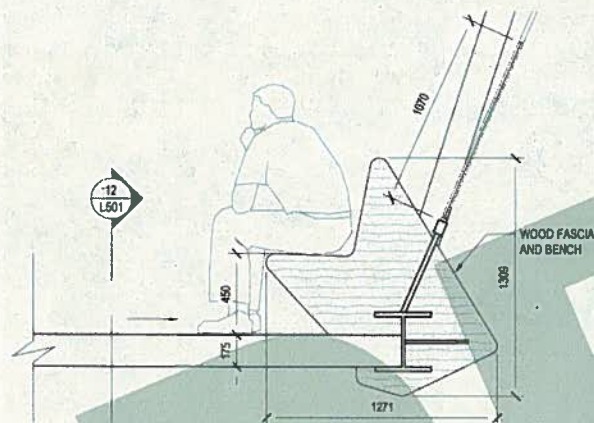


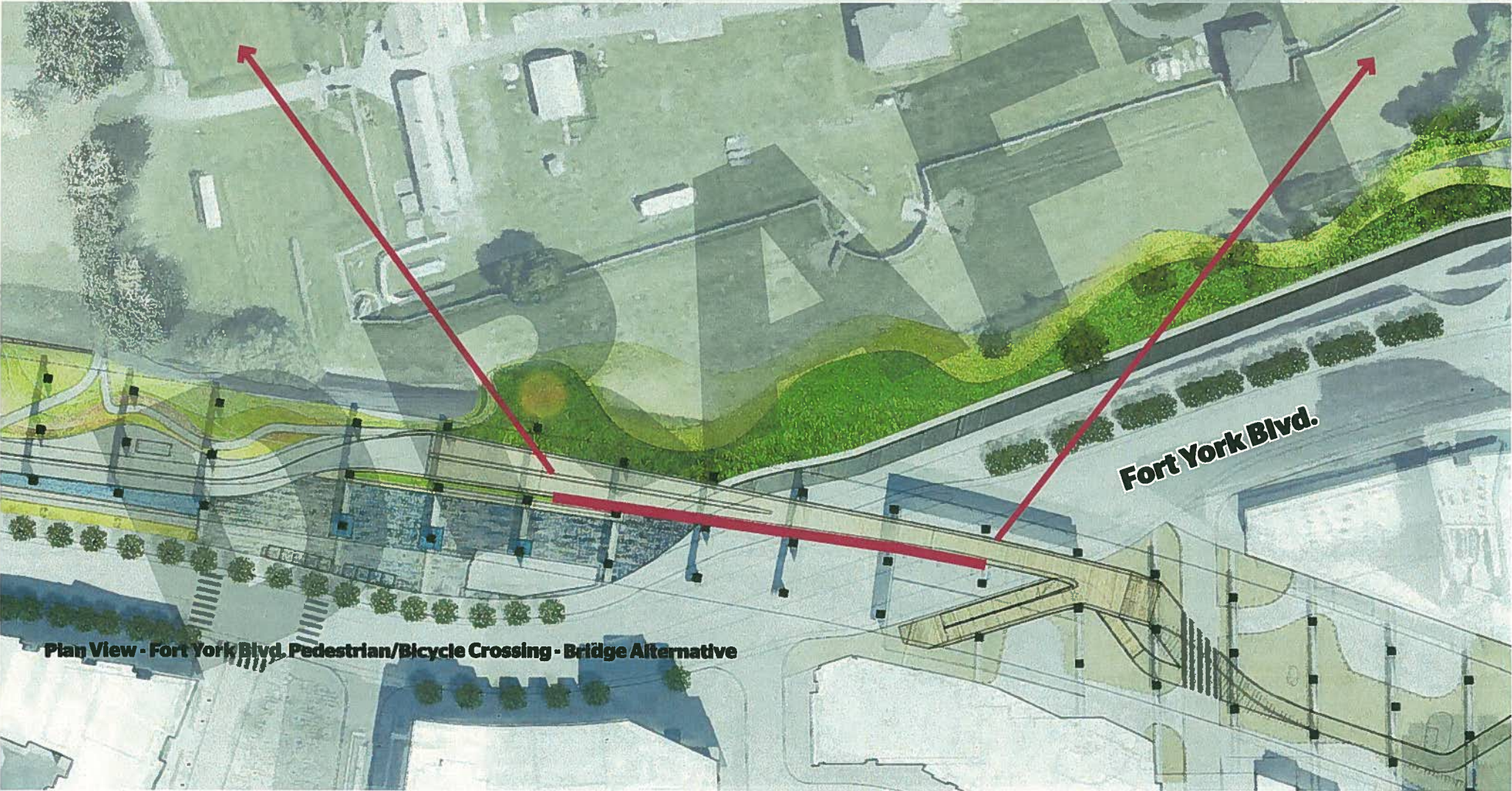
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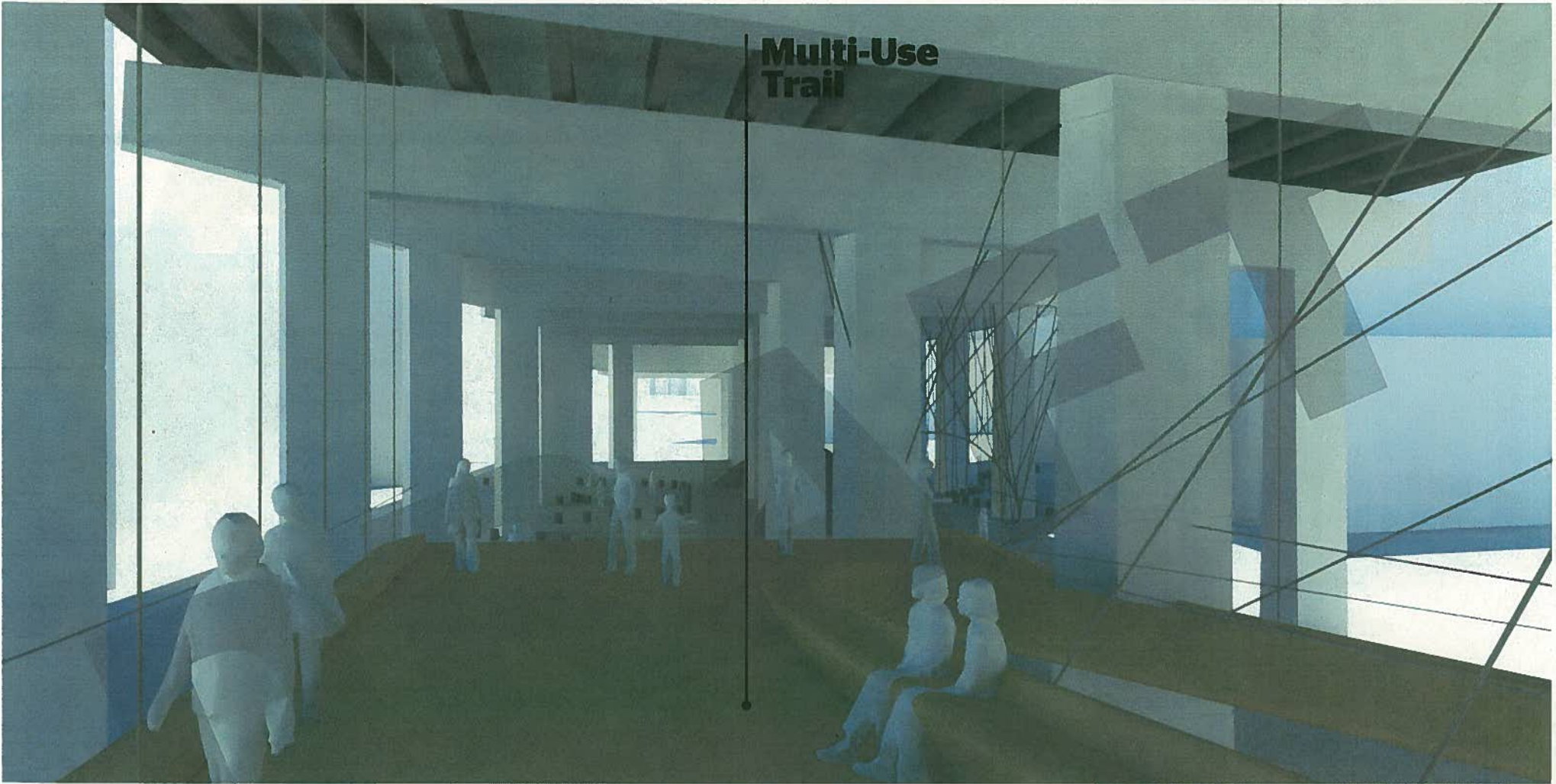


**Plan View - Fort York Blvd. Pedestrian/Bicycle Crossing - Bridge Alternative**

**Fort York Blvd.**

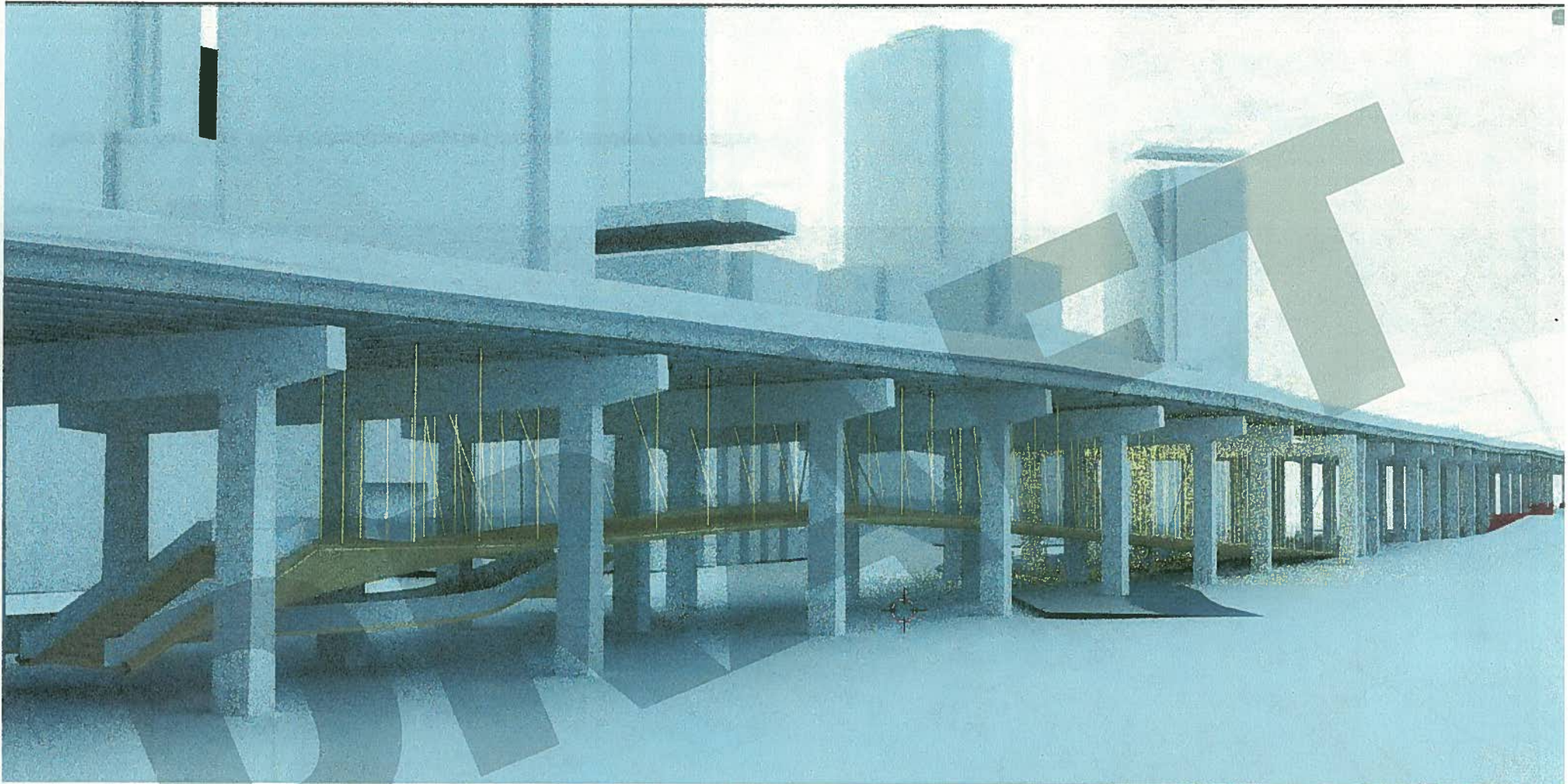


**Multi-Use  
Trail**



**View East - Fort York Blvd. Pedestrian/Bicycle Crossing - Bridge Alternative**

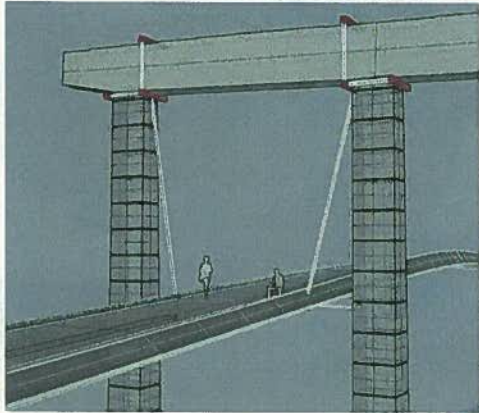




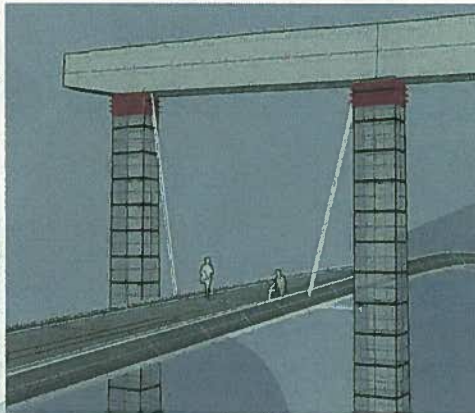
**View East - Shoreline Plaza approaching Bridge Landing**



## Structural Explorations Harnessing the Excess Structural Capacity (45%) of the Bents



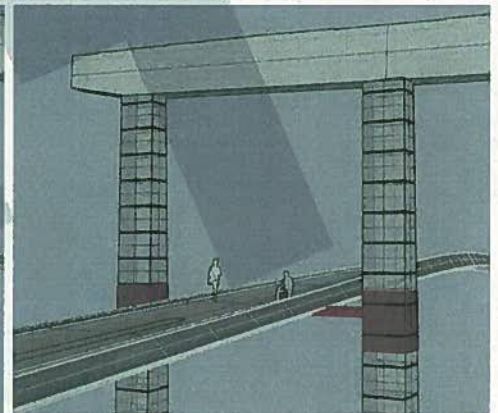
**HSS Brace Frame System**



**Friction Jacket and HSS Brace Frame System**



**Friction Hanger System**



**Friction Jacket and Cross Beam System**

### 2. DESIGN STRATEGIES

- a. Retain a reasonable reserve of excess capacity in the existing structure.
  - i. Retain 5% in excess live load capacity (to allow for an increase in truck loads).
  - ii. Retain 10% in excess live load capacity when the Bent 52 Gantry and metropolitan rigging functions are reduced to their core functions only.
- b. Retain reasonable access for maintenance and inspection of the existing structure.
  - i. Any new connections to the existing structure are detachable.
  - ii. The elevated walkway is designed to clear span between bents where necessary for deck replacement work. The elevated walkway:
    - 1. does not depend on the Gardiner bridge deck for support of self-weight, light duty construction loads per Table 2 of ASCE 37, or wind loads.
    - 2. is allowed to exceed common serviceability limits when detached from the bridge deck and not occupied by pedestrians.
    - 3. depends on the Gardiner bridge deck for support of occupancy loads.
  - iii. Negotiate mechanism for routine inspection of the underside of the bridge deck with City authorities.

Element	Capacity Used by Current Design Loads	Excess Capacity Available for New Superimposed Loads
Steel Composite Deck Beams	90%	10%
Concrete Bent Girder	90%	10%
Concrete Bent Columns	55%	45%

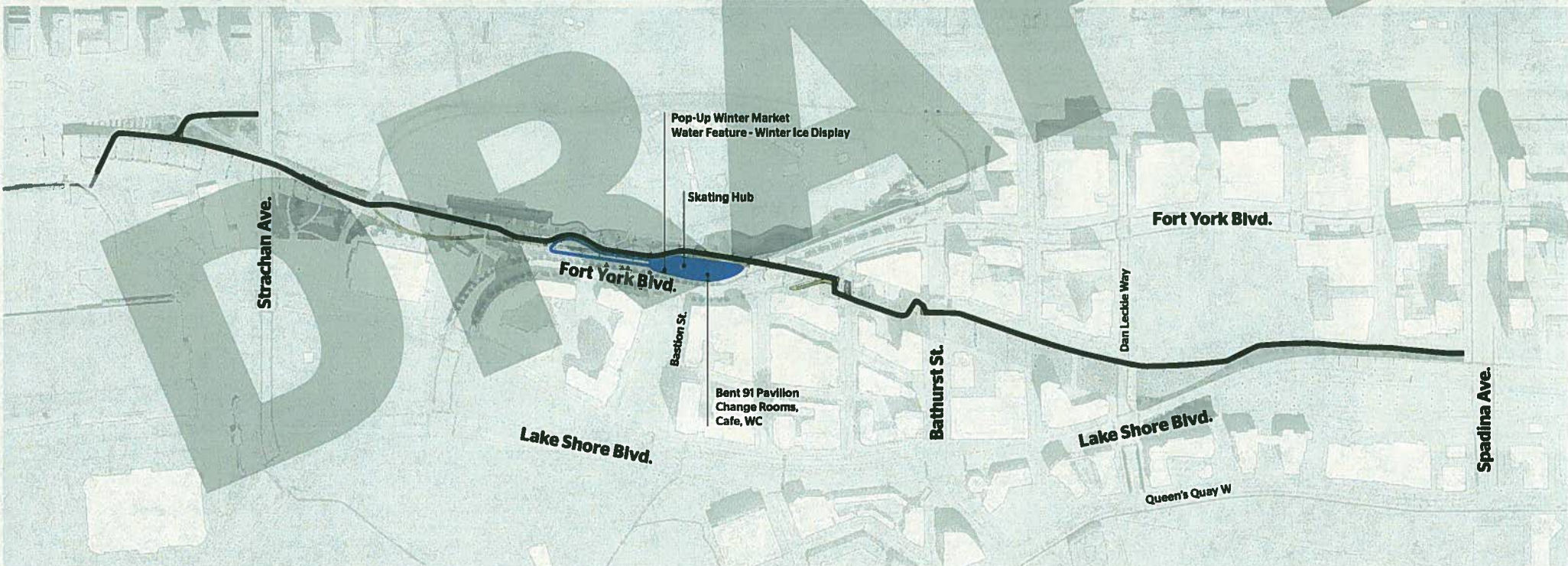
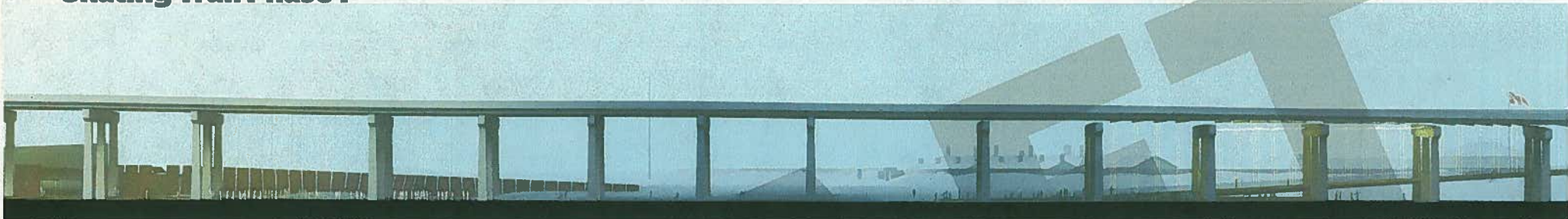


## 4. An Iconic Skating Experience



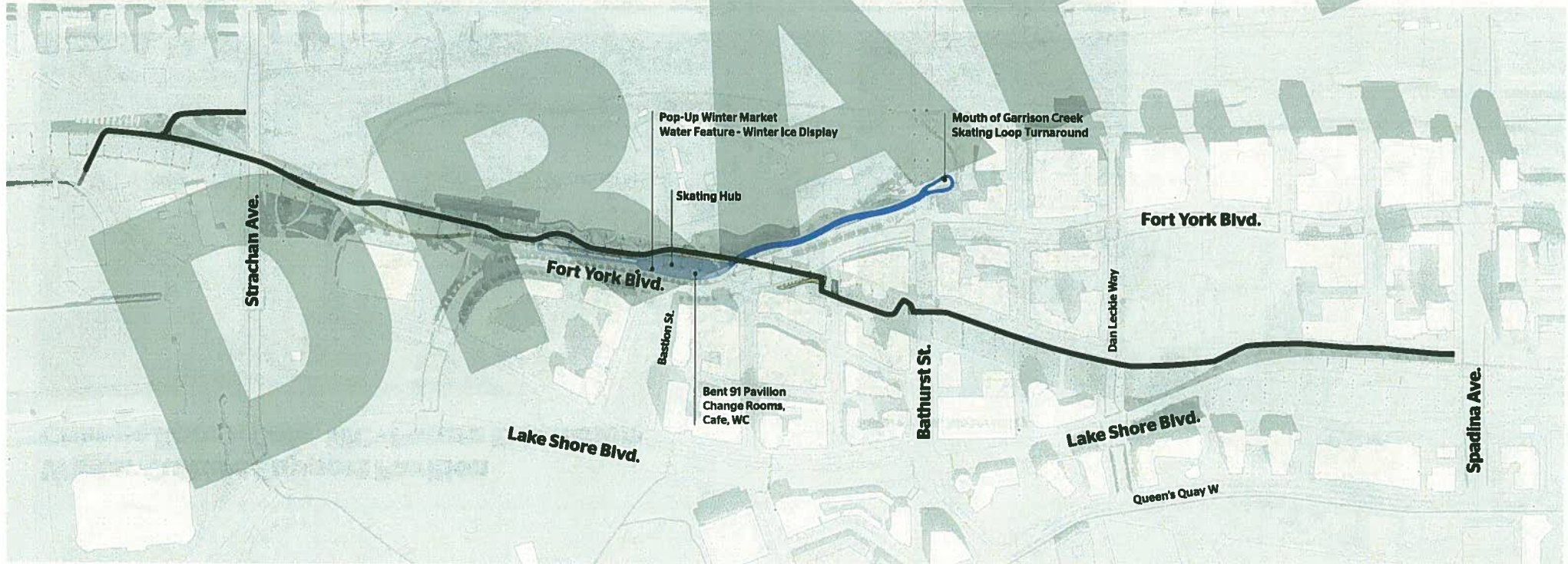
# Trails & Connections Skating Trail Phase 1

## AMBITION: TO CREATE TORONTO'S ULTIMATE SKATING TRAIL!



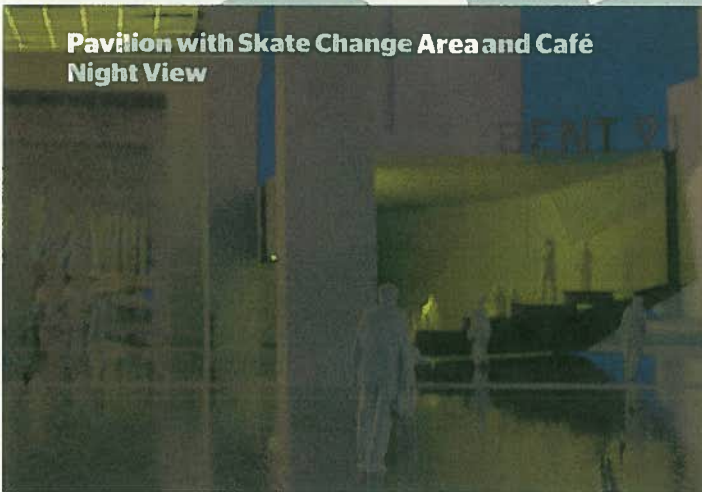
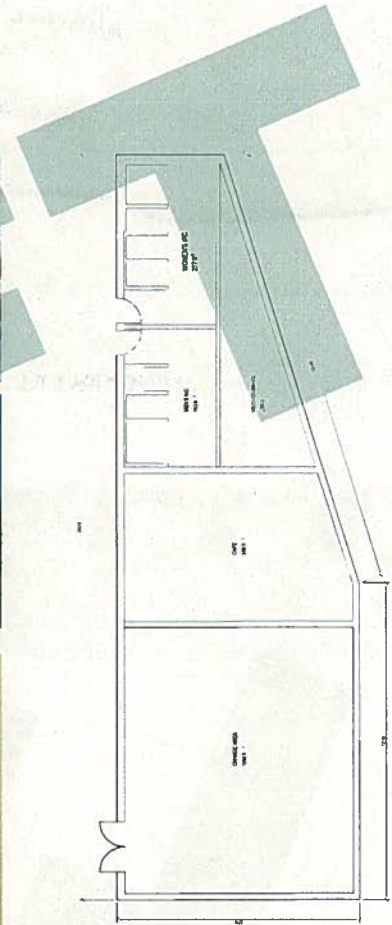
**Trails & Connections**  
**Skating Trail - Future Expansion**

**AMBITION: TO CREATE TORONTO'S  
ULTIMATE SKATING TRAIL!**



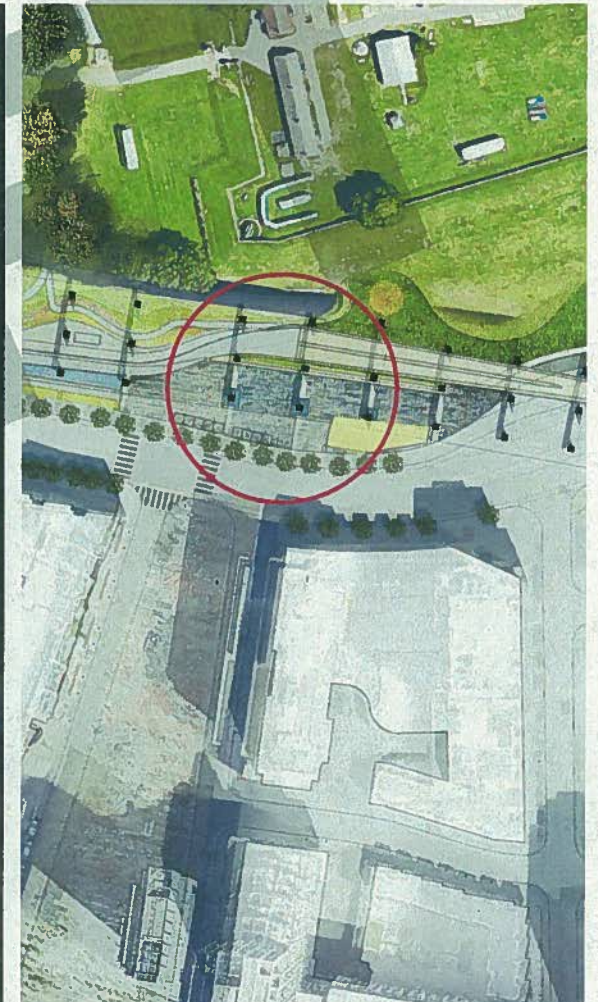
# Winter Culture Support Pavilion Change Room, Cafe, WC - Future Expansion

References: Materiality



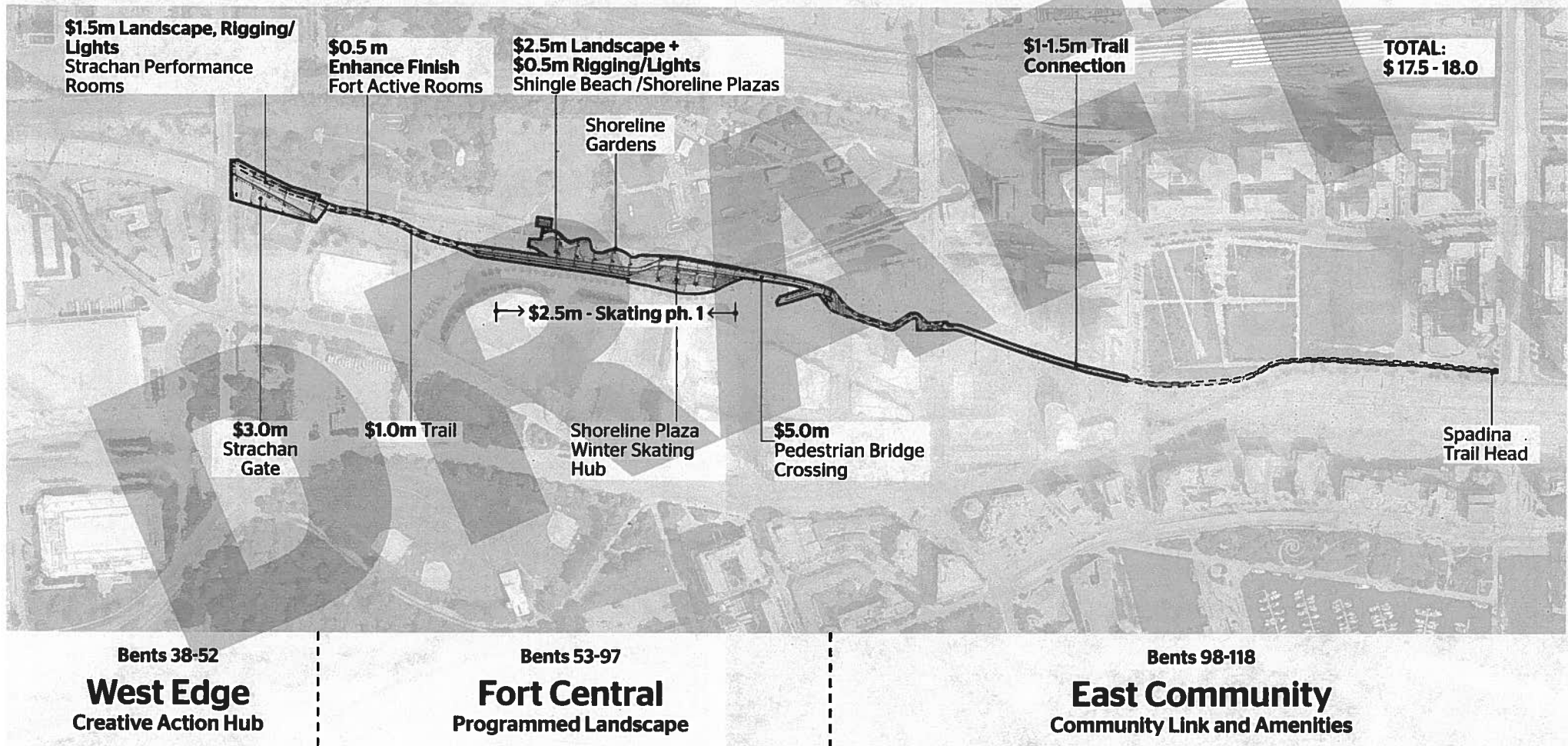


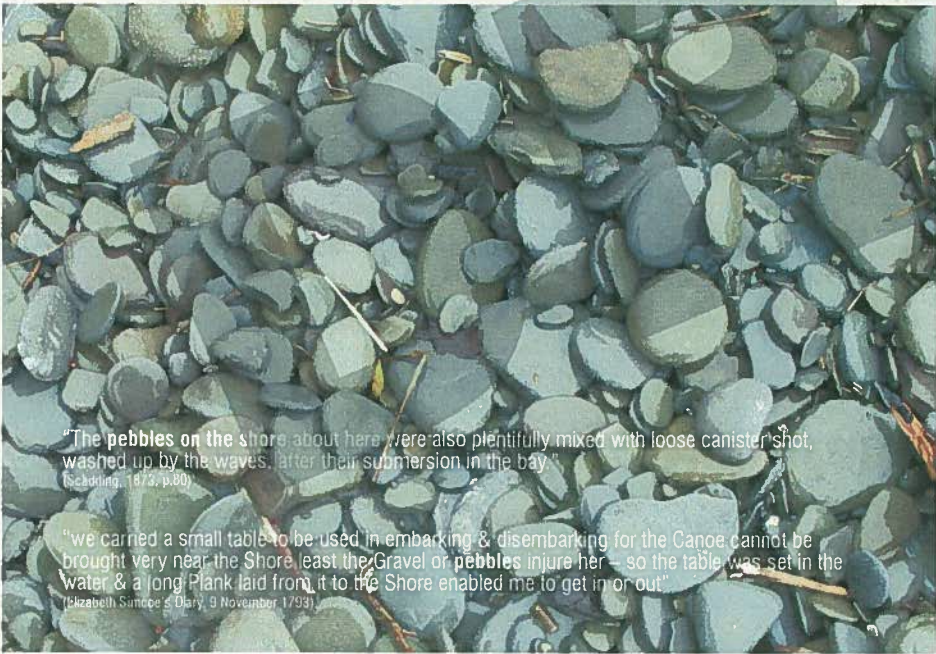
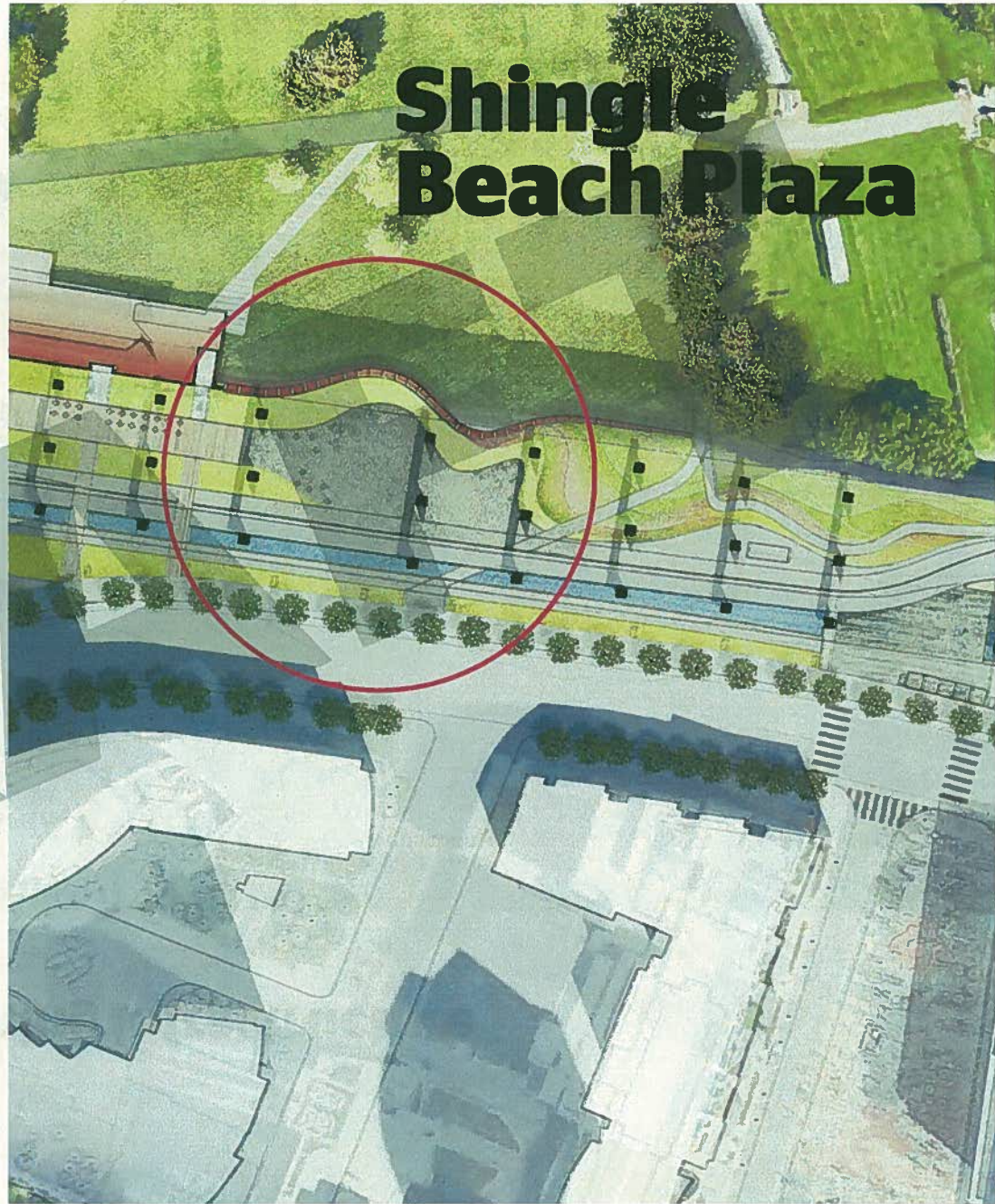
# Winter Culture Support Pavilion Change Room, Cafe, WC - Future Expansion





# 5. Strategic Enabling Programming Infrastructure

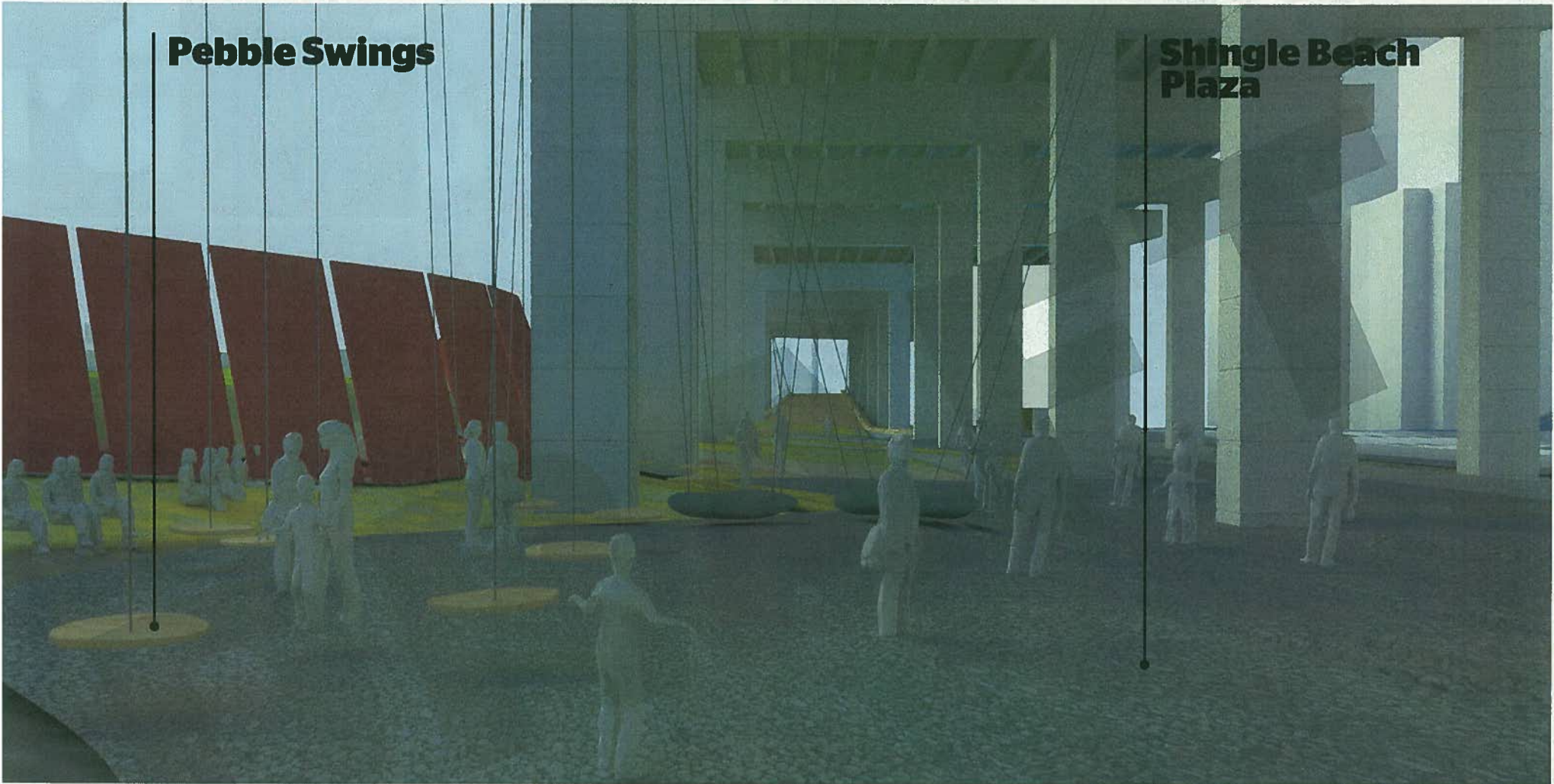




"The pebbles on the shore about here, were also plentifully mixed with loose canister shot, washed up by the waves, after their submersion in the bay."  
 (Sedding, 1873, p.80)

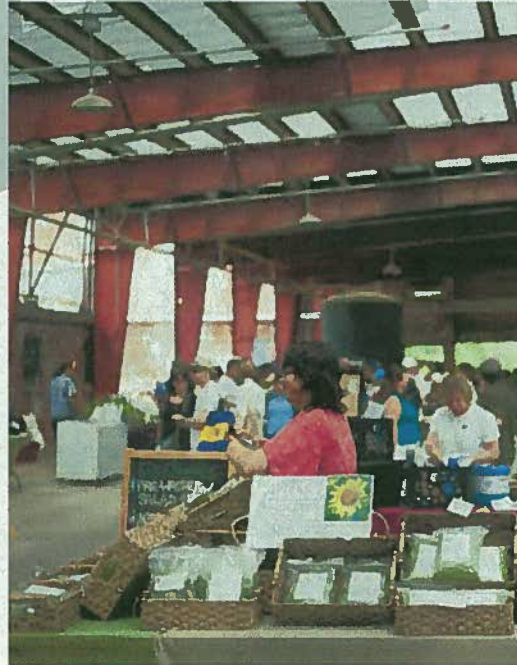
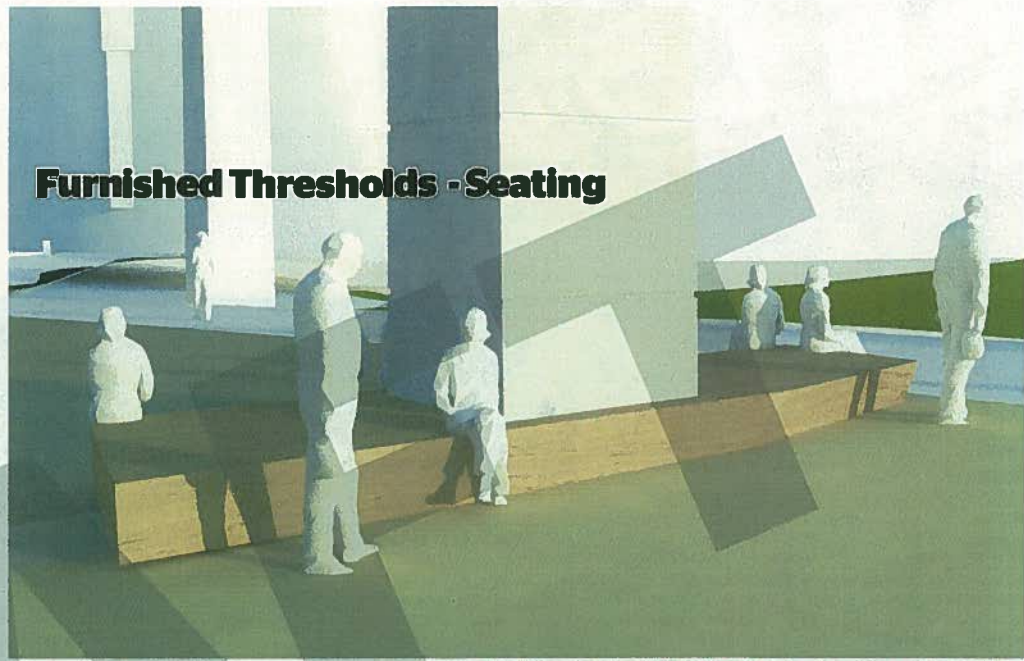
"we carried a small table to be used in embarking & disembarking for the Canoe cannot be brought very near the Shore, least the Gravel or pebbles injure her - so the table was set in the water & a long Plank laid from it to the Shore enabled me to get in or out."  
 (Elizabeth Sumner's Diary, 9 November 1793)

**Pebble Swings**



**Shingle Beach Plaza**





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