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3.0 SUMMARY AND CONCLUSIONS

1.0 INTRODUCTION

This Urban Design Brief has been prepared in support of Official Plan and Zoning By-law Amendment Applications for the lands addressed as 1000-1024 Dundas Street East in the City of Mississauga, Regional Municipality of Peel (herein referred to as the "Subject Lands") and is a companion document to the Planning Justification Report prepared by Plan Logic Consulting., dated June 1, 2022, which sets out the planning rationale for the proposed development applications.

The "Proposed Development" (hereafter referred to as such) contemplates the redevelopment of the Subject Lands with two towers of 16 and 20 storeys over a shared four storey podium. Ground floors contain retail along Dundas Street and a mix of lobby entries, amenity areas, residential units and loading/service areas hidden from the street. Parking for the site is accommodated below grade

This Urban Design Brief provides information on the design rationale and strategy that has been applied to ensure the Proposed Development will create an attractive and viable residential development that can be effectively integrated into the existing context and surrounding community. This Urban Design Brief has been prepared in accordance with the City of Mississauga's Terms of Reference for Urban Design Briefs, dated January 15, 2019.

The Urban Design Brief has been prepared in a collaborative effort between WZMH Architects, Plan Logic Consulting and IBI Landscape Architects.



1.1 Goals and Objectives

The goal of the Proposed Development is to advance the City of Mississauga's vision of creating a desirable urban city and contribute to the goals and urban design objectives of the City. The key urban design objectives that have guided the Proposed Development include:

- Creating much needed rental housing supply in Mississauga located on the Dundas Street Intensification Corridors and the future Tomken Rd Major Transit Station Area.
- Transit-oriented development to support existing and future transit.
- A mix of compatible and complementary land uses to Encourage residents in the Dundas Street East Neighbourhood to live, work and play within a 15-minute, walkable community.
- Non-residential uses at grade, reduced setbacks and limited podium heights to animate the Dundas Street E streetscape and create a pedestrian-oriented Main street condition.
- Provide landscaped outdoor amenity areas including a central plaza anchoring the site and a large and lush amenity areas on the ground and at the podium level with flexible program ming opportunities.
- Pedestrian connectivity supported by an internal running track on podium level as an amenity for residents.







1.2 Analysis of the Site & Neighbourhood

1.2.1 Subject Property

The subject lands are located on the south side of Dundas Street East between Stanfield Rd to the East and Tomken and Haines Rd to the West. The subject lands compromised of two properties: 1000 and

1024 Dundas Street which are proposed to be combined for the purpose of supporting this redevelopment. The site is parallelogram shaped with approximately 67m of frontage along Dundas Street. Currently access to the site is proposed from Dundas street and is proposed to remain with both sites sharing the same access point in proposed redevelopment.



1.2.2 Neighbourhood Context

Existing Site.

The existing site is comprised of commercial buildings set back from the street with front yard parking. The pedestrian experience is poor in a car dominated environment. There are no street trees, a collection of various utility poles with untidy wires and overhead transformers, the sidewalks are in a poor state and walking along Dundas street is an unpleasant pedestrian experience exacerbated by the large setbacks of buildings from the street edge. This pattern is continuous to the East and West of the subject site.

North

To the north of the subject lands is Dundas Street which is proposed to be redesigned as a Bus Rapid Transit Corridor within a 42m road allowance. The road cross section is proposed to contain dedicated bus lanes, central bus stations, lanes for cars, dedicated bike lanes, sidewalks and tree planting. It is hoped that this will create a more urban street edge adjacent to the new proposed development.

On the northern side of the street are a mix of uses including three storey townhouses fenced off from the street edge and offering a blank wall to Dundas Street, four storey townhouses setback from the street, single storey commercial retail pads and a 16 storey apartment building to the north west at 935 Dundas Street East.

South

To the south of the subject site are industrial lands and large warehouse type buildings. These are accessed from side roads and contain large parking and truck loading areas. Behind the industrial buildings is a train line running East West.

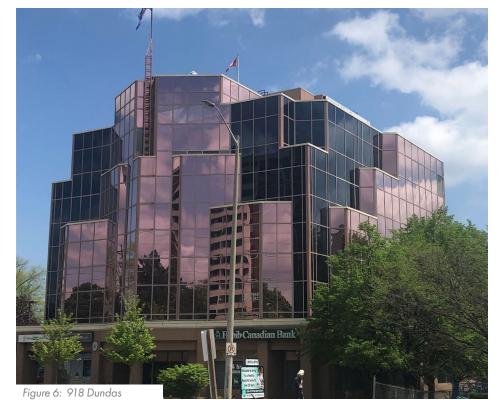
East/West

The pattern of commercial buildings on the South side of Dundas Street, set back from the street with parking in front continues to the East and West of the subject lands.





Figure 5: Townhouse North Side















1.2.3 Facilities Services & Transportation

The subject lands and surrounding area have access to a variety of community services and facilities within an 800m radius or 10 minute walking distance. With the subject lands located on Dundas Street they are very well served by transit with east end of future BRT Tomken Station adjacent to the subject site.

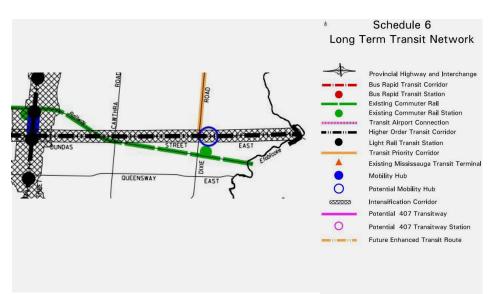
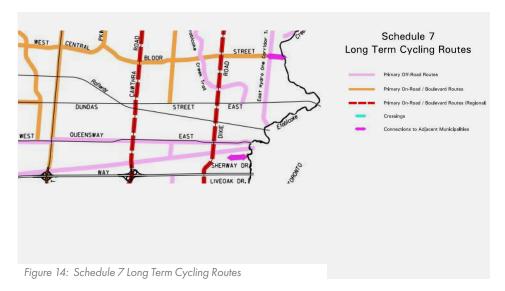


Figure 13: Schedule 6 Long Term Transit Network





1.2.4 Transportation Network

As previously noted, the subject lands have frontage on Dundas Street East which is designated as an Arterial Road in the Mississauga Official Plan with an ultimate Right of Way width of 42m. Dundas Street East is designated as an Intensification Corridor and Higher Order Transit Corridor in the Mississauga Official Plan due to the future planned Dundas Street Bus Rapid Transit (BRT).

The lands are also currently well served by public transit on Dundas Street and are within walking distance of multiple MiWay bus routes including 1, 1C, 101 and 101 A and route 51 on Tomken Rd. Miway routes link to Dixie Go Train station and Sherway Gardens TTC station which link to the greater GTA Area all the way to Union Station in Downtown Toronto.

Proposed Bike lanes on Dundas Street will link to the surrounding long term cycling routes proposed on Cawthra and Dixie Roads, as well as Bloor Street and numerous off road surrounding routes.

All of these proposed alternative means of transportation will encourage visitors and residents to use motor vehicles less and reduce car traffic on the surrounding network.

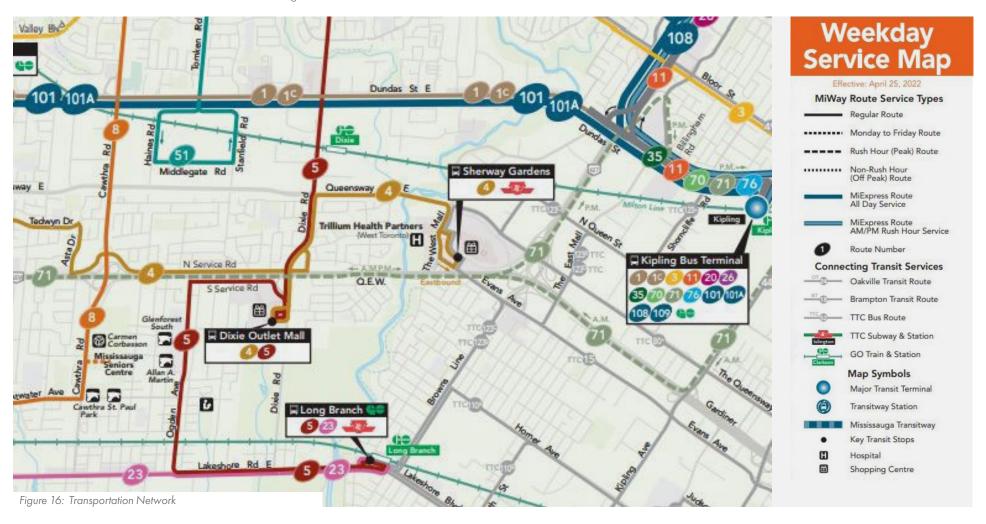




Figure 17: Major Transit Station Locations



2.0 ANALYSIS OF THE PROPOSED DEVELOPMENT

2.1 Architectural and Urban Design

The proposed development is for two towers of 16 and 20 storeys over a four storey podium. The entire project is designed to fit under a 45 degree angular plane taken from the north side of Dundas Street with a road allowance of 42m. The massing is broken down into vertical and horizontal components. Triangular balconies are a play on the parallelogram shape of the site.

Towers are set back from podium edges to create a massing transition down to sidewalk level and reduce impact on surroundings. Towers are designed with maximum 780m2 GFA Floorplates and separated with at least 25m distance between.

The proposed buildings contain a total of 462 new residential units and 36,477m2 of residential GFA. In addition there is 750m2 of retail frontage proposed along Dundas Street in the base of Building A four storey podium. There is also 924m2 of indoor and 924m2 of outdoor amenity proposed for residents of the buildings.

All parking is proposed below grade with shared parking for visitors and retail uses. In total 439 parking spaces are proposed at a rate of 0.8/unit for residents and 0.15/unit for visitors.

In addition 304 bike parking spaces are proposed with short term at a ratio of 0.05/unit and located at grade and long term at a ratio of 0.6/ unit and located below grade.

Two loading spaces for Type "G" and Type "B" trucks are proposed within the building enclosures at grade.

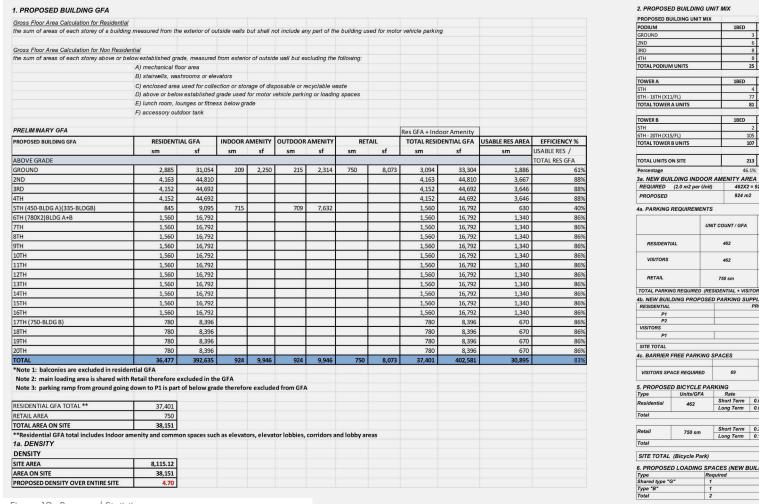
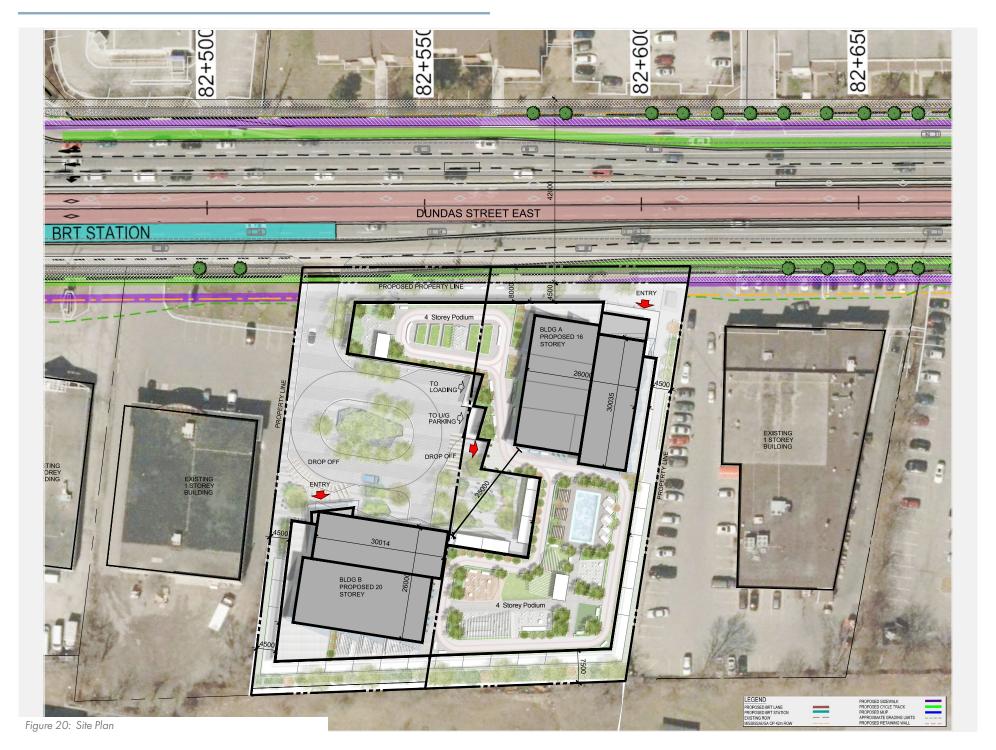


Figure 19: Proposed Statistics

6. PROPOSE Type Shared type "G Type "B"				1			x 3.5m x 4m	(ground)	
Type Shared type "G				1					
6. PROPOSE		quired		Provided 1			ensions (L x W . x 4m x 6.1m	x H) (ground)	
	D LOADING SP	ACES (NEW B	UILD	ING)					
	(Bicycle Park)					30	04	30-	4
Total		Long Term 0.15 / 100 sm			2 4		2	(p1)	
Retail	750 sm	Short Term		/ 100 sm		2		2	(ground)
Total							00	300	
Residential	462	Short Term Long Term	0.05			2	77	23	
Туре	Units/GFA	Rate	0.00			Requ			vided
	D BICYCLE PA								
VISITORS SPA	ACE REQUIRED	69 4% OF THE TOTAL					(PE 'A')		
ic. BARRIER I	FREE PARKING	SPACES		R	ATES			TOTAL	
SITE TOTAL								439	
P1			69		69				
VISITORS		1							
P1 P2				156 (w/35 si 214	tackers)		370		
RESIDENTIAL				POSED				TOTAL	
	DING PROPOSE	D PARKING SU							
TOTAL PARKIN	IG REQUIRED (RE	SIDENTIAL + VIS	TORS	+ RETAIL)				439	
RETAIL		750 sm -				SHARED WITH VISITORS			
VISITORS		462 0.15			69				
RESIDENTI	AL	462			0.8			370	
	UA	IIT COUNT / GFA			RATIO			TOTAL	
a. PARKING	REQUIREMENTS	3							
PROPOSED		924 m	2	P	ROPOSED			924 m2	
REQUIRED	(2.0 m2 per Unit			_		2.0 m	2 per Unit)	462X2 =	924 m2
	LDING INDOOR						OUTDOOR A		
Percentage		46.	1%	13.2	% 2	4.5%	3.2%	13.0%	100%
TOTAL UNITS O	N SITE	2	13	6:	1	113	15	60	462
TOTAL TOWER	BUNITS	1	07			47		15	169
6TH - 20TH (X15			05			45		15	165
STH .		ADED	2	1010.0	LUED	2	LULUIU	JULU	4
TOWER B		1BED	+	1BED+D	2BED		2BED+D	3BED	TOTAL
TOTAL TOWER	A UNITS		81			35		11	127
6TH - 16TH (X11	/FL)		77			33		11	121
STH		1010	4	IBEDTO	2000	2	ZDED+D	SBED	6
TOWER A		1BED	Ŧ	1BED+D	2BED		2BED+D	3BED	TOTAL
TOTAL PODIUM	UNITS		25	6	_	31	15	34	166
3RD 4TH			8	1		8	4	11 11	47
		_	6	1		9	4	10	46
2ND			6	1	/	91	4	10 [



Analysis of Proposed built Form with respect to Urban Design policies within Chapter 9 of Mississauga Official Plan:

Policy Number	Official Plan Policy	Proposed Design and Compliance
	Intensification Areas Intensification Areas are the principal location for future growth and consist of:	The proposed site is on Dundas Street East and therefore is part of a major intensification corridor.
	 Downtown; Corporate Centres; Major Nodes; Intensification Corridors; and Maior Transit Station Areas. 	The new Dundas BRT station at Tomken is adjacent to the site entrance and therefore this site is also within an MTSA (Major Transit Station Area).
9.2.1	Intensification Areas are a major building block of the city pattern and, as such, will be expected to exhibit high standards of urban design that will result in vibrant and memorable urban places. They are intended to create orde and a sense of place, with a scale that varies with their intended purpose and role in the urban hierarchy. In order to achieve the vision for Intensification Areas as vibrant, mixed use areas, serviced by multi-modal transportation, the physical form, relationship among buildings and spaces and the quality of the built environment will be critical in making these areas successful.	density with mixed uses. The project design is proposed to higher standards of architectural and urban design.

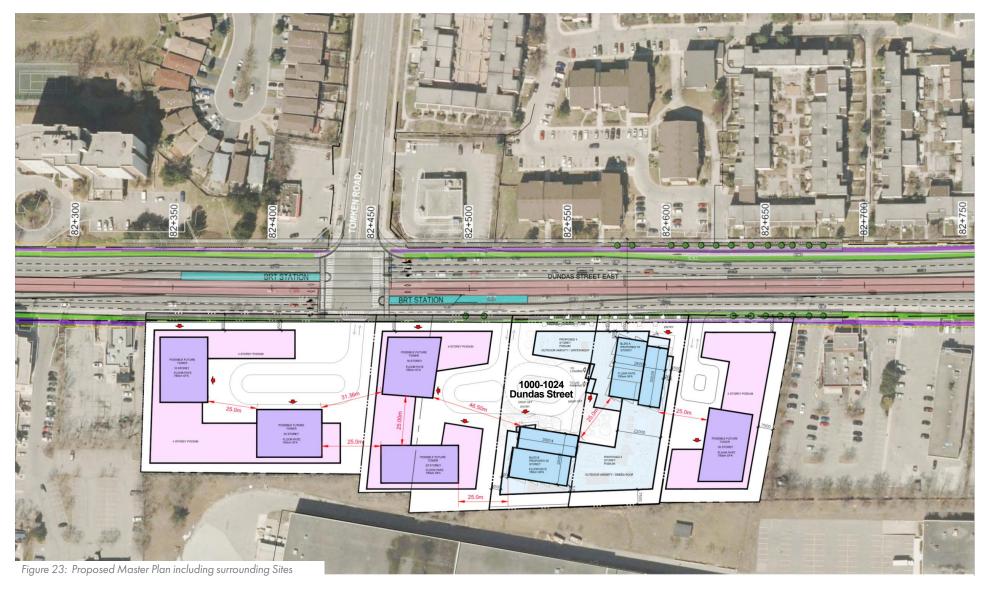




Policy Number	Official Plan Policy	Proposed Design and Compliance
9.2.1.1	Development will create distinctive places and locales.	The proposed design language features articulation into horizontal and vertical elements to reducing impact of massing. The design of diagonal balconies – a reference to the parallelogram
9.2.1.2	Design excellence will create a vibrant Downtown complemented by communities that retain their own identity and contribute to an overall strong city identity.	shaped site, create an interplay of light and shadow on building facades helping to emphasize the unique and memorable design of the buildings. A sense of place is further created by podium
9.2.1.3	Built form should provide for the creation of a sense of place through, among other matters, distinctive architecture, streetscaping, public art and cultural heritage recognition.	definition along Dundas Street with retail and lobbies at the base, landscape design of courtyard and outdoor amenity on podium roofs.
9.2.1.4	Mississauga will encourage a high quality, compact and urban built form to reduce the impact of extensive parking areas, enhance pedestrian circulation, complement adjacent uses, and distinguish the significance of the Intensification Areas from surrounding areas.	The proposed tower and podium design framing adjacent street edges is a compact form of urban development that will stand in stark contrast to existing forms of subject lands and adjacent buildings which are set back from streets with front yard parking.
9.2.1.5	Small land parcels should be assembled to create efficient development parcels.	The subject lands propose the assembly of two sites for the proposed development.
9.2.1.6	Mississauga will encourage the consolidation of access points and shared parking, service areas and driveway entrances.	The subject lands share a single driveway access to the land assembly for shared access, loading and drop-off.



Policy Number	Official Plan Policy	Proposed Design and Compliance
9.2.1.7	provide concept plans that show how a site	A master plan showing how development could occur on surrounding lands has been provided. This demonstrates how development of the subject lands can accommodate two towers with 25m distance between them while not preventing additional tower development on surrounding properties, achieved by offsetting towers in a chequer board arrangement.



Policy Number	Official Plan Policy	Proposed Design and Compliance	
9.2.1.8	The preferred location of tall buildings will be in proximity to existing and planned Major Transit Station Areas.	The proposed design falls within an MTSA because of the proximity to Tomken BRT station, adjacent to site. Therefore the site is a preferred location for tall buildings.	
9.2.1.9	Where the right-of-way width exceeds 20 m, a greater building height may be required to achieve appropriate street enclosure in relation to the right-of-way width.	with retail at the base has been proposed on Dundas Street. Taller towers of 16 and 20 floors are setback from the podium. H	
9.2.1.10	Appropriate height and built form transitions will be required between sites and their surrounding areas.	The proposed design is scaled down to Dundas Street through location of taller 20 storey tower to the south, lower 16 storey tower to the north and scaling down to street level through use of a four storey podium. Towers are set back from podium edges. Across Dundas Street are existing 4 storey townhouses and a 16 storey residential slab building, therefore the proposed height along Dundas scales to existing area context.	
9.2.1.11	Tall buildings will be sited and designed to enhance an area's skyline.	The unique form of the taller buildings and shapes of balconies create a contemporary design to enhance the existing site and surrounding skyline.	
9.2.1.12	Tall buildings will be sited to preserve, reinforce and define view corridors.	The only view corridors that could be considered are East / West along Dundas Street. There are no North/South view corridors to the industrial lands behind. The siting of the podium and set back of towers beyond reinforce the urban edge and view corridor along Dundas Street for vehicles and pedestrians.	
9.2.1.13	Tall buildings will be appropriately spaced to provide privacy and permit light and sky views.	The taller buildings are spaced in an offset pattern to allow for adequate lights, and views between them and sky views for pedestrians from the ground and top of podium amenity floor.	

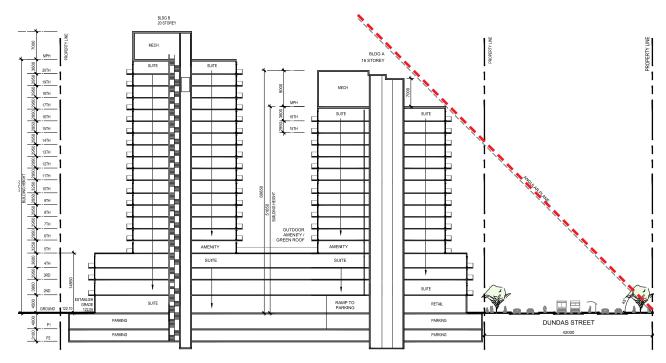
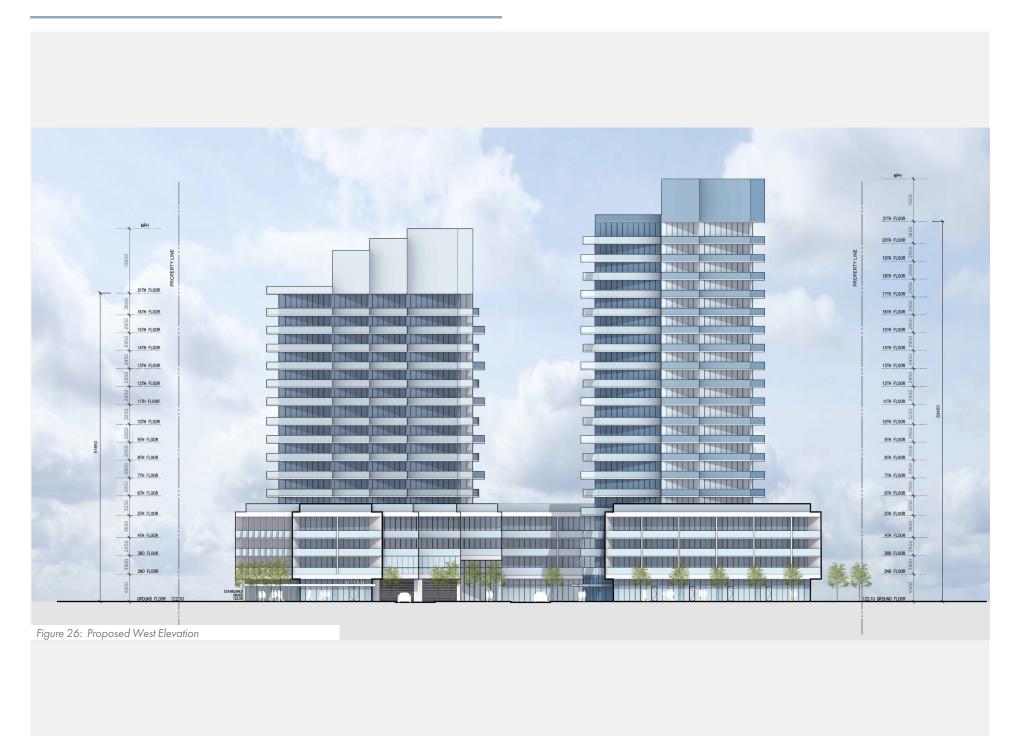
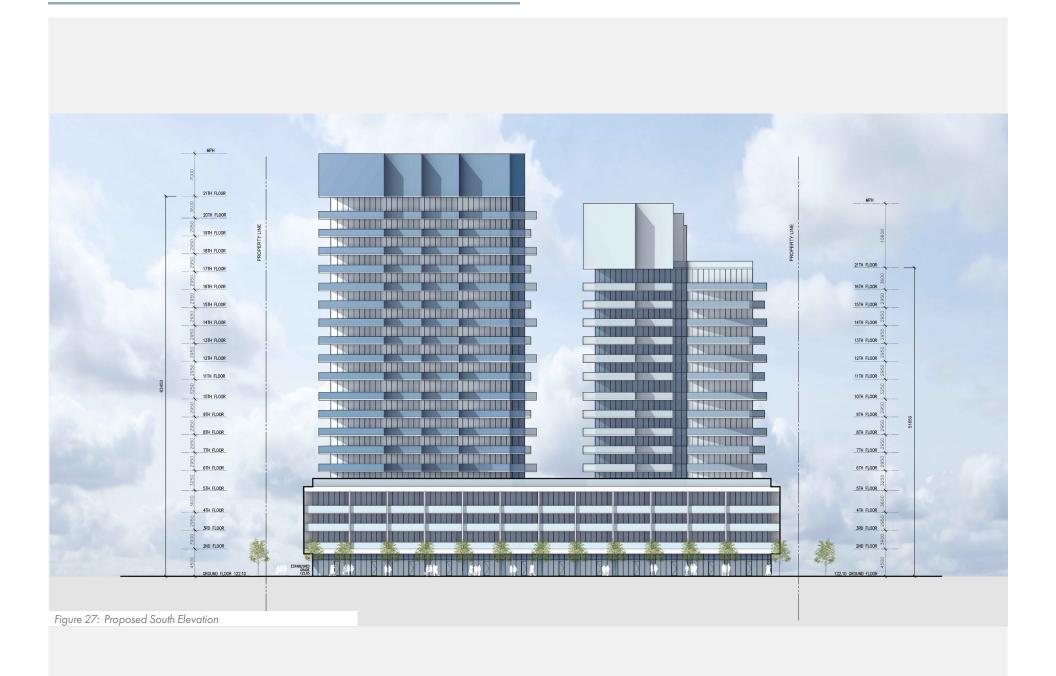


Figure 24: Proposed Cross Section

The proposed development fits under a 45 degree angular plane taken from the opposite side of the Dundas Street 42m ROW









Policy Number	Official Plan Policy	Proposed Design and Compliance
9.2.1.14	In appropriate locations, tall buildings will be required to incorporate podiums to mitigate wind impacts on the pedestrian environment and maximize sunlight on the public realm.	A four storey podium helps to scale the taller buildings down to the ground level, assisting to mitigate wind downwash effects from towers. This is demonstrated in the project pedestrian wind study. The lower podium also allows for more sunlight on adjacent sidewalks as demonstrated in the project sun shadow study.
9.2.1.15	Tall buildings will address pedestrian scale through building articulation, massing and materials.	The taller buildings are stepped back from the podium along Dundas Street by 3m to the north and 4.5m to the East in order to reduce the impact of larger scale on the pedestrian scale below. The articulation of the podium, and interplay of vision, spandrel and fritted glass, as well as introduction of balconies above and retail below, help to improve the pedestrian experience.
9.2.1.16	Tall buildings will minimize adverse microclimatic impacts on the public realm and private amenity areas.	The submitted sun shadow and pedestrian level wind studies demonstrate demonstrate minimization of adverse micro-climatic effects on public real and private amenity areas.
9.2.1.17	Principal streets should have continuous building frontages that provide continuity of built form from one property to the next with minimal gaps between buildings.	Built form has been extended across the frontage of Dundas Street with a combination of retail at the base and building entrance/amenity and residential units above. The only gaps in this frontage are for building setbacks to East and West and driveway access to the site in the NW corner from Dundas Street. It is anticipated that future development of adjacent lots can follow a similar pattern.
9.2.1.18	Existing large blocks will be reconfigured to incorporate a fine-grained block structure with public roads and on-street parking to support at grade uses.	Not applicable as this is an assembly of two smaller lots.



Figure 29: 1000-10024 Dundas - Proposed View from North East

Policy Number	Official Plan Policy	Proposed Design and Compliance
9.2.1.19	The public realm and the development interface with the public realm will be held to the highest design standards.	A very high level of design has been provided for architectural interface with and landscape design of public realm as demonstrated in sections 2.1 and 2.2 of this Urban Design brief.
9.2.1.20	Mississauga will develop identifiable civic buildings, structures, and spaces as community and city focal points.	The subject lands are not proposed as a civic buildings, but we hope that the high level of design of this mixed use development will become a community and city focal point.
9.2.1.21	Development will contribute to pedestrian oriented streetscapes and have an urban built form that is attractive, compact and transit supportive.	The scale of the podium with retail along the base will contribute to a pedestrian oriented streetscape adjacent to the future Tomken BRT station on Dundas Street.
9.2.1.22	Development will be designed to support and incorporate pedestrian and cycling connections.	The public realm design for the cross section of Dundas Street includes pedestrian walkways and bicycle paths which connect to the wider Mississauga network.



Figure 30: 1000-10024 Dundas - Proposed View from North



Dundas Street East Proposed Bus Rapid Transit Corridor Design Recomendations

Source: Dundas Connect Guidelines

Create a Complete Street for All Users

- Redesign and rebalance the street to accommodate pedestrians, cyclists, transit users, and motorists



2 Reallocate Road Space to Meet Projected Needs

- Introduce into Focus Areas a mix of residential and employment uses in a range of building heights and types
- Integrate new uses with new public streets and private connections, community services and facilities, and high-quality open spaces
- Recognize that not all Focus Areas will grow to the same extent some have numerous large sites or other conditions that can better



3 Enhance Pedestrian Space

- Design Dundas Street to be safe and accessible
- · Provide more frequent, safe crossing points across the corridor



⚠ Provide Safe Cycling Infrastructure

- · Introduce continuous, protected cycle lanes for the majority of the corridor, so as to reduce conflicts with vehicles and pedestrians, and connect to transit facilities and the broader cycling network
- Where there are space constraints such as the Highway 403 interchange or the Credit River bridge crossing, provide alternative cycling



5 Enhance Access

- · Provide intersections for left turns and U-turns so as to maintain access to properties along Dundas Street
- Secure key local street connections to serve development sites, provide additional frontage conditions, and improve connections to Dundas Street, transit facilities, and key destinations



6 Coordinate with Utilities to Realize Streetscape Plan

. Work with public and private utilities to coordinate the timing of capital improvements in the street to ensure that any relocations or ne



Figure 31: Corridor Design Recommendations

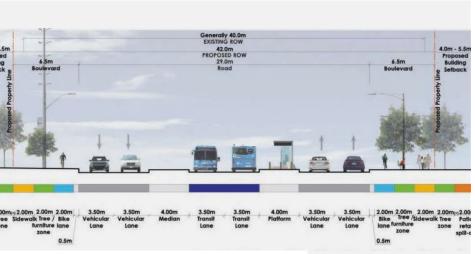


Figure 32: Streetscape Cross Section



Figure 33: Streetscape Components

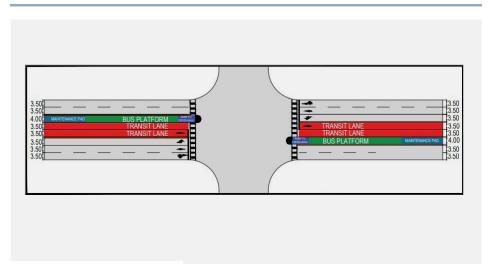


Figure 34: Streetscape Guidelines



Figure 36: Enhanced Public Realm

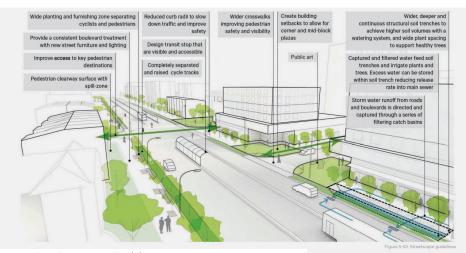


Figure 35: Streetscape Guidelines

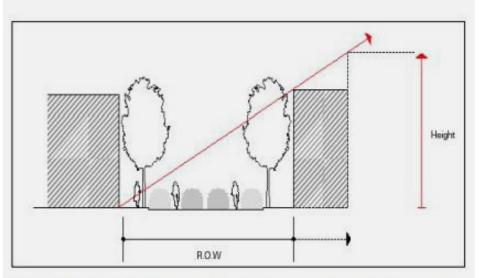


Figure 9-8: On wider streets, taller buildings may be required to provide appropriate street enclosure.

Figure 37: 1000-1024 Dundas Street East

Policy Number	Official Plan Policy	Proposed Design and Compliance	
9.2.1.23	Active uses will be required on principal streets with direct access to the public sidewalk.	A mix of retail, lobby and amenity spaces are proposed	
9.2.1.24	Development will face the street.	to front onto the sidewalk along Dundas Street in order to animate the adjacent public realm. All elevations facing	
9.2.1.25	Buildings should have active façades characterized by features such as lobbies, entrances and display windows. Blank building walls will not be permitted facing principal street frontages and intersections.	principal street frontage on Dundas will be glazed and ar mated. There are no blank walls proposed.	
9.2.1.26	For non-residential uses, at grade windows will be required facing major streets and must be transparent.	The podium will help define and enclose the edge of the proposed Dundas streetscape and BRT improvements.	
9.2.1.27	Development will create a sense of gateway to the Intensification Area with prominent built form and landscaping.		
9.2.1.28	Built form will relate to and be integrated with the streetline, with minimal building setbacks where spatial enclosure and street related activity is desired.		

Figure 38: 1000-10024 Dundas - Proposed View from North



Policy Number	Official Plan Policy	Proposed Design and Compliance	
9.2.1.29	Development will have a compatible bulk, massing and scale of built form to provide an integrated streetscape.	Proposed landscape design will help to re-inforce architec-	
9.2.1.30	Development will provide open space, including squares and plazas appropriate to the size, location and type of the development.	ural elements and definition of public realm and adjacent treetscape along Dundas. Architectural form defines he edge of Dundas Street with a podium and creates an	
9.2.1.31	Buildings should be positioned along the edge of the public streets and public open spaces, to define their edges and create a relationship with the public sidewalk.	internal courtyard for car drop-off with adjacent landsco ing. The podium roof is proposed for landscaped outdo	
9.2.1.32	Buildings should be oriented to, and positioned along the street edge, with clearly defined primary entry points that directly access the public sidewalk, pedestrian connections and transit facilities.	amenity for use of future residents and visitors to the build- ing. Landscaping is designed to create a sense of place and promote social interaction through clustering into distinct	
9.2.1.33	Open spaces will be designed to promote social interaction.	zones with places for seating. A running track on the podiur roof promotes pedestrian circulation. Streetscape adjacer	
9.2.1.34	Development will utilize streetscape design to provide visual connections to open space, providing enhanced sidewalk and trail connections near open spaces.		
9.2.1.35	Buildings and streetscapes will be situated and designed so as to encourage pedestrian circulation.		
9.2.1.36	Streetscape improvements including trees, pedestrian scale lighting, special paving and street furniture in sidewalks, boulevards, open spaces and walkways, will be coordinated and well designed.		

Figure 39: 1000-10024 Dundas - Proposed View from South East of rooftop amenity

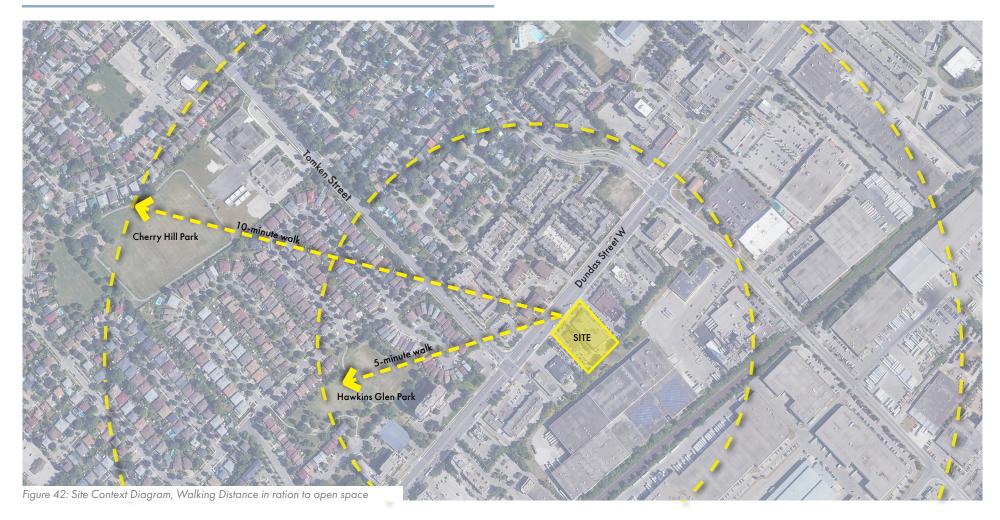


Policy Number	Official Plan Policy	Proposed Design and Compliance
9.2.1.37	Developments should minimize the use of surface parking in favour of underground or aboveground structured parking. All surface parking should be screened from the street and be designed to ensure for natural surveillance from public areas. Above ground structured parking should be lined with residential, commercial or office uses.	located underground and accessed via a ramp hidden within the building enclosure. Truck loading spaces are also hidden within the building podium in order to screen them from pedestrians and reduce noise of loading and garbage pickup. This frees up land for additional
9.2.1.38	Parking lots and structures should not be located adjacent to major streets.	landscaping in a central courtyard. In addition both buildings have direct pedestrian connection to Dundas Street via a lobby on the street which connects internally to both buildings.
9.2.1.39	Signage will be integrated with the scale and character of built form and will follow universal design principles.	Proposed retail signage along Dundas will be integrated into facades and designed to conform with a specific language to appear ordered.





Figure 41: Proposed Ground Floor Plan



2.2 SITE LANDSCAPE

Site Context

The site is located on Dundas Street East, traditionally considered Mississauga's main east-west street, and it is adjacent to a mixed use of commercial, industrial and to a lesser degree, residential establishments. The existing streetscape is composed of a concrete sidewalk and a utility easement in a turf corridor.

The utilitarian and commercial nature of the corridor is reflected in the adjacent properties that display large signs and banners in the front yards to advertise commercial activity and in the floating utility cables framing the street corridor. The sidewalk shows signs of damage with improvements required for safe pedestrian circulation and universal accessibility. The streetscape also lacks a buffer to protect pedestrians from the high volume of traffic and a street furnishing zone and a tree corridor to provide shade and comfort.

The site does not have a frontage that faces the street, instead a parking lot that circles the main building. The parking lot shares a tree canopy that buffers the property at 1000-1025 Dundas St East from the commercial properties to the South.

The closest open spaces to the site are Hawkins Glen Park, located at 5 minutes walking distance with a program that includes a big lawn, and Cherry Hill Park, located at 10 minutes walking distance with a program that includes a big lawn and a playground.

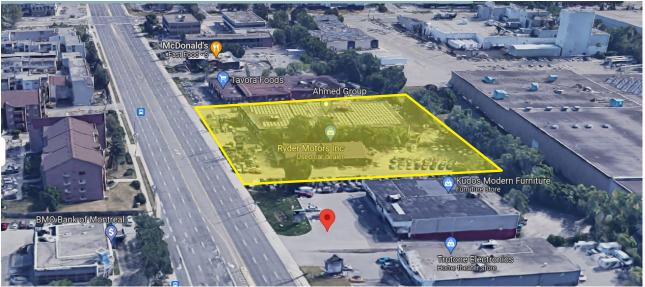


Figure 43: Aerial image - Source Google Maps

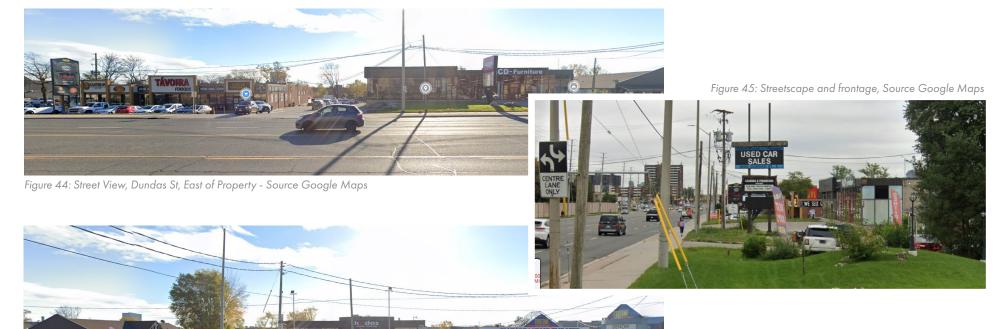
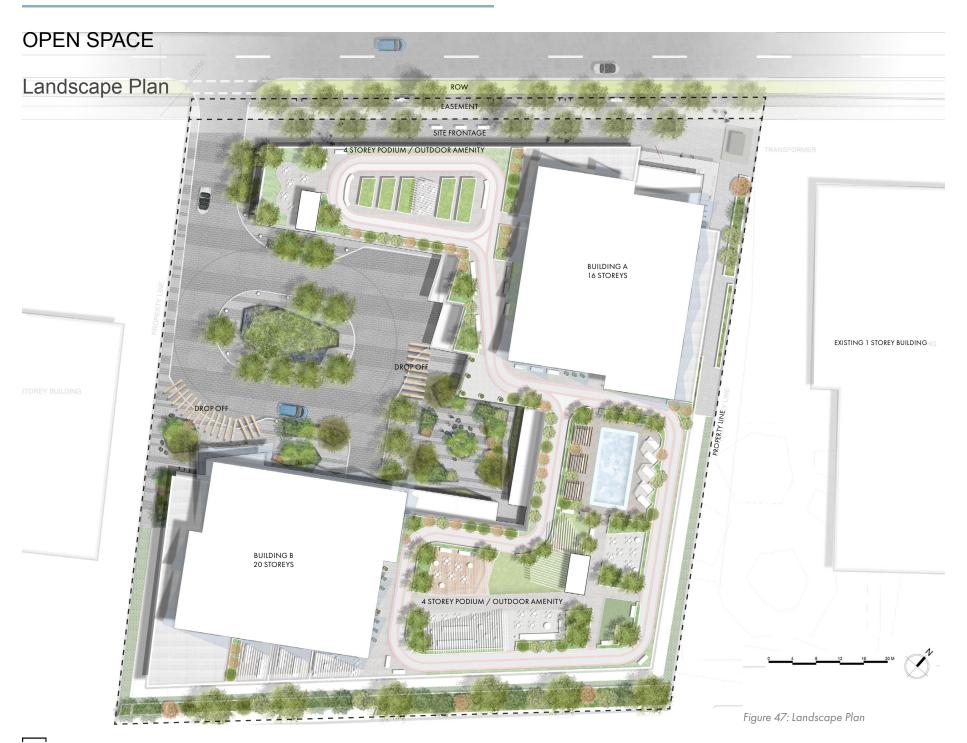


Figure 46: Street View, Dundas St, West of Property - Source Google Maps



Landscape Strategy & Principles

1000 Dundas landscape concept design is inspired by Ontario's Shield formations and the ecologies that emerge around the topographic changes of rock, water and tectonic movements. The concept reimagines the space by merging the idea of the urban and the wild, where the vertical living form is channeled to a form of community living with natural features intrinsically embedded to the streetscape, courtyard and amenity spaces.

The landscape design has been developed with the vision to create an active and socially engaging community with easy access to open space that is right at the residents' door steps.

The site is activated with a retail frontage that can spill onto the open space to allow for new opportunities, the community is activated with multiple recreational programs that weave around intensive green roof planters and the ground level is the core feature of the site with a urban forest.

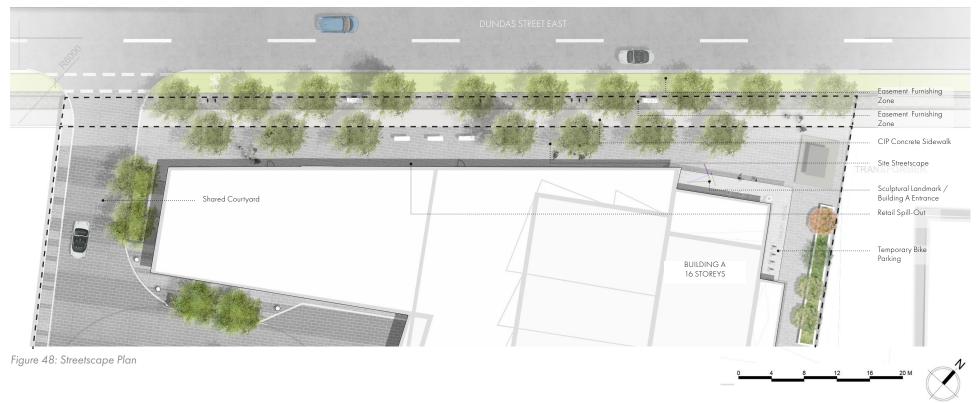
In order to provide this composition of natural systems, the design also considers carefully the selection of materials to take into account the carbon footprint, the inclusion of diverse planting communities for creation of new ecologies and the retention and use of site run off to support the site hydrological system. Utilizing the principles of placemaking such as materiality, flexibility, permeability, and microclimate, it is important to ensure that the site is designed with a high level of sensitivity to the demands of construction in the global climate crisis by aiming to implement sustainable practices.

The major guiding principles of the proposed landscape are as follows:

- Provide a place making design programmed to encourage social interactions and designed to invoke ecological sensibility;
- To ensure that the character of the new development elevates the attribute of the site
 and surrounding natural and built forms;
- To create a comfortable pedestrian environment and attractive streetscape;
- To ensure compatibility and links with the adjacent areas
- To ensure that the proposed Landscape components adhere to the design guidelines for the Dundas Connects Master Plan, and will complement the vision for the planned abutting land uses; and
- To ensure sustainable development.

Site Landscape

Streetscape



Streetscape Strategy

Pedestrian movement through the subject property and in the surrounding areas is designed for maximum efficiency. The site streetscape will be designed at the Site Plan Application stage in accordance with the City of Mississauga Urban Design and Open Space Guidelines stipulated in the Dundas Connects Master Plan.

Public sidewalks are proposed along Dundas Street East and the pedestrian connection is enhanced by upgraded paved connections to the building. Additionally, benches and bike racks are included to provide comfort and also to facilitate multiple forms of transportation. Dundas Street East is an arterial road, and therefore, its streetscape reflects this function.

The residential entrance is animated with the building lighting, innovative urban signage and the potential for a sculptural landmark to welcome residents and visitors and elevate the streetscape character of the site.

The streetscape frontage is proposed to provide a full range retail services. The form of the proposed architecture and complimentary landscape design adhere to this accessible multi-functional use with outdoor retail space also spilled out onto the streetscape in the form of potential patios and pop up spaces to support cafes and restaurants.

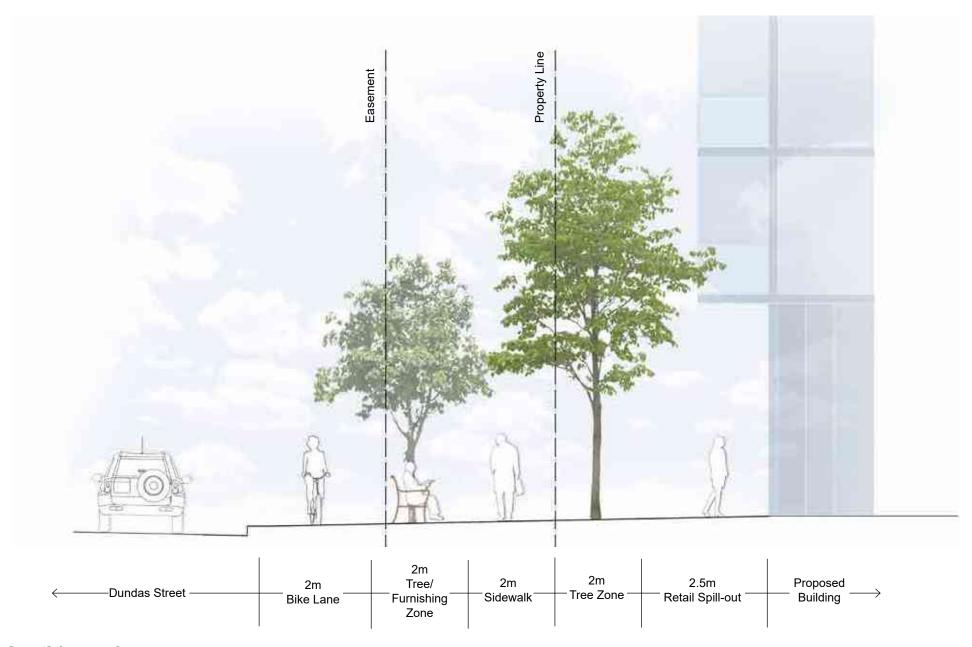


Figure 49: Streetscape Section



Figure 49: 1000-10024 Dundas - Proposed View from North of Podium

Site Landscape

Courtyard



Figure 50: Courtyard Plan

Courtyard Strategy

The design invites users to explore the landscape through a journey of discovery, accessing the site in a multi-use shared space courtyard that has been designed with the intent of creating a landmark in the form of a lush urban forest.

The courtyard includes a tectonic water feature with a urban grove rising to the sky; this unique feature is the focal point in the shared space welcoming residents and guests.

The retail also spills out to the courtyard, offering the potential to extend the interior design onto the landscape with seating opportunities.

As users flow seamlessly weaving through the courtyard, the tectonic forests emerge; these are composed of modern planters with walls changing in angle and elevations, the layout is designed to create intimate inner lounge rooms with wood decks warming the surface. The experience is elegant and tranguil and is the transition to access the residential lobbies.

The shared courtyard extends the pedestrian experience for free circulation with unit paving surface treatment. Paving bands that change in colour and pattern density, low rolled up curbs and lighting bollards will delineate the areas purposed for slow vehicular circulation to access drop offs, undergrounds and loading areas.

The drop off areas offer protection with shade structures and lighting to provide comfort.



Figure 51: Courtyard Section A - A'



Figure 52: Courtyard Section B - B'



Figure 53: 1000-10024 Dundas - Proposed View from West of internal courtyard

Amenity at Podium



Figure 54: Amenity Plan

Amenity Strategy

The podium amenity is the space where the community is activated. It will serve as an ideal landscape for the residents and guests to gather, mingle, socialize and play.

The podium is carefully programmed with active and passive areas that provide a space for everyone. Planting areas and buffers are distributed around to provide micro-climate comfort and a greater connection to nature.

The podium is a place for residents and guests to have lunch, relax in the sun, throw a BBQ, host an event, jump in the pool for a swim, take their pets for a quick visit to the pad, go for a jog, picnic in the lawn, watch a movie under the stars, hang with their kids and even get their hand dirty in the urban garden beds.

The business community will additionally benefit from the inclusion of Wi-Fi, charging stations, and working zones to create "outdoor office", something that would be appreciated under any circumstances, but particularly in the age of COVID.

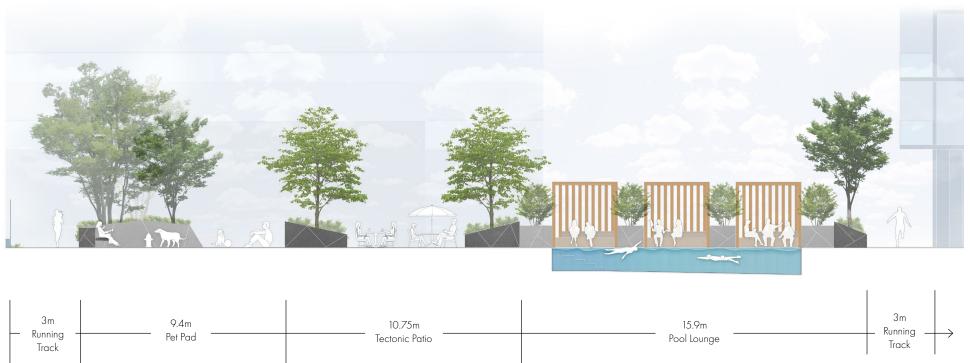


Figure 55: Amenity Section

Program

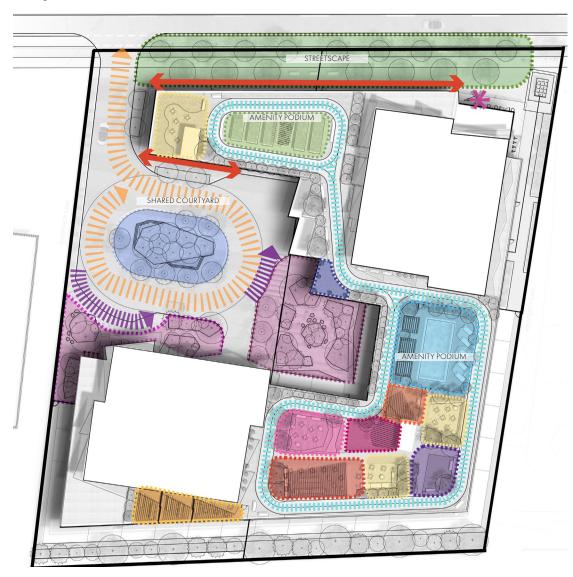


Figure 56: Program

The site is programmed in 3 main areas:

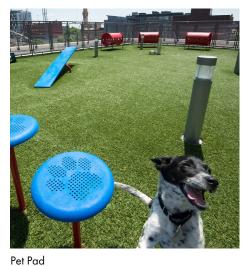
- Streetscape
- Shared Courtyard
- Amenity Podium

The Streetscape consists of a 2m Bike Lane, 2m furnishing zone with a tree corridor and a 2m CIP concrete sidewalk per the City Connects Master Plan. The site also includes a 4.8m-6m private streetscape frontage that is laid out with a 2m corridor for trees in grates, retail spilled on the streetscape, and the building main entrance with a sculptural art landmark. Pedestrian movement through the streetscape and to surrounding areas are designed for maximum efficiency. The pedestrian connection is enhanced by upgraded paved connections to the building and streetscape furniture.

The shared courtyard is the main access to the site and it includes a shared driveway, drop off areas, retail spilled on the sidewalk, urban forest gardens and a urban grove with water features. Pedestrian and vehicular movement through the courtyard is shared to extend the pedestrian experience with markings, paving treatment and lighting strategy in place to provide safe and slowed down vehicular circulation.

The Podium is the active program of the site where the sense of community originates and it consists of composition of active and passive programs including a running track, viewing platform, swimming pool and deck, urban farm, pet pad, playground, big lawn for picnics, yoga and movie screening, staged platform, BBQ stations, and exterior flex work spaces. The podium also includes gardens and lounge rooms for moments of respite that count with serene planting beds. Intensive green roofs are constructed to permit access by people and accommodate uses such as urban agriculture.











Movie Lawn

Urban Farm

Children Playground







Swimming Pool



Running Track



Big Lawn

Figure 57: Reference Images

Softscape Strategy



The site is envisioned as an urban forest with a series of rich planting that is supported with pollinator species to improve urban ecologies from bees, butterflies, birds and more. This will provide an opportunity for biodiversity and a healthy planting community consisting of a wide diversity of species, to provide: carbon sequestration, a sound buffer from street noise pollution, to improve microclimate and reduce heat island effect and to provide green landscape scenery for the community. Shade trees, in conjunction with understorey species, are selected to best support wildlife and pollinators.

Tree species will support the site character and function as street and amenity trees, shade trees, buffers, privacy screens, and habitat trees. The tree selection considers the following: seasonal interest; their suitability to growing, sun exposure and microclimate conditions; adaptability to climate change; and resiliency to pests.

Shrubs, perennials and grasses will also be selected for four season interest, texture, colour and size and to screen adjacent residential units where applicable.

The proposed streetscape and landscape design will improve the overall tree canopy of the area with a cover target that is above 20% of the proposed site. Soil volumes are calculated with 20m3 soil volume per large and shade tree in a continuous trench. Adequate soil volume will be provided for ornamental and small trees and large shrubs.

Plantings of large canopy trees are proposed along the South boundaries of the site to serve as a screen to the adjacent commercial and industrial properties.

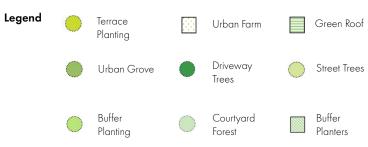


Figure 58: Softscape









Poplar Crown Birch Grove

Native and Pollinator Planting Palette

Prairie Swaths









Trees at Grade Tectonic Grove

Green Roof Edges

Trees on Podium

Figure 59: Reference Images

Materiality Strategy



Figure 60: Materials

Material selections are to directly relate to the detailed design of each space considering the following objectives:

- To meet regional Solar reflective values and heat island reduction objectives;
- To consider where possible materials and sources that have a low carbon emission or that use recycled elements in the manufacturing of the material;
- To provide sophisticated and elegant materials that elevate and animate the landscape quality;
- To be selective of materials to consider heat transfer and encourage gatherings.

The public streetscape is to meet the City Standards for the Dundas Corridor vision, including the surfacing treatment for the bike lane, and the furnishing zone unit paving, concrete surfacing, benches, receptacles and bike racks. The site streetscape and shared courtyard have a composition of pedestrian and vehicular grade unit paving with a colour and pattern composition that enhances the circulation experience. The Shared driveway will include the transition to pedestrian only areas with the use of precast rolled up curbs.

In accordance to the drainage strategy for the site, the design of hard and soft landscaping must limit amount of storm water run-off entering storm sewers. Inclusive of other hardscape surfaces, the buffer areas are to be considered in the drainage strategy; buffers are anticipated to function as maintenance pathways and will be treated with unit and turf paving.

The courtyard and Amenity podium are to be experienced as lush landscapes with raised planters that are cladded with granite veneer and high grade aluminum with recycled content, or assembled with prefabricated concrete modules. Internal lounge rooms in the courtyard will be treated with surface wood accents in conjunction with exclusive unit paving.

The amenity podium consists of corridors and gathering spaces that are treated with porcelain tiles. The active programmed spaces, such as the big lawn, playground, pet pad and the track are treated with materials that have a high level content of recycled components including rubberized protective surfaces and synthetic turf. Flexible furnishing, fire pits and BBQ stations will be selected to meet the exclusive quality of the site.

The site seating will be treated with high grade certified wood; yellow Alaskan cedar and IPE are optimal choices to use for woodtops.





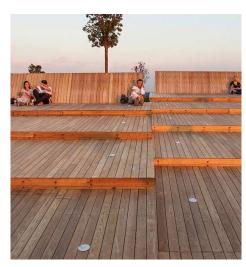




BBQ Stations



Swimming Pool Cabanas and decorative lighting



Decking platform



Tectonic Forest Planters and Seating



Water Feature

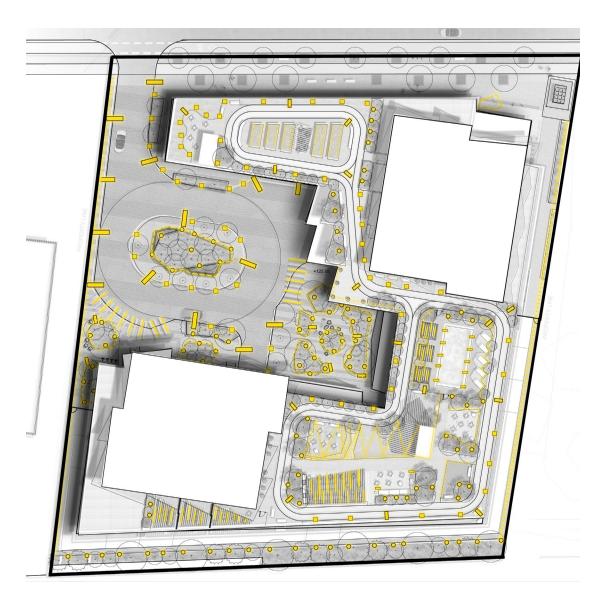


Shared Vehicular and Pedestrian Courtyard on **Unit Paving**



Ceramic Tiles on Amenity Space

Lighting Strategy



Selection of lighting is cohesive and complementary to the architecture of the building, the landscape design and the multi use circulation.

Outdoor lighting elements shall function seamlessly within the surroundings. Fixtures are required to be both energy efficient and durable with forms and finishes that do not detract from adjacent architecture and public open space.

A combination of such components as dark sky compliant pole fixtures, directional ground lighting and illuminated bollards are considered to enable proper illumination of structures and pathways, while supporting a welcoming ambiance.

Lightning fixtures are integrated in furnishing, trellises and planters to accent hardscape and planting features and to provide an ambiance composition for a serene and elegant experience.

The Amenity Podium also includes a catenary fixture that animates and activates the program to make a welcoming open lawn and stage area.

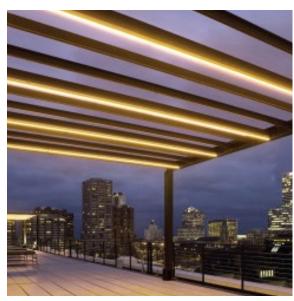
Outdoor lighting should minimize outdoor light pollution with fixtures that do not provide upright lightning and with technology that minimize energy consumption.

Legend Lighting Fixtures

Figure 62: Lightning



Strip Lighting Integrated In Planters



Shade Structure Lighting



Catenary Lighting



Directional Bollard Lighting



Directional Recessed Lighting



Planting Bed Accent Lighting

Shade & Comfort Strategy



A comfort strategy is essential for the enjoyment of the exclusive landscape features and program proposed for 1000 Dundas and to provide a pleasant experience at ground level.

From the ground up the site includes elements to minimize the harsh seasonal winds and to manage sun/shade exposure.

A double row of trees provides shade at the streetscape level. The trees are selected to City standards to provide a buffer form the high traffic volume of Dundas st and to create a comfortable corridor for cyclist, pedestrians and for outdoor retail opportunities. The trees are spaced at 8m with seating and bike racks arranged in between trees.

The shared courtyard contain a composition of shade trees and shade structures with seating allowed in the drop off zones and also in the tectonic forests. The limit to adjacent properties will be treated with an architectural fence that will create a sense of privacy and intimacy and protect users from strong winds as they access the pedestrian paths.

As the amenity podium is highly exposed to wind, a glazing barrier that varies from 1.8m to 2.22m will be provided to the perimeter of the programmed spaces. A selection of trees suited for podium planting will be placed in strategic locations, planters are raised and include beds of shrubs, perennials and grasses, and shade structures are adhered to programmed spaces. The combination of the above elements are provided to improve micro-climate and sun/shade conditions.

Tree selection features crown canopies that allow for dappled light filtered to the ground level to provide a pleasant condition in the gathering areas.



Figure 64: Shade



Shade Structure in Amenity Loungers



Streetscape Planting For Multi Use Comfort



Drop Off Shade Structure for Comfort



Trees for Shade and Comfort Strategy



Drop Off Shade Structure for Comfort



Dappled Light in Protected Areas

2.3 **Supporting Studies**

2.3.1 **Environmental Noise Feasibility Study**

An RWDI 1000 and 1024 Dundas Street East Noise and Vibration Impact Study dated April 29, 2022. There were no sources of vibration within 100 meters of the subject site, thus no vibration analysis was required. The Ontario Ministry of the Environment, Conservation and Parks (MECP) noise guideline were used to assess sound levels on subject site and to determine the need for noise mitigation for the proposed redevelopment. They considered stationary and transportation sources of noise that could potentially impact the proposed redevelopment. They recommended the following noise mitigation measures:

- 1. Installation of central air-conditioning so that all suites' windows can remained closed.
- 2. The inclusion of noise warning clauses related to:
 - a. Transportation sound levels at the building façade and in the outdoor amenity areas,
 - b. Proximity to railway line,
 - c. Proximity to commercial/industrial land-use, and
 - d. Class 4 Area Notification.
- 3. Obtain formal confirmation from the City of Mississauga of Class 4 area classification, as per MECP publication NPC-300.
- 4. Suite bedroom window glazing with minimum sound isolation performance of STC-36,
- 5. Construction of perimeter noise barriers along the outdoor amenity areas.

With this submission Ahmed Group is requesting Mississauga City Council to enact a bylaw that would apply a Class 4 designation to the subject site. For example, Mississauga City Council has enacted a bylaw to apply a Class 4 designation to the 1707 – 1725 Barbertown Road site.

"For example, Mississauga City Council has enacted a bylaw to apply a Class 4 designation to the 1701 - 1725 Barbertown Road site, as well as for the Lakeview Village redevelopment south of Lakeshore Road." Other precedents in other municipalities are provided in the table below.

Address	Municipality
4181 Sheppard Ave East	Toronto
4665 Steeles Ave East	Toronto
17 Ewen Road	Hamilton
Tesmar - River Rock Gate	Vaughan
1-7 Yonge Street	Toronto
33, 43, 53, 55 Lake Shore Blvd East	Toronto
95, 100, 110 Queens Quay East	Toronto
80 Carl Hall Road	Toronto
Reg Rd 50 Bolton Retirement Residence	Bolton
25, 75, 121, 141, 161 Fallowfield Drive	Kitchener
1000 Elgin Mills Road East	Richmond Hill
Pier 8 Development	Hamilton
162 and 176 Sandiford Drive	Whitchurch-Stouffville

They also concluded that the final noise mitigations requirements should confirmed when detailed building plans are available at the building permit stage.

2.3.2 Pedestrian Wind Study

RWDI to conduct a pedestrian wind study for their proposed development at 1000 and 1024 Dundas Street East, RWDI 1000 and 1024 Dundas Street East Pedestrian Wind Study Report dated April 29,2022 summarizes their findings for the proposed redevelopment for the subject site. The pedestrian wind conditions from the redevelopment were assessed through wind tunnel modelling. RWDI completed wind-tunnel testing for the subject site under the existing conditions and for the proposed redevelopment for the subject site. These results were evaluated against the pedestrian comfort and safety criteria adopted by the City of Mississauga, and they are summarized below:

- Existing wind speeds on and around the subject site are comfortable for the intended pedestrian use throughout the year. The pedestrian wind safety criterion is met at all the assessed areas on and around the subject site.
- Wind conditions with the proposed redevelopment are predicted to be appropriate for pedestrian use at most areas assessed. However, higher wind speeds than desired for the intended use were projected for specific localized areas.
- RWDI recommended wind controls for specific localized areas where wind speeds were projected to be higher than desired for the seasonally intended use including:
 - The patios and amenity areas at grade level in the summer;
 - Within the outdoor amenity area on the roof of the northern four storey podium near the western corner of the northerly 16 storey building component;
 - At grade near the south corner of the proposed 20 storey building component; and
- At an isolated sidewalk location on Dundas Street East near the corner of the northerly 16 storey building component.

The pedestrian wind safety criterion is expected to be met at all locations at grade level and abovegrade level with these wind controls.

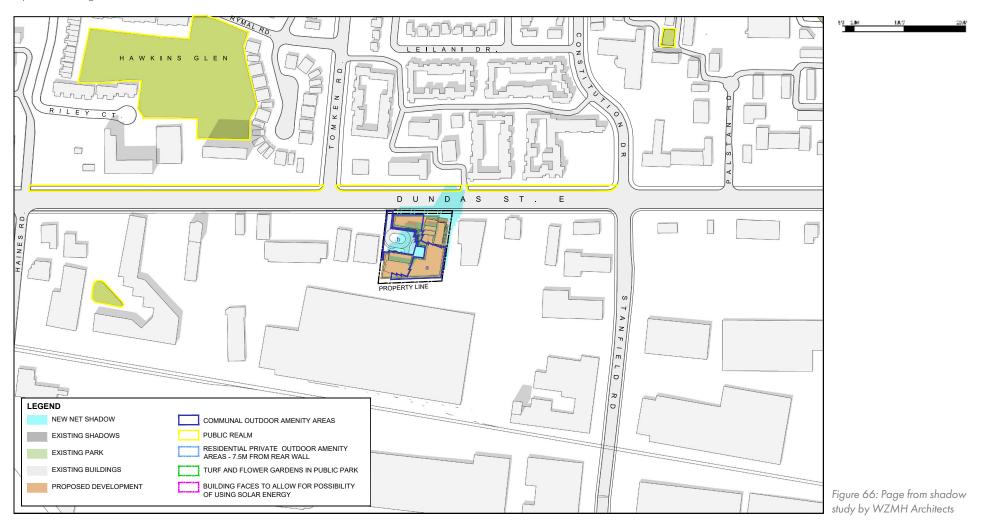
WZMH had taken RWDI's recommendations and incorporated into our design

2.3.3 Shadow Study

WZMH Architects Inc. completed a sunshade study for the proposed project and the findings are summarized in their report dated June 1, 2022 which has been included with this submission. This report includes plans showing the anticipated shadows upon March 21, June 21, September 21 and December 21. This study evaluates the shadow impact of the proposed development for the subject site in accordance with the city standards for shadow studies dated June 2014. The report concludes that the proposed redevelopment project meets the City's criteria in terms of the expected shadow impacts. Based on the analysis provided in this study, in my opinion the proposed redevelopment shall have minimal and acceptable shadowing impacts on the adjacent low rise dwellings located to the northwest, the pedestrian will on Dundas Street East the private outdoor passive, as well as active recreational facilities proposed on the roof of the 4 storey podium and the existing public park located to the north west of the subject site in accordance with the policy in section 9.2.2.3 and 9.5.3.9 of the city of Mississauga Official Plan.

2.3.4 Arbourist Report

"An arborist report was prepared by Urban Forest Innovations dated June 1, 2022.48 existing trees have been inventoried for proposed mixed-use redevelopment for the subject site. The purpose of the arborist report is to document existing tree and site conditions, to evaluate anticipated impacts to site trees which may occur as a result of the proposed development, and to identify required and recommended tree protection measures and regulatory requirements associated with the proposed redevelopment. They found that 5 existing trees need to be injured, 2 trees conditionally need to be removed and 32 existing trees need to be removed. Ahmed Group shall submit a tree permit application for the subject site in accordance with the City of Mississauga's Private Tree Bylaw to remove 32 trees and to injure 5 trees."



3.0 SUMMARY AND CONCLUSIONS

This Urban Design Brief concludes that the subject lands are a prime location for urban redevelopment and provision of much needed rental intensification in Mississauga for the following reasons:

- The proposed development provides an appropriate approach to intensification of an underutilized site
- The proposed site is on Dundas Street East and therefore is part of a major intensification corridor.
- The new Dundas BRT station at Tomken is adjacent to the site entrance and therefore this site is also within an MTSA (Major Transit Station Area).
- The proposed towers at 16 and 20 storeys and an FSI of 4.7 are well served by current and future transit
- The entire design fits under a 45 degree angular plane taken from the opposite side of the Dundas Street 42m ROW, thereby reducing shadow and microclimate effects on surrounding lands and public spaces and successfully scaling to adjacent neighbourhoods
- The proposed 25m spacing between towers can be adequately achieved while still
 allowing adequate sky views and access to daylight with reduced shadow impacts and
 should be incentivized for providing much needed rental housing in Mississauga.
- The proposed urban form of this development with two towers and podiums does not preclude or prevent the redevelopment of adjacent sites as demonstrated in the context master plan shown in this document
- The taller 16 and 20 storey towers scale down to Dundas street by use of a 4 storey
 podium, providing urban enclosure along the future Dundas BRT corridor, in stark contrast
 to current land forms of buildings set back from street with front yard parking lots. The
 proposed redevelopment will therefore improve and contribute to the City's vision for the
 Dundas Street East streetscape by animating the street with retail and residential, lobby
 and amenity uses.
- The proposed development is contributing to the goals and urban design objectives of the Mississauga Official Plan and Dundas Connects Master Plan

