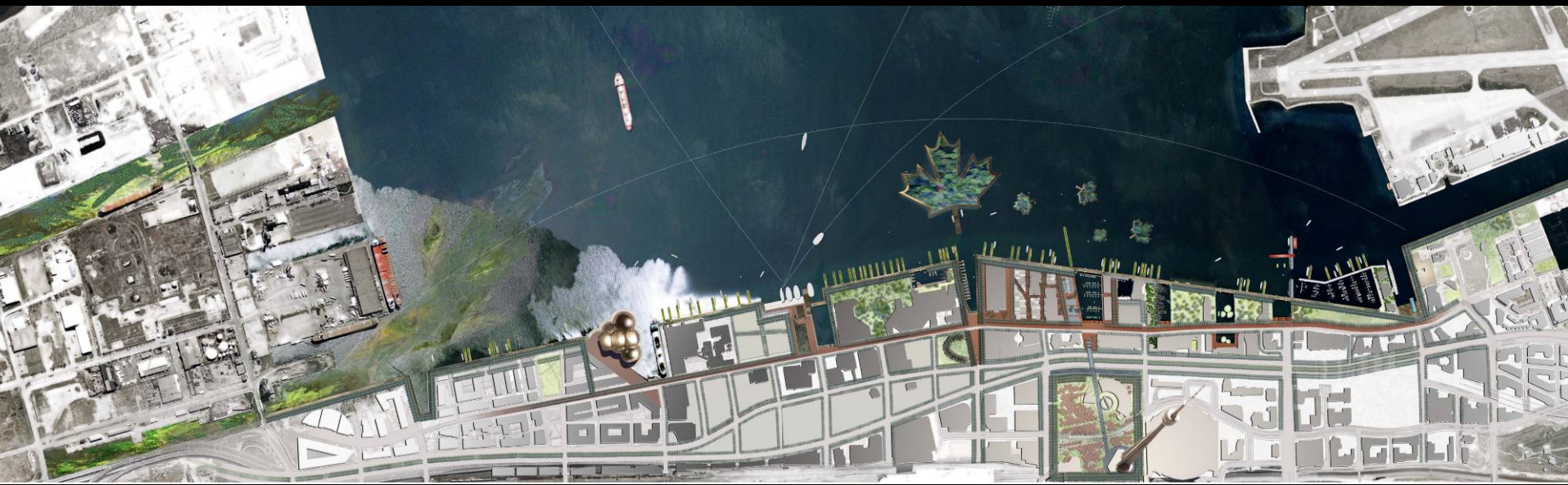
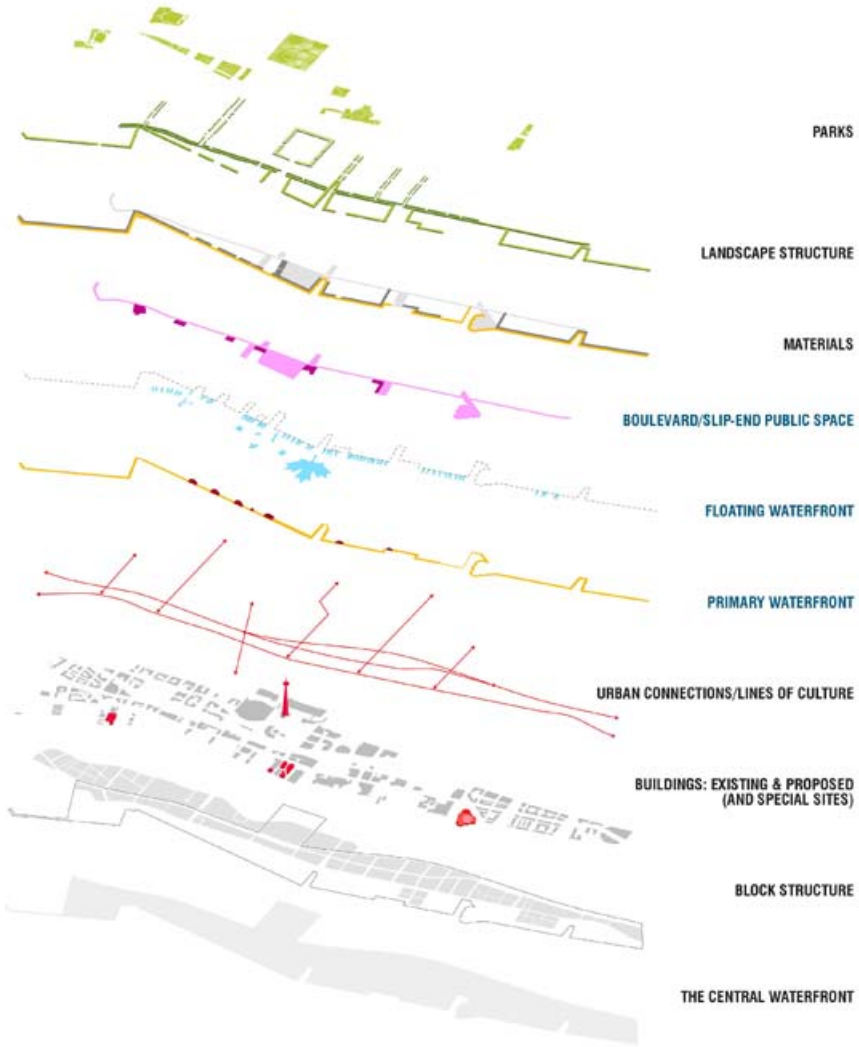

5,304,100
A WATERFRONT FIT FOR THE BIG CITY



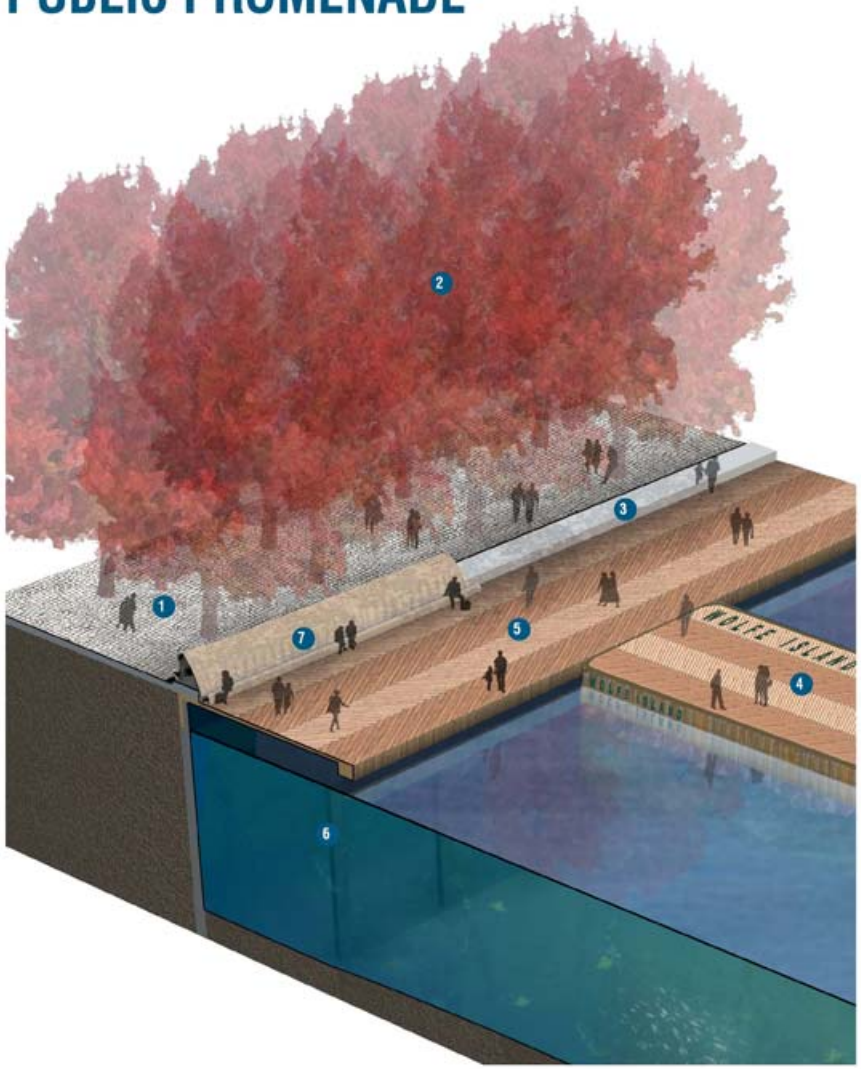
THE NEW MULTIPLE WATERFRONT

The vision for an expanded experience of the waterfront is composed of three woven waterfront systems: part I – the "Primary Edge," part II – the "Floating Waterfront" and part III – "Queen's Quay/Slip-End Boulevard."



WATERFRONT PROMENADE

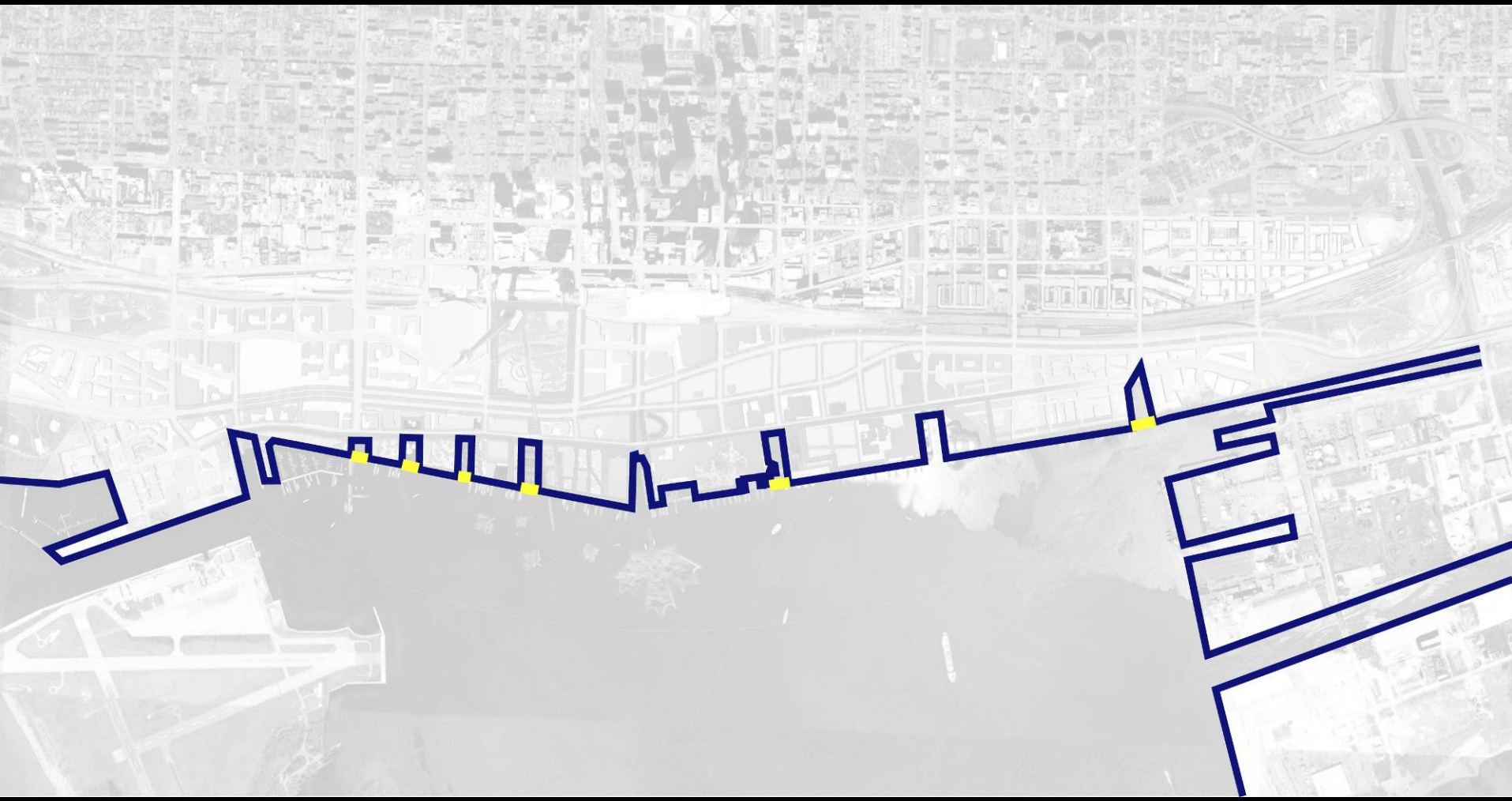
PUBLIC PROMENADE



18m
MINIMUM PUBLIC ROW

1. Granite paved promenade (min. 10m ROW)
2. Double row of Maples
3. Granite capstone step/bench
4. Pontoon (see Part II: "Floating Waterfront" section)
5. Wooden boardwalk (min. 8m, Douglas fir with herringbone pattern
6. Column supports for catilevered boardwalk
7. Wood linear bench (double-sided, see Part I.I: "Elements"

HEADS OF SLIPS AND BRIDGES

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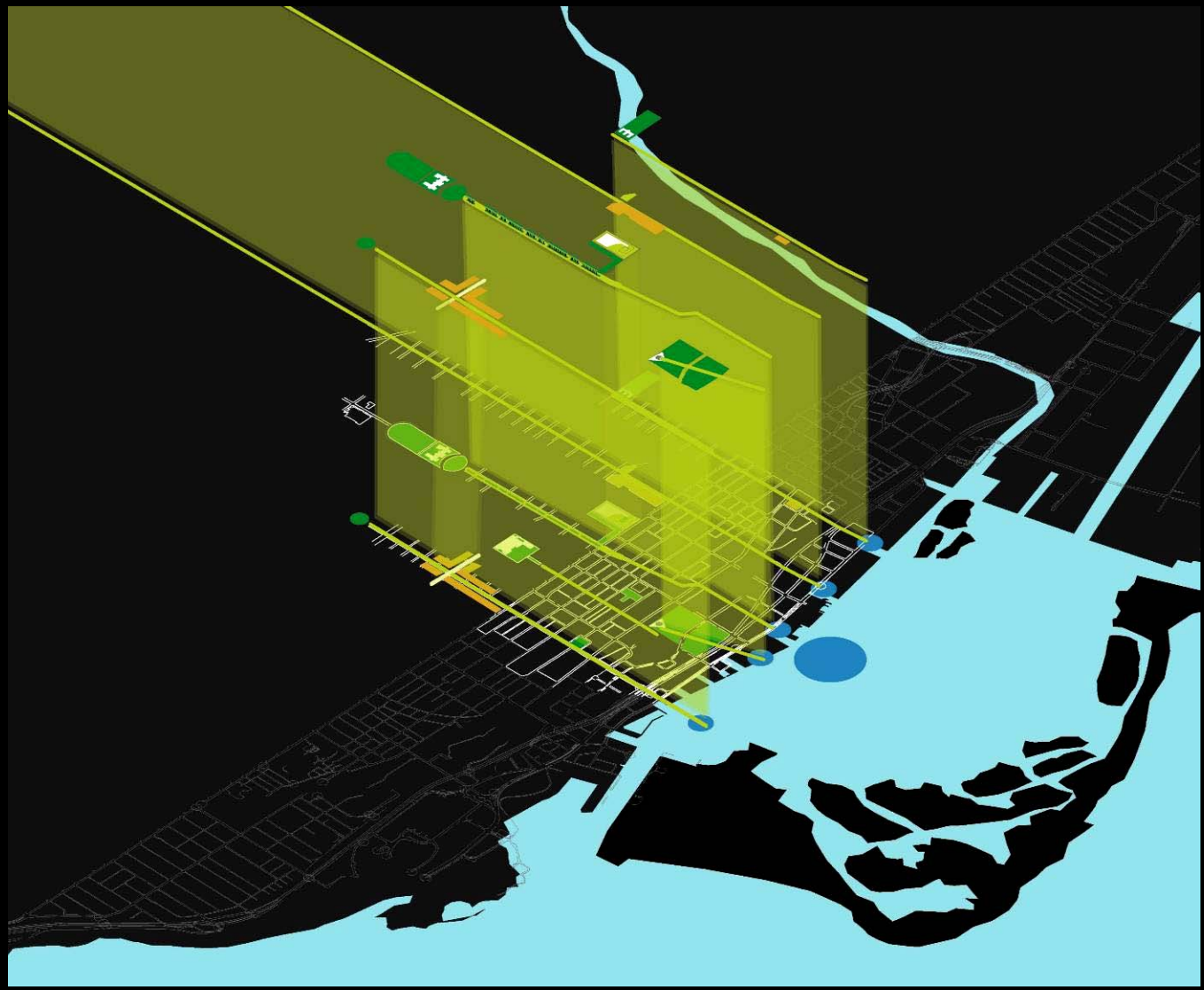
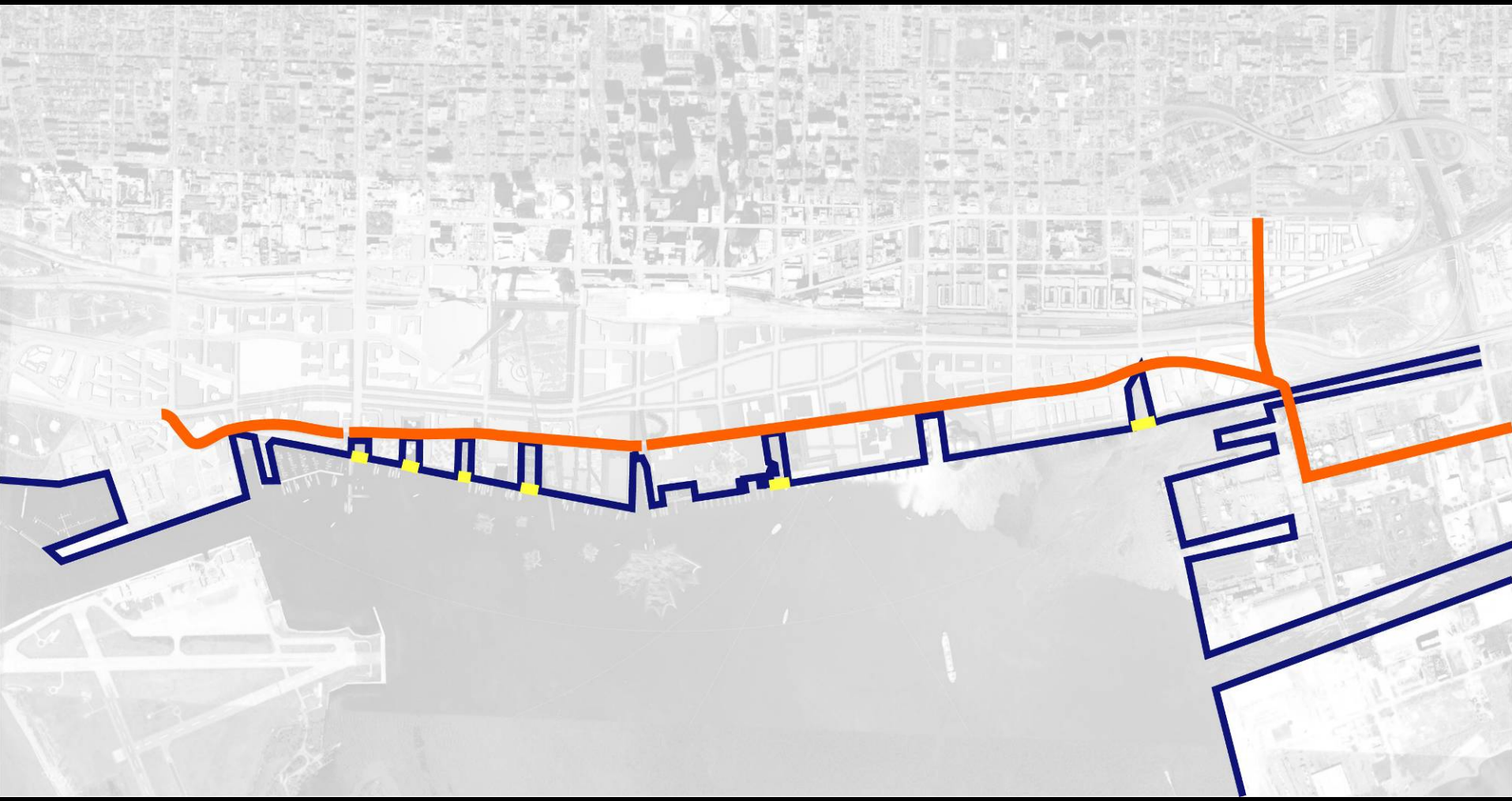
Corridors to the Waterfront



QUEENS QUAY PROMENADE




TURN WITH CARE
TRANSIT SIGNAL


Harbourfront centre
VINEYARD

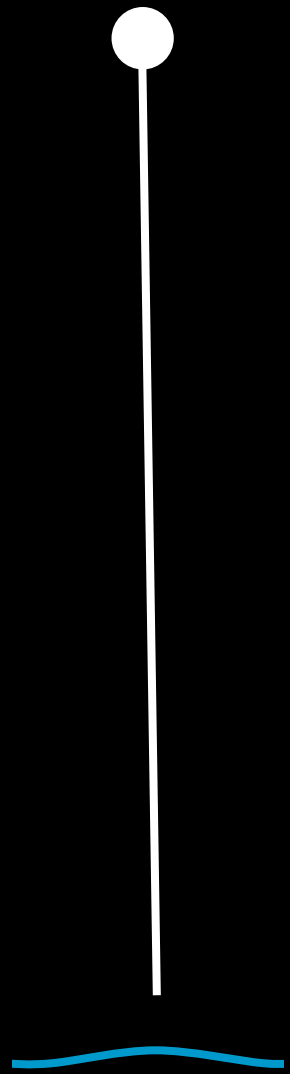
FLOATING WATERFRONT

SPADINA SLIP

Spadina Circle at College Street

Spadina Avenue Corridor to the Lake

Foot of Spadina
Head-of-Slip Public Space

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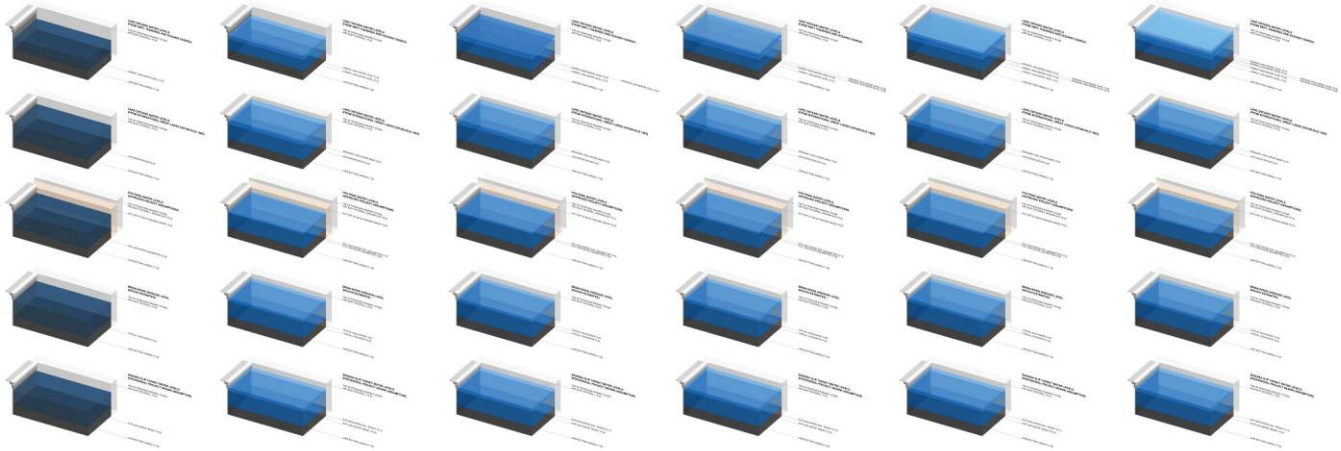
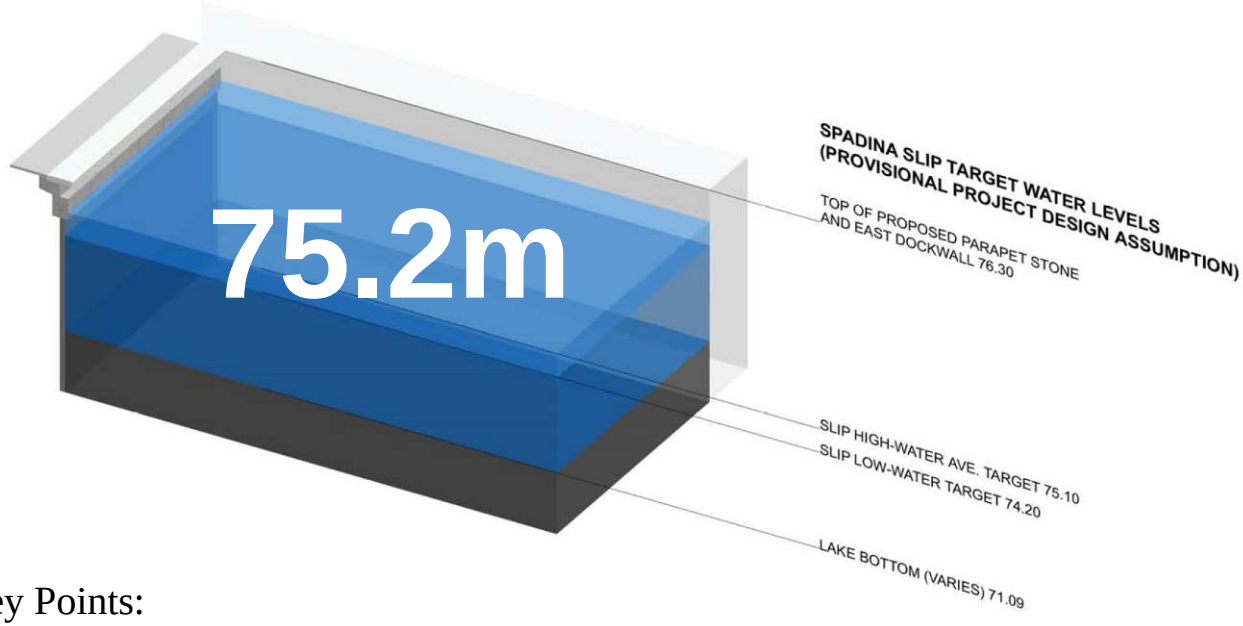
Design Update

WATER-LEVELS

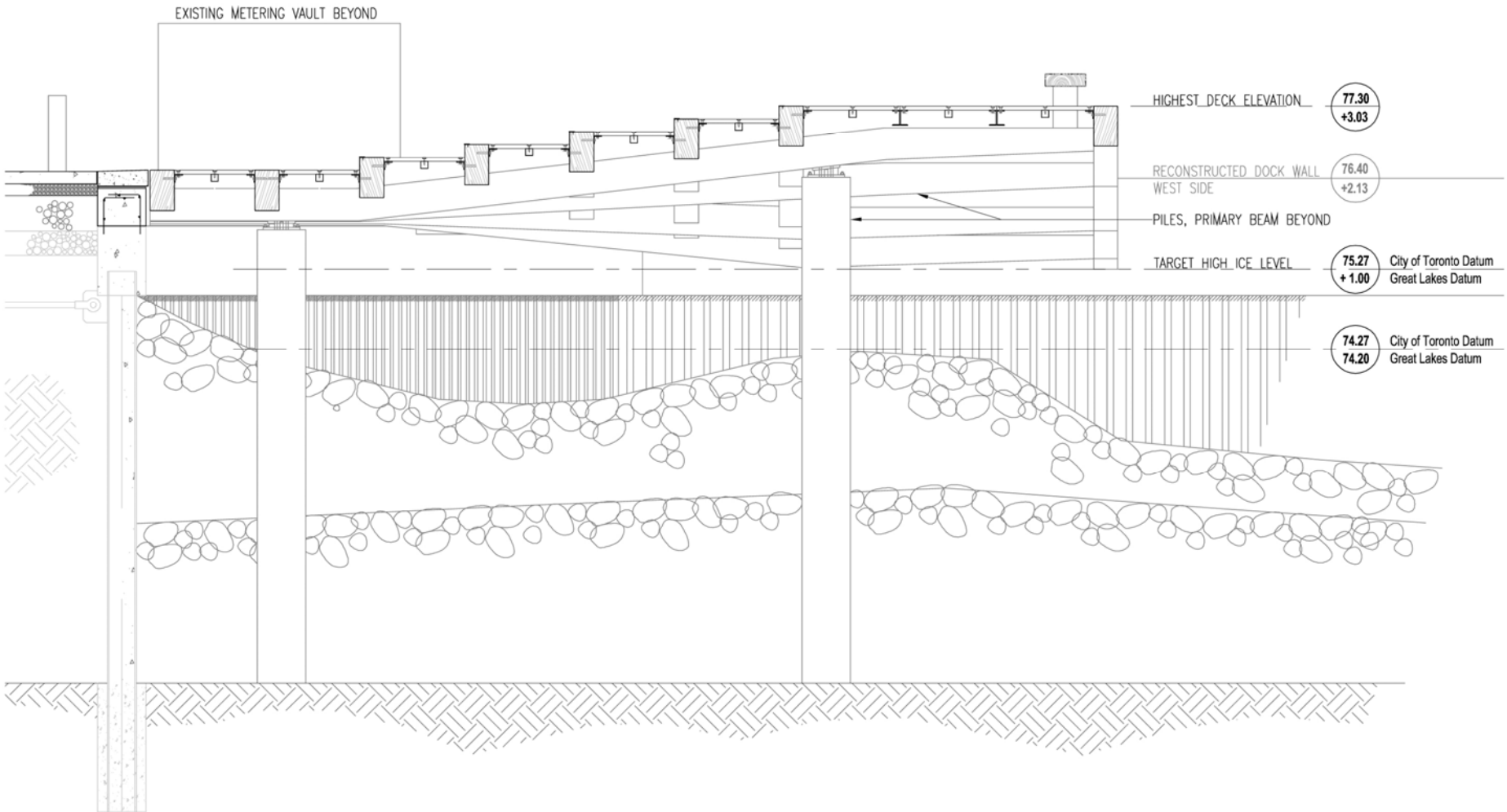


Established Project Design Target Water Level



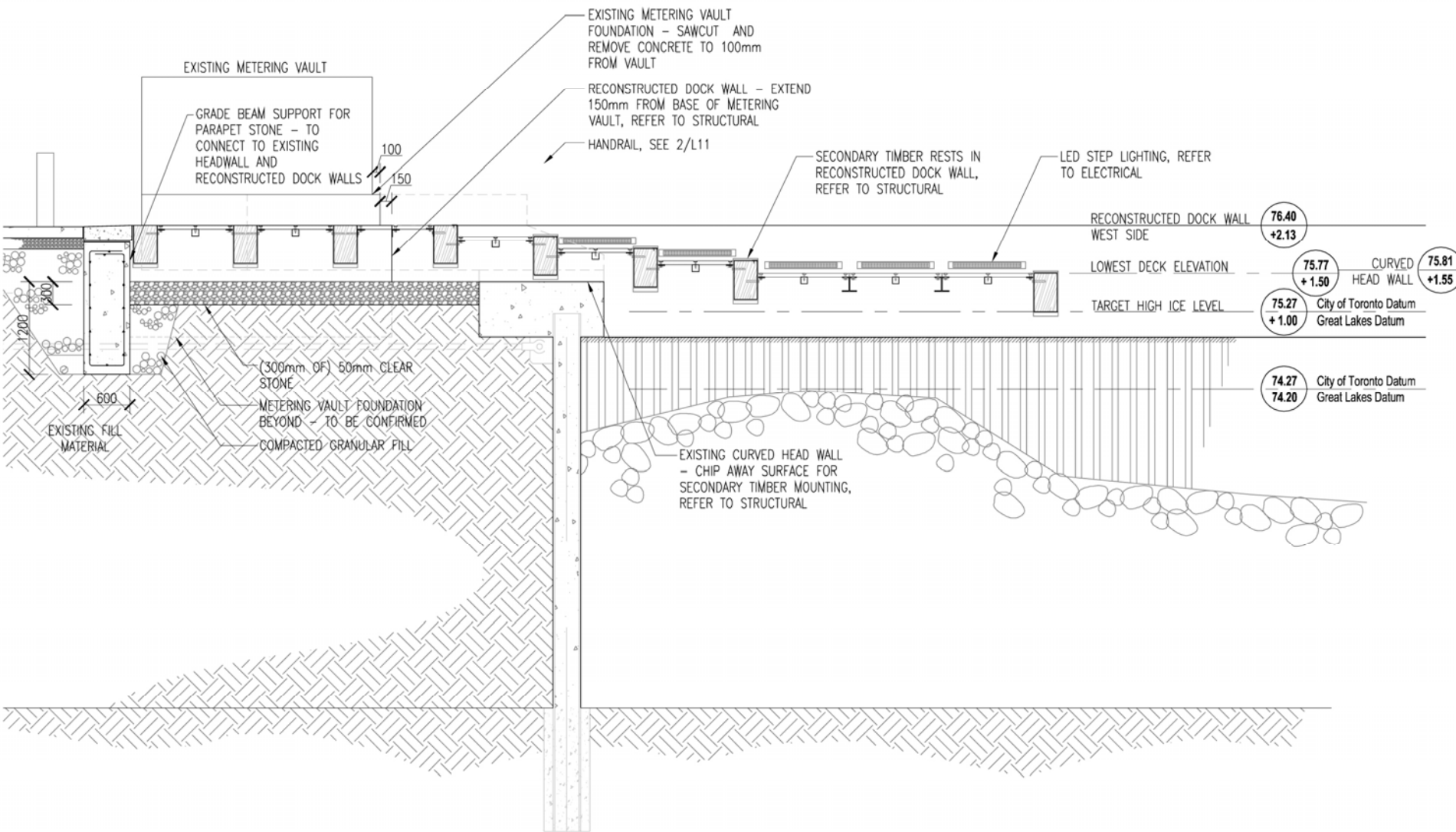
Key Points:

- Winter Ice Levels – avoid contact w/primary structure, no contact with secondary structure and decking.
- Lowest Timbers – reduced extent of submersion for long periods



4 SECTION @ CREST

SCALE 1:50

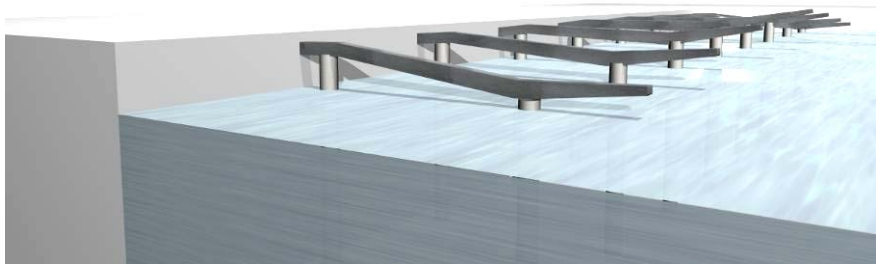


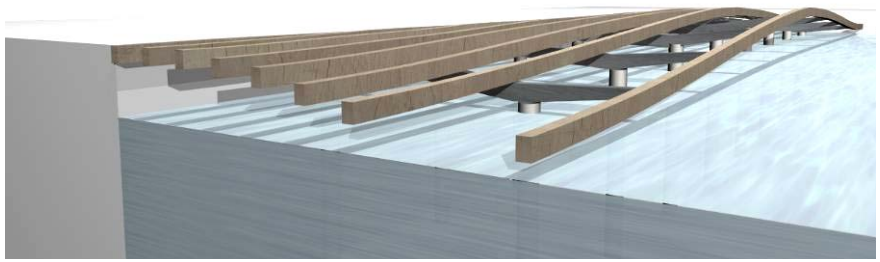
2 ELEVATION - EAST DOCK WALL
SCALE 1:50

Design Update

STRUCTURE

Materials, Durability, Performance





1. Primary Structure:
Steel (Black finish, with corrosion protection)
Piles 600mm diameter, 6.6m spacing
Primary Beams: Steel box beams 300x400mm tapering to 250mm deep at cantilever tip
Target Lifespan – 50 Years

2. Secondary Structure:
Timber (Douglas fir preferred, treated with TimberSIL preservative system
All timbers above potential winter high ice zone
Lowest timbers to tolerate some spash/periodic submersion of water
Target Lifespan – 50 Years

3. Decking:
Timber (Douglas fir preferred, treated)
1m x 138 x 88mm decking – laid perpendicular to secondary members
88mm thickness to handle wave uplift forces
Target Lifespan – 25 Years

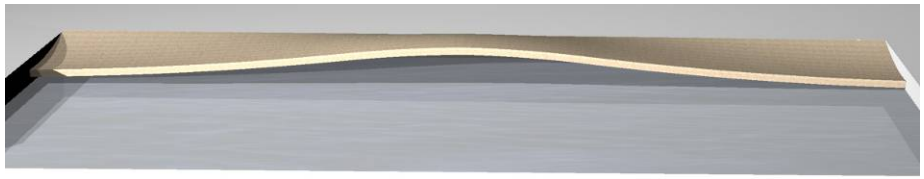
4. Elements:
Bench/toe-rail

Design Update

THE CURVE & SLOPE

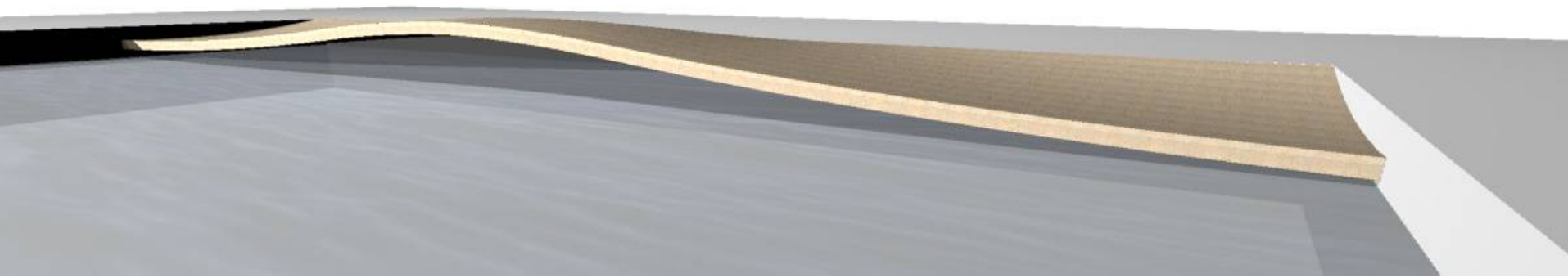
Strategies for code compliance without compromising the aesthetics of the structure

MAX.8.3%



Expressive curvature - defined by Max. 8.3% Slopes
- Forms steps down to water and rise to crest
- Accessibility and public safety strategy required:
- Primary access routes at <5% and defined by road spot markers
- Steeper sloped areas defined by pattern of Anti-slip texture
- Handrails provided as a safety measure and consideration for all users

8.3%MAX.



Slope Testing

8.3% SLOPE

8.3% DRY

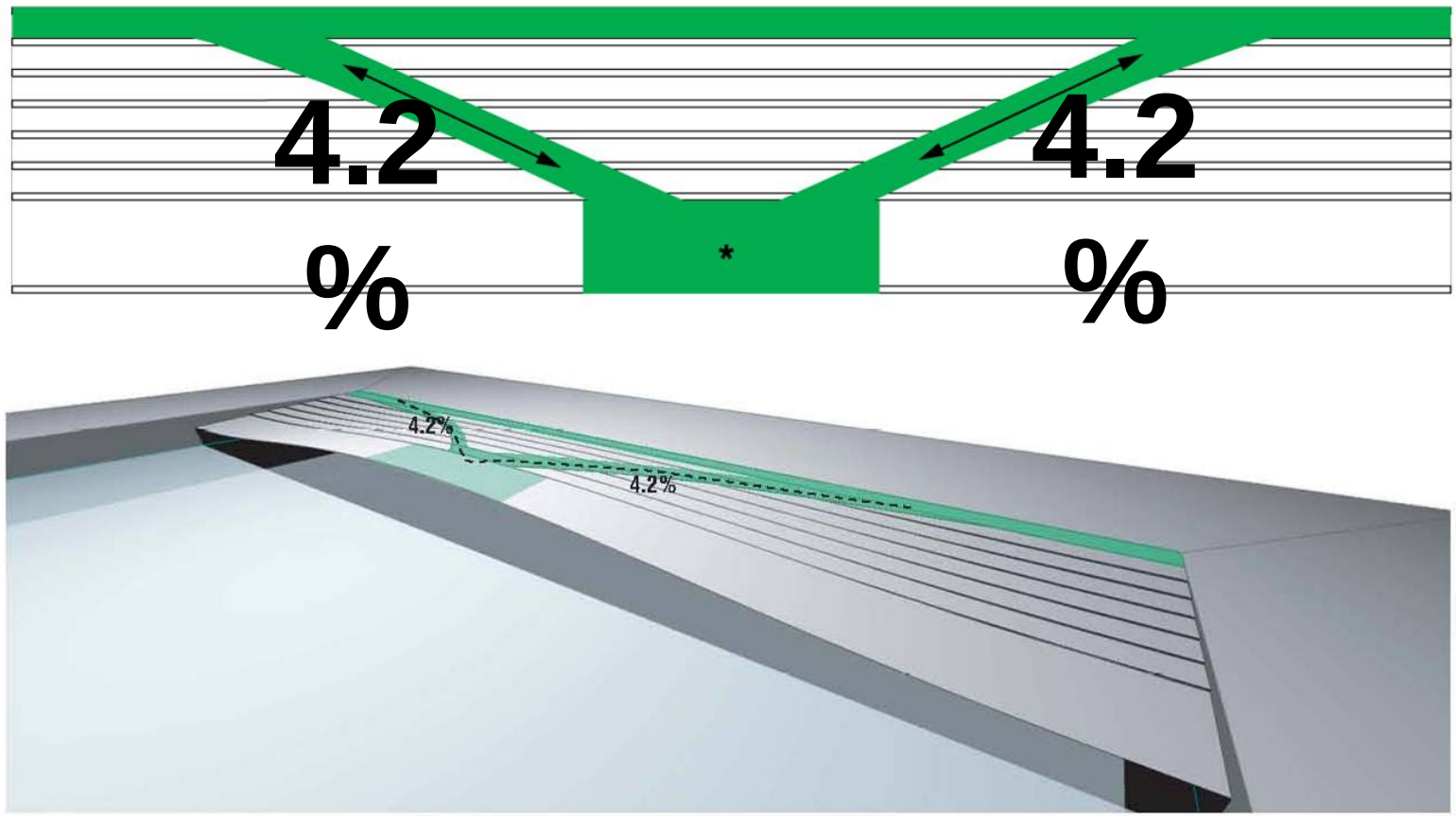
8.3% WET

Design Update

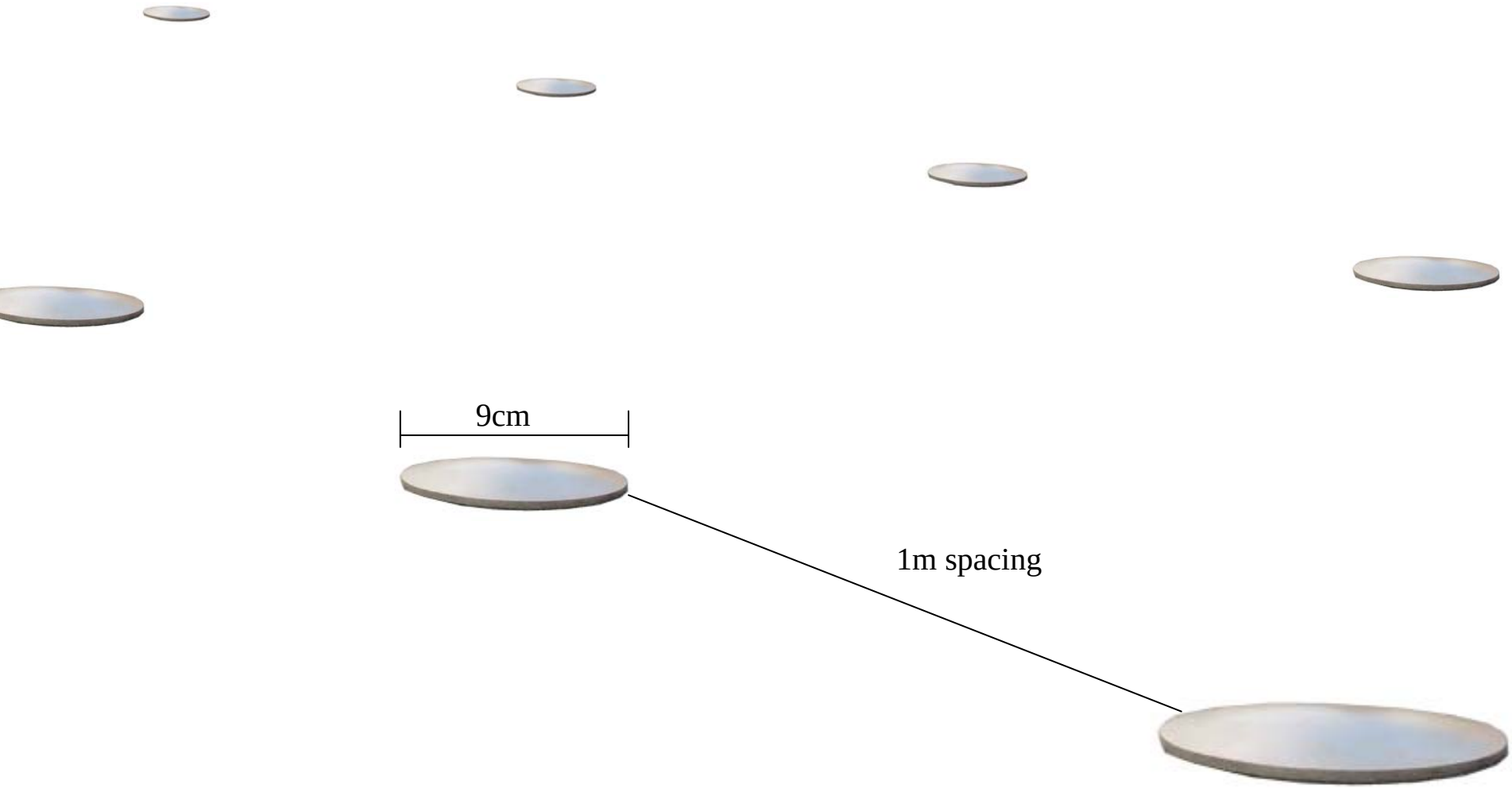
ACCESSIBILITY & ANTI-SLIP

Barrier-free access, slip resistance details, public safety

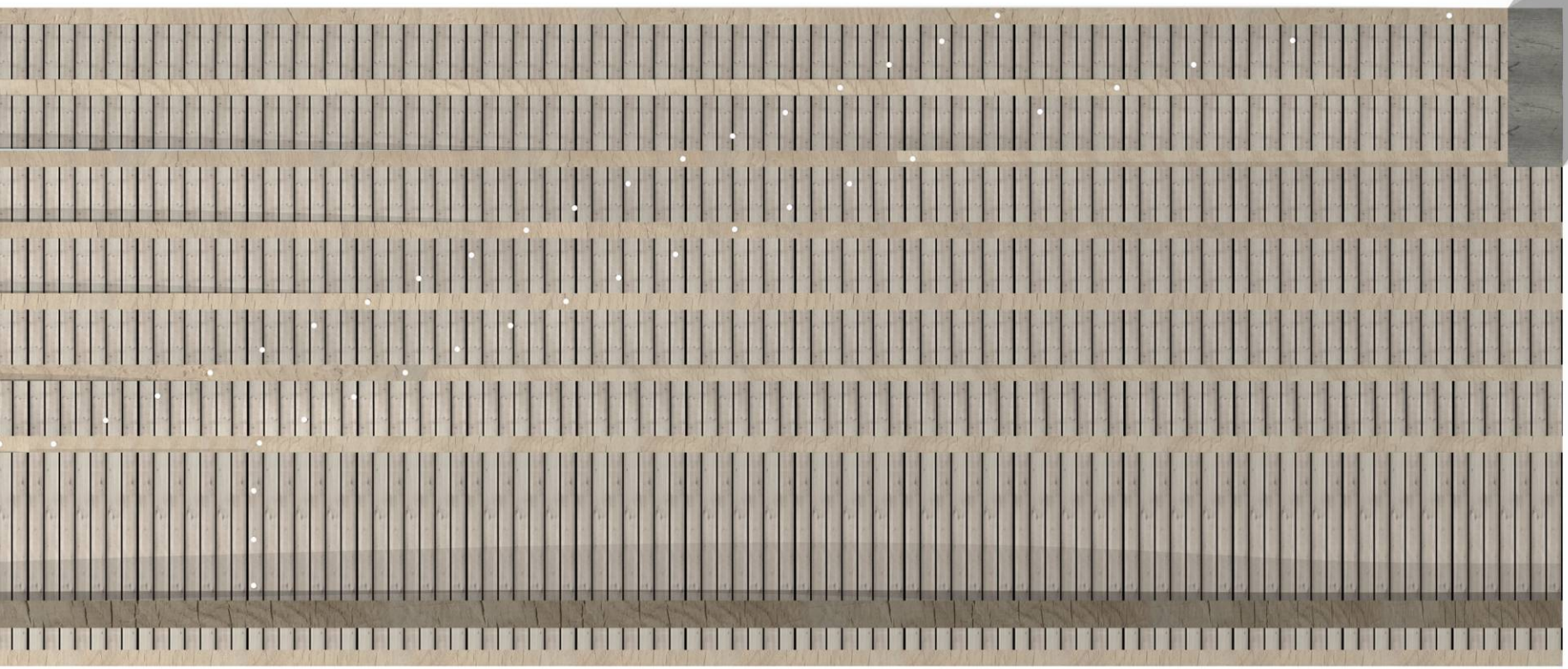
Starting point:
A clear indication of routes for persons with disabilities to the crest of the slip

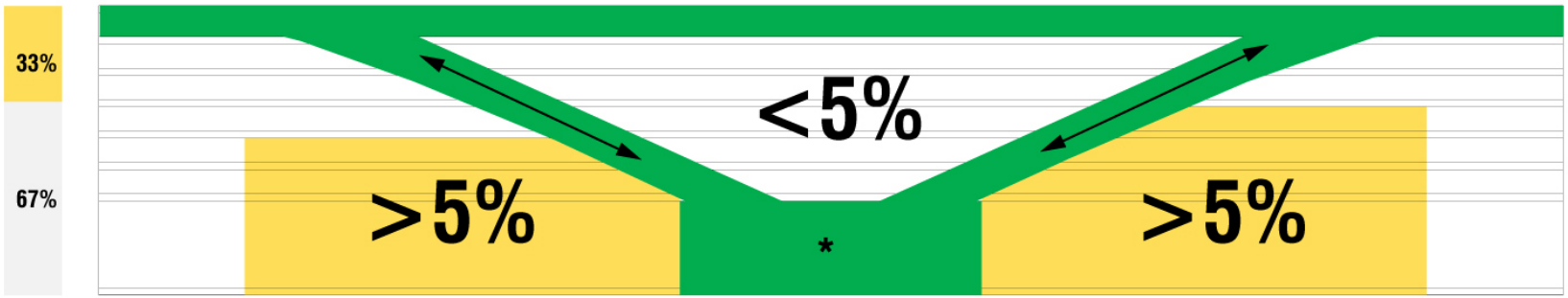


Stainless Steel Road Spots – identify safe route to crest + clear signage



Stainless Steel Road Spots – identify safe route to crest + clear signage




33%
67%
<5%
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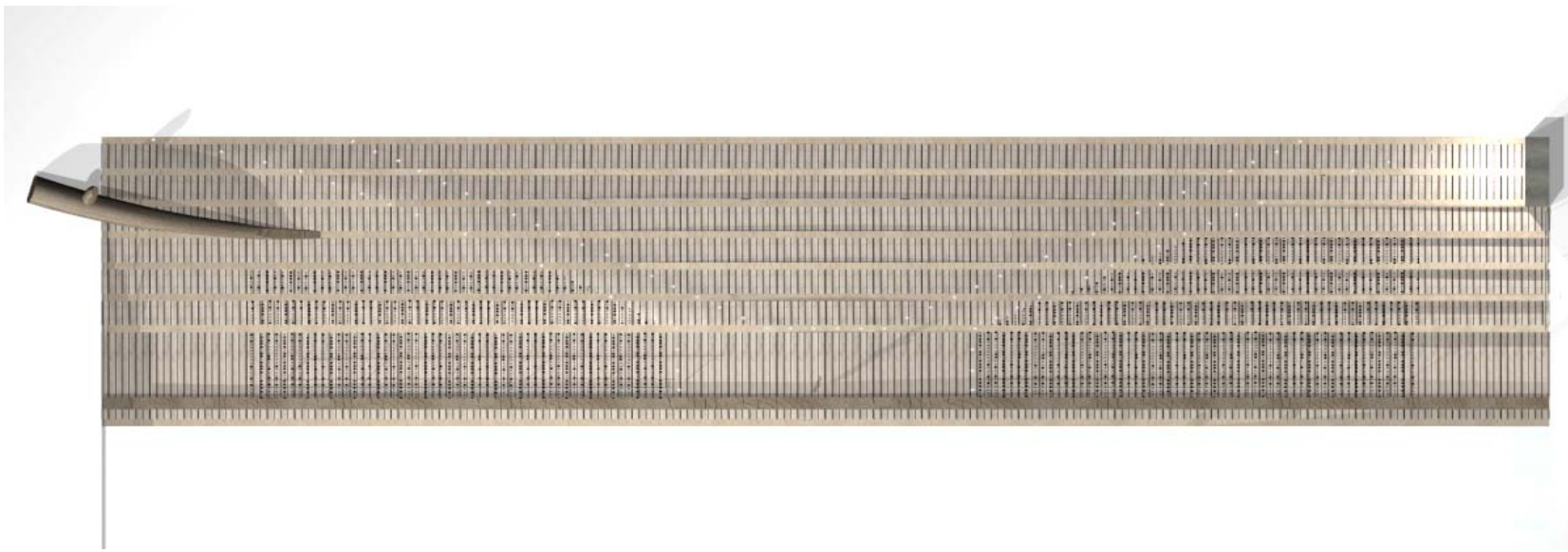
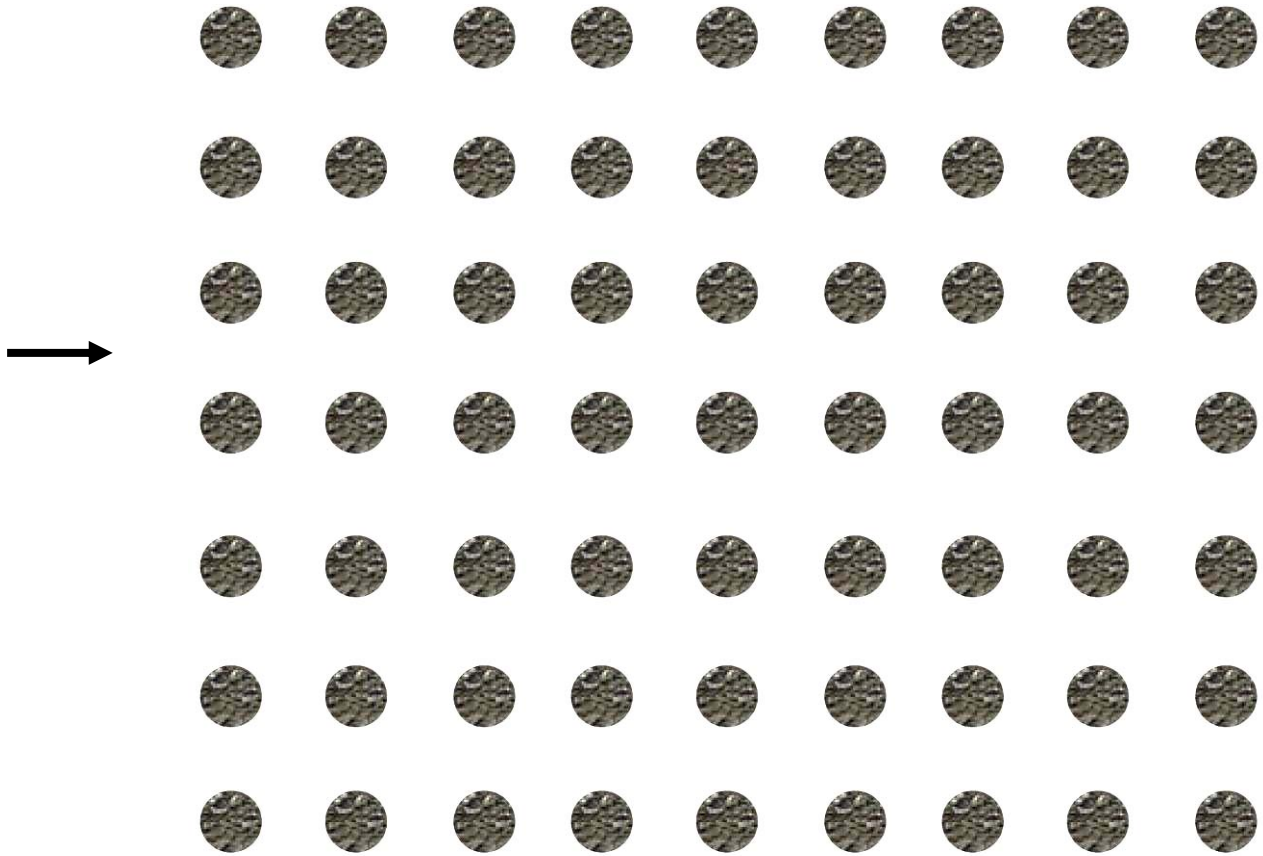
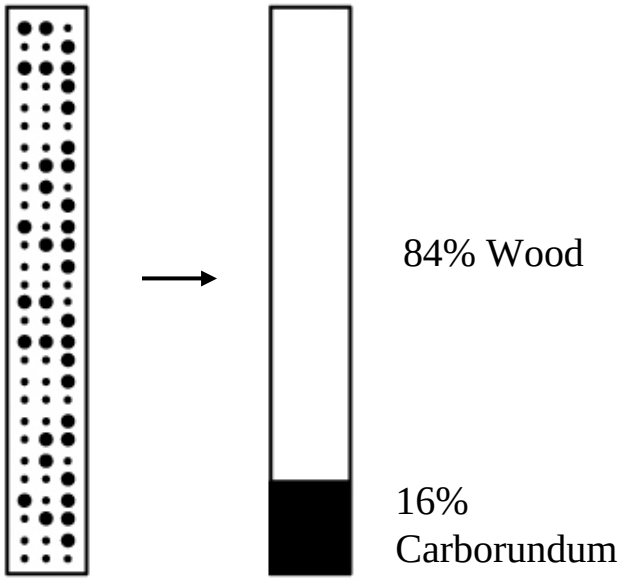
>5%
*

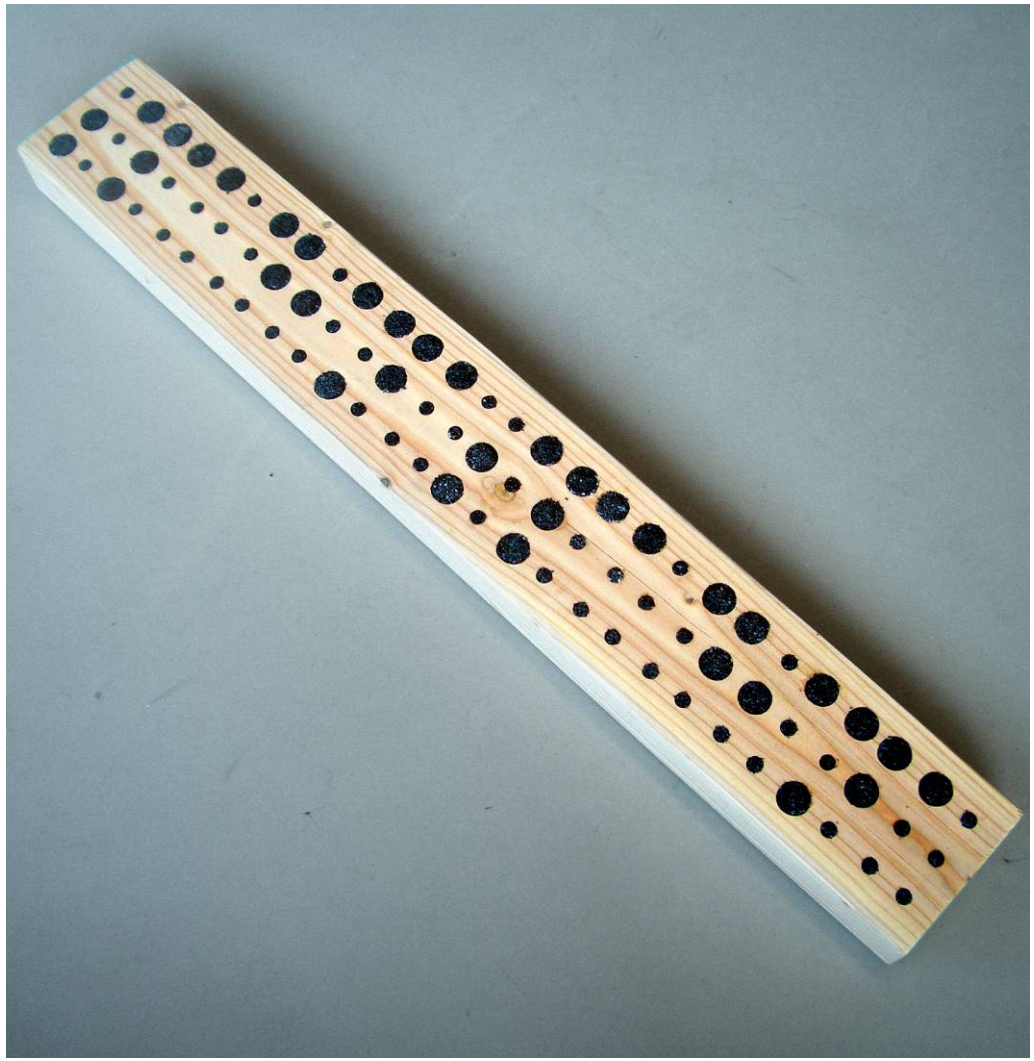


Carborundum anti-slip
(Silicon carbide)

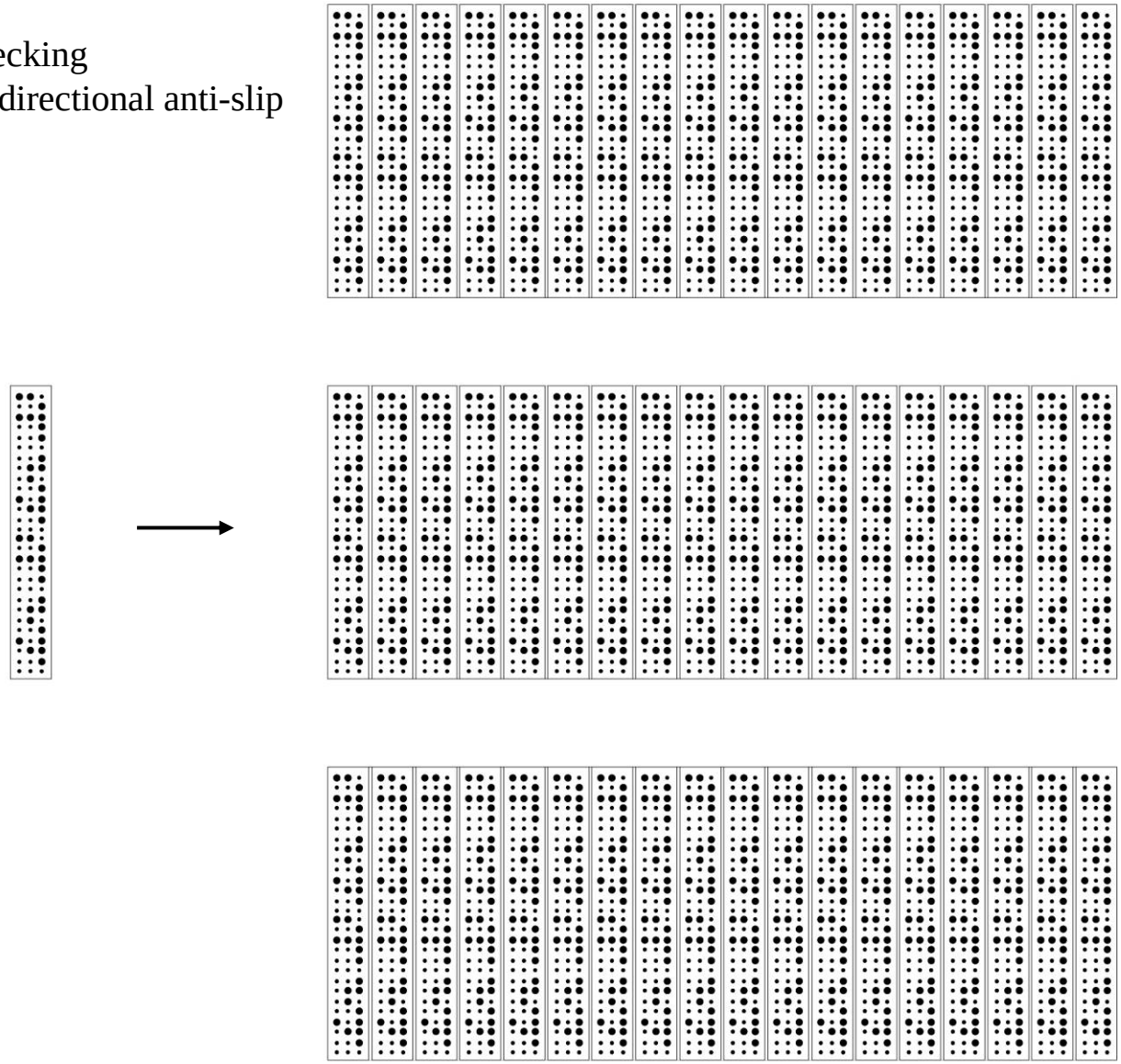


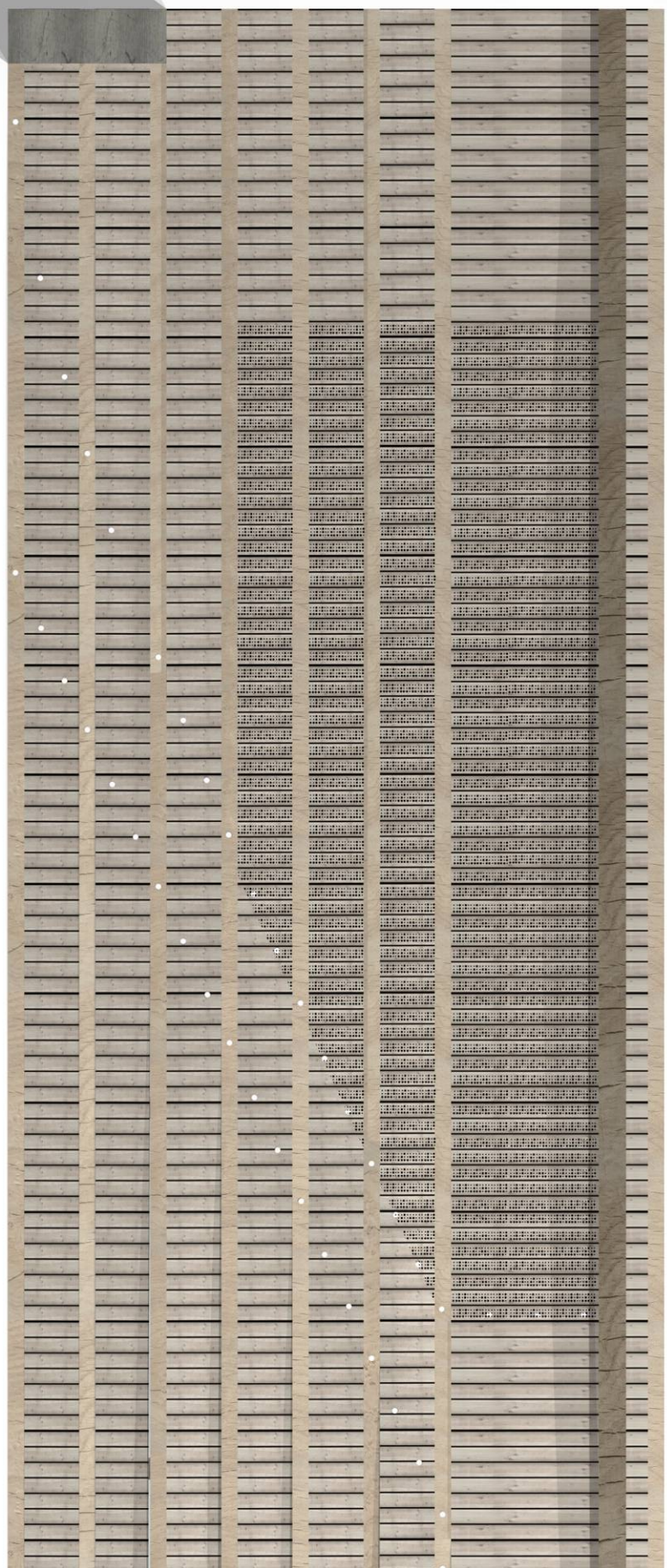
Coverage of anti-slip texture vs. natural wood



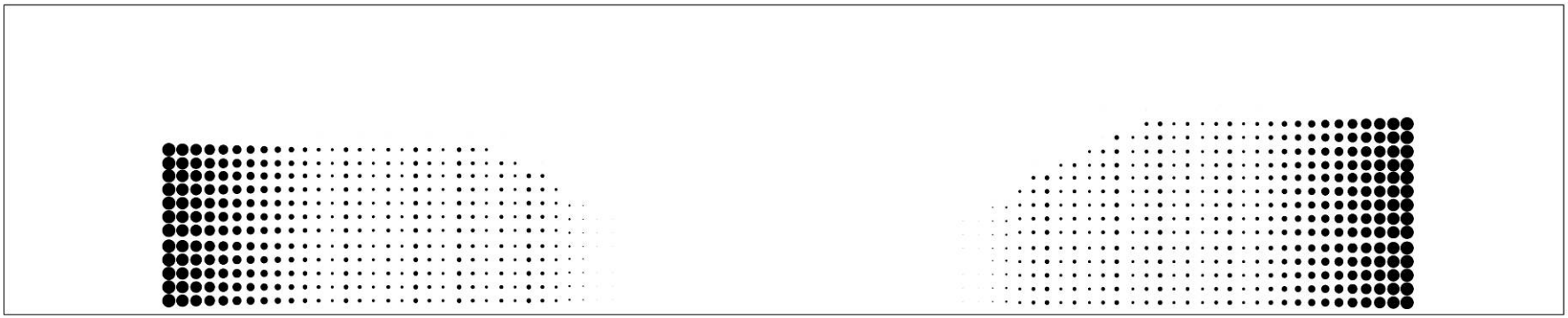


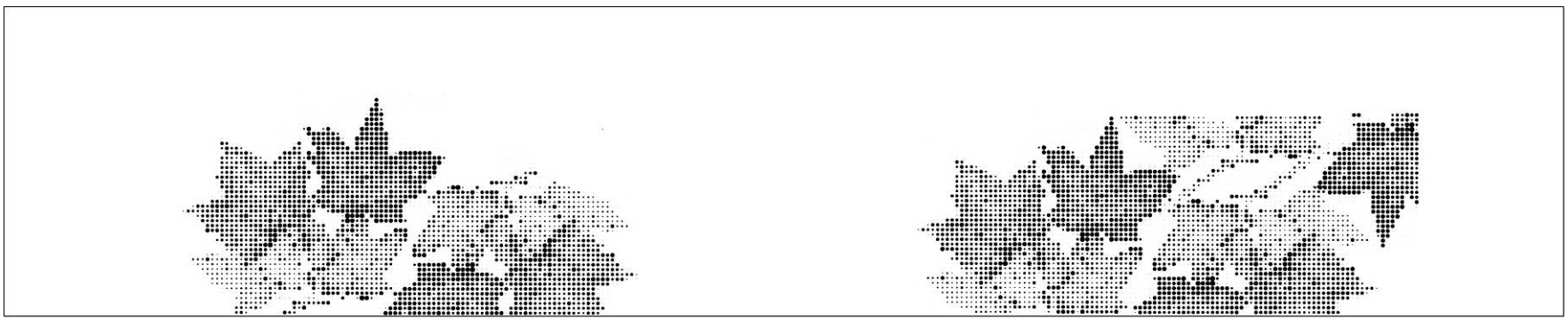
Application to decking
Benefit of multi-directional anti-slip





Alternate Application of dots:
Gradient slopes, Icon





Design Update

TIMBER SELECTION

Timber Selection: Decking

Timber Selection: Decking Species	Inherent Durability of Heartwood	Relative Life Expectancy	Availability	Distance Travelled	Comments
Domestic Softwood:					
Douglas fir *Pseudotsuga menziesii*	Moderate	*	Very Good	**	x
Eastern Hemlock *Tsuga canadensis*	Moderate	*	Very Good	***	Tends to bow
Domestic Hardwood:					
White Oak *Quercus alba*	Good	**	Poor	**	x
Tropical Hardwood:					
Ipe *Tabebuia*	Very Good	***	Good	*	“The Canadian lakefront”?
Cumaru	Very Good	***	Good	*	“The Canadian lakefront”?

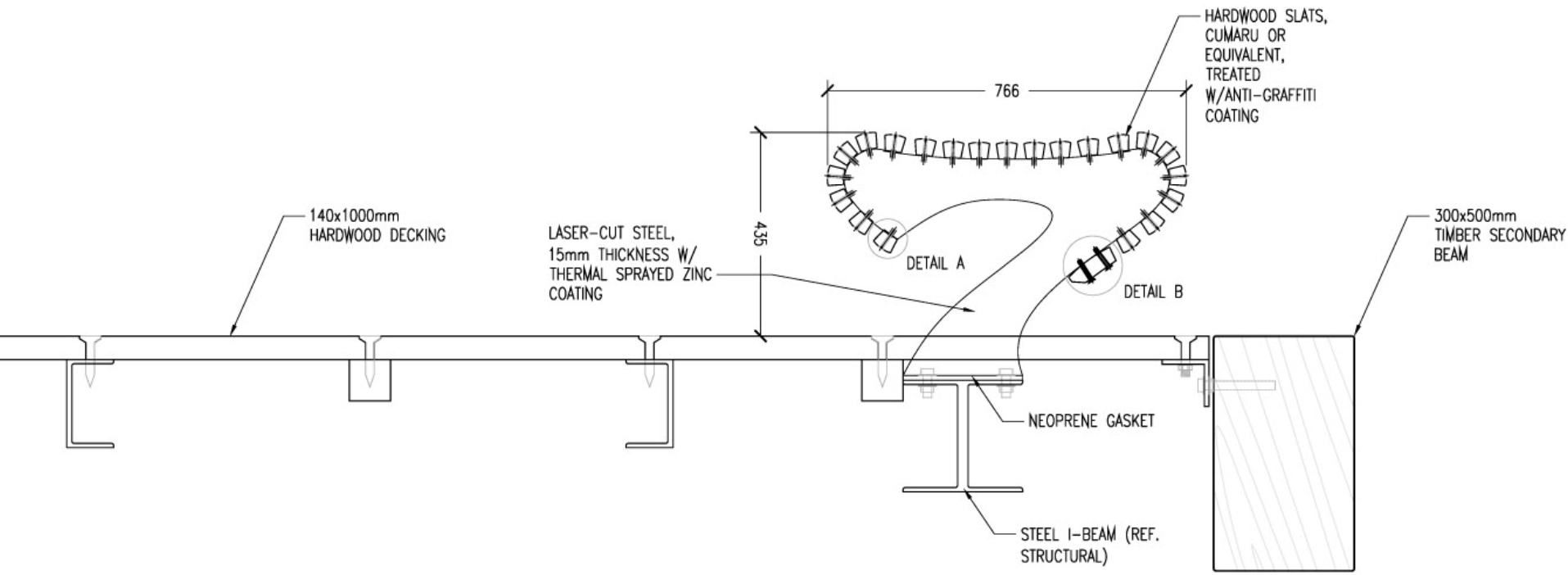
Timber Selection: Decking Recommendation

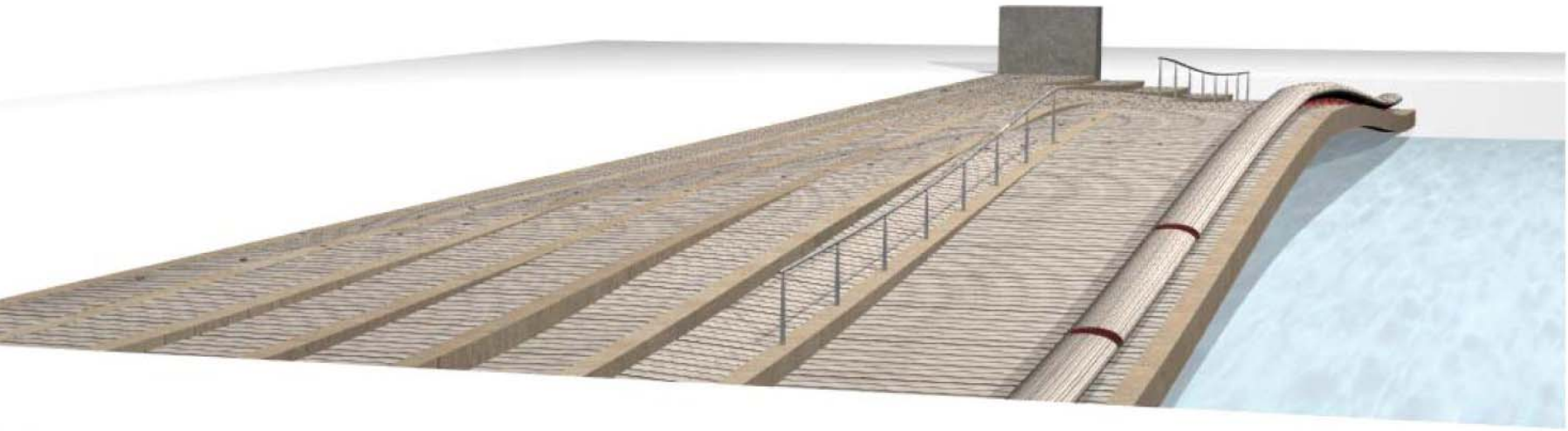
Species	Inherent Durability of Heartwood	Relative Life Expectancy	Availability	Distance Travelled	Comments
Domestic Softwood:					
Douglas fir *Pseudotsuga menziesii*	Moderate	*	Very Good	**	With TimberSIL treatment – 40-year guarantee
Tropical Hardwood:					
Ipe *Tabebuia*	Very Good	***	Good	*	"The Canadian lakefront"?
Cumaru	Very Good	***	Good	*	"The Canadian lakefront"?

Design Update

ELEMENTS

Log Feature, Bench-toe-rail w/ handrail, Transformer vault, Lighting design


HARDWOOD SLATS, CUMARU OR EQUIVALENT, TREATED W/ANTI-GRAFFITI COATING
766
435
140x1000mm HARDWOOD DECKING
LASER-CUT STEEL, 15mm THICKNESS W/ THERMAL SPRAYED ZINC COATING
DETAIL A
DETAIL B
300x500mm TIMBER SECONDARY BEAM
NEOPRENE GASKET
STEEL I-BEAM (REF. STRUCTURAL)

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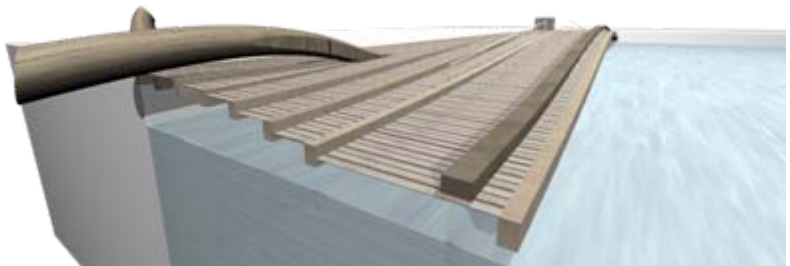


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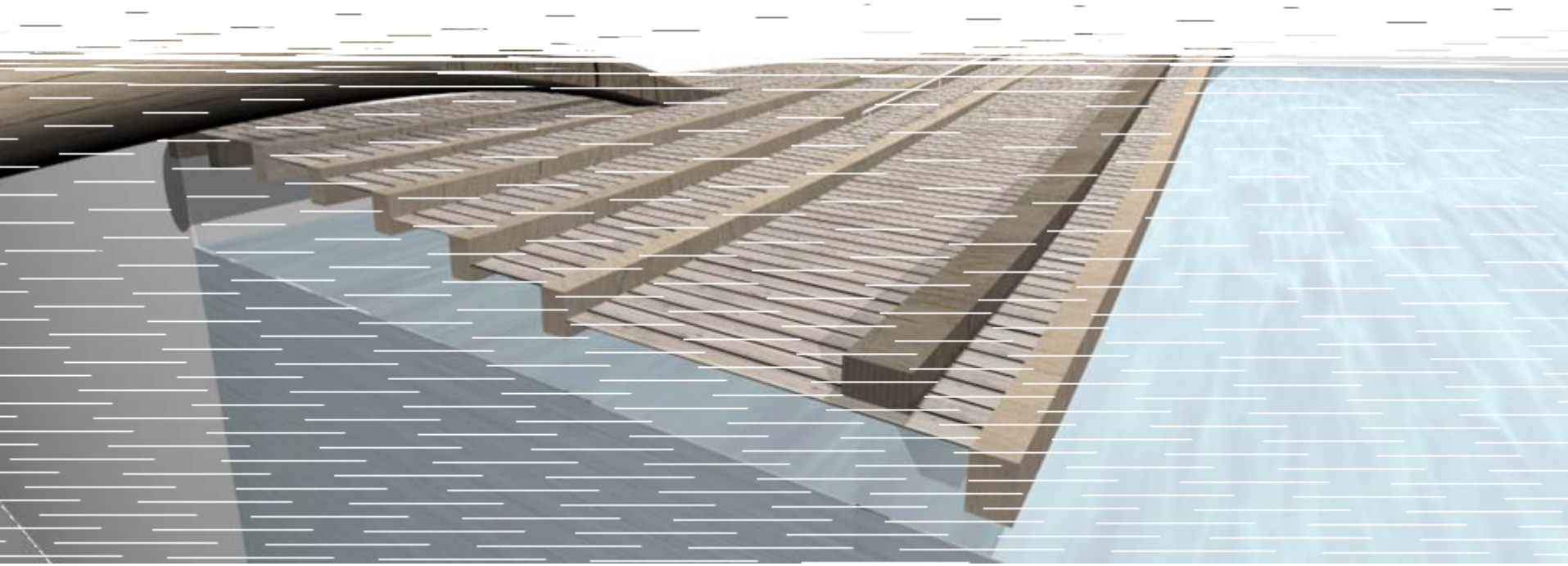
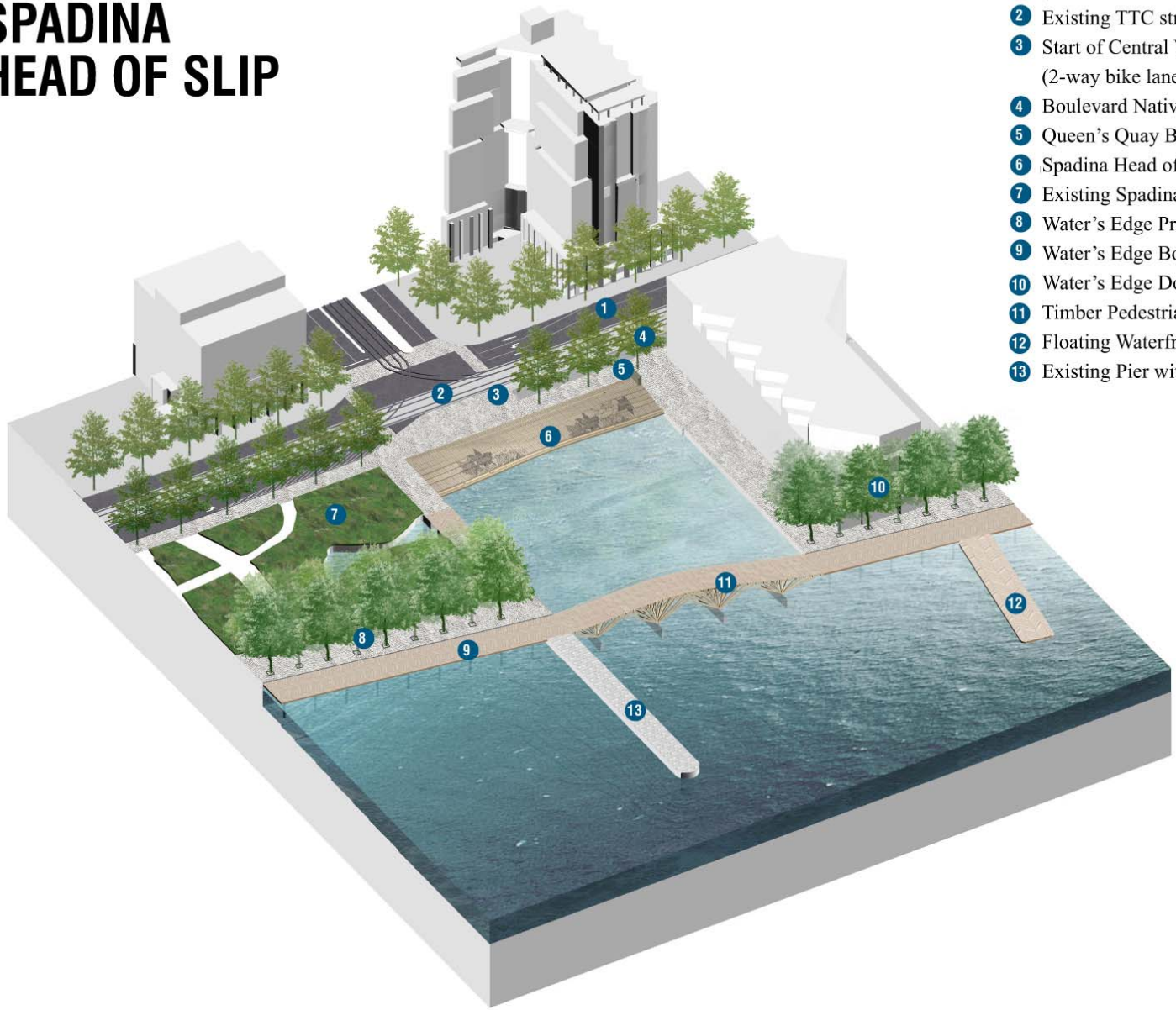
Preferred Option – on last riser, guides users around steeper slopes



Design Update

HABITAT

THE VISION
SPADINA
HEAD OF SLIP



1. Revitalized Queen's Quay Boulevard Streetscape (2 travel lanes, 1 parking lane)
2. Existing TTC streetcar ROW
3. Start of Central Waterfront Martin Goodman Trail (2-way bike lanes)
4. Boulevard Native Trees (TBD)
5. Queen's Quay Boulevard Expanded Pedestrian ROW
6. Spadina Head of Slip Gateway Public Space
7. Existing Spadina Quay Wetland Park
8. Water's Edge Promenade (Granite)
9. Water's Edge Boardwalk (Wood)
10. Water's Edge Double-Row of Native Trees (TBD)
11. Timber Pedestrian Bridge
12. Floating Waterfront – Toronto Pontoon/Finger Pier
13. Existing Pier with Boat Mooring

WEAVING THE MULTIPLE WATERFRONT PARTS

PRIMARY WATERFRONT
+
FLOATING WATERFRONT
+
BOULEVARD & SLIP-ENDS

Explanatory text
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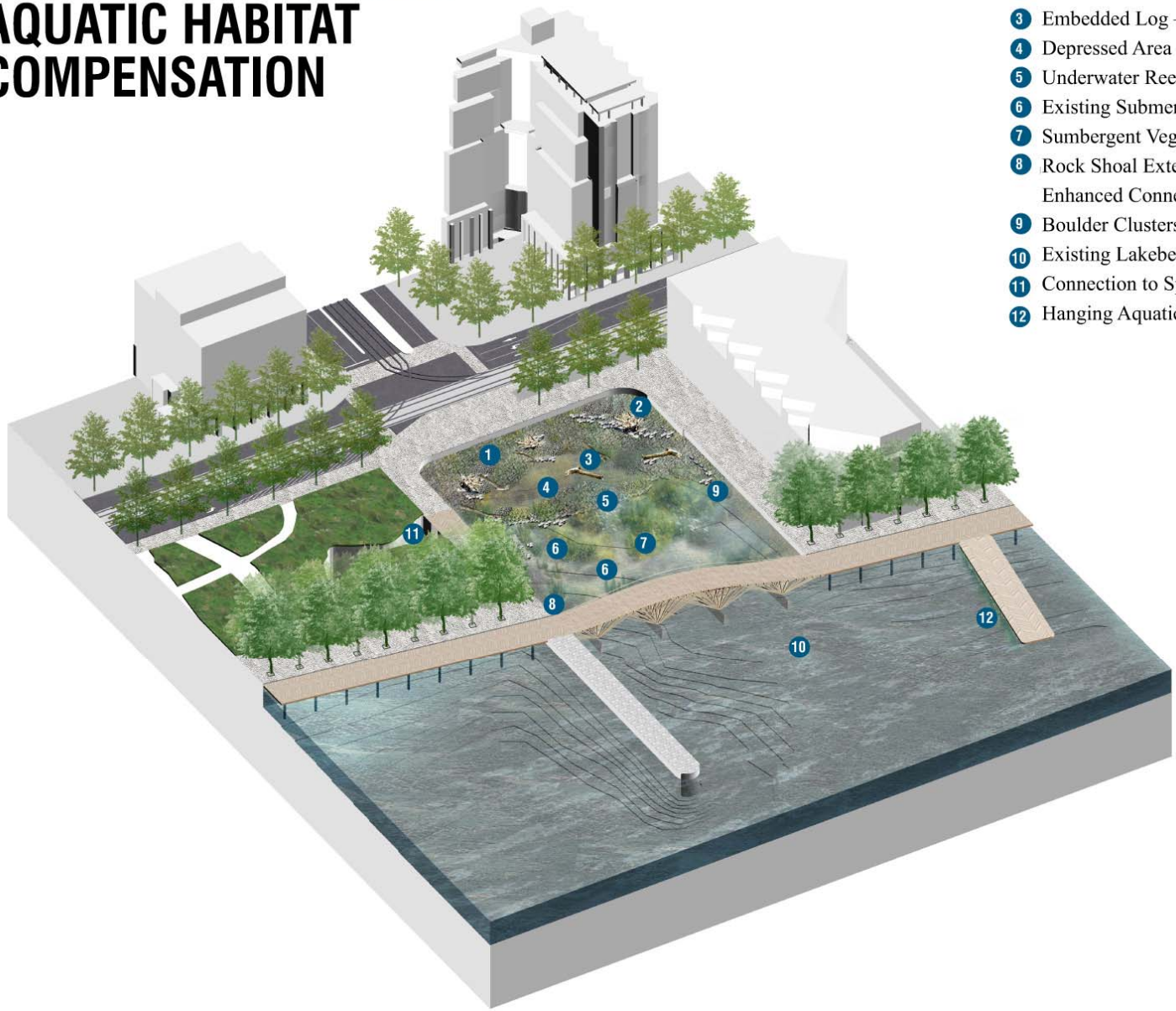
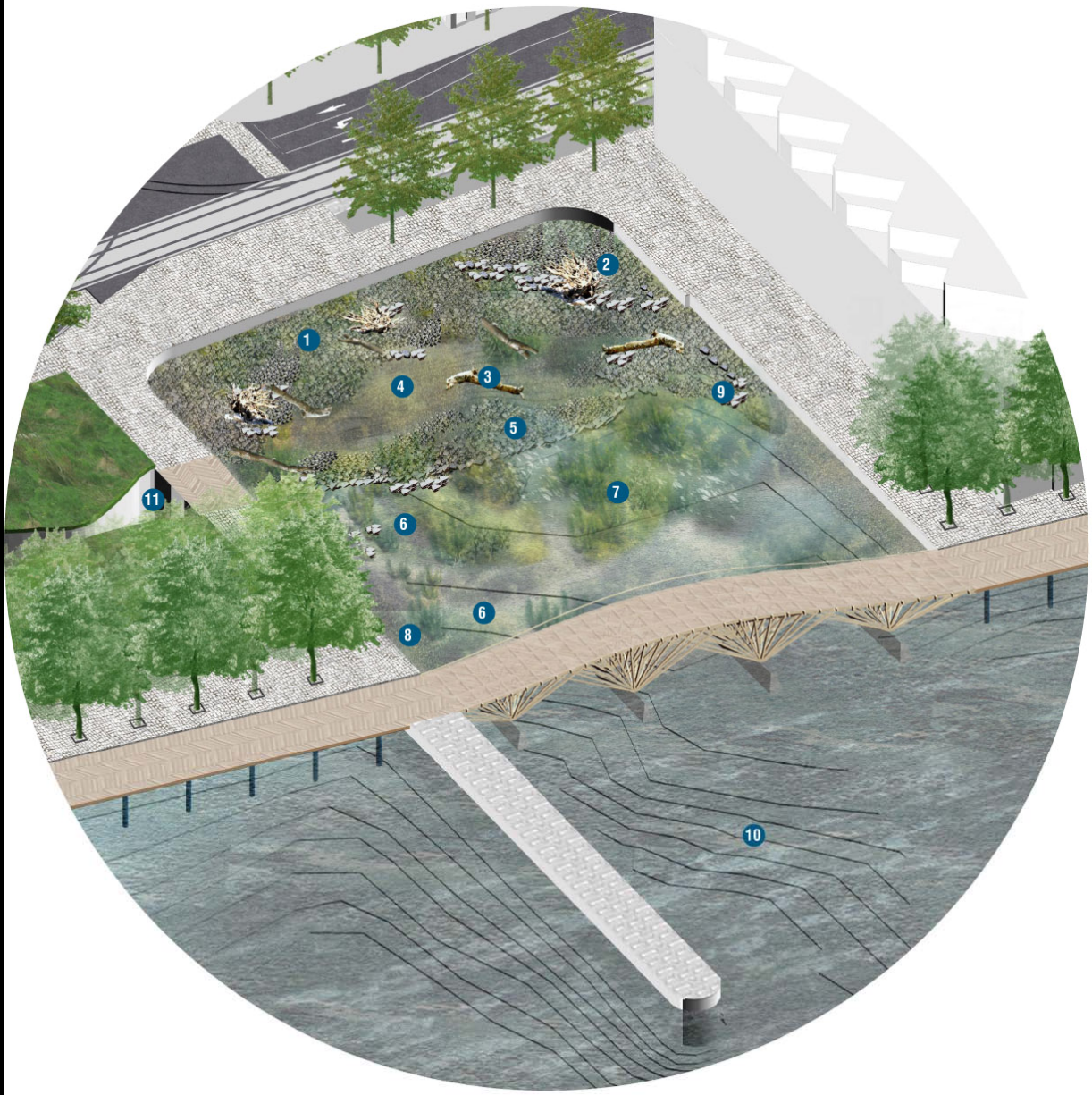
BELOW THE SURFACE:
AQUATIC HABITAT COMPENSATION



1. Proposed Rock Shoal – Sheltered Embayments Vertical Seawall
2. Embedded Root Fan – Structural Habitat for Fish
3. Embedded Log – Structural Habitat for Fish
4. Depressed Area – Diversifies lakebed topography and habitat
5. Underwater Reef with Armoured Slope
6. Existing Submergent Vegetation to Remain
7. Sumbergent Vegetation Relocated from Existing Locations
8. Rock Shoal Extension along West Dockwall – Enhanced Connection to Spadina Quay Wetland
9. Boulder Clusters – Functional Habitat Elements
10. Existing Lakebed
11. Connection to Spadina Quay Wetland Fish Spawning Area
12. Hanging Aquatic Habitat below Floating Pontoon

Vertical relief to lakebed topography using shoals, reefs and depressions creates irregular outlines, a diversity of substrates and interstitial spaces.

About the Habitat Compensation Strategy: Text to be added as required Text to be added as required Text to be added as required Text to be added as required Text to be added as required Text to be added as required Text to be added as required.



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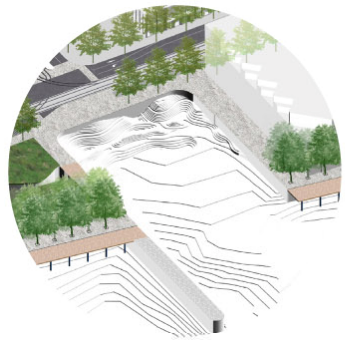


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