

591 Liverpool Road - Pickering Harbour

Urban Design Rationale & Guidelines

Prepared for:

The Pickering Harbour Company

Date:

June 28, 2021

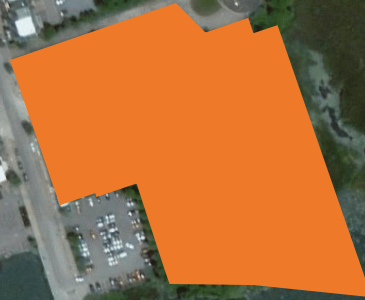


TABLE OF CONTENTS

- Overview 01**
- Urban Design Principles..... 02**
- Structuring Framework..... 04**
- Demonstration Plan..... 06**
- Sun/Shadow Analysis 08**
- Urban Design Guidelines 14**



Frenchman's Bay

Nautical Village

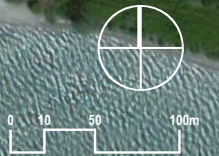
Liverpool Road

Hydro Marsh

Millennium Square

Beachfront Park

Lake Ontario



Overview

591 Liverpool Road is located at the foot of Liverpool Road. The Subject Site is approximately 21,280 m² in area, of which approximately 16,520 m² is land and the remainder is water/wetlands. The site is relatively flat and is occupied by a 2-storey office building with the majority of the property used for boat storage.

The Subject Site is situated south of the Nautical Village which is comprised of 2- to 3-storey mixed use buildings aligned along Liverpool Road and westward towards Frenchman's Bay Marina. Immediately to the north of the Subject Site is the Durham Region Pumping Station which is accessed by a service driveway running along the shared property line. To the south and east are open space and naturalized areas: Beachfront Park and Hydro Marsh.

The site is constrained by two conditions: a 6-metre wide easement parallels the west property line (along Liverpool Road) before travelling northeast across the Subject Site and towards the Pumping Station. A second constraint is a 30-metre wide landscape buffer along the Hydro Marsh frontage. When non-buildable areas are removed from the Subject Site less than half, or 9,610 m², of the property is developable.

A demonstration plan was created in order to understand the development potential of the site and establish a set of urban design guidelines that would concisely communicate the significant elements of the plan.

Prior to developing the plan a set of Urban Design Principles was established. The principles articulated key objectives that were to be achieved by any subsequent plan. The principles were applied in the creation of a structuring framework which provided the conceptual organization of the site.

The Structuring Framework formed the basis of the Demonstration Plan. The plan is the cumulative result of the collaboration of the Project Team in developing a vision for the Subject Site as well as for the southern terminus of the Nautical Village.

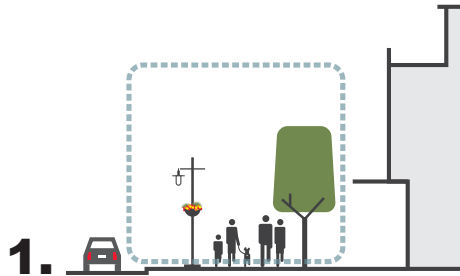


LEGEND

- SUBJECT SITE
- DEVELOPABLE LAND
- SERVICING EASEMENT
- 30-metre PSW SETBACK
- HYDRO MARSH

Above: The Subject Site consists of approximately 45% developable lands with the remainder allocated as servicing easements, naturalized buffer, and wetlands.

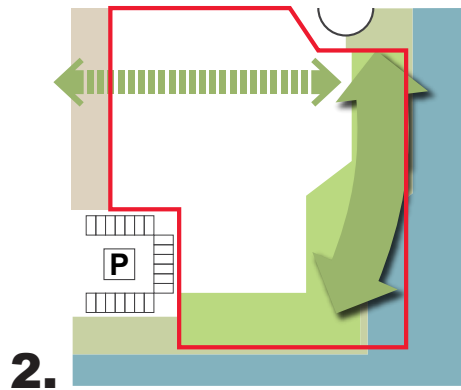
Urban Design Principles



1. Create an enhanced public realm.

Widen the pedestrian boulevard along Liverpool Road with high quality surface materials and with the addition of street trees.

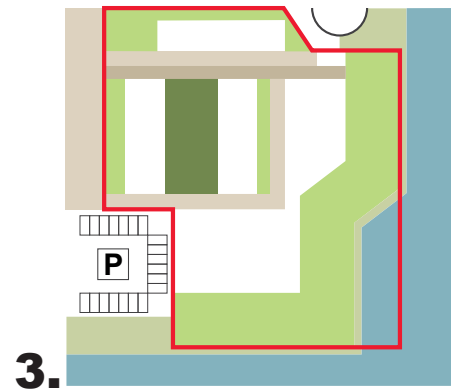
Maintain the design vernacular of streetlights, benches, and hanging plants in order to contribute to the pedestrian experience.



2. Provide waterfront access.

Use the redevelopment as an opportunity to extend the natural environment connecting the wetlands to the north and the lakefront to the south.

A pedestrian link through the site and a boardwalk along its eastern and southern flanks will facilitate activation of the waterfront.

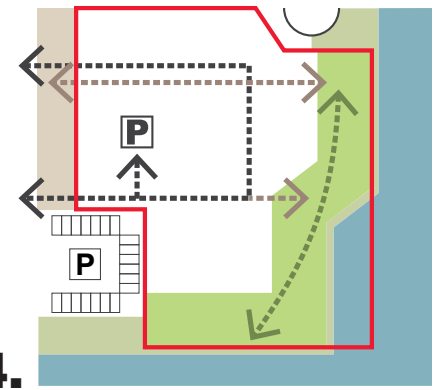


3. Introduce a hierarchy of open spaces.

Focus on creating enhanced landscapes that will contribute to the public and private realms.

Create spaces that can be shared with the public, shared among its new residents, or be for private, quieter uses only.

New spaces would be a combination of public realm elements (boulevard), privately owned public spaces (POPS) (water's edge), and privately accessible spaces (condominium controlled, internal spaces).

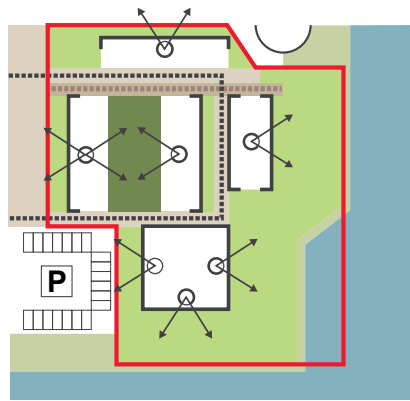


4. Ensure site porosity.

Provide various ways to move through the site.

This can be achieved by developing a simple interconnected grid comprised of pedestrian and vehicular pathways.

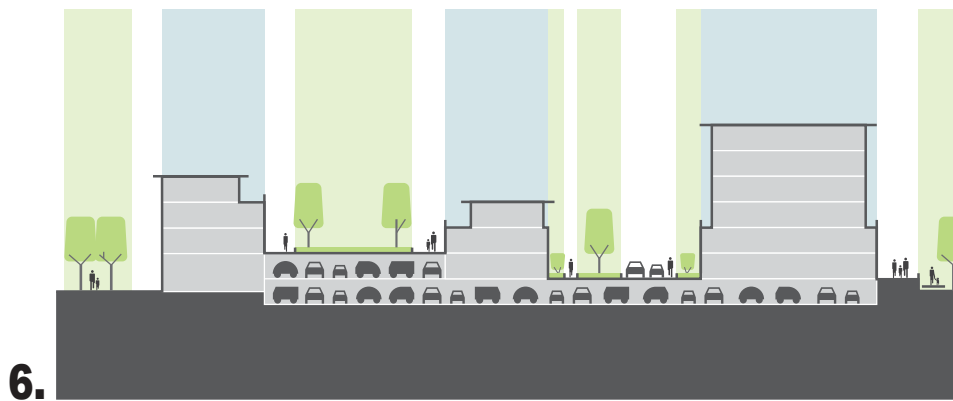
Above and Right: Principles developed to guide design considerations with respect to organizing elements on-site and with respect to context.



5. Establish views into and from the site.

Try to orientate units in a way that takes advantage of the natural views while also providing attractive elements to face on to internally within the property.

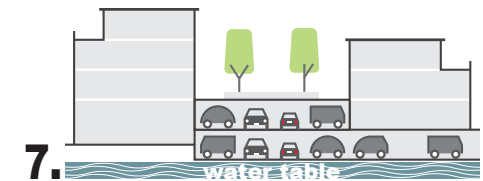
Offer opportunities to establish long views along the eastern edge of the property.



6. Balance development and open space.

Create a feeling of openness within the development. To achieve this, provide amenity spaces between buildings and use open spaces as transitions between the outdoor and indoor environments.

Wherever possible, strive to soften building edges with landscape.

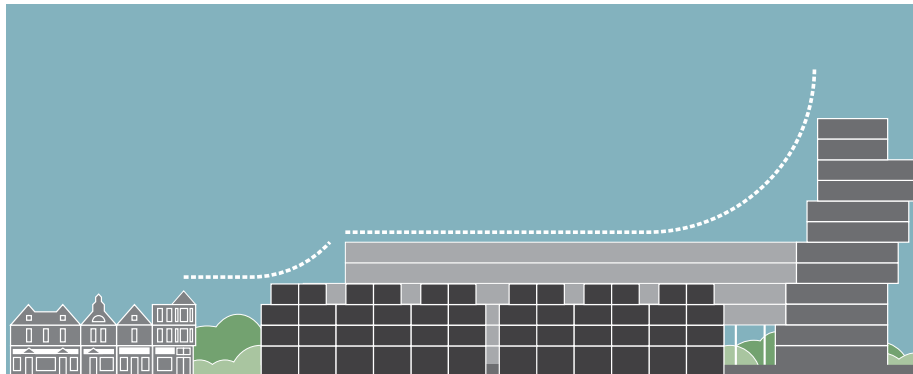


7. Locate the majority of parking out of view at grade.

Limit surface parking to short-term stays and for drop-offs/pick-ups.

Raise the ground plane 1.5 metres to avoid (as much as possible) the water table, placing parking above it.

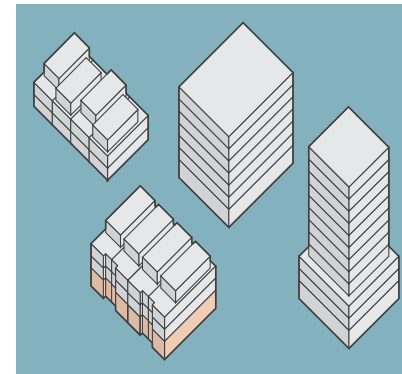
Use the parking roof structure for an enhanced landscaped terrace.



8. Provide transition in height

Locate taller buildings away from the existing community.

Establish buildings of a lower height that are comparable in scale to the adjacent built forms.



9. Offer a mix of building types.

Provide a variety of building forms in order to create diversity as well as visual interest. Use building form to strengthen and emphasize the Liverpool Road public realm edge.



10. Introduce iconic architecture.

Acknowledge the importance of the site as a gateway to the waterfront from all directions. Architecture should be visual and attractive serving as a landmark for the Pickering waterfront.

Structuring Framework

The Structuring Framework organizes the Subject Site in terms of circulation, open space, and built form referencing the aforementioned Urban Design Principles as a reference. The framework also takes heed of the City's Liverpool Road Waterfront Node Development Guidelines. The resulting concept plan supports the vision for the Nautical Village and, when fully realized, will enhance the node as an interesting place to live, work, and visit.

The plan is built around a circulation that breaks down the larger Subject Site into discreet parcels that provide porosity of movement and views. A U-shaped driveway will support primary vehicular movement into and out of the site. On-site parking for residents and visitors will be located primarily below-grade with access integrated into a landscaped terrace that forms the roof of the parking structure.

Priority shall be given to pedestrian movement throughout the site. East/West walkways will connect the Liverpool Road boulevard to the environmental lands along the eastern and southern flankages of the Subject Site. Pedestrian movement will be augmented with a proposed boardwalk that mediates between the Provincial Significant Wetland buffer and built development edge. The boardwalk will form an integral part of the on-site pedestrian circuit while also providing an opportunity for future extension both north and west as part of a larger area-wide pedestrian network.

The movement network provides the armature for an array of new open spaces and buildings. Open spaces will be a mix of public and private amenity areas that provide opportunities for passive and active uses. Spaces adjacent to Liverpool Road will extend the character along the boulevard while playing a transitioning role between the street's public persona and the Subject Site's more internal private activities. The 30-metre Provincially Significant Wetlands buffer occupies approximately one-third of the Subject Site's land area and will be a major contributor to open space along the Krosno Creek tributary. The remainder of open spaces within the Subject Site will be comprised of private passive areas such as the landscaped parking deck terrace, green roofs, and pedestrian walks.

Buildings will be residential in use apart from the "live/work" units along Liverpool Road. Their orthogonal arrangement and massing will be of similar orientation and scale as the adjacent community to the north. A mid-rise building will define the eastern and southern edges of the developable lands and be comprised of 6- and 12-storey buildings separated at-

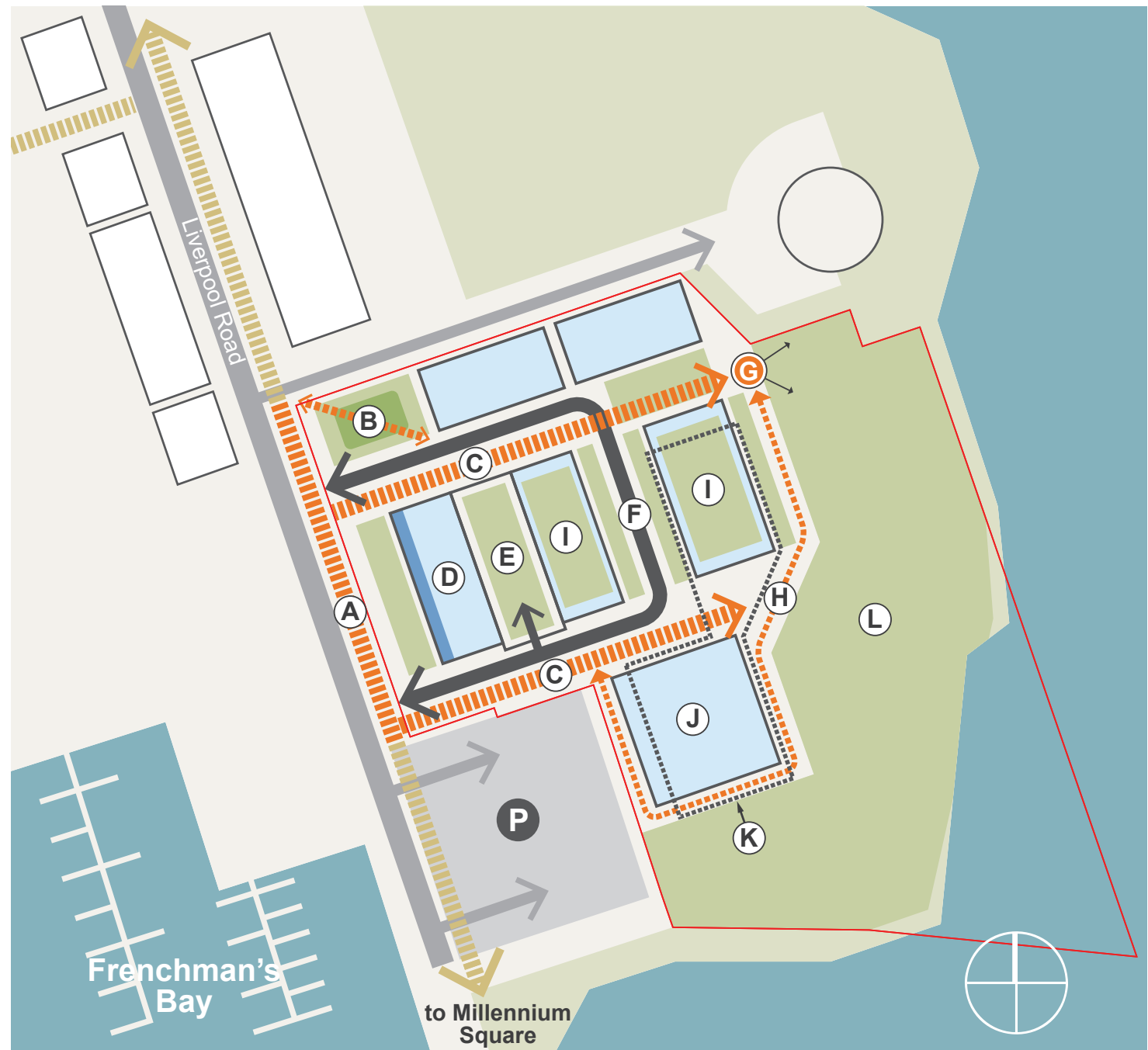
grade but connected above. The at-grade separation will thereby permit uninterrupted pedestrian movement between buildings and views out towards Krosno Creek and the Hydro Marsh. The above-grade connection is envisaged to create a stepped up building composition that creates a signature building that bookmarks the Subject Site as a local landmark within the Nautical Village.

The Structure Plan addresses the major design criteria identified within the Liverpool Road Waterfront Node Development Guidelines. Within the Subject Site these include:

- Establishment of an east-west view through the site;
- Provision of an east-west access route;
- Establishment of a block structure that is similar in orientation and scale to the immediate context;
- Provision of a built form that is welcoming and friendly to pedestrians through massing, scale and use of materials;
- Creation of a continuous street wall with breaks along the Liverpool Road frontage;
- Flexibility to accommodate a range of uses along the Liverpool Road frontage;
- Design of the public right-of-way as a cohesive streetscape whose treatment extends into the private realm and continues the boulevard treatment from the Nautical Village towards Millennium Square;
- Discrete provision of parking for on-site uses (through structured and below-grade parking approaches); and,
- Contribute to the restoration of Krosno Creek and the Hydro Marsh (through the establishment of a naturalized ecological landscape within the 30-metre buffer zone).

LEGEND

- (A) Enhanced Streetscape
- (B) Publicly Accessible Amenity Space
- (C) Publicly Accessible Pedestrian Walk & Vista
- (D) Live/Work Units
- (E) Raised Landscaped Terrace above Structured Parking
- (F) Driveway
- (G) Lookout
- (H) Publicly Accessible Boardwalk
- (I) Green Roof
- (J) Landmark Building
- (K) Extended Building Above-grade
- (L) Naturalized Buffer
- (P) Municipal Parking Lot



Right: The Structuring Framework applies the Urban Design Principles and creates an organizing concept that aligns with the intent of the Liverpool Road Waterfront Node Development Guidelines while serving as a template for the realization of a mixed use development.

Demonstration Plan

The Demonstration Plan (“the Plan”) was prepared as part of this submission and builds upon the Structure Plan. Its composition of building massing, open space hierarchy, and movement systems is shown to support the general premises of the Structure Plan while illustrating the potential of the Subject Site through engineering, transportation, architectural, and landscape architectural articulation.

The Plan is comprised of five discernible layers. The base layer is comprised of buffers and easements which define the physical extent of development. These are comprised of the 30-metre setback from the limits of the Provincially Significant Wetlands along the east and south edges as well as the 6-metre wide sanitary easement along the west flank of the Subject Site. The angled configuration of the easement away from the Liverpool Road alignment in the northwest corner of the Subject Site further limits the extent of developable lands. Unseen but influencing the form of development is the high water table approximately 1.5 metres below grade. As will be discussed below the water table provides a horizontal limitation on development across the Subject Site in its entirety.

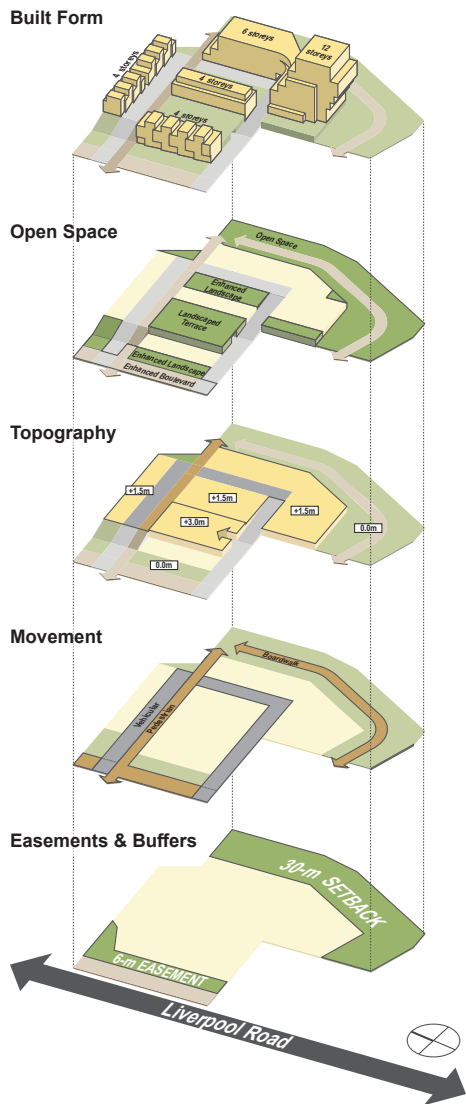
Overlaid on top is the movement network which provides vehicular access into and out of the site while also identifying pedestrian linkages in an east-west direction. A boardwalk along the interior edge of the PSW buffer will complete the pedestrian system completing the internal circuit while also providing opportunities for future connections beyond the Subject Site. Parking has been integrated into the movement network through a combination of structured and below-grade facilities aimed to free up as much of the at-grade condition for amenity space and enhanced landscape treatment.

In order to accommodate parking below-grade while avoiding the water table the topography of approximately half of the developable land area has been raised approximately 1.5 metres. While some parking will extend into the water table a majority of the spaces will be elevated above it while also hidden from view.

With parking situated below-grade much of the remaining land area can be treated as high quality open space. A variety of amenity spaces are possible including hard landscaped treatments such as the Liverpool Road boulevard and access driveway as well as the deck terrace suspended above the parking structure entrance. The northwest corner of the Subject Site as well as the PSW buffer lend themselves to a soft landscape or ecological treatment. The range of landscape treatments possible will contribute to the establishment of an attractive environment that enhances the overall character of the Nautical Village.

The final layer enmeshed as part of the Plan is the building massing of the Subject Site. For the most part development will be 4 storeys in height and take the form of townhouse or live/work units. These buildings, aligned along Liverpool Road, adjacent to the north property line, and central in the site, are to be of a massing and scale similar to developments to the north. Further inboard and located to the extreme south of the Subject Site is a mid-rise condominium development. Stepping up from north to south, the majority of the building mass is to be 4 to 6 storeys in height. The tallest portion of the building, at 12 storeys, is located at the southern end of the property well distanced from the Nautical Village to the north.

The ensuing Demonstration Plan provides a visualization of the Subject Site’s development potential: respectful of the adjacent developments to the north, supportive of the Liverpool Road Waterfront Node design objectives, and contributing to the enhancement of the natural environment next to which it abuts.



Above: Breakdown of the structuring elements that form the basis for the Demonstration Plan;

Right: The Demonstration Plan builds on the Structuring Framework illustrating the Subject Site's potential to create an attractive urban environment that contributes to the further enhances of the Nautical Village.



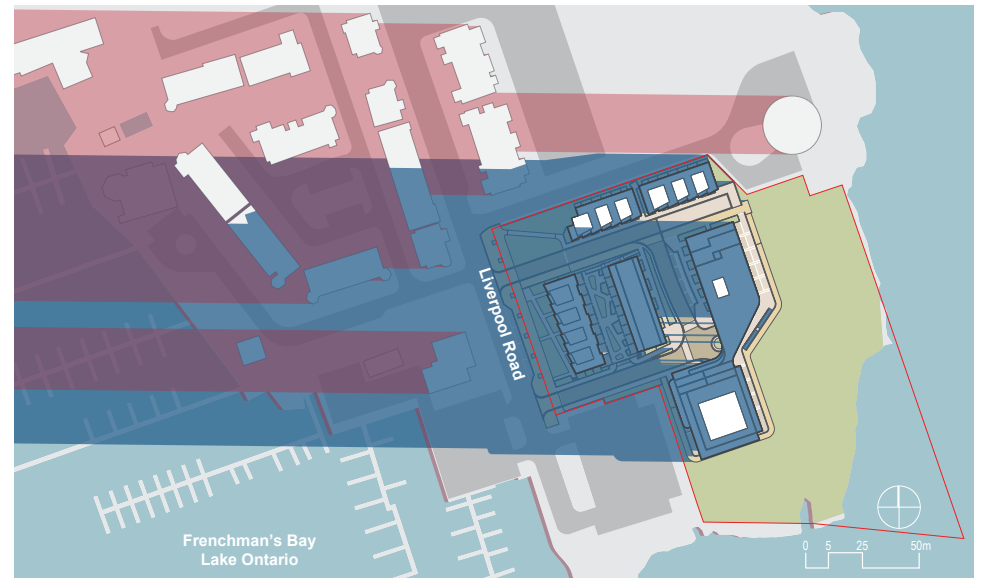
Frenchman's Bay

Sun/Shadow Analysis

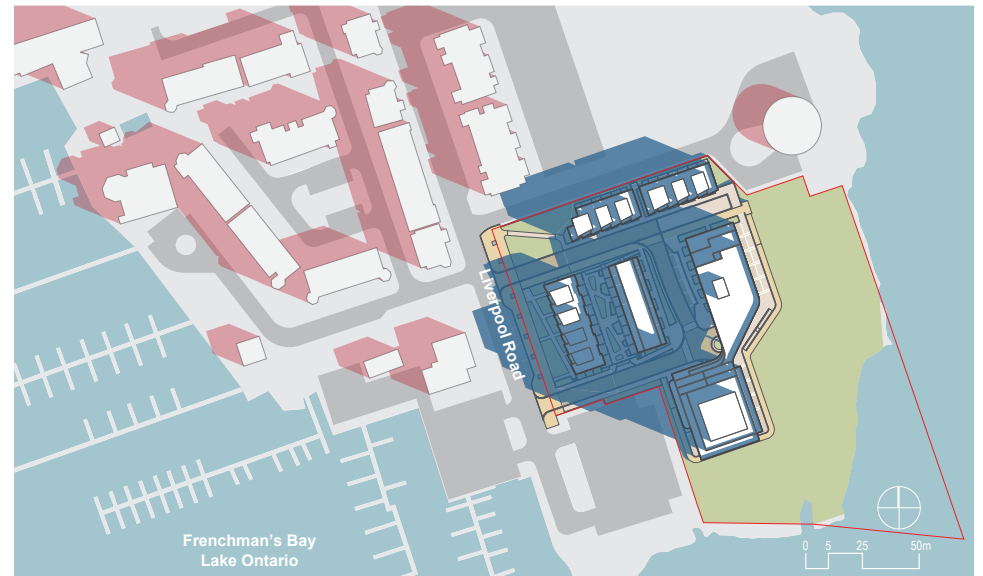
The Demonstration Plan served as the basis for a sun/shadow analysis looking at the proposed development's incremental shadow impacts on the surrounding context. The modelling was prepared with changes in site topography accommodated for. The surrounding context was assumed to be relatively flat with buildings ranging in height from 2 to 4 storeys.

The analysis was prepared over 2-hour increments with existing building shadowing separated out from the proposed development's shadow impacts. This enabled a better understanding of the proposal's contribution to overall shadowing over the prescribed timeline.

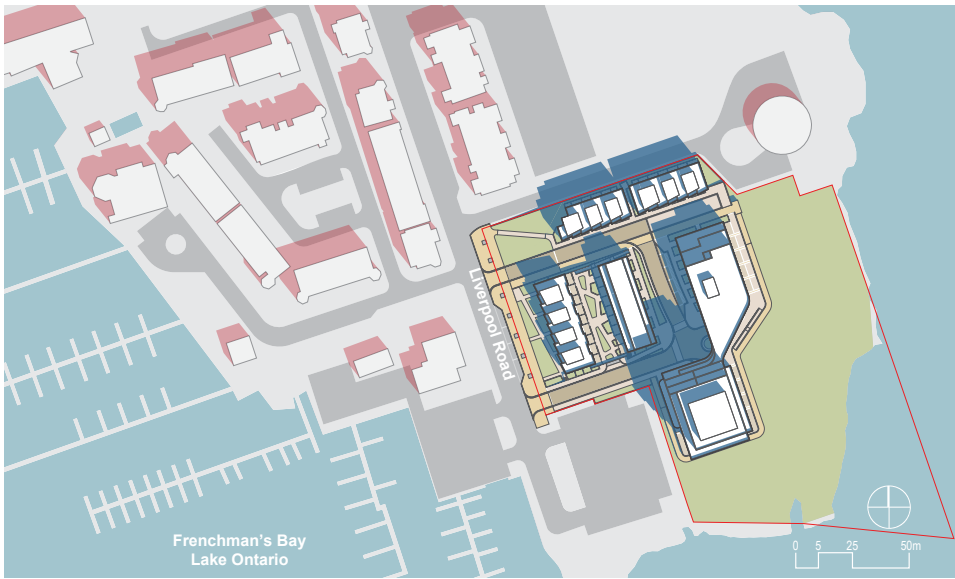
While the proposed development massing will have shadow impacts on adjacent development to the west of the Subject Site these are largely confined to the morning hour of 7:30 am on March 21 and September 21. Shadowing on these properties does not extend to 9:30 am and therefore does not constitute a serious impediment to direct sunlight access.



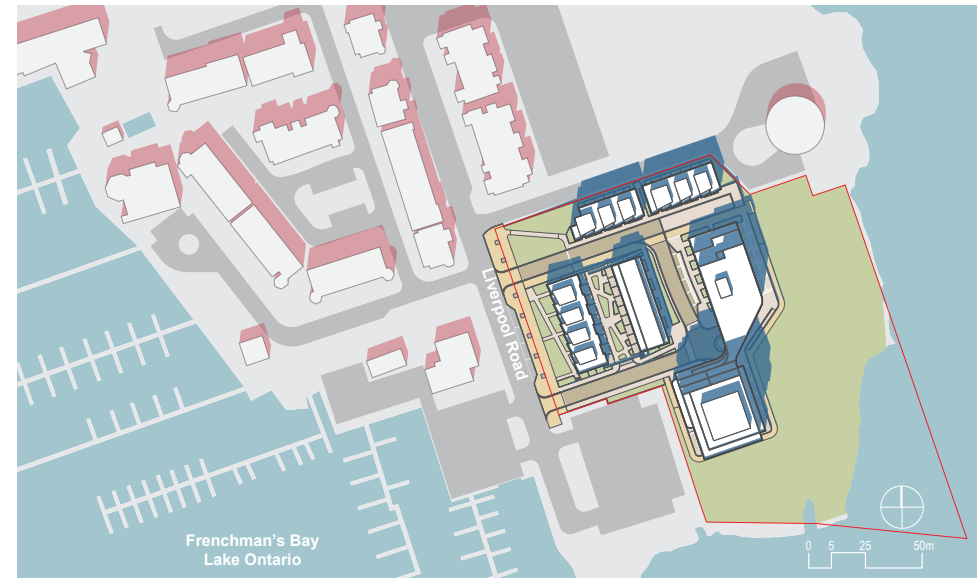
March 21 at 7:30 am



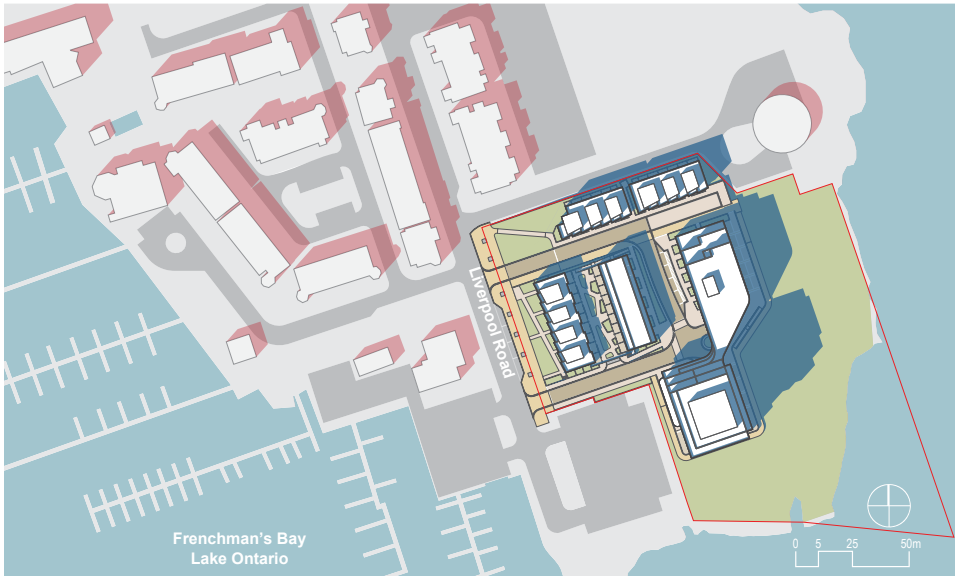
March 21 at 9:30 am



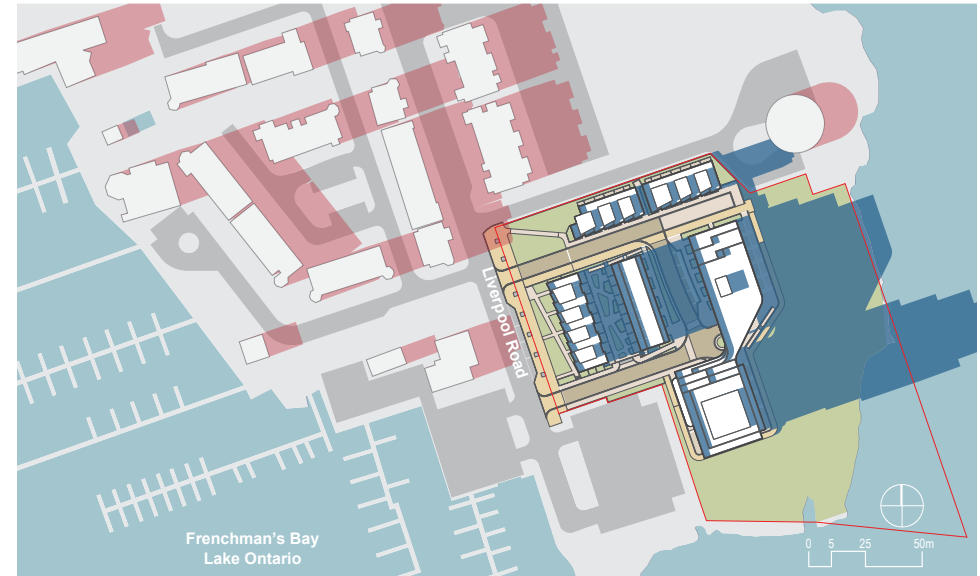
March 21 at 11:30 am



March 21 at 1:30 pm



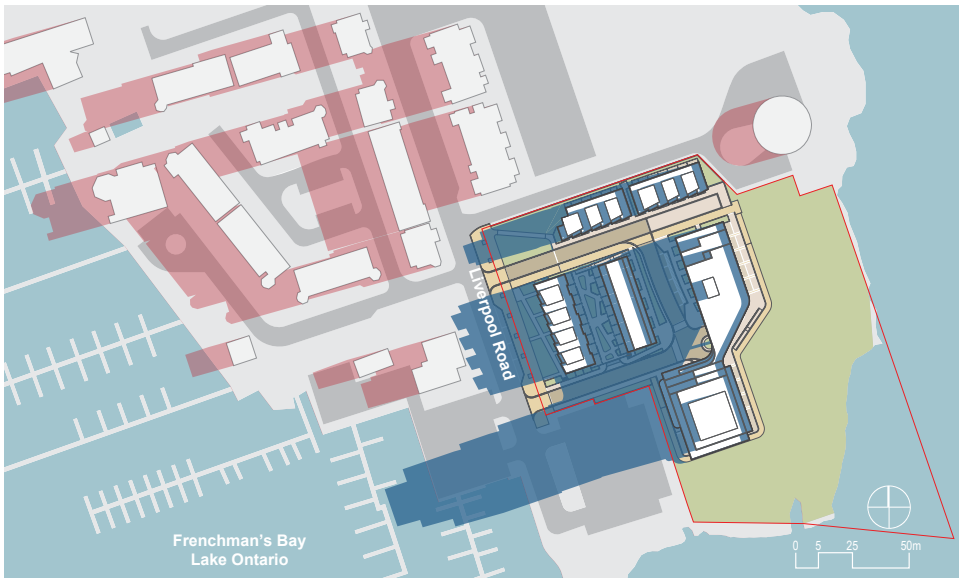
March 21 at 3:30 pm



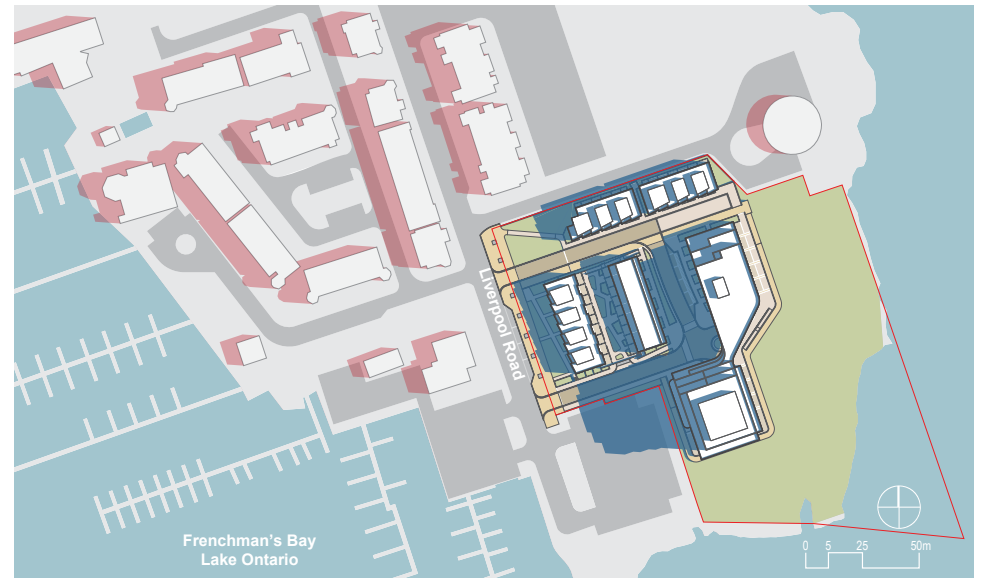
March 21 at 5:30 pm

LEGEND

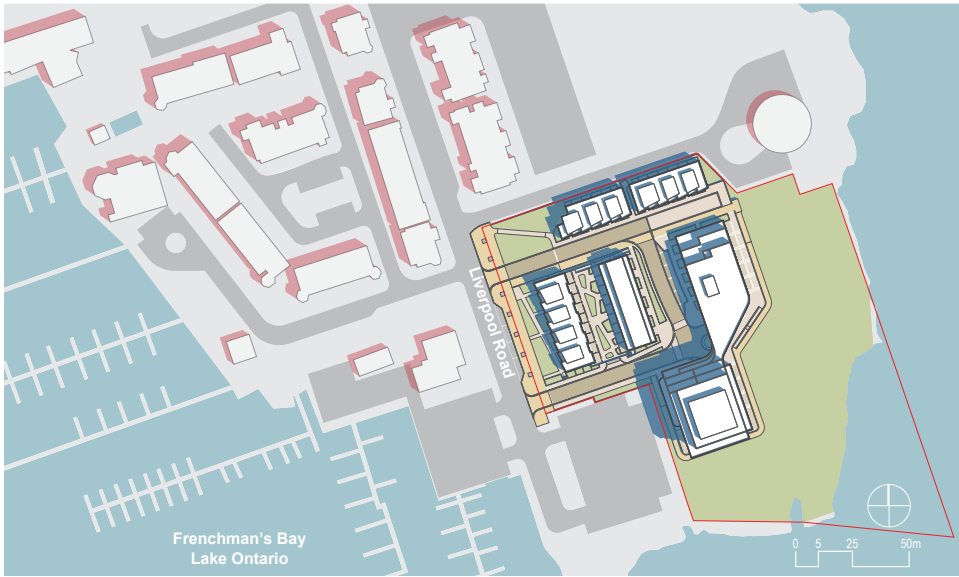
- Subject Property
- Existing Building Shadows
- Proposed Development Shadows



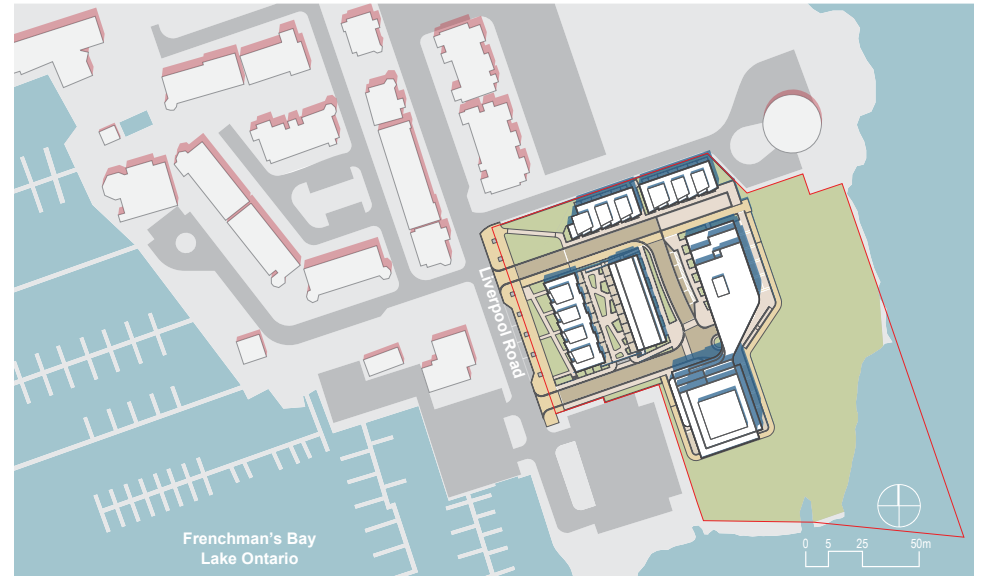
June 21 at 7:30 am



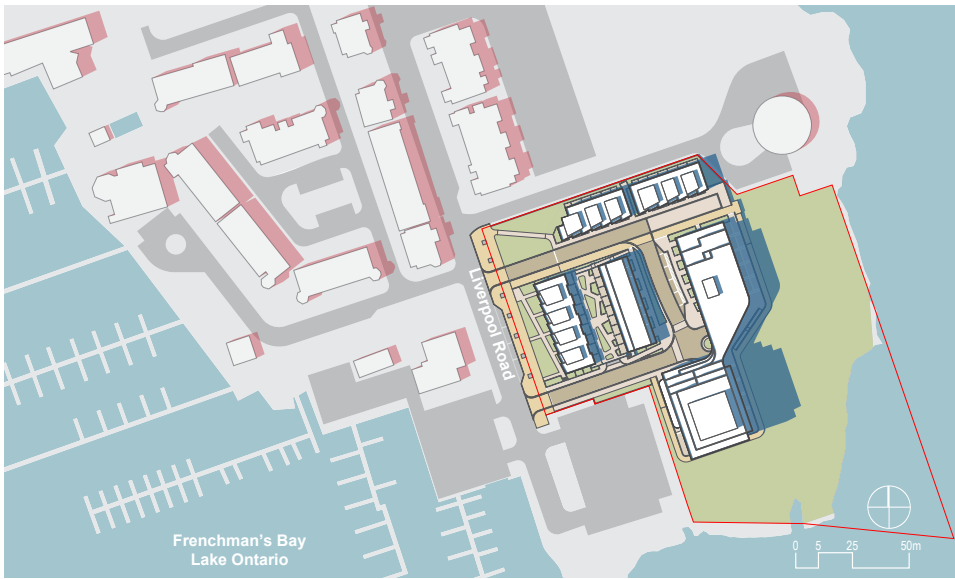
June 21 at 9:30 am



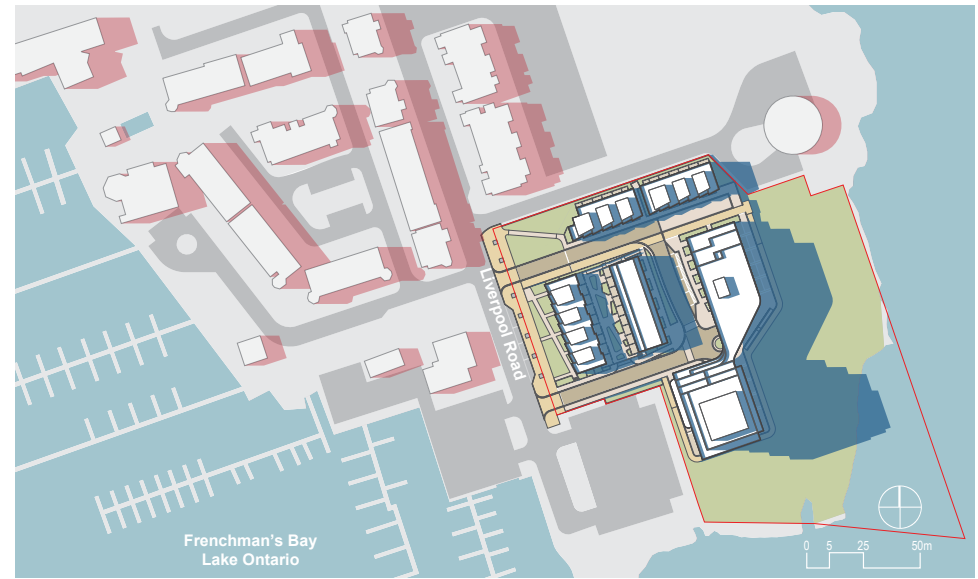
June 21 at 11:30 am



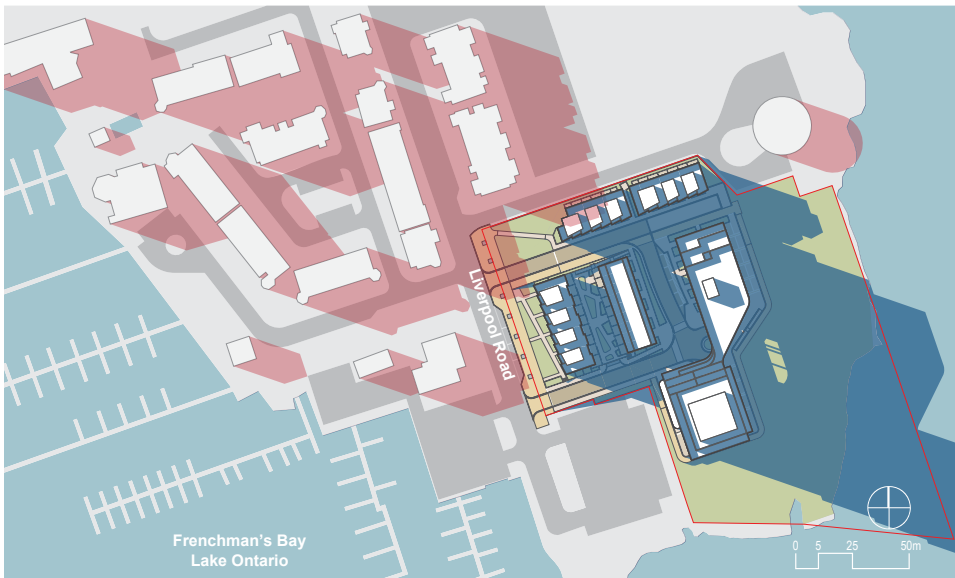
June 21 at 1:30 pm



June 21 at 3:30 pm



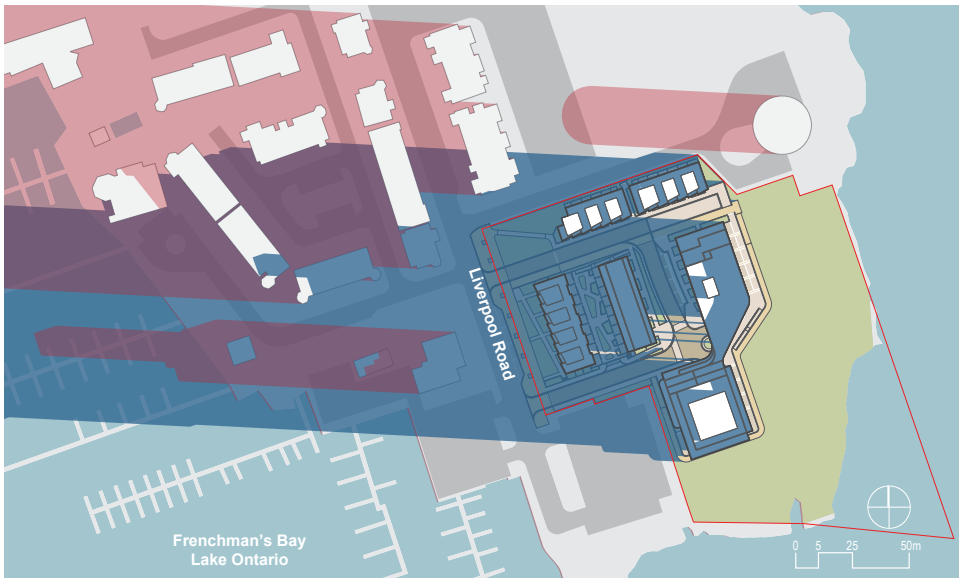
June 21 at 5:30 pm



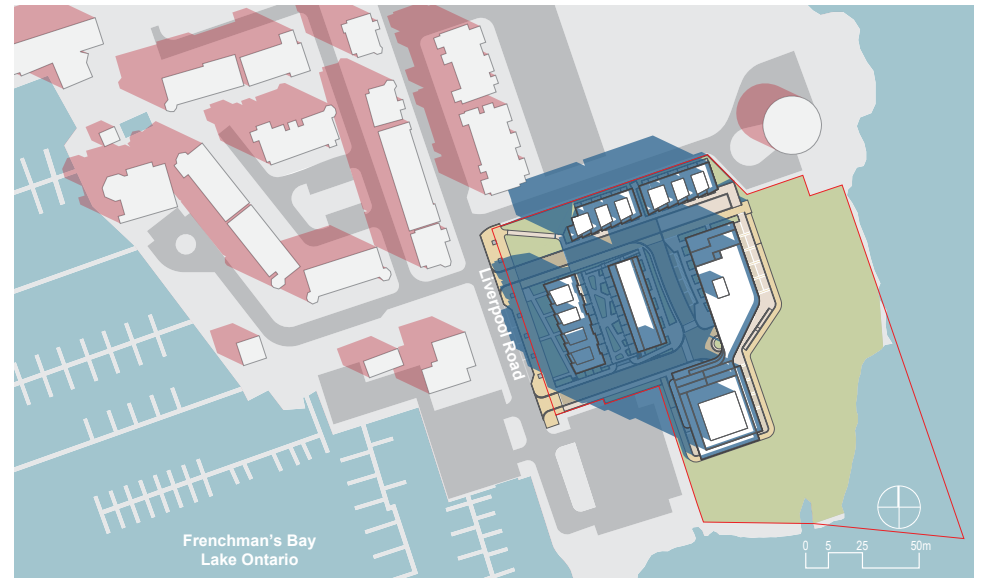
June 21 at 7:30 pm

LEGEND

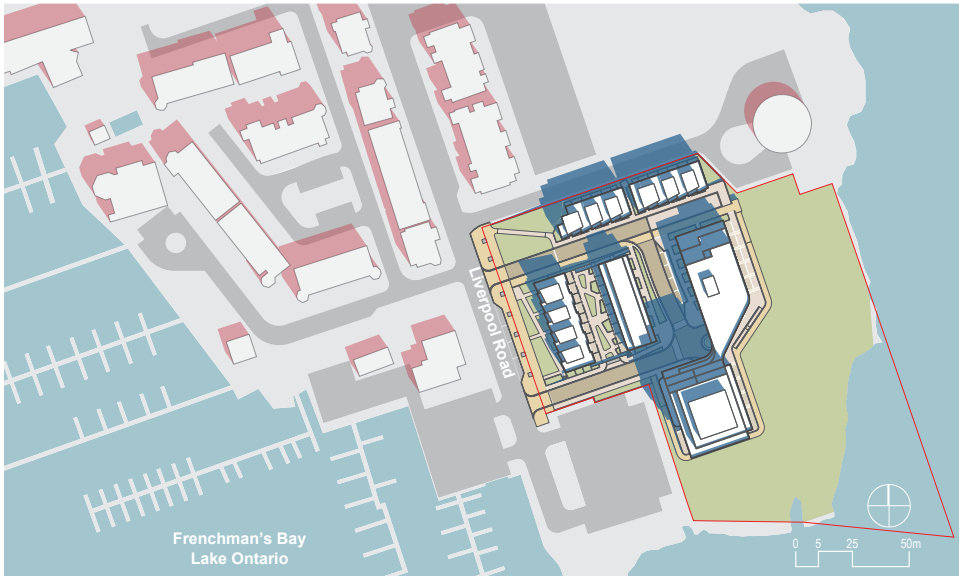
- Subject Property
- Existing Building Shadows
- Proposed Development Shadows



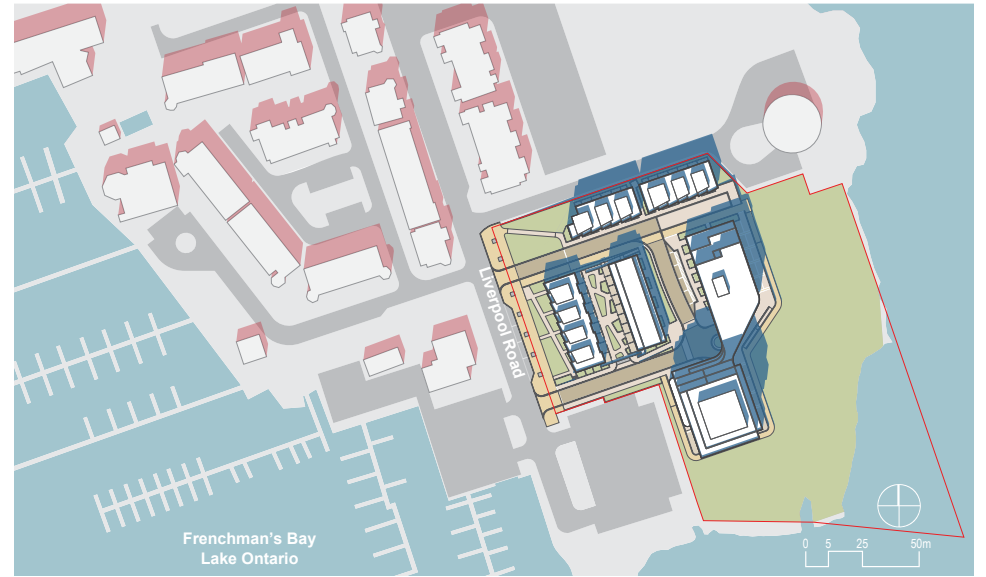
September 21 at 7:30 am



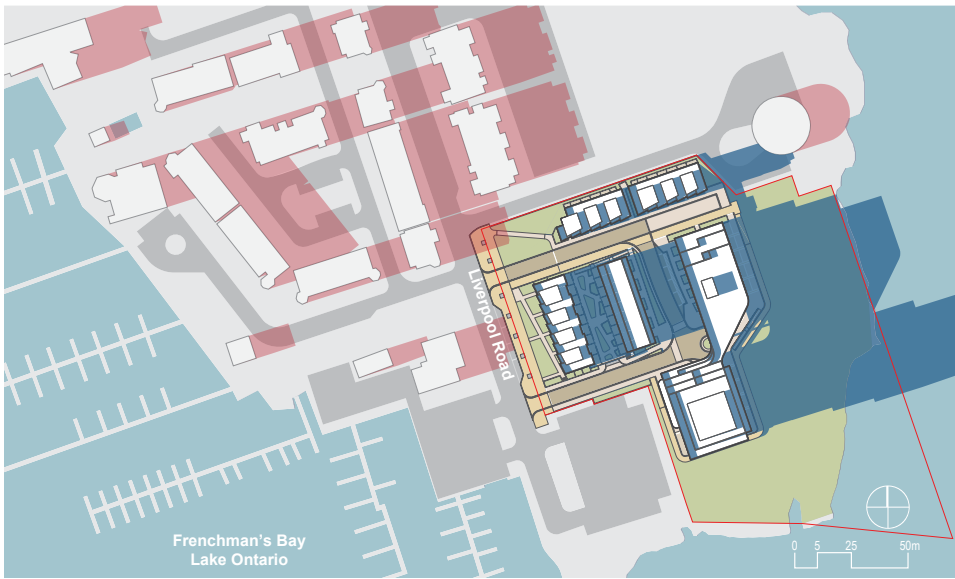
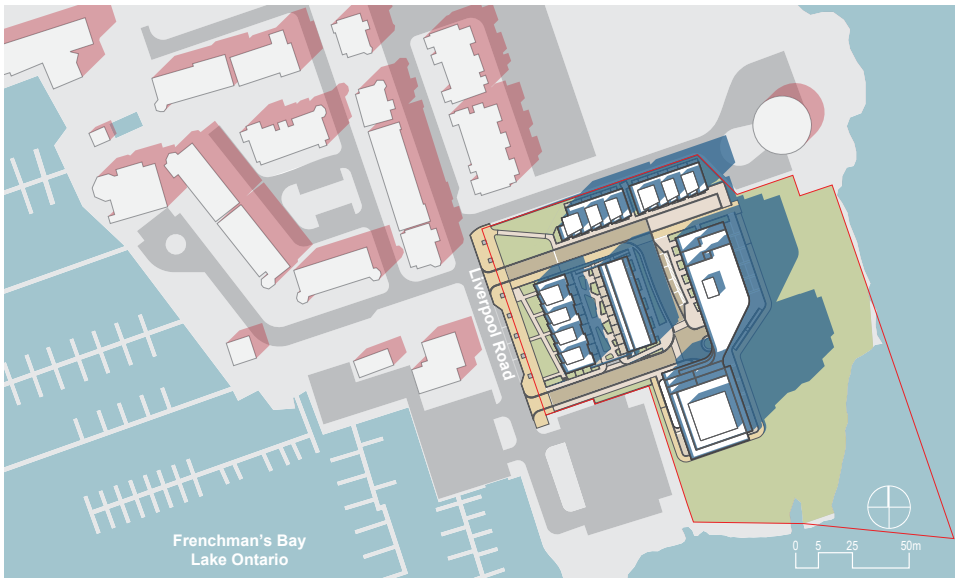
September 21 at 9:30 am



September 21 at 11:30 am



September 21 at 1:30 pm



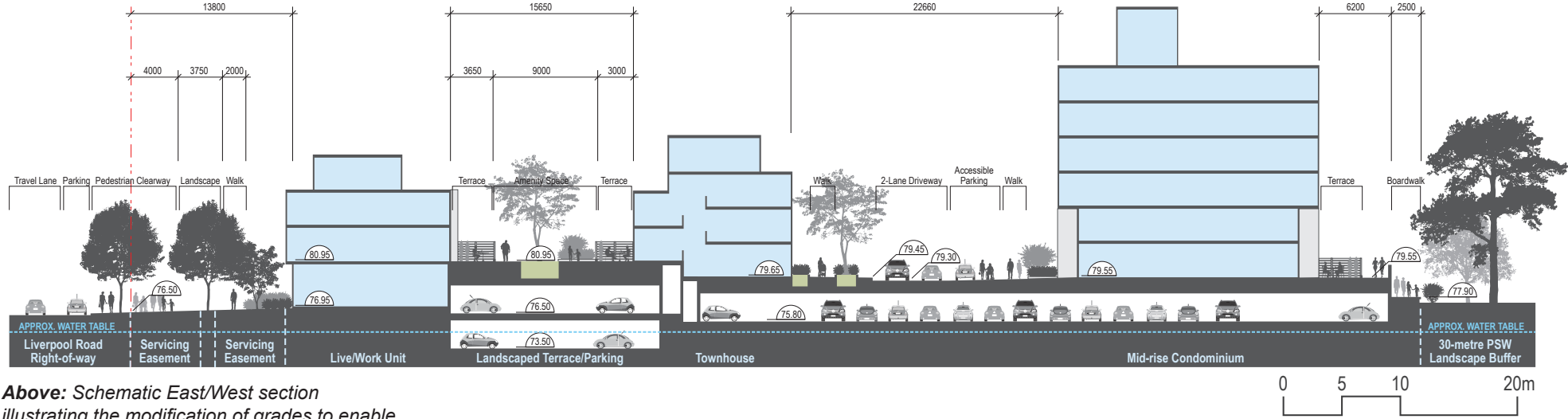
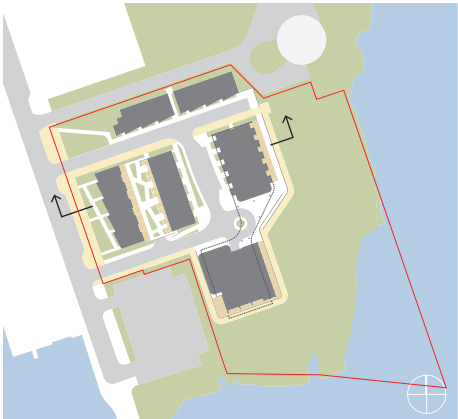
LEGEND

- Subject Property
- Existing Building Shadows
- Proposed Development Shadows

Urban Design Guidelines

The Demonstration Plan and 3D model informed the content of the urban design guidelines. The guidelines were created to ensure that the key elements of the plan are implemented while still allowing flexibility in design expression. The themes of movement, open space, and built form are the structuring elements addressed in the guidelines. When applied, the guidelines should result in a built form massing and landscape treatment that, while not necessarily replicating, reflects the design intent expressed by the Demonstration Plan.

Beyond the 3 themes of movement, open space, and built form the guidelines offer direction with respect to site organization and the relationship of buildings to each other and to their adjacent surroundings. These are best expressed through dimensioned site sections.















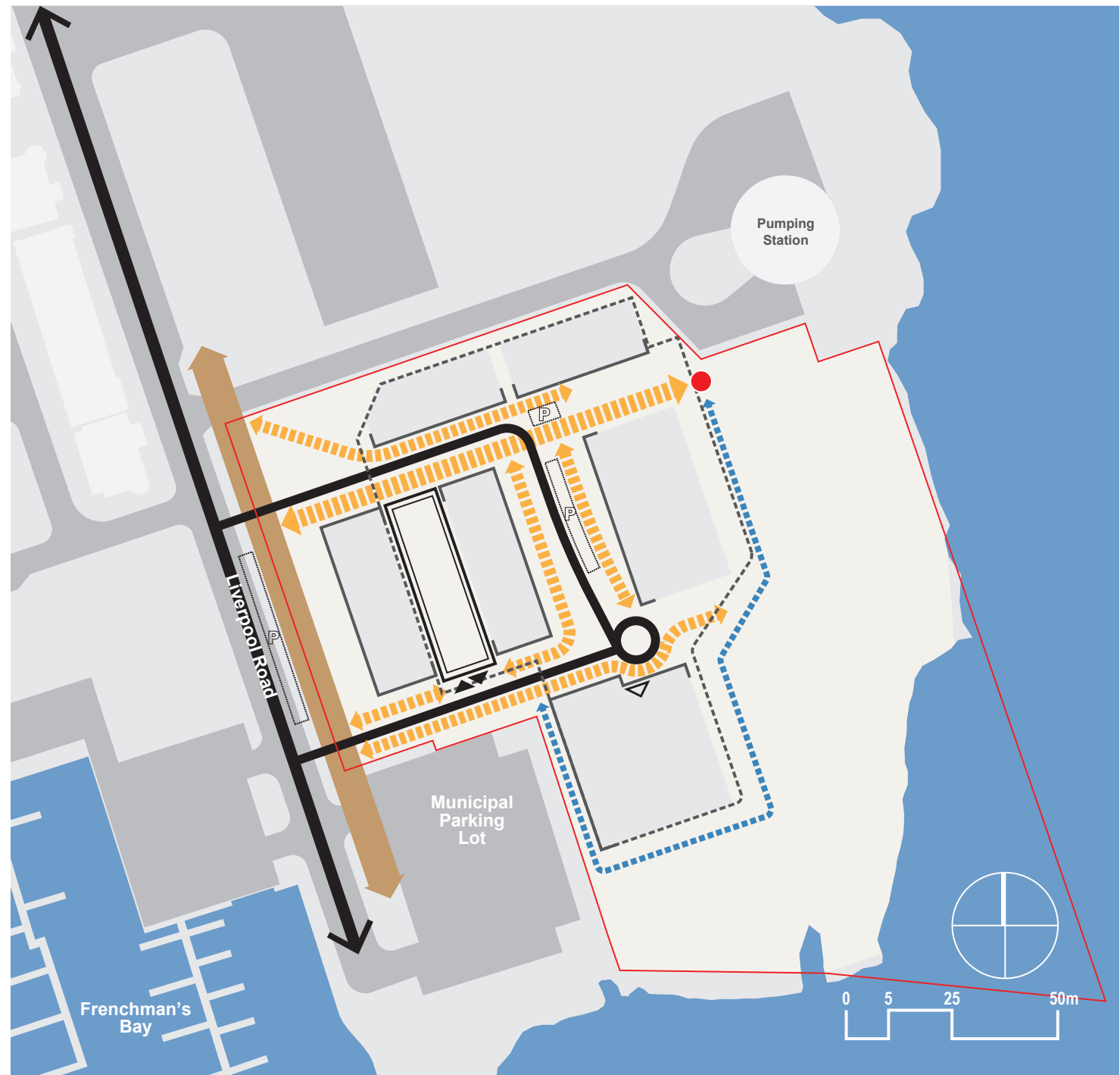
Above: Schematic East/West section illustrating the modification of grades to enable the incorporation of parking below-grade.

Urban Design Guidelines:
Movement

- Prioritize pedestrian movement;
- Minimize vehicular traffic at-grade through design mitigation and locating parking below-grade;
- Provide an attractive urban environment using quality landscape and paving materials;
- East-west walks are to terminate at boardwalk access;
- Facilitate public access along north walk with generous width walkway and linear orientation;
- Maintain a minimum 2-metre wide clearway for all pedestrian routes;
- Ensure AODA compliance throughout the site; and,
- Where possible, provide cycling facilities at-grade within buildings.

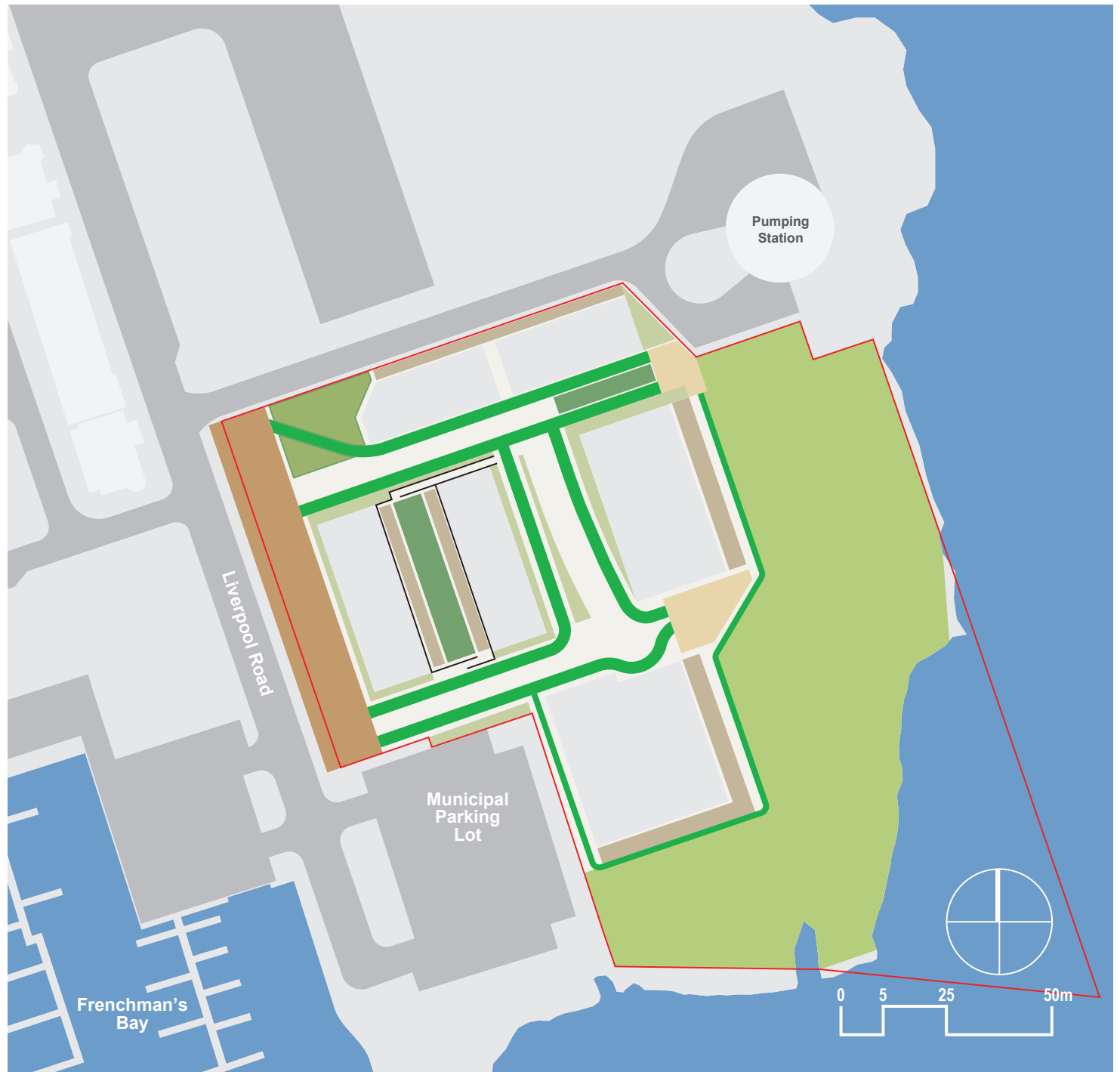
LEGEND

	PROPERTY LINE
	BUILDING EDGE
	EXTENT OF BELOW-GRADE PARKING
	ENHANCED PUBLIC BOULEVARD
	PEDESTRIAN WALK
	BOARDWALK
	LOOKOUT
	VEHICULAR ACCESS
	VISITOR/SHORT TERM PARKING
	LANDSCAPED PARKING STRUCTURE
	BELOW-GRADE PARKING ACCESS
	SERVICING ACCESS



Open Space






- Create an attractive and inviting urban environment using high quality hard and soft landscape materials;
- Include a variety of open spaces that are flexible and adaptable to a range of uses;
- Accommodate active and passive uses for all ages and abilities;
- Ensure landscapes are sustainable and will contribute to climate change mitigation; and,
- Where possible integrate private open spaces with adjacent public realm areas to create seamless continuity of space.

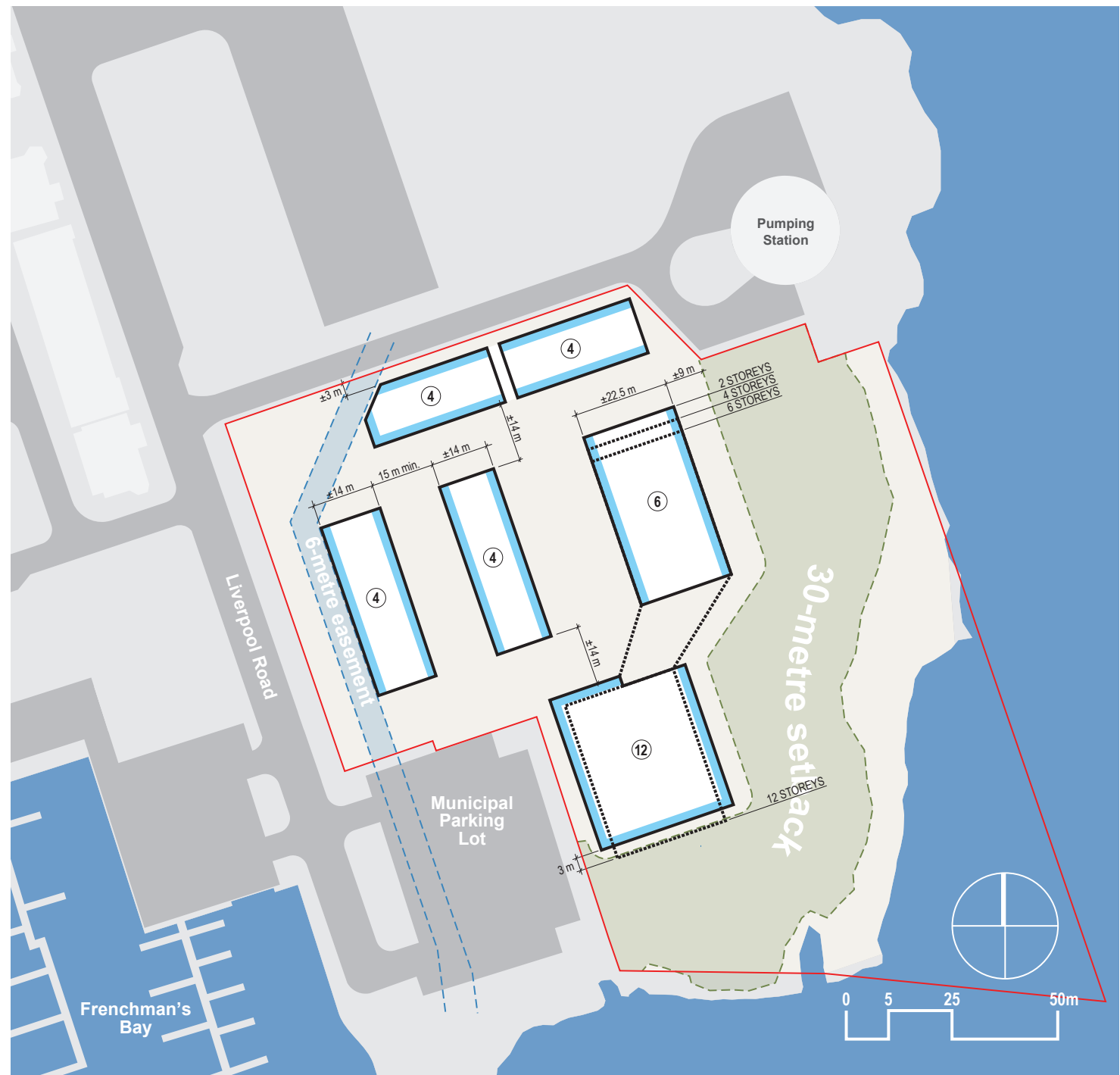


Urban Design Guidelines:
Built Form

- Include a range of building typologies that contribute to a varied and interesting urban environment;
- Ensure buildings along the north and west property boundaries are of a comparable height and massing relative to existing developments to the north;
- Transition upwards in building height from north to south and west to east;
- The tallest building is to be located at south end of site and is not to exceed 12 storeys;
- Limit building length to 40 metres;
- Provide ground floor transparency for active uses; and,
- Provide green roofs and other sustainable elements where appropriate.

LEGEND

-  SUBJECT SITE
-  BUILDING FOOTPRINT
-  BUILDING MASSING WITH 2-STOREY CLEARANCE
-  PRIMARY FRONTAGE
-  **6** MAXIMUM BUILDING HEIGHT (residential storeys as determined from finished grade)



Hydro Marsh



