



URBAN DESIGN & PLANNING POLICY BRIEF

THE TYPHON GROUP LTD.
272 INNISFIL STREET
CITY OF BARRIE

MAY 2022
WESTON FILE #10371

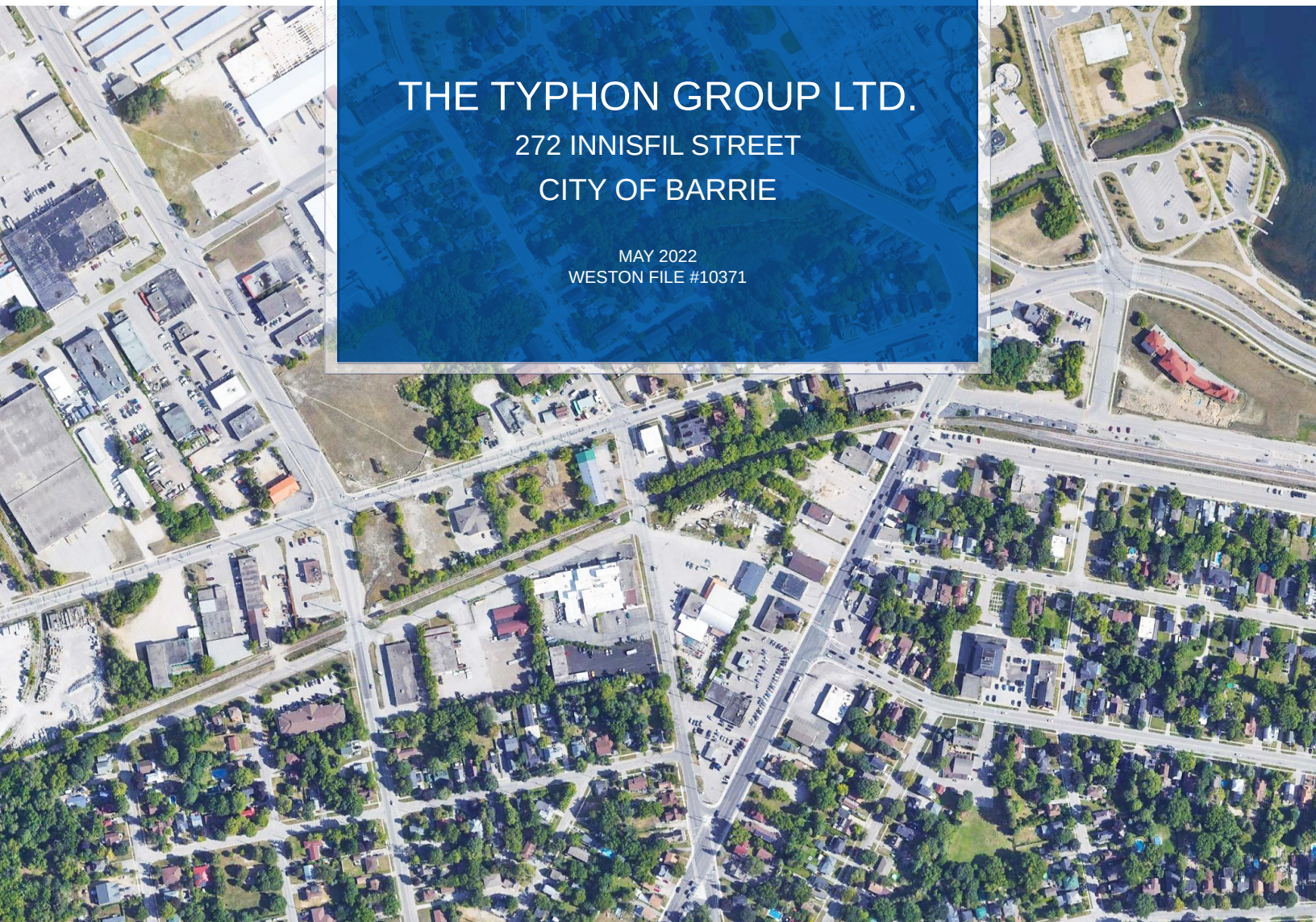




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1 INTRODUCTION

This Urban Design Brief [herein referred to as the 'Brief'] has been prepared by Weston Consulting on behalf of the Typhon Group Limited to illustrate the proposed development of the subject lands located at 272 Innisfil Street in the City of Barrie [herein referred to as 'the site']. The proposed development of the 0.70 hectares of land will include a 17-storey residential building which will include a 4-storey parking facility and indoor and outdoor amenity areas.

This Brief is in support of a Site Plan Application to permit the proposed development. The Brief provides a detailed discussion of key urban design principles as they relate to the proposal. These include an overview of applicable policies within the City of Barrie Official Plan [Office Consolidation 2018], the City of Barrie Urban Design Manual [updated 2014] and the Intensification Area Urban Design Guidelines [2012].

The Brief is required in accordance with the City of Barrie Site Plan Pre-Consultation Review Planning Comments for this project updated November 9, 2021, File: D28-086-2021.

A number of reports and studies have been prepared in support of this application, including:

- Architectural Plans [Prepared by SRM Architects], dated April 27, 2022;
- Landscape Plan, dated April 20, 2022 [Prepared by BTI Landscape Architects];
- Sun and Shadow Study [Prepared by SRM Architects], dated April 27, 2022;



Figure 1: Air Photo

2

C O N T E X T A N A L Y S I S

2.1 OVERVIEW

The site is located at the southwest corner of Innisfil Street and Jacobs Terrace, within the *City Centre* (as identified in Schedule A: Land Use of the Official Plan). The site has a frontage of 85.1 metres along Innisfil Street, and a frontage of 93.3 metres on Jacobs Terrace.

The property is currently occupied by a 2-storey commercial building with a surface parking lot. The property is surrounded by a variety of land uses including general industrial, residential, and general commercial.

North of the site is the Barrie Collingwood Railway line which runs in an east west direction. Further north are commercial properties, industrial areas, and residential buildings. Towards the east and west of the site are various industrial properties and residential homes. South of the site are residential properties, typically in the form of traditional one to two-storey single-detached dwellings. The planned redevelopment within the neighbourhood presents opportunities to establish consistency and contribute to a more complete and harmonious community.

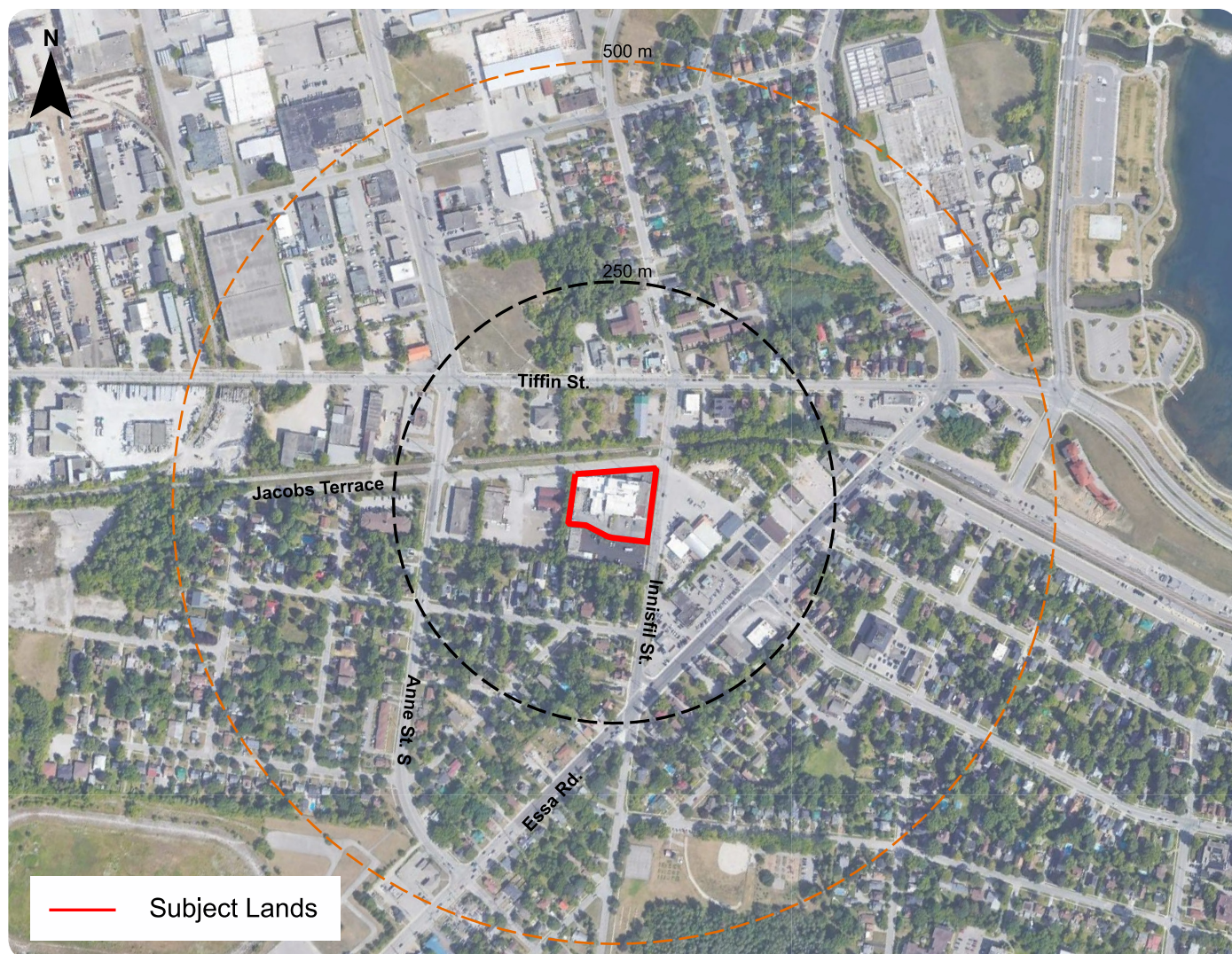


Figure 2: Aerial of Proposed Development Site Location

2.2 LOT FABRIC AND BLOCK PATTERN

The residential areas that surround the site incorporate a variety of housing typologies including single detached homes, low-rise residential buildings, and townhouses (examples can be see on pages 11-13). The landscaping within the neighbourhood includes mature trees which provide a full canopy in and around the area. Sidewalks are provided on at least one side of the street which supports efficient circulation of pedestrian traffic.

The commercial and industrial areas that surround the site include buildings that incorporate larger setbacks from the roadways. Larger setbacks accommodate the surface parking lots that surround the buildings to accommodate vehicles and trucks. Some landscape buffering is included in these areas to separate the roadways and parking lots.

As illustrated in Figure 3, there are some parks and green spaces in close proximity to the site. These include Blair Park, Shear Park and the open space area along Kempenfelt Bay.

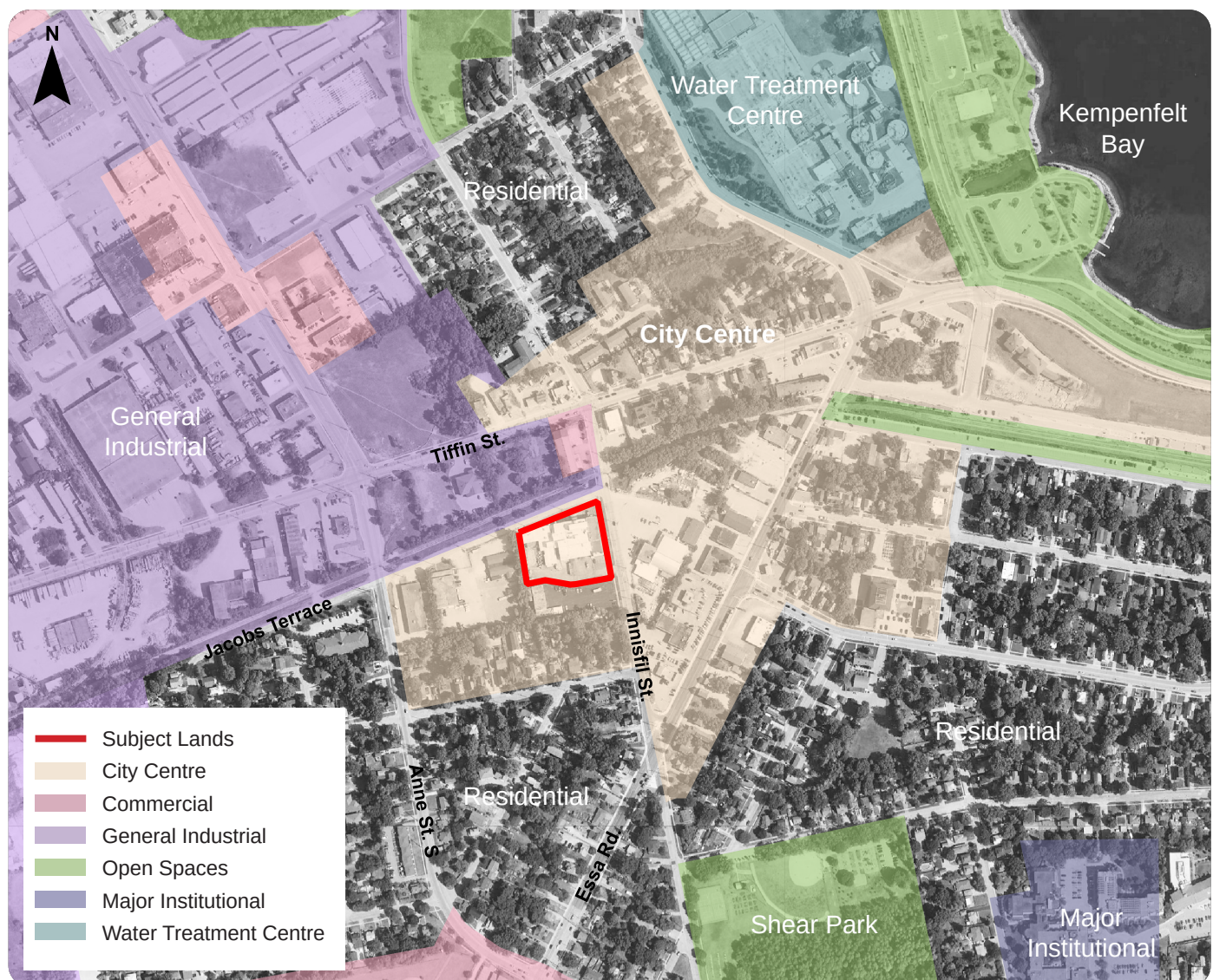


Figure 3: Surrounding Land Use, prepared by Weston Consulting

2.3 BUILT FORM CHARACTER

The built form of the surrounding context can be described as generally traditional low-rise residential homes and large, medium and small commercial and industrial buildings.

The residential areas that surround the site are primarily characterized by single detached dwellings, townhouses, and low-rise apartment buildings. Buildings in this area are constructed with brick, stone, and siding and create the look and feel of an established neighbourhood (see Figures 1-9).

Industrial buildings are located northeast of Highway 400 and Tiffin Street. This area includes larger building setbacks to accommodate parking areas for trucks and cars and include larger built form to accommodate industrial uses. Along Essa Road and Tiffin Street there are some commercial buildings which are small and medium in size. These buildings incorporate signage which helps identify the services offered contribute to the placemaking and character of the street.



Figure 4: Residential Homes on the north side of Tiffin Street - Google Street View



Figure 5: Residential Homes on Caroline Street - Google Street View



Figure 6: Residential Homes on Marcus Street - Google Street View



Figure 7: Housing on Anne Street - Google Street View



Figure 8: Apartment building on Innisfil Street - Google Street View



Figure 9: Apartment building on Jacobs Terrace - Google Street View



Figure 10: Industrial building on Brock Street - Google Street View



Figure 11: Industrial building on Tiffin Street - Google Street View



Figure 12: Commercial development on Essa Road - Google Street View



Figure 13: Commercial development on Essa Road - Google Street View



Figure 14: Church and commercial development on Essa Road - Google Street View



Figure 15: Blair Park - Google Street View



Figure 16: Lands adjacent to the site on Innisfil Street - Google Street View

2.6 TRANSPORTATION

The site benefits from the location and proximity of multiple local and regional roads. Innisfil Street is designated as a *Major Collector*, and Tiffin Street, Essa Road and Anne Street South are designated as *Arterial Roads* (as identified in Schedule D: Road Plan of the Official Plan). The site is approximately 1 kilometre away from Highway 400 which further connects the property with the GTA.

The site is well serviced by existing transportation routes. The Allandale GO Station is less than 1 kilometre away from the site, which includes access to both regional trains and buses. This also establishes access and transportation to the GTA area.

Local transportation is also established within close proximity to the site. Bus routes 7A and 7B run along Tiffin Street, just north of the property. Bus route 3A and 3B run up and down Innisfil Street and connect the site to as far north as Dunlop Street West and as far south as Maplevue Drive East. Additional routes are offered within the 500m radius of the site, including routes 1, 4 and 8 and are illustrated in Figure 17.

In relation to active transportation, the Barrie Active Transportation Map illustrates a designated bike path along Tiffin Street as well as the Waterfront Trail Bike Route which runs along Lakeshore Drive. This trail is just over 500 metres from the site and extends around the Lake Simcoe Waterfront area. The Transportation Master Plan from 2019 also illustrates a potential proposed bike lane along Innisfil Street which would provide the site further connection to active transportation routes.



LEGEND

- Subject Lands
- 250m Radius
- 500m Radius
- Transit Stop

Official Plan - Schedule D Roads Plan

- Arterial Road
- Major Collector
- Minor Collector
- Parkway

City of Barrie - Active Transportation

- Designated Bike Lane
- Waterfront Trail Bike Route
- OP Designated Cycling Network

Bus Stop (Barrie Transit)

- Bus Route 1A Georgian Mall and 1B Wehlam
- Bus Route 3A Bayview and 3B Painswick
- Bus Route 4A East Bayfield and 4B South Go
- Bus Route 7A Grove and 7B Bear Creek
- Bus Route 8A RVH/Yonge and 8B Crosstown/Essa

Figure 17: Transportation Map, prepared by Weston Consulting

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P R O P O S E D
D E V E L O P M E N T

3.1 THE VISION

The proposed 17-storey residential development encourages intensification within the Barrie City Centre, offering a new housing typology within the area. The built form and massing of the proposed building take into consideration the surrounding character and block pattern, proposing a high-quality design. The development is transit supportive in its proximity to local and regional transit options and encourages active modes of transportation through enhanced circulation routes and bicycle storage facilities. The high-rise building is located just over 500 meters from the Kempenfelt Bay waterfront area. With the proposed intensification of the site, the development benefits from the trails, views and parks within this area. The proposed development contributes to building a complete community through the inherent linkages and access to these public areas, introducing a high-rise built form, and landscaping that contributes to the visual character and quality of the area.

The built form and streetscaping consider the pedestrian experience through strategic massing and planting supporting an animated street condition. The following core design principles support the vision for the proposed development:

- Establish a built form that accommodates intensification, contributing to the development of the *City Centre*;
- Provide high architectural quality that diversifies the building typologies, takes into consideration the context and ensures the development does not create adverse impacts on the surrounding area;
- Provide high-quality landscaping, including streetscaping elements;
- Promote transit use and active transportation and support the connection to the waterfront.
- Incorporate universal design principals of accessibility within the site to promote a barrier-free environment through the site with access for persons with disabilities and special needs.
- Develop sustainable communities that assist in reducing consumption of energy, land and other non-renewable resources and minimize the waste of materials, water and other limited resources.



Figure 18: Rendering of the proposed development - Jacobs Terrace looking south, prepared by SRN Architects

3.2 SITE DESIGN AND SITE PLAN

The following description is based on the Architectural Package prepared by SRN Architects in April 2022. The site plan illustrates a 2-metre conveyance along Innisfil Street which will be dedicated to the city for future road widening. Also illustrated is a 2-metre area along Jacobs Terrace, which is dedicated as a protection zone.

The building is situated on the site with a 5-metre setback along both roadways. The proposed setbacks will establish space for efficient pedestrian circulation and create landscaping opportunities which will help to further build and strengthen connection between the public realm and the site. The Level 1 Floor Plan (Figure 20) illustrates recessions within the façade at entrance points along Jacobs Terrace and Innisfil Street. This articulation along the façade provides some variation to the elevations and also creates opportunities to reduce wind speed. The building is setback from the southern property line by 12.5-metres, which will accommodate the site servicing. Southerly side yard access is provided via a driveway from Innisfil Street. The side yard incorporates an area for turnaround, a waste collection, and staging area. It will incorporate landscaping and fencing to provide separation and screening from the adjacent property. The side yard and southwest corner of the rear yard include a 3-metre and 3.4-metre setback from the property line respectively. These areas will incorporate landscaping to establish further separation and privacy from the adjacent property. Table 1 provides a breakdown of further details related to the proposed development.

The proposal includes a total of 333 units. Table 2 includes a breakdown of unit types illustrating the variety that is offered within the proposed building. The site plan and floor plans illustrate details of the interior and exterior amenity area. The outdoor amenity area totals 5,889m² and is offered through balconies, terraces, rooftops and patio areas. The two rooftop amenity spaces are proposed at Level 5 and 13 of the proposed building, which include a total of 2,463m². Indoor amenity spaces are proposed at Level 2, 5 and 13 for a total of 515m².

Table 1. Proposed Development Statistics

Type	Statistic
Lot Area [Existing]	7,027.42m ² (1.74ac)
Lot Area [After Road Widening]	6,844.70m ² (1.69ac)
GFA	25,943.00m ²
FSI	3.79
Building Coverage	74%
Landscape Coverage	15%
Proposed Paver	11%
Parking Spaces	383 spaces
Bicycle Parking	260 spaces
Total Amenity	8,867.00m ²

Table 2. Unit Breakdown

Type	Units
Townhouse	15
1 Bedroom	66
1 Bedroom + Den	130
2 Bedroom	84
2 Bedroom + Den	38
Total:	333

The floor plans include details related to the proposed parking facility, which will include a total of 383 spaces. The parking structure is proposed as an above-ground facility which will occupy the central and southwest corner of the site, accessible via Jacobs Terrace. Urban Garage for cycle maintenance and lockers lockers are also included in the details with 260 bicycle parking spaces and 131 lockers included.

Figures 19-21 include the Site Plan and Floor Plans for the proposed development as well as some details related to the elements/services of each level. Details related to the building setbacks and massing are provided in Section 3.3.

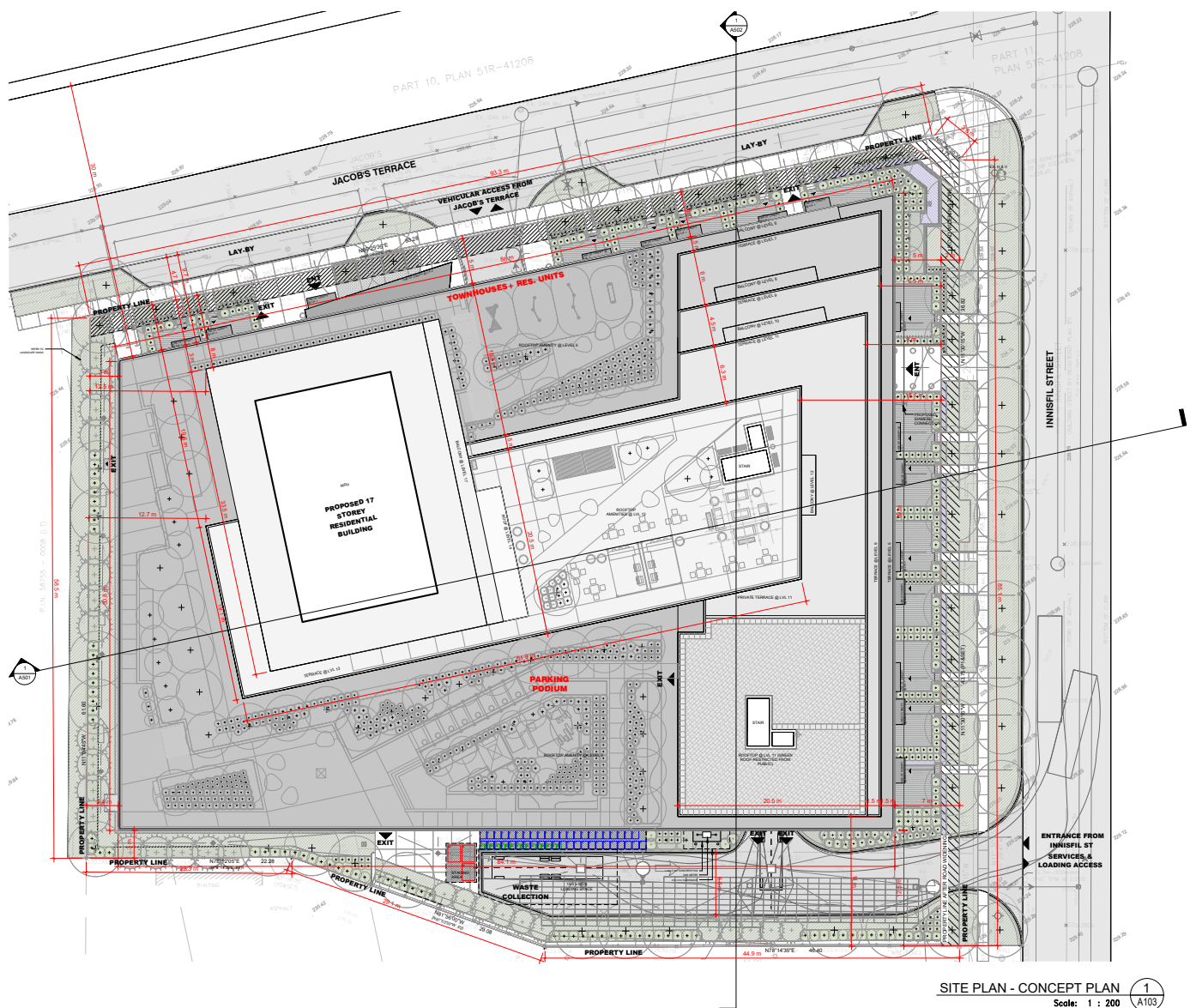


Figure 19: Site Plan, prepared by SRN Architects

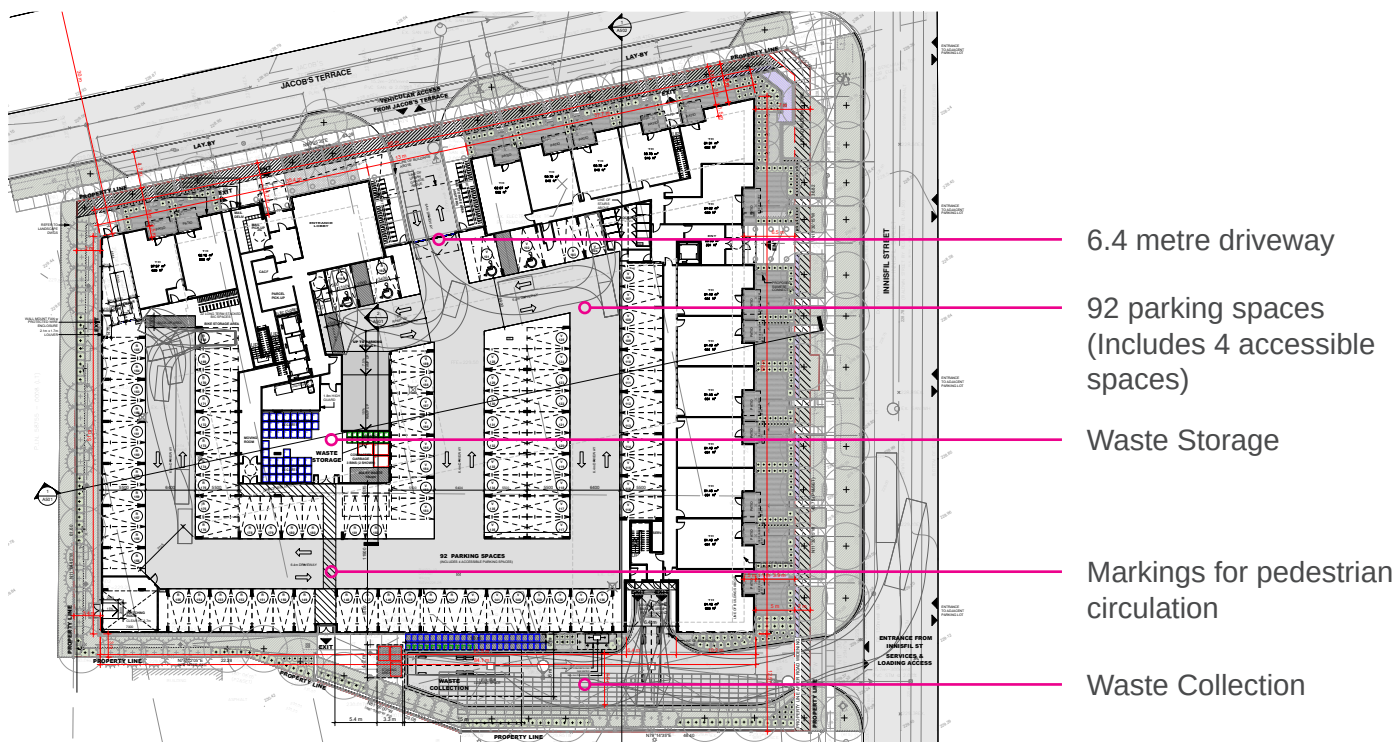


Figure 20: Level 1 - Floor Plan, prepared by SRN Architects

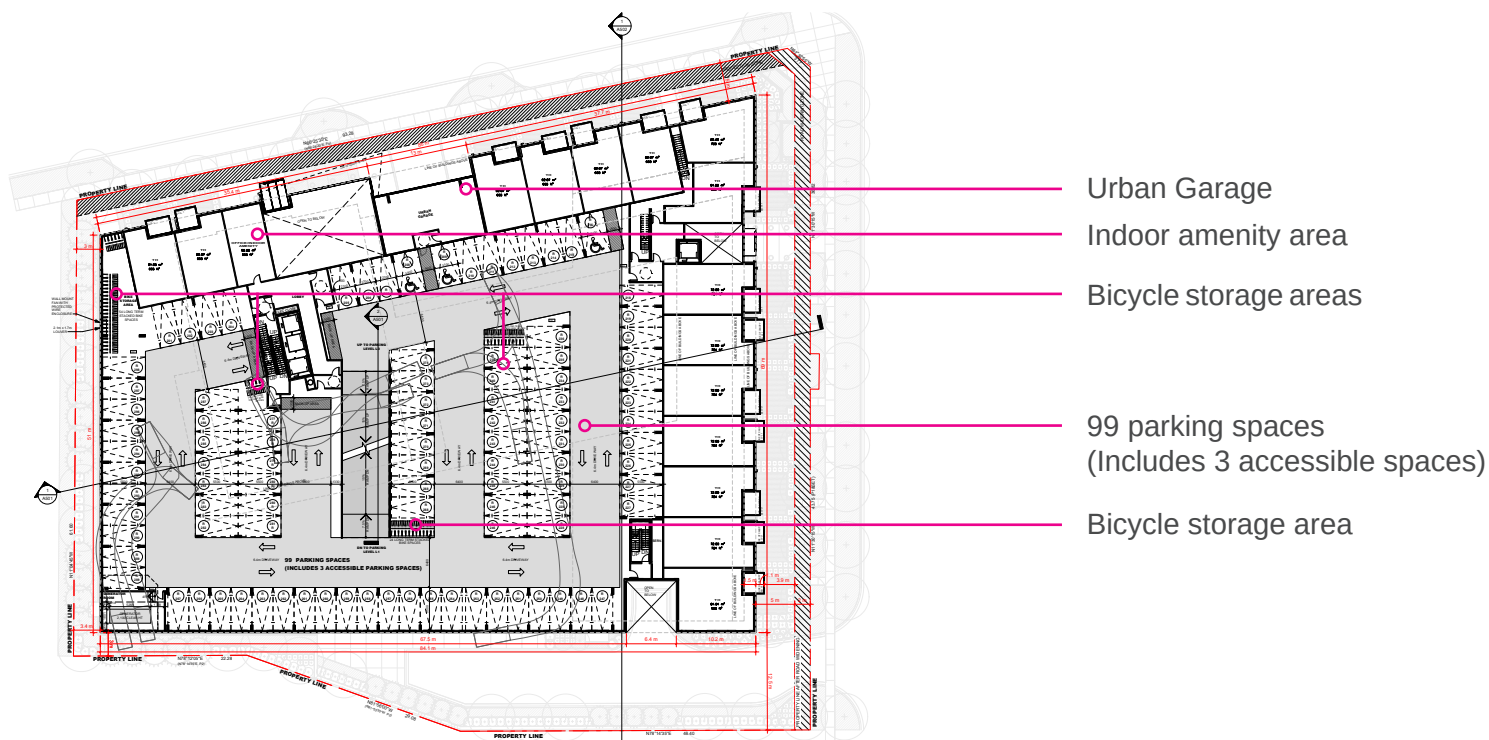


Figure 21: Level 2 - Floor Plan, prepared by SRN Architects

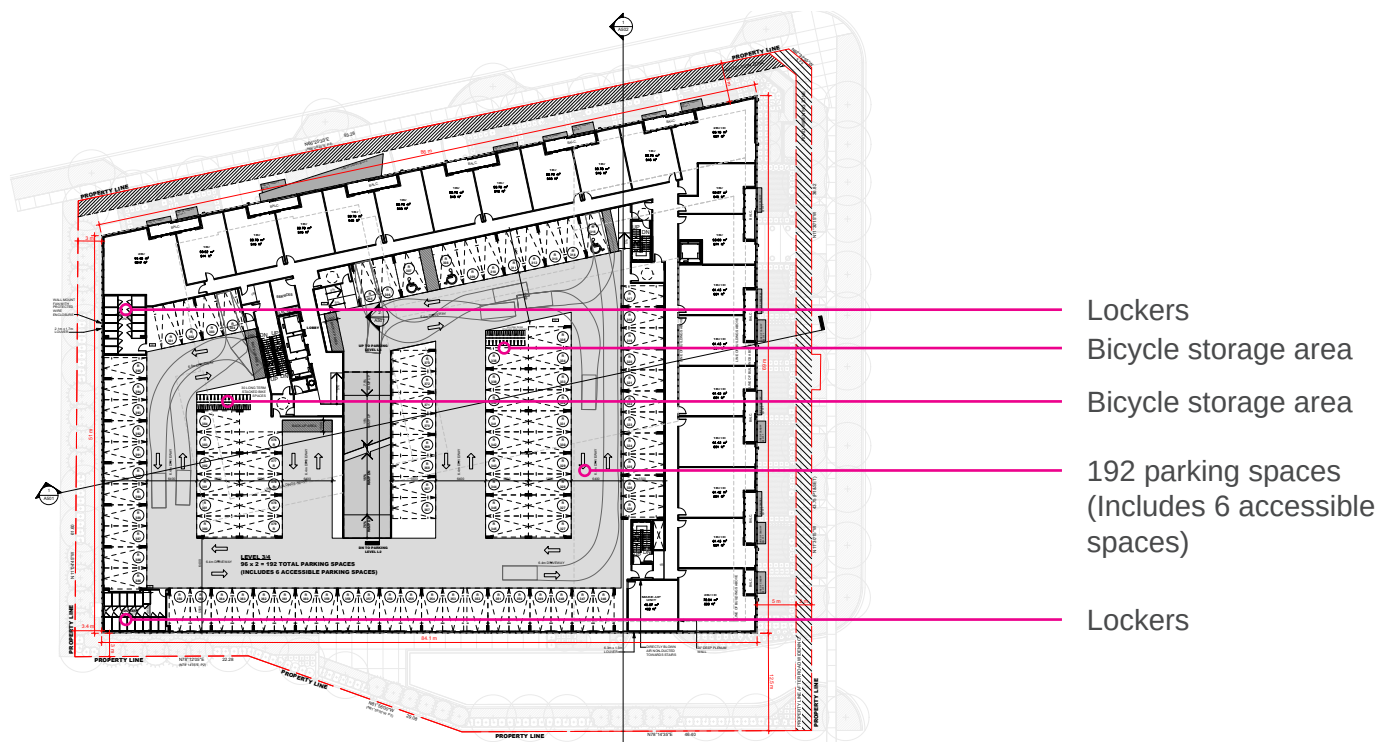


Figure 22: Level 3 to 4 - Floor Plan, prepared by SRN Architects

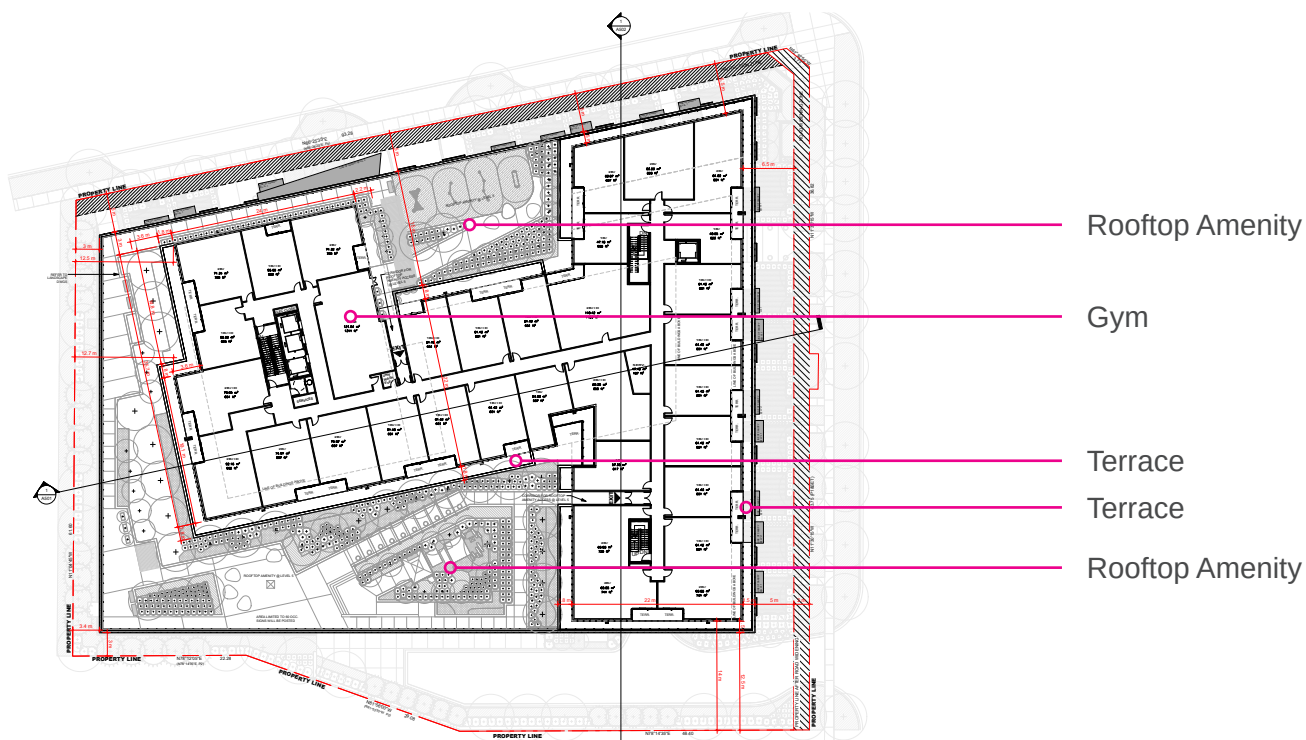


Figure 23: Level 5 - Floor Plan, prepared by SRN Architects

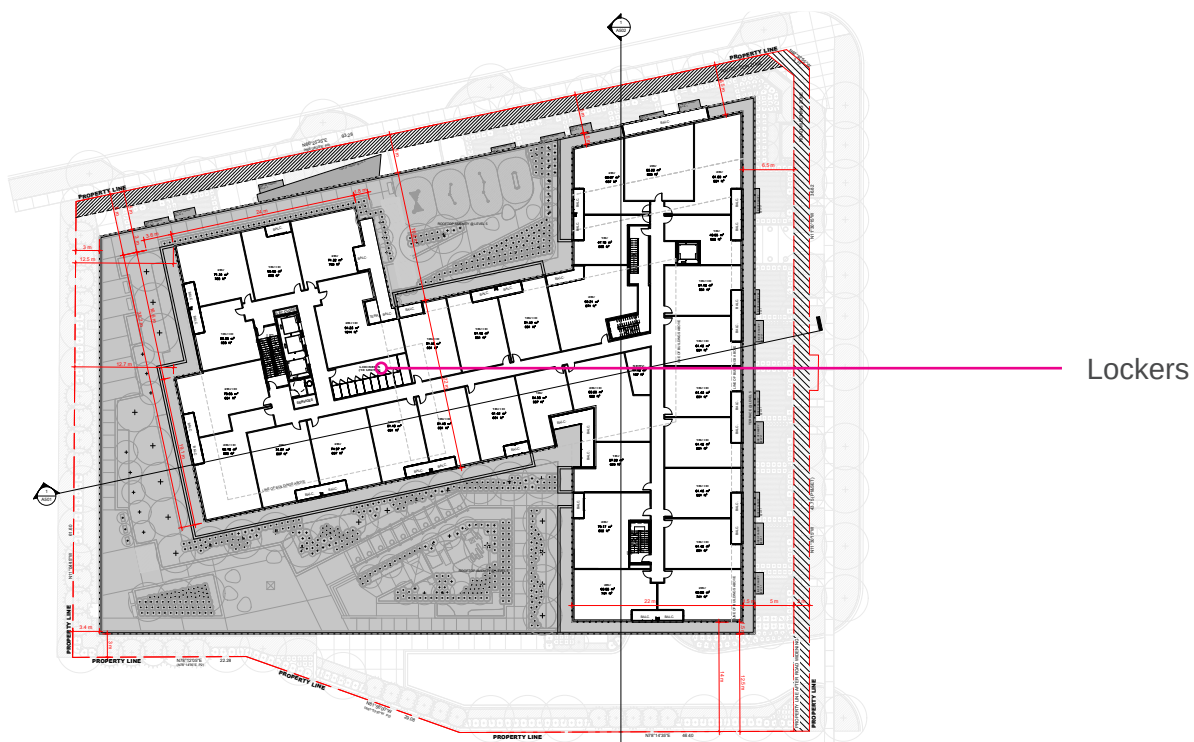


Figure 24: Level 6 - Floor Plan, prepared by SRN Architects

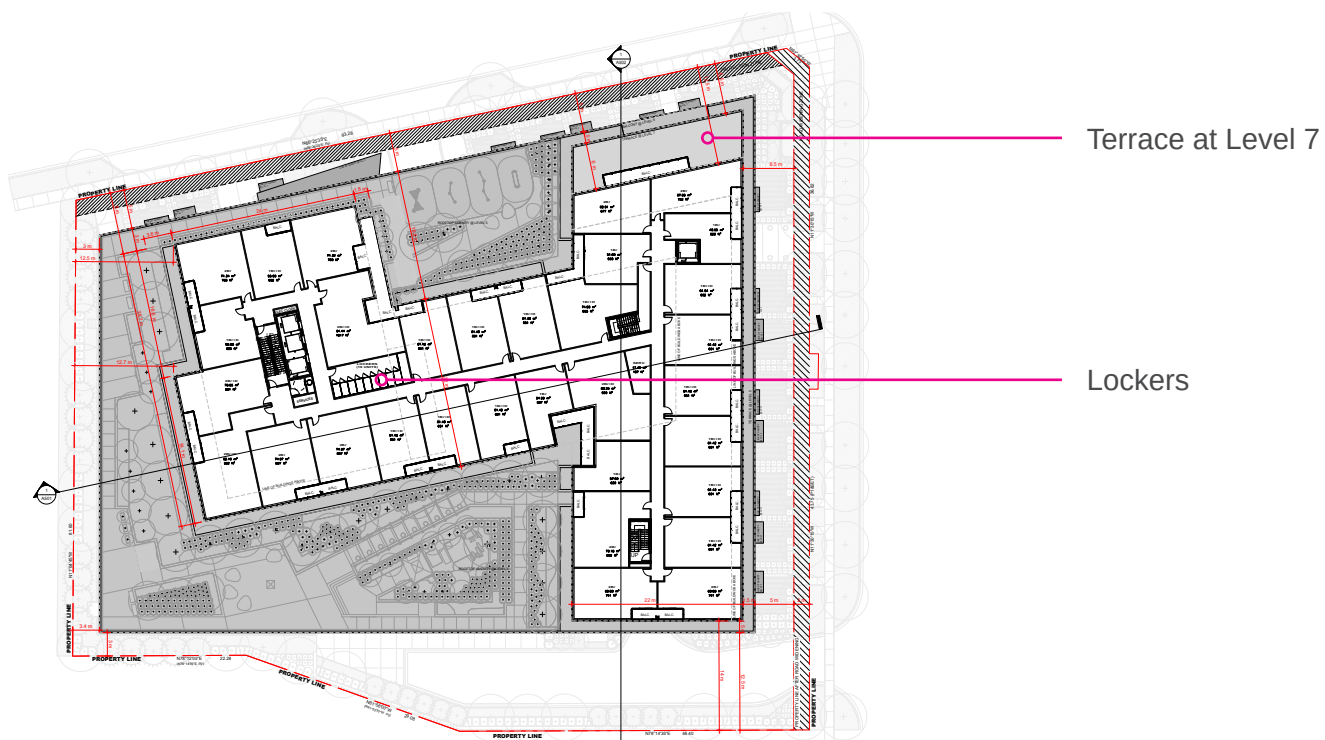


Figure 25: Level 7 - 8 - Floor Plan, prepared by SRN Architects

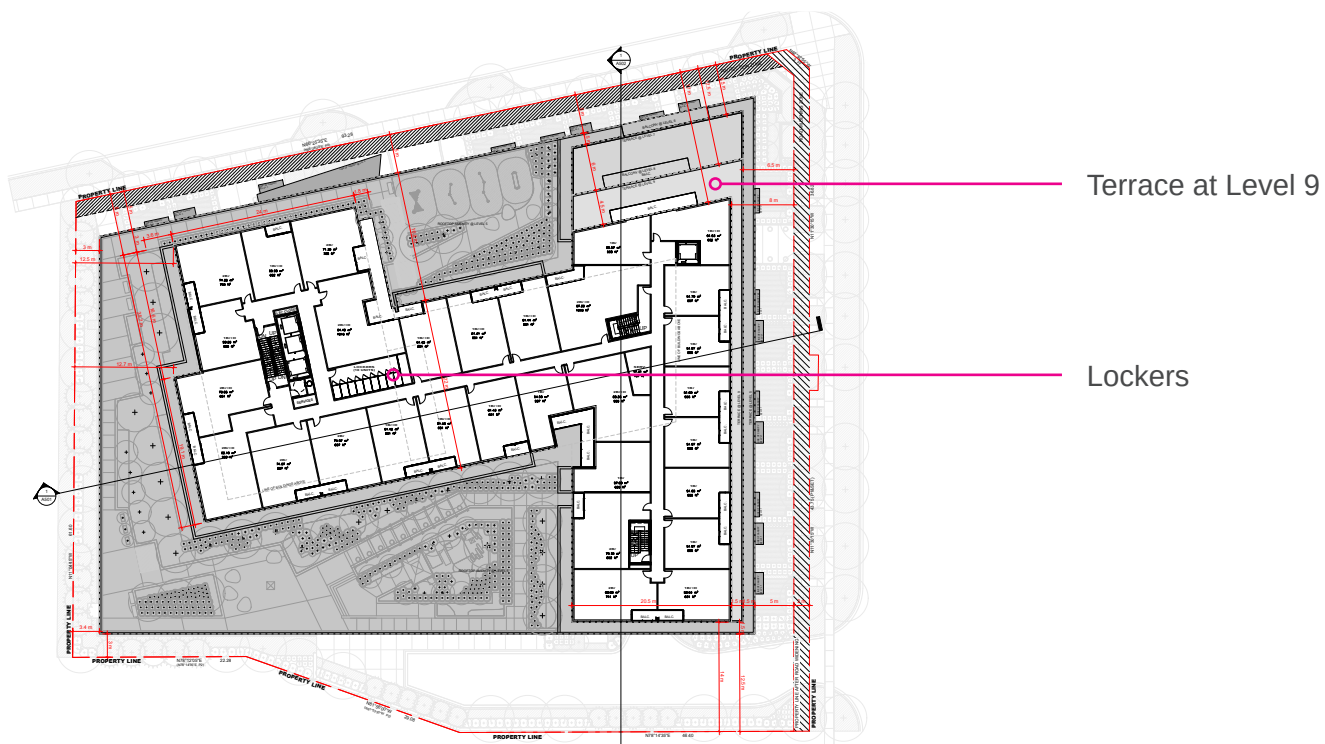


Figure 26: Level 9 to 10 - Floor Plan, prepared by SRN Architects

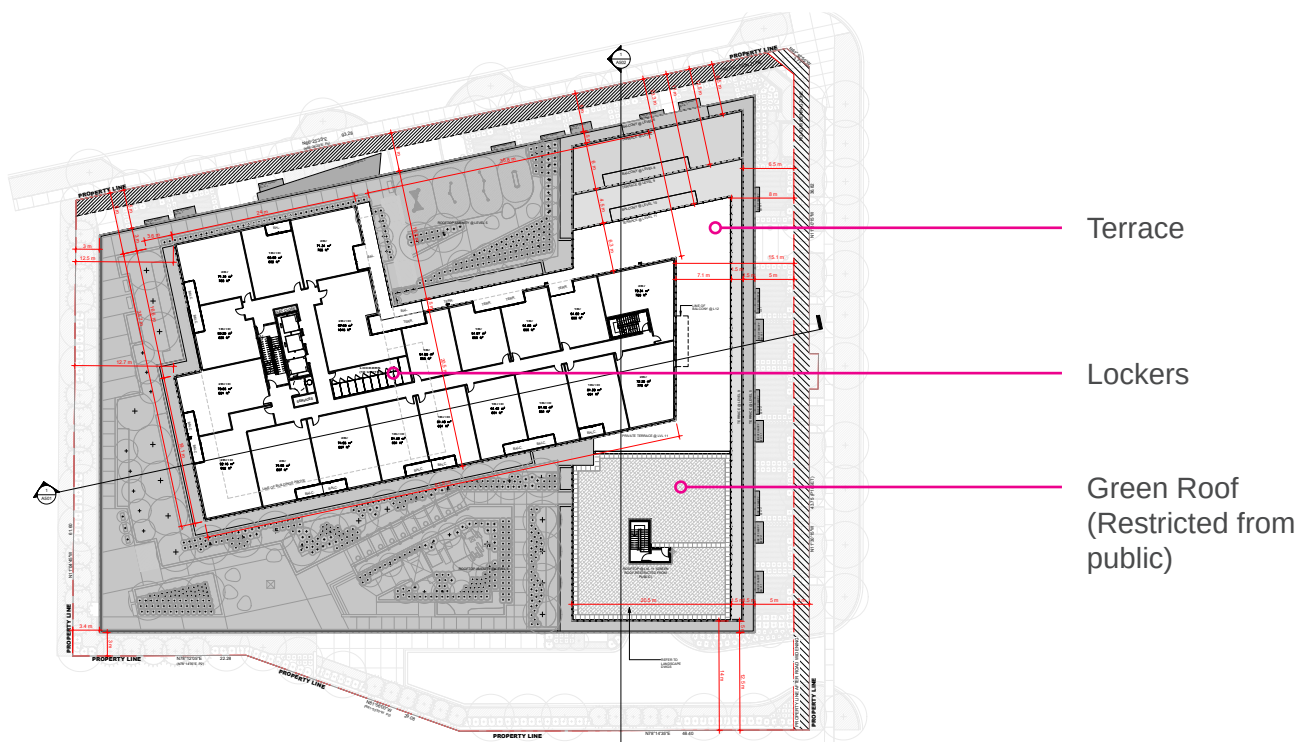


Figure 27: Level 11 - Floor Plan, prepared by SRN Architects

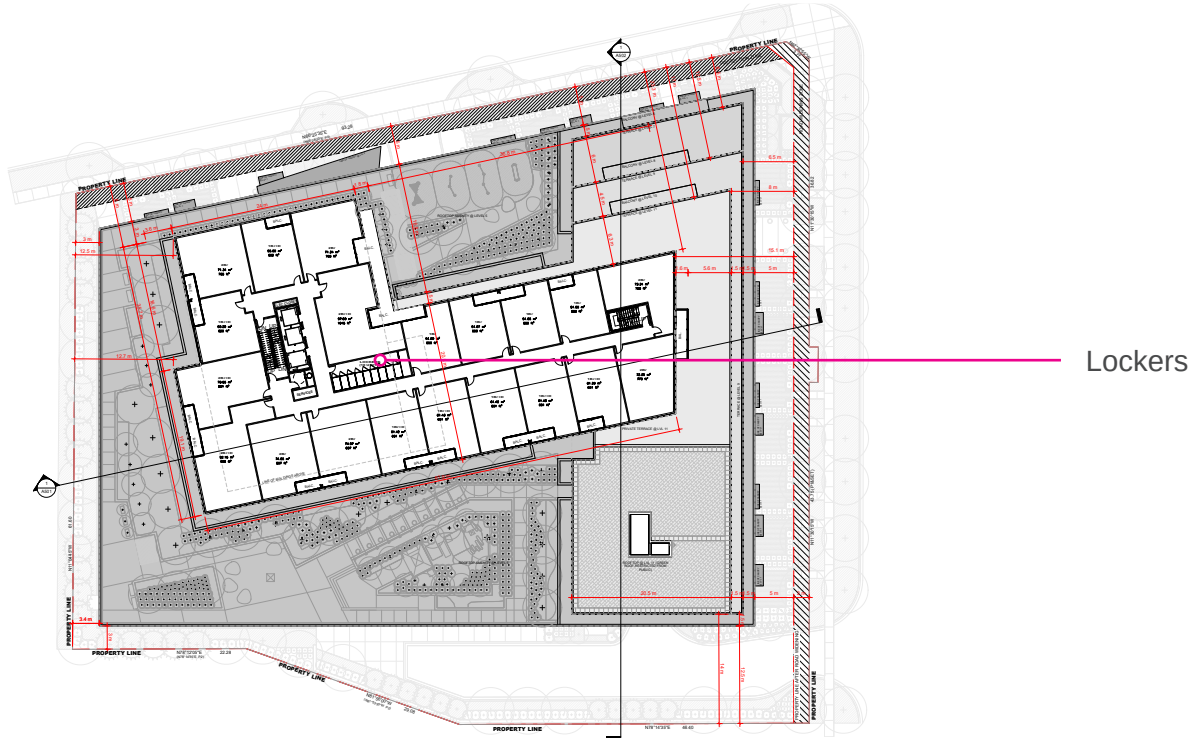


Figure 28: Level 12 - Floor Plan, prepared by SRN Architects

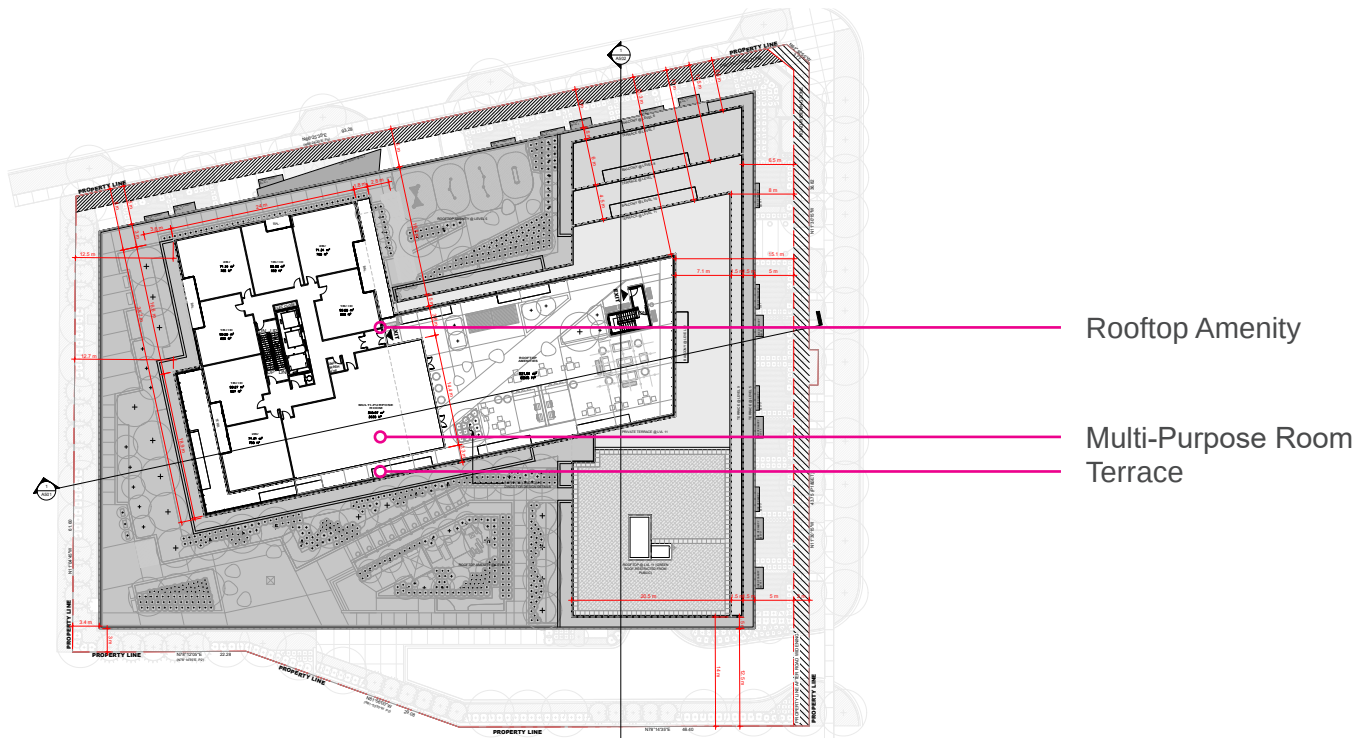


Figure 29: Level 13 - Floor Plan, prepared by SRN Architects

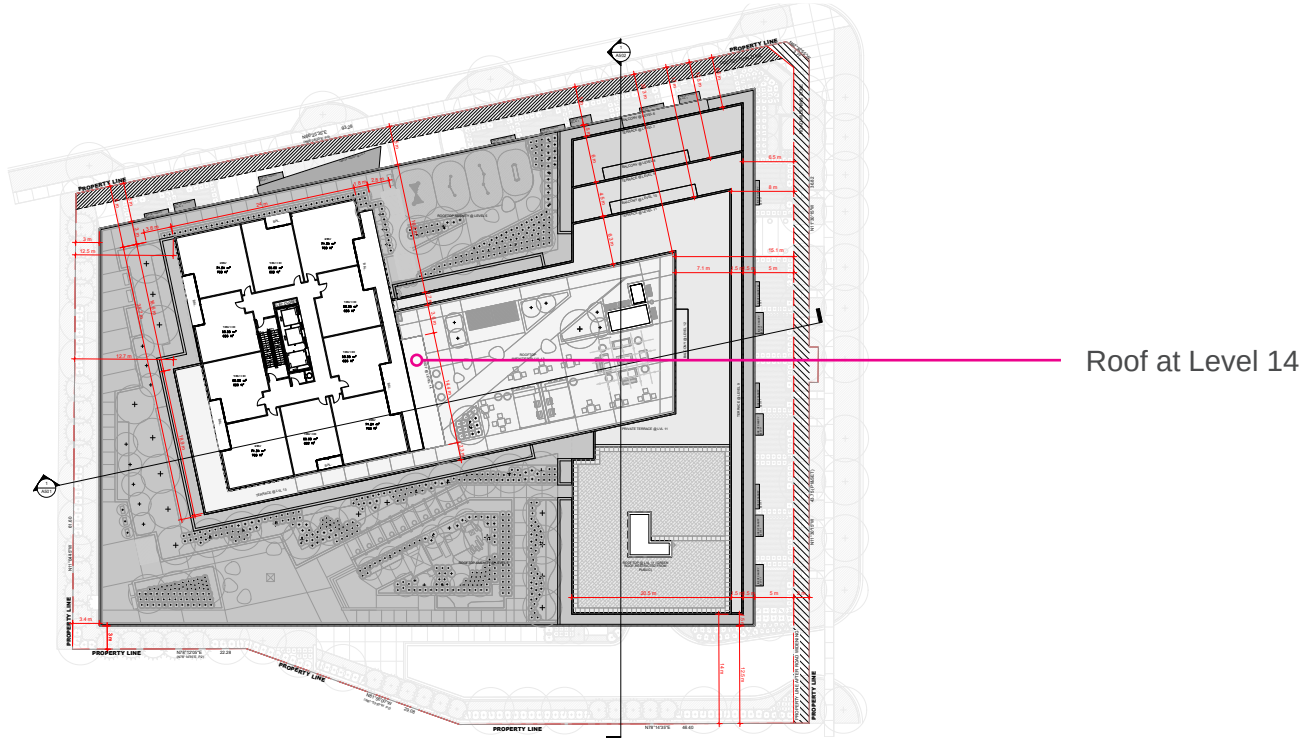


Figure 30: Level 14 to 17 - Floor Plan, prepared by SRN Architects

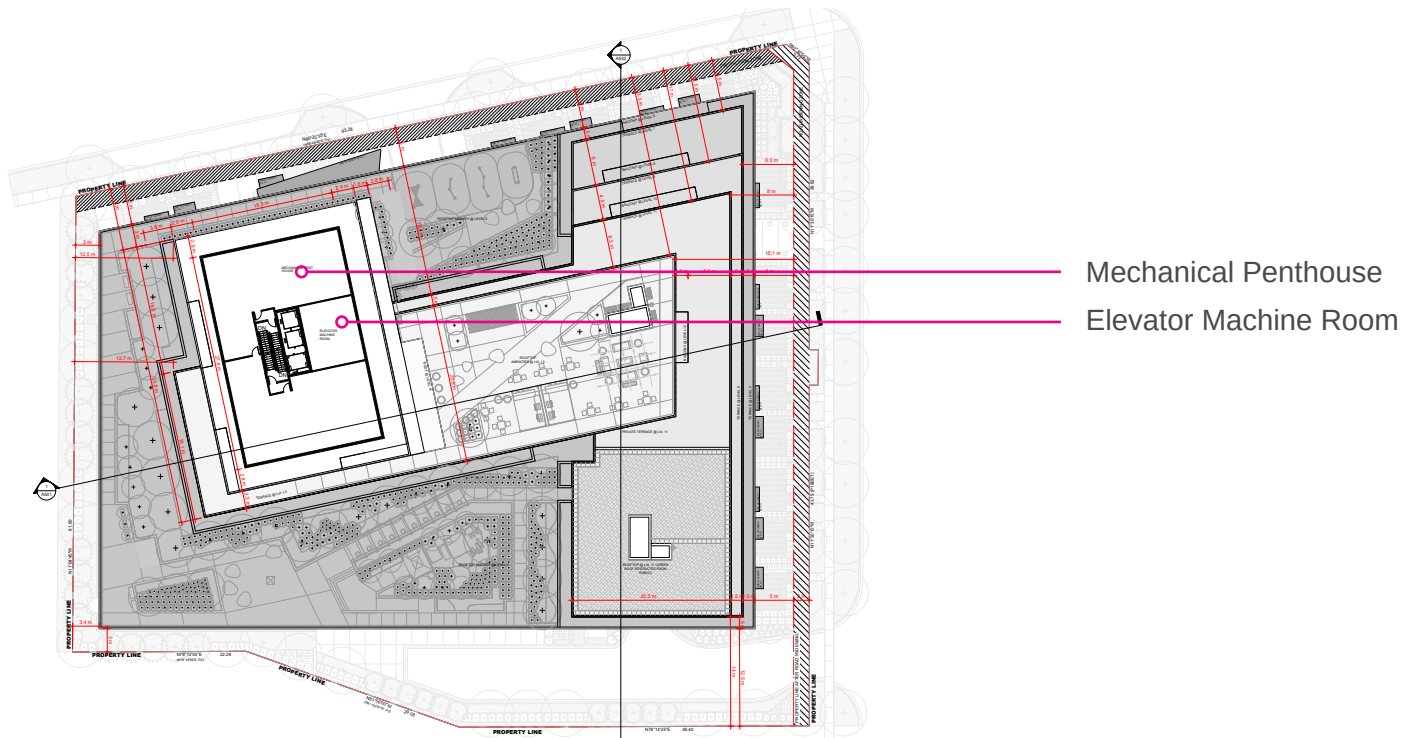


Figure 31: Level MPH - Floor Plan, prepared by SRN Architects



Figure 32: Rendering of the proposed development, prepared by SRN Architects



Figure 33: Rendering of the proposed development, prepared by SRN Architects

3.3 BUILT FORM MASSING

The proposed built form of the high-rise residential building takes into consideration the surrounding built form and context. The overall massing includes a 4-storey podium which will reinforce the human scale by establishing a street wall along both roadways and provide an appropriate transition between the site and the surrounding built form.

A 1.5 metre setback to Level 5, at the corner of Jacobs Terrace and Innisfil Street, will help to define and distinguish the prominent corner location of the building, and establish a more consistent streetwall along Innisfil Street. Larger setbacks (8 metres and 12.5 metres) are provided at the northeast corner, to the tower portion of the building. This will provide appropriate distance and separation between the site and the surrounding and assist in mitigating shadow impacts.

The east portion of the building incorporates a tiered massing which helps to satisfy 45-degree angular plane requirements.

The 45-degree angular plane requirement helps to reduce and mitigate shadowing impacts. Angular planes have been applied along both Innisfil Street and Jacobs Terrace (near the intersection). There is no significant shadowing impact to the surrounding properties as illustrated in the Sun/Shadow Study in Section 5 of this report. Neighbouring buildings may experience some shadowing for a minimal amount of time during the day, but will receive adequate access to daylight. A more detailed description of shadow impact is provided later in the report.

At 17 storeys, the proposed development provides an appropriate transition in height between planned (new Official Plan) Medium Density development to the west and south and High-Density development to the east proposed at higher heights. The development is context-appropriate in accordance with the City's new Unconsolidated Official Plan policies. It represents a high-quality design to maintain the *City Centre* image and future MTSA.



Figure 34: Rendering of the proposed development, prepared by SRN Architects

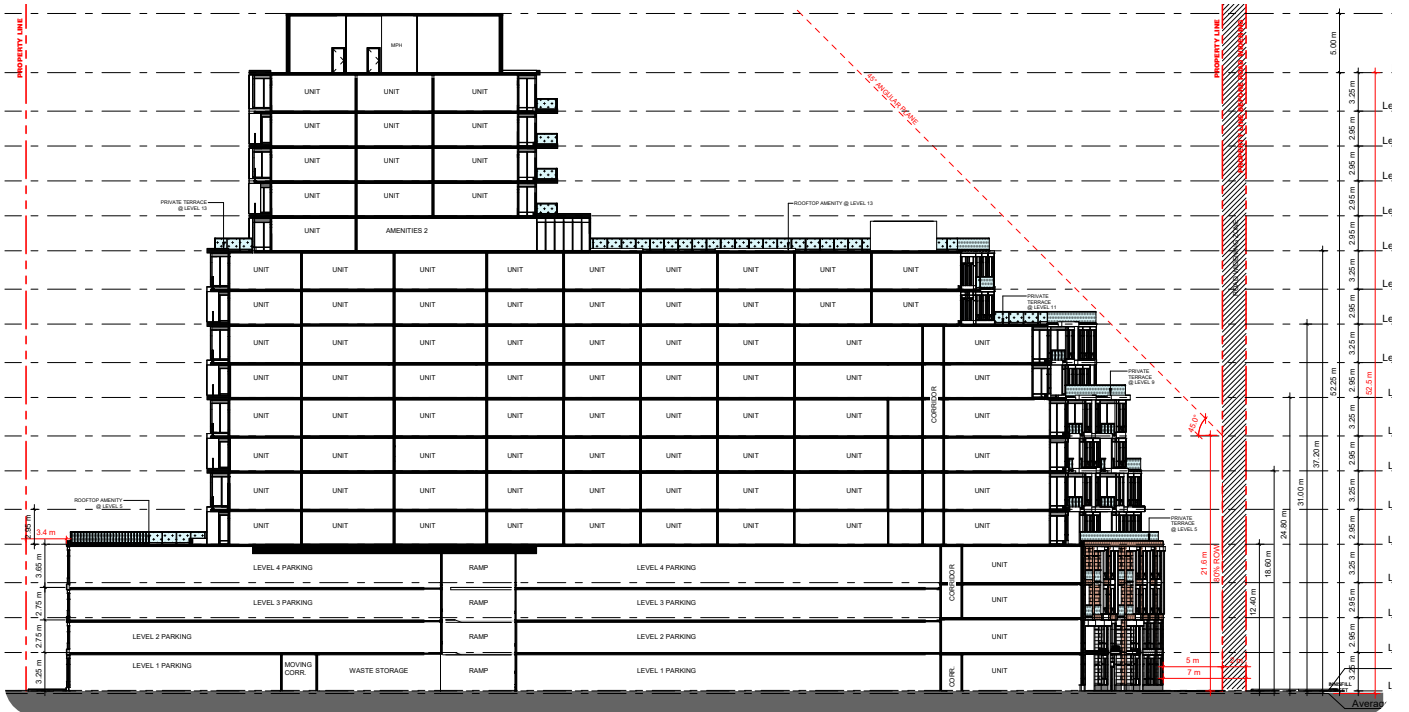


Figure 35: Section 1 - illustrating Angular Plane along Innisfil Street, prepared by SRN Architects

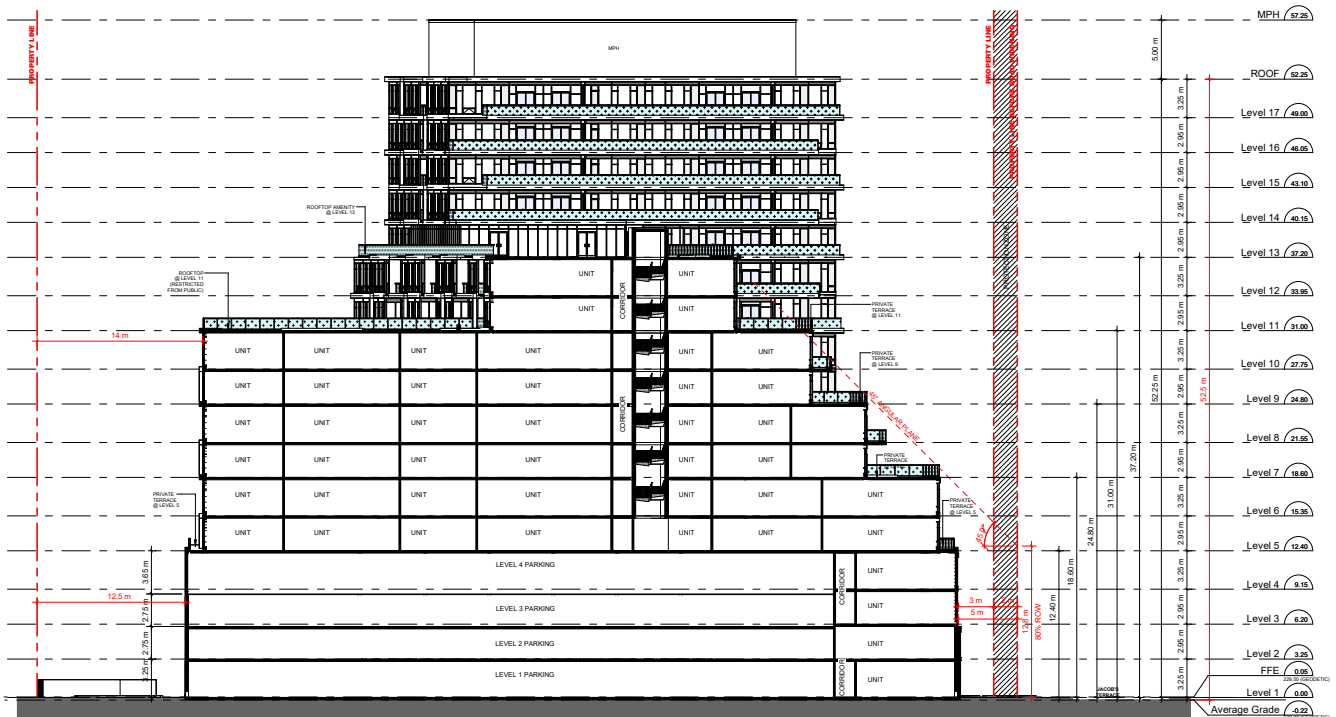


Figure 36: Section 2 - illustrating Angular Plane along Jacobs Terrace, prepared by SRN Architects

3.4 BUILDING MATERIALITY

The materiality for the proposed building will incorporate metal, concrete, masonry brick veneer and/or stone and glass. The design creates an appropriate blend of the materials in the surrounding area while proposing a contemporary structure. Materials will help to define elements of the structure including the 4-storey podium, terraces and balconies, and key entrances.

The 4-storey podium is proposed to be a brick veneer material, unique to the other components of the building structure. This will help distinguish and define the podium, which will provide a more human-oriented scale and transition to the evolving character of the surroundings. Variation of the brick colour will also help to create a sense of low-rise scale, more intimate environment, defining entrances and variations in the façade. By juxtaposing the more natural materials of the lower levels with the more contemporary glazing and aluminum panels of the tower portion, the development creates an appropriate blend of the established neighbourhood character with more current and modern elements.

The renderings prepared by SRN Architects illustrate wood elements also incorporated within the lower levels of the building. The main entrance incorporates an architectural element/canopy feature along Jacobs Terrace. The wood material contrasted against the charcoal aluminum panels provide a clear definition of the entrance while still maintaining a warmth and welcoming feeling. Signage will also be incorporated at the entrance which contributes to the placemaking on site and invites residents and visitors to explore.

The ground floor will have glazing to promote indoor and outdoor permeability. Glazing on the upper levels will also encourage eyes on the street and establishes opportunities for views of the City Centre and Kempenfelt Bay. Bird friendly glazing is also proposed for the balconies throughout the building.



Figure 37: Rendering illustrating Jacobs Terrace - entrance looking southwest, prepared by SRN Architects



-  Fiber Reinforced Cement Panels (White)
-  Masonry Brick Veneer/ or Stone Finish (Red)
-  Architecture Precast Concrete Wall Base (Gray)

Figure 38: Rendering illustrating Jacobs Terrace entrance looking southeast, prepared by SRN Architects



-  Architecturally Finished Concrete Slab Coating (White)
-  Masonry Brick Veneer/ or Stone Finish (Light Gray)

Figure 39: Rendering illustrating Innisfil St. townhouses looking northwest, prepared by SRN Architects



-  Prefinished Aluminum Composite Panel (Charcoal)
-  Bird Friendly Glass Balcony Rail (Clear with coated pattern)

Figure 40: Rendering illustrating Innisfil St. townhouses looking west, prepared by SRN Architects



-  Prefinished Aluminum Composite Panel (White)
-  Prefinished Aluminum Composite Panel (Dark Gray)
-  Architecturally Finished Concrete Slab Coating (Gray)
-  Masonry Brick Veneer/ or Stone Finish (Dark Gray)

Figure 41: Rendering illustrating south of condo looking north, prepared by SRN Architects

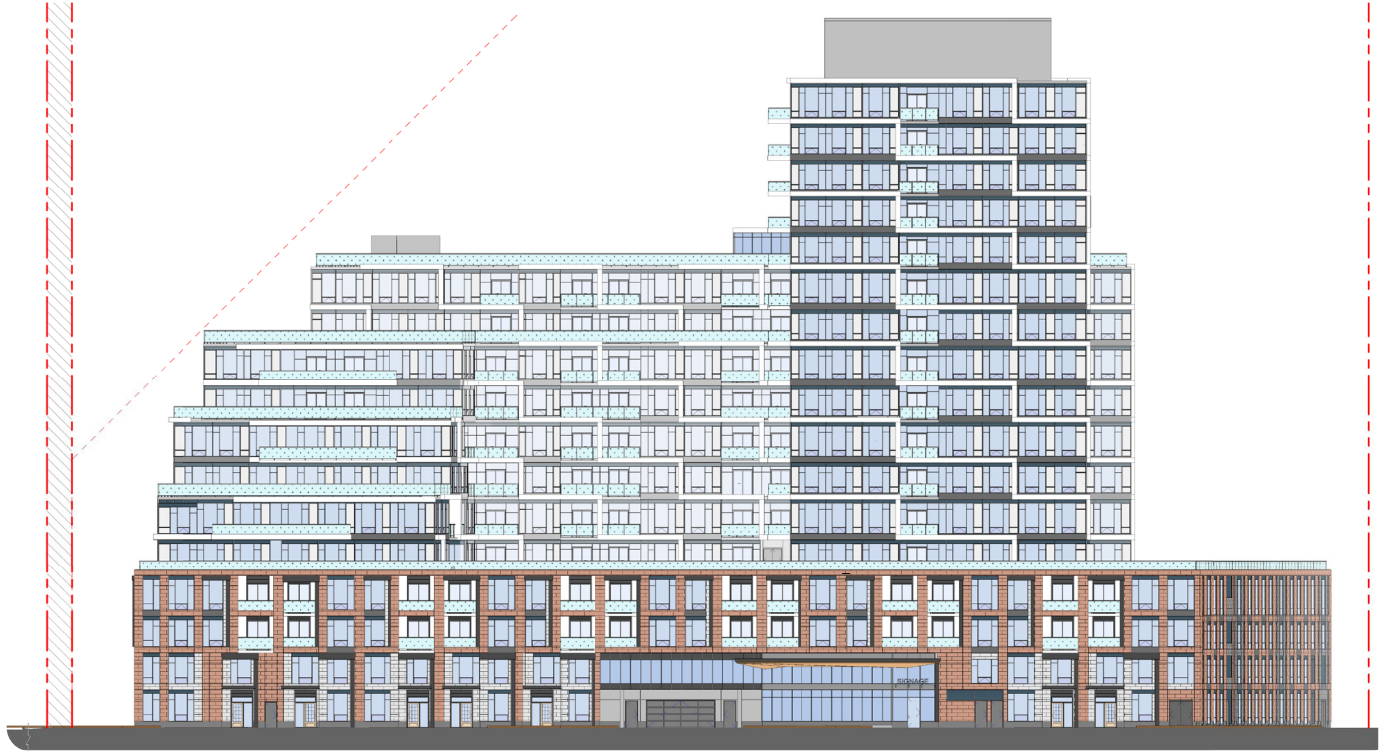


Figure 42: North Elevation, prepared by SRN Architects



Figure 43: East Elevation, prepared by SRN Architects



Figure 44: South Elevation, prepared by SRN Architects

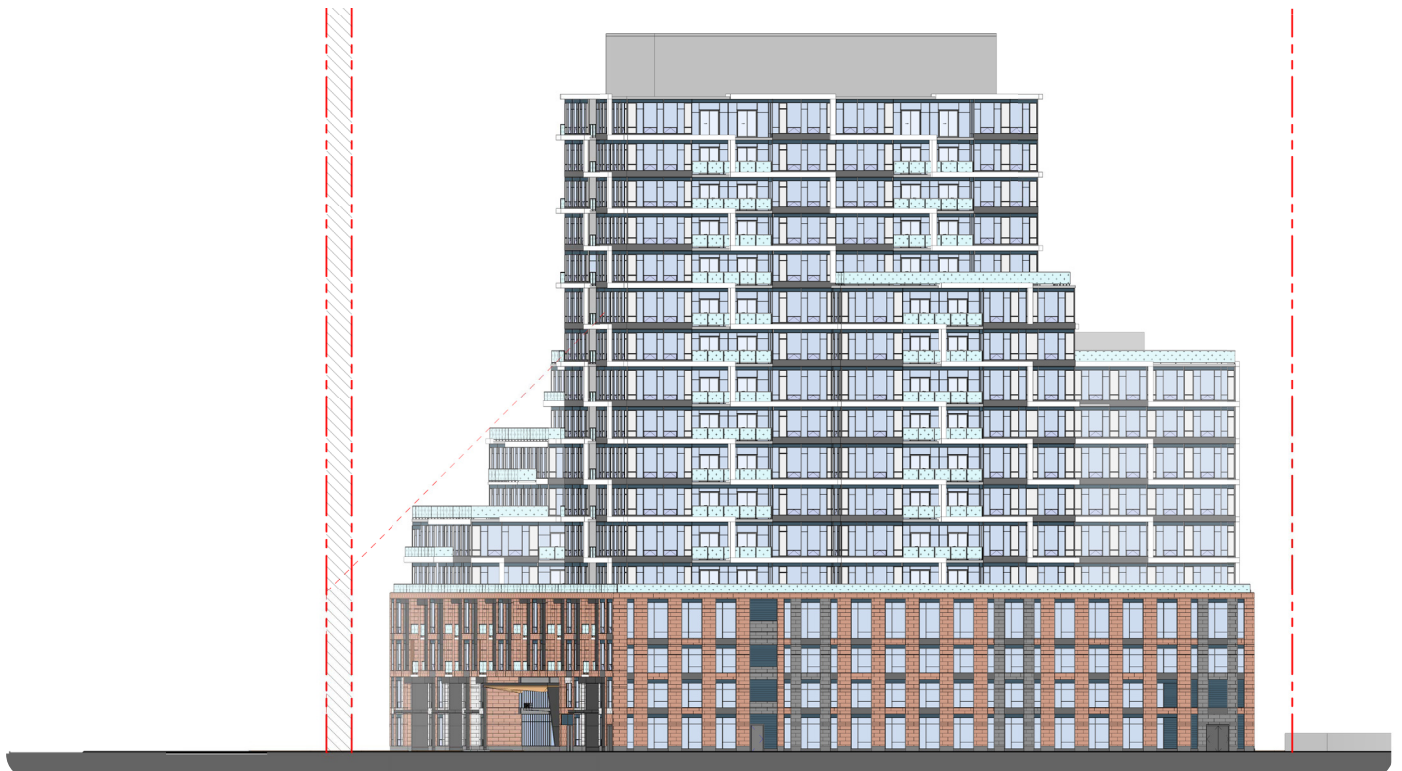


Figure 45: West Elevation, prepared by SRN Architects

3.5 STREETSCAPE AND LANDSCAPING

The Landscape Plan, prepared by Baker Turner Inc. (BTI) Landscape Architects in April 2022, illustrates details related to streetscape enhancements and planting on site. As part of the site evaluation, an Arborist Report and Tree Inventory & Preservation Plan were also prepared and are filed under a separate cover. The proposal includes a variety of trees, shrubs, perennials, grasses, groundcover and vines that will contribute to the greenery on site and the general neighbourhood. Trees around the perimeter of the property will establish screening and privacy between the site and surroundings. Trees along the roadways will enhance the pedestrian experience, offering shade to those walking and further contributing to the urban canopy. Planting will also help to define entry points at grade. These elements help to further strengthen the relationship between the public and private realm.

To enhance the quality of Jacob's Terrace streetscape, a 3-metre strip of landscape was introduced and integrated with vehicular lay-by and 1.5-metre sidewalk following the City of Barrie design standards for 18-metre roads.

Details related to planting within the outdoor amenity areas on Level 5 and 13 and green roof on level 11 have also been provided by BTI Landscape Architects. These areas provide residents with private outdoor amenity space and will include seating areas, BBQ's, and opportunities for sculptures and shade structures. A variety of plant species are proposed in these areas, introducing a variety of colour and texture to the property.

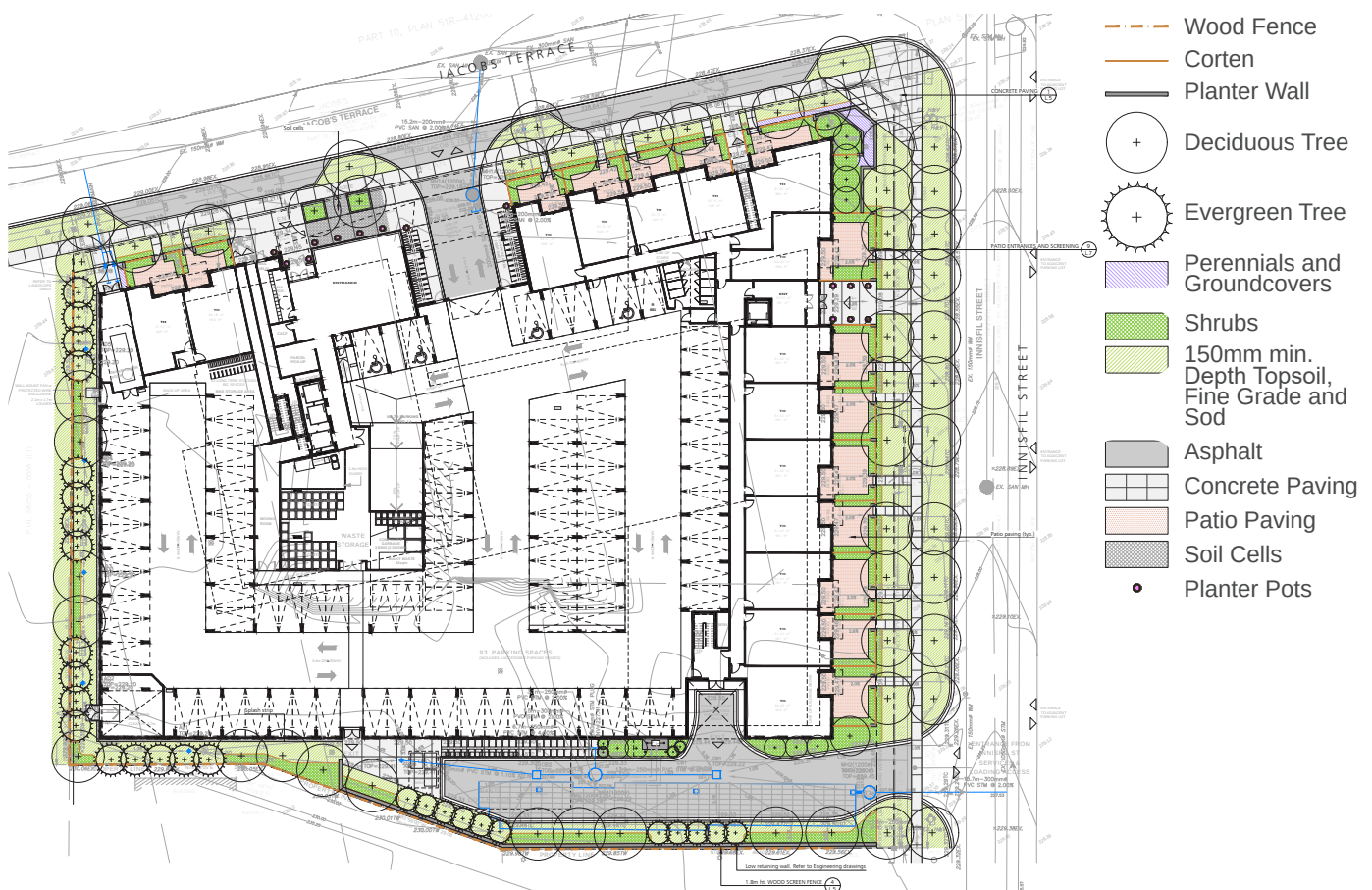


Figure 46: Landscape Plan, prepared by BTI Landscape Architects

The outdoor amenity areas are proposed to extend off of indoor amenity areas which provide some flexibility in terms of the use of the space. By incorporating the outdoor amenity areas at higher levels of the built-form, the design optimizes on potential opportunities for views of the surrounding.



Figure 47: Level 5 Amenity Area, prepared by BTI Landscape Architects

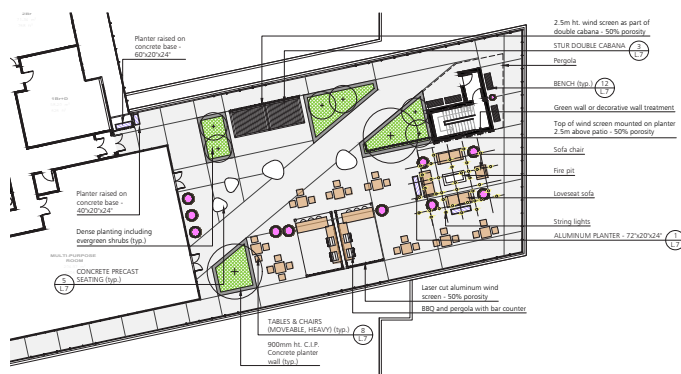


Figure 48: Level 13 Amenity Area, prepared by BTI Landscape Architects

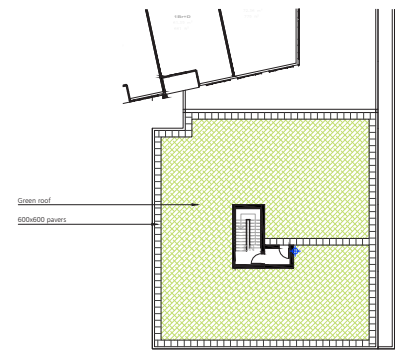


Figure 49: Level 11 Green Roof, prepared by BTI Landscape Architects

3.6 CONNECTIVITY

Vehicular Circulation

Access to the site is proposed along Jacobs Terrace via a driveway that leads into the parking facility. The 6.4-metre driveway width establishes an appropriate distance for efficient vehicular circulation. Table 3 includes a breakdown of parking provided at each level of the 4-storeys parking structure. Two lay-by areas are also included in the site plan along Jacobs Terrace; one on either side of the parking structure entrance. This offers an area for drop-off and waiting near the main entrance of the building

Access for waste collection vehicles is proposed at the southeast corner of the site via Innisfil Street. The driveway leads vehicles along the southern property line which will ensure distinct routes and separation between vehicles, pedestrians and services trucks. The designated waste collection area is well-situated in proximity to the waste storage area located within the parking structure facility.

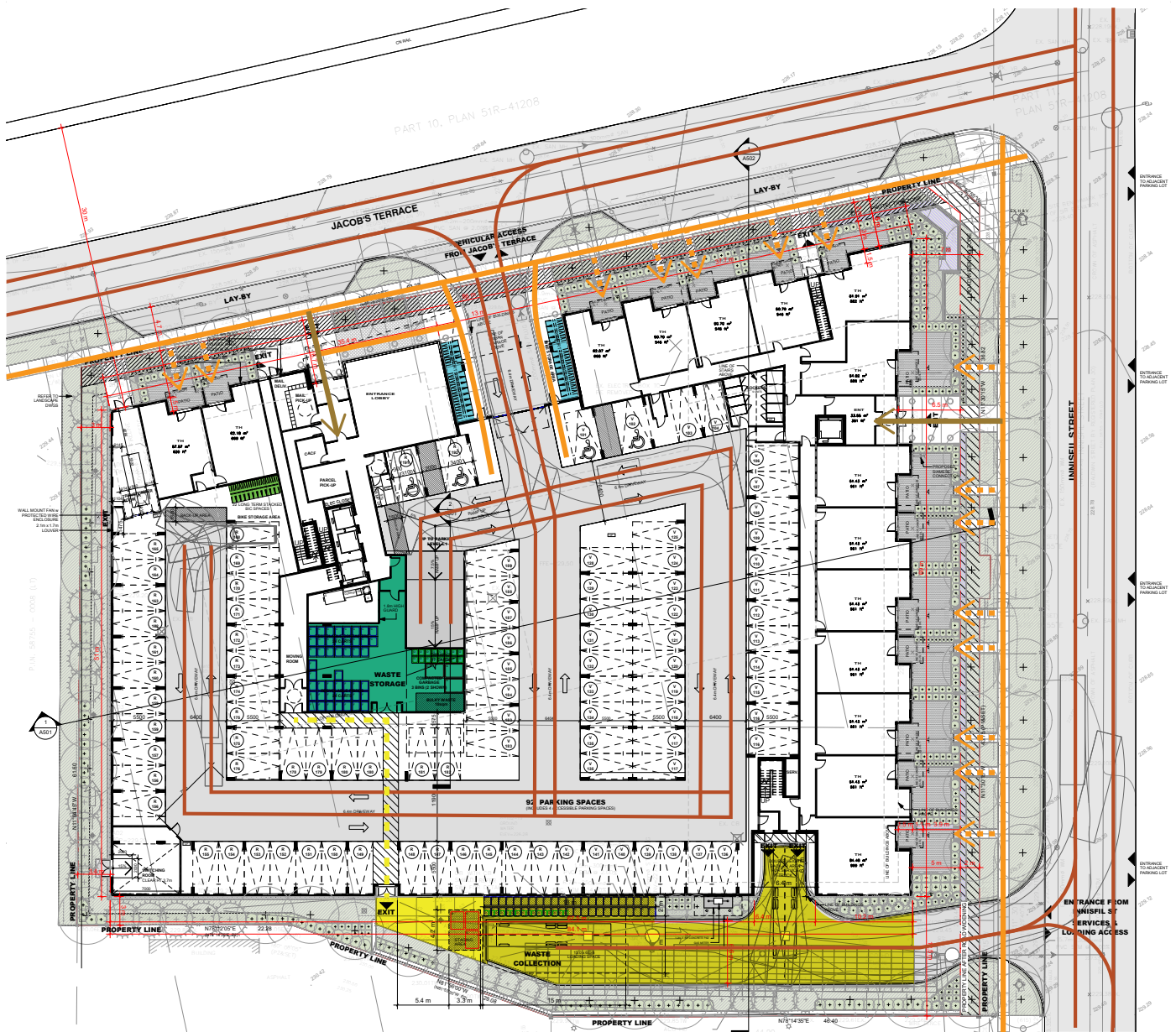
Table 3. Parking Breakdown

Level	Parking Spaces
Level 1	92 (42 Residential and 50 Visitor) 4 Accessible Spaces
Level 2	99 (Residential) 3 Accessible Spaces
Level 3	96 (Residential) 3 Accessible Spaces
Level 4	96 (Residential) 3 Accessible Spaces
Total:	383

Pedestrian Circulation

The frontage along Jacobs Terrace includes a 2-metre protection zone off of the public sidewalk and property line. The frontage along Innisfil Street includes a 2-metre road widening. These areas will create opportunities for further landscaping which will enhance the pedestrian experience in the public realm. The public sidewalk surrounds the whole extension of the building street walls along the roadways to the intersection of Jacobs Terrace and Innisfil Street, integrating the existing pedestrian network. At grade connections between the public realm are proposed and identified in Figure 50. These connections strengthen the relationship between the site and adjacent public realm areas and will be further enhanced by landscaping elements.

There are two residential entrances to the proposed building. The main entrance is located along Jacobs Terrace which leads to the building lobby, mailroom and elevators. There is another public entrance towards the northeast corner of the building from Innisfil Street. This connects to an elevator and hallway which leads to townhouse units. The entries are recessed from the street, which helps to define the location and minimize the adverse impacts of strong winds. The circulation diagram illustrates the direct private access to ground level units that is proposed along the Jacobs Terrace and Innisfil Street. This will strengthen relationship between the subject property and public realm. Ground level patios are also proposed for townhouse units which will encourage and support eyes on the street, allowing for natural forms of surveillance.



- Vehicular Circulation
- Pedestrian Circulation
- Private Entrance
- Entrance
- Access from Waste Collection to Waste Storage
- Waste Collection/Service Area
- Waste Storage
- Short Term Bicycle Storage
- Long Term Bicycle Storage

Figure 50: Circulation Diagram, prepared by Weston Consulting

4

P O L I C Y C O N T E X T

4.1 CITY OF BARRIE OFFICIAL PLAN, 2010

The in-force City of Barrie Official Plan designates this site City Centre on Schedule A – Land Use and Commercial on Schedule B – Planning Areas. It is also part of the Urban Growth Centre on Schedule I – Intensification Areas. Schedule D – Roads Plan, identifies Innisfil Street as a Primary Collector. The current Official Plan permits the development proposal in terms of use, height and density. Therefore, the policy analysis presented in this brief is focussed on site plan and design matters.

City of Barrie By-law 2020-073 amended the City's Zoning By-law 2009-141 to zone the property Transition Centre Commercial 2 (C2-2) (SP-595) (H- 149) Zone. This zoning permits the proposed Apartment Dwelling. Special Provision (SP-595) requires a maximum height of 52 metres and includes provisions that commercial uses are not required, and a minimum 5 metre side yard setback adjacent Jacobs Terrace is required. Under the current zoning, the development is required to meet the following regulations:

Minimum Front Yard: N/A

Minimum South Side Yard: 3 m + 0.5 m per every 2 m of height over 11 m

Minimum North Side Yard Adjacent Jacob's Terrace: 5 m

Minimum Rear Yard: N/A

Maximum Gross Floor Area: 400% of Lot Area

Maximum Lot Coverage: N/A

Maximum Building Height: 10 m within 5m of the front lot line and the lot flankage, 52 m beyond 5m of the front lot line and the lot flankage.

Minimum Continuous Landscaped Buffer along Side and Rear Lot Lines: 3.0 m

Minimum Required Parking: 1 space per unit

Minimum Barrier Free Parking: 1 space + 3% of Required Parking Spaces

The architectural package filed in support of the Site Plan Application provides a Zoning Chart of Required vs. Provided in regard to the above regulations.

The Holding Provision (H-149) can be lifted once a Record of Site Condition has been accepted by the Ministry of the Environment, Conservation and Parks (filed on Environmental Site Registry) and once the owner enters into a Site Plan Agreement with the City.

4.1.1 HOUSING (SECTION 3.3 OF OFFICIAL PLAN)

The proposed site plan application conforms to the applicable goals and policies of Section 3.3 of the Official Plan.

The proposed development provides for 333 residential units comprising 15 townhouse units (5% of all units) and a mix of apartment units comprising 196 1-Bedroom units (59% of all units) and 122 2-Bedroom units (37% of all units). These units range in GFA from 117.5 to 201.1 sq. m for townhouse units (2-bedrooms plus den), 47.9 to 61.8 sq m for 1-Bedroom units (some with den), and 64.2 to 101.3 sq m for 2-Bedroom units (some with den).

The development therefore provides high density housing with a range of housing types and unit sizes in a condominium tenure which will contribute to the needs and income levels of current and future residents, and contributes to a complete mixed-use community. The site is in proximity of the Allendale Waterfront GO Train Station and fronts Innisfil Street which is part of the City's proposed cycling network (new Official Plan). This allows the development to conform to Goals/Policies 3.3.1a) to e), and 3.3.2.1a) and g) of the current Official Plan.

The project comprises intensification by way of redevelopment of an underutilized site which uses surplus piped service and transportation capacities and will assist the City in achieving its intensification and density targets in conformity with Goals/Policies 3.3.1c) and 3.3.2.1c). Further, the design contributes to a safe, vibrant, pedestrian and cyclist-friendly streetscape with a 4 storey podium base fronting Innisfil Street that frames the street,

setbacks to provide future road widenings and ample space for canopy projections, landscaping, and pedestrians, with one access each to Innisfil Street and Jacobs Terrace with adequate sight lines. The proposal provides for on-site long and short term bicycle storage and urban garage facilities for cycle maintenance (Goal 3.3.1c).

In regard to the Affordable Housing Policies in Section 3.3.2.2 of the current Official Plan, while the zoning for this site indicates the intent to apply Section 37 of the Planning Act, the City has not cited any community benefits, including affordable housing, in the zoning for this site as required by Section 37(1) of the Act and Policy 6.8d) of the current Official Plan. The bonusing provisions of the Act are soon to be replaced by provisions allowing the City to pass a Community Benefits Charge By-law. An appraisal completed to determine the increased value due to the recent rezoning which allowed an increase in maximum height from 45 to 52 metres, indicates no change in value, primarily since the maximum density of development permitted did not change. As the City has not implemented Section 37 in accordance with the Act and there is no change in value, a bonusing agreement cannot be used to implement the City's affordable housing policies. However, the number of new units and the mix and size of the units will assist the City in achieving its minimum target of 10 percent of all housing units per annum as affordable housing, and this allows the proposal to conform to Policies 3.3.2.2 a), b) and c) of the Official Plan.

4.1.2 ENERGY CONSERVATION & RENEWABLE ENERGY SYSTEMS (SECTION 3.7 OF OFFICIAL PLAN)

EQ Building Performance has submitted an Energy Conservation Report dated March 23, 2022 in support of the application. The report follows the City's Terms of Reference and predicts the energy use, thermal demand and expected carbon impact of the project in compliance with OBC SB-10 standards and Considered Upgrades and provides design strategies to achieve these targets. Advanced measures such

as district energy systems and solar PV are outlined for further exploration, however, further detailed analysis on these features is outside the scope of the report as it is not expected to be completed at this stage of development. The design alternatives discussed in the report are recommendations, and any decision to incorporate them into the final design will need to be vetted with the client's project team.

Passive and Active Design Measures are considered in achieving the targets. Passive Design Measures above OBC standards include regular thermal bridging, improved infiltration, and optimized glazing based on façade orientation. Active Design Measures above OBC standards include a reduced corridor pressurization ventilation rate, variable speed fans, Energy STAR appliances, variable speed pumps, air-side heat recovery, a fan coil or water-source heat pump system, high efficiency LED lighting, daylight and occupancy controls, and a 20% reduction in domestic hot water energy use through low flow plumbing fixtures.

The considered upgrades result in an anticipated 11% reduction in energy use, 23% reduction in carbon emissions and 9% reduction in thermal energy demand when compared to anticipated OBC levels of performance.

Solar ready features are suggested for inclusion in the design. The measurement of embodied energy is also considered (energy required to extract, manufacture, and transport a building's materials, as well as the energy used during construction) and the reuse or recycling of existing materials on-site is encouraged.

The impact of the energy measures between OBC and Considered Upgrades is prioritized in an appendix.

The Energy Conservation Report conforms to the policies in Section 3.7 of the current Official Plan by providing measures that support energy conservation and promoting renewable energy systems.

The development proposal comprises a high density compact urban form of 333 townhouse and apartment units with short and long term bicycle storage and an urban garage for maintenance, fronting a proposed cycling route on Innisfil Street and in proximity to a GO Transit Station and other planned services which support residential use. By nature, it will reduce energy consumption and improve air quality due to a reduction in vehicular trips generated in accordance with Policy 3.7.2.1a) of the Official Plan.

4.1.3 LAKE SIMCOE PROTECTION PLAN (SECTION 3.9 OF OFFICIAL PLAN)

The policies in this section of the Official Plan do not specifically apply to the subject site given its distance from Lake Simcoe. However, Section 3.9.1 a) and b) provides general goals of improving and restoring elements that contribute to the ecological health of the Lake Simcoe watershed, including, water quality and hydrology, and the promotion of environmental sustainability.

The applicant has completed a Hydrogeological Assessment Report by Cambium Inc. dated March 22, 2022 which indicates that the site, as per the South Georgian Bay LSRCA Source Water Protection Plan, is in groundwater vulnerable areas:

In terms of Wellhead Protection Area C, it was determined that as the development is for residential use, it is highly unlikely to cause any significant threat to the municipal water supply aquifer, either qualitatively or quantitatively.

In terms of the Issue Contributing Area, the major land use practices on the site will not include or likely do not require the storage and handling of huge quantities of road salt. Therefore, the development of Salt Management Plans is not required for the proposed development.

The lands are within the Recharge Management Area (WHPA Q2). From the water balance it was estimated that there is a net surplus infiltration in the post-development scenario, and therefore, it was determined that the policies outlined in the WHPA-Q2

should be satisfied. Cambium recommends exploring Best Management Practices in order to increase on-site infiltration as a pro-active measure (the Husson Functional Servicing and Stormwater Management Report includes such practices).

Lastly, the site exists in an area of groundwater vulnerability and threat activities are moderate, but not significant. Impervious surfaces that may receive salt application are not considered significant and the development is not expected to cause contamination to potable groundwater. Municipal sewer and water will be provided, and therefore, groundwater contamination by nitrates is not expected.

The site plan application conforms to these Official Plan goals and any mitigation measures can be secured through the site plan approval process.

4.1.4 SERVICING & TRANSPORTATION (SECTION 5.0 OF OFFICIAL PLAN)

Servicing

Husson Engineering has submitted a Functional Servicing and Stormwater Management Report dated April 2022. This is in addition to the Hydrogeological Assessment Report by Cambium which is discussed regarding the Lake Simcoe Protection Plan.

The current Official Plan Goals aim to ensure that there is adequate water, wastewater, sewage treatment and stormwater management for this development and that existing infrastructure is utilized whenever feasible. Best Management Practices are also required to ensure sensitivity to the natural environment.

The Husson Report proposes that both water and wastewater (gravity) servicing connect to existing service lines in Jacobs Terrace. New domestic water service and fire water lines will service the development and the existing water connection will be decommissioned. Analysis shows there is sufficient capacity in the downstream system for wastewater. A Hydrant Flow test will need to be completed prior

to the next submission to confirm that peak hour and maximum day flows meet the City's pressure standards for residential demand and to confirm that the theoretical fire flow meets the City's pressure standards. With a successful Hydrant Flow test, water and wastewater servicing will conform to the Official Plan policies.

The proposed stormwater management system uses underground storage chambers to provide retention storage to allow infiltration to satisfy the water quality and water balance requirements of the LSRCA. A combination of underground storage chambers, pipe storage and structure storage, with an orifice pipe, will control up to the 100 year storm event to pre-development levels.

The majority of the site will be rooftop area serviced by drains to the stormwater system in the south parking lot area to catch basins, as part of the minor drainage system. The north and east perimeter of the site will be graded for sheet drainage to the municipal roads. In the case of the major drainage system for blockage or exceeding the 100 year storm event, flows will be directed overland to Innisfil Street and Jacobs Terrace. The development will maintain the existing drainage pattern and reduce runoff volumes and peak flows, with no adverse impact to adjacent properties.

As indicated in the Hydrogeological Assessment Report, the development will increase pervious area and groundwater infiltration compared to the pre-development scenario, having a positive impact on the water balance.

Stormwater quality will meet the LSCRA's requirement of a minimum 80% average annual Total Suspended Solids removal from runoff originating on-site. The system will also reduce phosphorus loading by 94% compared to the existing site, towards the LSRCA target of zero. Water quality including phosphorus removal will be achieved through Low Impact Development Measures comprising the underground storage chambers (with sediment forebay) and catch basin shields (outlets and manholes).

The stormwater management system conforms to the General Servicing Policies in Section 5.1.2.1, the General Stormwater Management Policies in Section 5.3.2.2, and the Stormwater Management Design Criteria Policies in Section 5.3.2.3 of the Official Plan by ensuring separation from the sanitary system, using an integrated treatment train approach, improving the current water balance through infiltration, reducing the current phosphorus load, protecting adjacent properties from stormwater and floodwater, and by promoting recharge of the aquifer.

Transportation

Tatham Engineering has submitted a Traffic Impact Study dated April 27, 2022. The Study determined that the proposed development will generate 106 trips during the weekday AM peak hour and 123 trips during the weekday PM peak hour. It indicates that the key intersections provide good overall operations under existing, background and total conditions, with all individual movements providing acceptable operations through the 2036 horizon. The site access on Jacobs Terrace is expected to provide excellent operations through the 2036 horizon.

Overall, the proposed development is not expected to have a significant impact on the study area road network. Exclusive right and left turn lanes at the three unsignalized intersections along Jacobs Terrace are not considered necessary to accommodate future total traffic. The sight lines were found to be acceptable. A preliminary construction staging plan was undertaken to illustrate how construction of the development will temporarily impact the area road network with mitigating measures to ensure minimal impacts to the adjacent roadways.

The Traffic Impact Study indicates that the site is currently well serviced by the existing public transit network with Barrie transit stops within a 200 metre radius of the site and the Allendale Waterfront Station within 500 metres, providing regional bus and train service (operated by GO Transit) with interconnections with local transit routes. The City's Transportation Master Plan identifies a City-wide

modal split target of 7% public transit and 12% active transportation by 2041. The 2016 Transportation Tomorrow Survey (TTS) indicated a modal split of 2% public transit and 9% active transportation. While the Traffic Impact Study assumed no transit or active transportation to test the worse case scenario, it is expected that given the site's location, that the proposed development will support, with the potential to surpass, the City's modal split targets. Should the City's modal split targets be achieved, then the gross vehicle trips generated by the development would be theoretically reduced by approximately 19% or greater.

The proposed development comprises high density development and is appropriately located in the City's Urban Growth Centre which will assist the City in achieving its density targets. It is well served by public transit and fronts Innisfil Street which is a cycling route in the City's new Official Plan. The development includes both long term and short term bicycle parking with urban garage facilities for cycle maintenance and the site layout allows direct pedestrian connections to City sidewalks. These features assist in meeting the City's transit and active transportation model splits.

The site plan provides for a 2 m widening of Innisfil Street and reserves a 2 m widening of Jacobs Terrace in accordance with Preconsultation comments and follow-up discussions with City staff.

The development, therefore, conforms to the policies in Section 5.4 of the Official Plan by providing:

- Transit supportive development with a high density residential use adjacent public transit routes;
- Direct and convenient access to transit routes;
- A location in proximity to the Allendale Waterfront Station;
- Supporting active transportation with an integrated site layout to the public sidewalk system;
- Promoting the use of bicycles with facilities for same;

- A road widening in accordance with Schedule E of the Official Plan for Innisfil Street;
- Meeting the minimum 30 m setback from the railway corridor in accordance with the City's Zoning By-law; and,
- Mitigation measures in accordance with the Noise and Vibration Study by J.E. Coulter Associates Limited (which included consultation as needed with the rail operators), submitted in support of the application, which can be secured through conditions of approval.

4.1.5 URBAN DESIGN GUIDELINES (SECTION 6.5 OF OFFICIAL PLAN)

In accordance with the General Design Guidelines in Policy 6.5.5.2 of the Official Plan, the proposed design conforms to the following relevant criteria:

- The massing and conceptual design contributes to a desirable community character by providing a 4 storey podium height along the street edge for a comfortable pedestrian environment with the greater proportion of massing located at the rear of the site. At 17 storeys, the development provides an appropriate transition in height between planned (new Official Plan) Medium Density development to the west and south and High Density development to the east proposed at higher heights. The development is context appropriate in accordance with the City's new Official Plan policies. It represents a high quality of design to maintain the City Centre image/future MTSA.
- Rooftop mechanical equipment is screened from public view.
- There are no exposed blank walls facing the streetscape. Elevations comprise glazing and entrances.
- No surface parking is proposed with the building framing the street which reinforces the site's corner location. Setbacks are adequate for pedestrians, canopies that project, landscaping and street furniture, and patios at-grade for the townhouse units.

- The proposal provides 13 barrier-free parking spaces in accordance with the Zoning By-law.
- Waste pick-up does not face the public realm and is located along the south lot line; the staging area for waste is towards the rear with landscaping and privacy fencing provided along the south lot line.
- Landscaping as shown on the plans by Baker Turner show a mix of deciduous trees and shrubs along the street frontages integrated with patios, walkways, public sidewalks and lay-bys.
- Issues of energy efficiency have been addressed by the Energy Conservation Report.
- Utilities are all located underground and within the building away from the public realm.

Although the policies reviewed in this section considers and addresses the 2018 BOP (still in effect), the overall objectives and goals outlined in the new document are also considered.

GOALS

- To provide, through urban design policies and guidelines, a framework for the development and maintenance of a healthy, safe, convenient, efficient and aesthetically pleasing urban environment.*
- To initiate an overall visual improvement program for the Planning Areas with emphasis on the Defined Policy Areas and major entrances to the City through public works programs incorporating such matters as boulevard landscaping, street furniture, lighting, signage, sidewalks and park/plaza development.*
- To provide guidelines for environmentally sensitive development or redevelopment proposals that minimize disruption to significant natural heritage features and utilize existing vegetation where possible.*

GENERAL POLICIES

- It is intended that the urban design objectives of the City will be achieved through co-operation with developers, landowners and residents.*

Response:

The proposed development will establish a high-quality space through contemporary architecture and best practice urban design principles. The design allows for and supports the development of a healthy, safe, convenient, and efficient urban environment through enhanced circulation, high-quality architecture, and streetscaping. Architectural elements such as the canopy above the main entrance, opportunities for signage, and landscaping will further contribute to aesthetically pleasing realm. The proposed development will benefit from the existing transit infrastructure of the surrounding area and support active transportation through proposed bicycle storage facilities and enhanced circulation. The proposal maximizes on the established connections and links to the waterfront area supporting an active streetscape and complete community.



Figure 51: Rendering - view of intersection, prepared by SRN Architects

GENERAL DESIGN GUIDELINES

a) Building and Siting

- i) *Buildings should be designed to complement and contribute to a desirable community character in terms of massing and conceptual design.*
- ii) *The design of a building's roof should screen mechanical equipment from public view and contribute to an attractive streetscape.*
- iii) *Large exposed blank walls should be avoided. All visible sides of a building should be finished and treated similarly to the front. Where exposed walls exist, screening through landscaping should be encouraged.*
- iv) *Building entrances should be well-defined and accessible to pedestrians and the handicapped persons with disabilities.*
- v) *Pedestrian links should be designed to promote the safety of the user and be fully accessible between the commercial and residential properties.*
- vi) *Corner locations should emphasize the building, not the car, as the dominant feature of the site. Setbacks at these corner locations should accommodate space for landscaping, pedestrian amenities and interesting architectural features.*

Response:

The proposed building takes into consideration the built form and materiality of the surrounding residential properties. By incorporating materials like brick, stone, and siding, the building design integrates with the neighbourhood while also introducing more contemporary materials. Mechanical equipment for the proposed building is placed on the roof to maintain and preserve views at the ground level and ensure an attractive streetscape. The architectural package illustrates that all elevations will incorporate the same material palette and will include architectural details such as stepbacks in the façade to create definition and variation. This articulation will contribute to the pedestrian experience, establishing a dynamic street wall and creating points of visual interest. These articulated elements along the façade correspond with the entrances to townhouse units and main building access. Further definition is provided to entrances through proposed canopies and signage. Elevations also illustrate glazing along the ground floor. This will create a visual connection between the interior and exterior spaces, creating natural forms of surveillance along the street. Direct walkways extend from the building to the public realm which further enhance the accessibility of the building and ensure the space is convenient and easy to navigate. These walkways are further enhanced and articulated by landscaping. The proposed building is positioned in such a manner to maximize the area and size of the subject property. The massing establishes an appropriate built form at the corner location, creating a street wall, reinforcing the street edge, and considering shadowing impacts on the public realm. Setbacks are sized to include comfortable pedestrian spaces with projected canopies, landscaping and street furniture, and patios at-grade for the townhouse units.

b) Parking Areas

- i) Linking parking areas, driveways and access points should be encouraged to reduce the number of turns onto and off the major road. These mutual entrances will be encouraged and clearly identified.*
- ii) Adequate disability parking spaces will be provided where required.*
- iii) Properties of depths greater than 60 metres (200 feet) should have smaller parking areas, divided by landscaped islands and strips. The visual impact of these parking lots should be softened through berming and planting.*
- iv) Major parking, loading and delivery areas, as well as garbage enclosures should be confined to the rear of the buildings.*

Response:

The proposed development incorporates a 4-storey parking facility located in the central and southwest corner of the site. Removed from the view of the public realm, this parking area will incorporate the 13 accessible spaces and 383 parking spaces which is in accordance with the Zoning By-law. The design of the parking will ensure safe and efficient circulation of vehicular traffic with bicycle storage incorporated on each level. Waste collection has been proposed along the southern edge of the property which will ensure separation from vehicular and pedestrian traffic. Landscaping and privacy fencing is proposed along the southern lot line to ensure screening from the adjacent property. The design also includes convenient access to the waste storage area located within the centre of the building.

c) Landscaping

- i) Minimum planting strips in accordance with the Urban Design Manual shall be provided along the street frontage and should contain planting materials and street furniture (lighting, seating and bus shelters) consistent with any themes established by the municipality.*
- ii) No Environmental Protection Area should be included in the minimum landscaping standard.*
- iii) Landscaping should seek to utilize native vegetation, and water conservation practices wherever feasible.*

Response:

The proposed development incorporates space for planting strips along Innisfil Street and Jacobs Terrace. The protection zone along Jacobs Terrace is not required to meet the minimum landscaping standard. Outdoor amenity areas on the 5th and 13th level and the green roof on level 11 further contribute to the landscaping on the site. Native vegetation and water conservation practices have been incorporated into the design. Landscape Plans show a mix of deciduous trees and shrubs along the street frontages integrated with patios, walkways, public sidewalks and lay-bys. Issues of energy efficiency have been addressed by the Energy Conservation Report.

CITY CENTRE GUIDELINES

- (a) In addition to the General Design Guidelines of Section 6.5.2.2, development and redevelopment within the City Centre will be guided by recommendations of the Next Wave Revitalization Plan, the Downtown Commercial Master Plan, the applicable sections of the Waterfront Open Space Master Plan and Urban Design Studies to be prepared for the Downtown.*
- (b) New development shall be of high-quality design to maintain and enhance the Downtown's image as an enjoyable, safe, accessible, pedestrian-oriented place, and designed and built to complement pedestrian activity and historical attributes.*

- (c) *Buildings and public areas shall be designed to consider pedestrian scale, comfort, safety and access.*
- (d) *Development proposals shall take into consideration protection of view sheds to the lake from prominent landmarks, gateways and public spaces within the City Centre and similarly shall consider protecting views of the City skyline and views to important landmarks and public spaces in the City Centre, so as to enhance visual connectivity to the City Centre when viewed from the bay and waterfront open space area.*
- (e) *New development shall connect the Downtown to the waterfront and create an attractive urban presence along the waterfront.*
- (f) *The construction of new buildings compatible with heritage structures shall be encouraged to blend new development with existing streetscapes and add to the area's character.*
- (g) *Street furniture such as garbage bins, bike racks, benches, street lamps, tree lighting, banners and sidewalks, crosswalks, bike paths, signage and landscaping shall achieve a high standard of design and be located to link the Downtown and the waterfront in a consistent manner.*
- (h) *The City will promote pedestrian orientation through the development of open space systems that incorporate bicycle and barrier-free walking paths linking the downtown to the waterfront.*
- (i) *The City will attempt to enhance streetscape aesthetics by addressing sign size, lighting, lettering and placement.*
- (j) *New development shall be encouraged to locate all utilities underground, where feasible, or in locations that do not visually detract from the Downtown.*
- (k) *Site-specific urban design studies may be required as part of a development proposal to investigate and recommend a design for compatibility with surrounding uses, micro-climate effects, pedestrian safety, and issues of human scale and views.*

Response:

The design and massing of the proposed building will contribute to the emerging character of the Barrie City Centre. Guidelines particular to the City Centre and the Urban Growth Centre, articulate that new development, should be of a high-quality design and should create an enjoyable, safe, and pedestrian-oriented place. The design supports these urban design policies by providing a continuous built form adjacent to streets with patios, main entrances, canopies and glazing. The building reinforces the corner location of the site with a uniform street edge and accessible entrances along each street. Public sidewalks connect to the building at multiple locations ensuring a highly permeable site. The strategic massing of the building optimizes on potential opportunities of views towards the City skyline and Kempenfelt Bay. The proximity to the waterfront area also offers residents access to trails, parks and paths within the area. This connection between the site and the waterfront supports the development of the community and will contribute to enhance activity levels within the Urban Growth Centre. The utilities for the proposed building are all located underground and within the building structure away from the public realm so as to preserve views along the streetscape.

4.1.6 TALL BUILDINGS (SECTION 6.6 OF OFFICIAL PLAN)

The proposed development satisfies the following relevant criteria in Sections 6.6.3 and 6.6.4 of the current Official Plan. In accordance with Section 6.6.6 of the current Official Plan, a Block Plan, Context Plan and a Shadow Study have been submitted with the application.

GENERAL POLICIES

- (a) *Innovative architectural design will be encouraged to reduce the visual and physical impact of height on the adjacent pedestrian realm, including design features such as tower and podium configurations or other design measures.*
- (b) *Tower design featuring floor plate sizes that result in slimmer buildings, along with other innovative design solutions which assist in reducing the visual and physical impact of tall buildings, will be preferred over slab style building design where important views need to be protected.*
- (c) *Where tall buildings are proposed adjacent to existing tall buildings, or where multiple tall buildings are proposed on the same property, sufficient separation distance (as detailed in Zoning By-law) will be provided between towers in order to maintain privacy, access to light, and views of the sky. Proposals for tall building developments are expected to include a rationale on the appropriate separation distance between adjacent towers.*
- (d) *Where possible, parking areas, site servicing, loading areas, and building utilities should be located towards the rear of buildings with appropriate screening. The use of underground parking is strongly encouraged in place of above-ground structured or surface parking. Where aboveground structured parking is proposed, at least 60 percent of the property frontage, and flankage in the case of corner lots, will consist of residential or commercial uses.*

- (e) *Tall buildings directly contribute to the look and feel of the City's architectural styles. Accordingly, tall buildings will be held to a high standard of design excellence by using quality urban design, architectural treatments, and building materials in order to promote a visually interesting skyline.*

Response:

The visual impact of the 17-storey residential building is reduced by a 4-storey podium structure and stepped back heights along the north, east and south sides of the building, with the highest portion of the tower situated to the rear of the site. The upper floorplates of the towers are well under 750 square metres, which will assist in reducing the visual and physical impact of the building. A 45 degree angular plane is maintained from Innisfil Street and at the intersection of the roadways. The alternating floorplate orientation combined with the smaller upper storey floorplates reduces apparent height and mass and results in a slimmer building. The massing and brick and glazing materials contribute to a visually interesting skyline for the City Centre and future MTSA. Elevations for the proposed building illustrate that there are no blank walls facing the public realm. Façades are articulated by glazing, and recessed entryways. With parking situated away from the Jacob's Terrace/ Innisfil Street corner of the site, the building exceeds the 60 percent requirement for residential uses along the property frontage. Waste pick-up along the south lot line is out of public view and mitigated by landscaping and privacy fencing. While parking is above-grade, it is framed by residential uses framing the streets.

POLICIES

(a) Building Shadowing

- i) *Tall buildings will be designed to best mitigate the impact of shadows on public parks and open spaces, private amenity areas, and surrounding streets, throughout the day. Development applications located adjacent to the open space waterfront areas surrounding Kempenfelt Bay shall be designed to minimize the impacts of shadowing particularly between March 21 and September 21.*
- ii) *Buildings will make use of setbacks, stepping provisions, and other such design measures in order to reduce shadow impacts. Towers will be positioned on sites to reduce the extension of shadows onto surrounding areas. Appropriate spacing will be provided to allow for adequate sunlight and views of the sky between adjacent building towers.*

Response:

Section 5 of this report provides a summary of the Shadow Study that was prepared as part of this application. The shadow diagrams illustrate no impact to the southerly lands and very minimal impact to the northeast corner of the westerly lands during the early morning in April and June. During September and December, shadows impact the north side of Jacobs Terrace in the morning and early afternoon, allowing sunlight access for the remaining of the day.

The massing of the proposed building carefully considers the impacts to the surrounding context and the proposals ensures adequate sunlight and views of the sky for the adjacent properties.

(b) Views and Access to Kempenfelt Bay

- i) *Tall buildings will be sited to preserve and define any vistas terminating at Kempenfelt Bay, specifically the view corridors down Bayfield Street, Mulcaster Street, and Berczy Street. These vistas will only be considered when viewed from publicly accessible areas such as streets and parks. No policy in this Plan is intended to imply that views from private property will be protected.*
- ii) *Buildings with frontages adjacent to view corridors will make use of setbacks, stepping provisions, and 45 degree angular planes to reduce the visual impact of building height on vistas.*
- iii) *Buildings adjacent to Kempenfelt Bay will also be designed to maintain physical accessibility to the waterfront for all City of Barrie residents along existing streets and trails, and may include the requirement for pedestrian access through development proposals.*

Response:

The proposed development will provide views of Kempenfelt Bay and the City skyline. The proposed development is located less than 500 metres from the Bay area, and is designed to maximize on views with the use of glazing and proposed outdoor amenity areas. Compliance with the 45 degree angular plane will further reduce the visual impact of the proposed building and allow for potential further opportunities for views of the Bay.

(c) Microclimatic Impacts

- i) Tall buildings will be designed to minimize adverse microclimatic impacts in order to foster a comfortable pedestrian realm at the street level. Microclimatic impacts may include the effects of wind channelling, the urban heat island effect, adverse shadowing, and the interruption of sunlight.*
- ii) Where appropriate, tall buildings will incorporate features that provide weather protection for pedestrians, such as podium bases, canopies, awnings, façade interruptions, arcades, landscaping, or other creative solutions.*

Response:

A Preliminary Pedestrian Level Wind Assessment was completed by Theakston Environmental dated March 29, 2022 which concludes that the development proposal provides an overall wind mitigative design that includes a large podium, stepped massing, textured façades, balconies, overhangs, landscaping and other features that increase surface roughness apparent to wind. Additional mitigation measures are recommended for the outdoor amenity areas on the 5th and 13th levels. The terracing of the massing levels from the 5th to the 13th orient to Jacob's Terrace facing north, away from sun exposure to allow natural lighting through diffuse solar radiation and avoid direct sunlight followed by heat gain during summer. City Staff have indicated that a Microclimate Impact Report is not required for this development.

(d) Street Level Activity

- i) The policies for 6.6.4 (d) are intended for tall buildings located within the Urban Growth Centre and other intensification areas. However, they may be applied to tall buildings outside of these areas when in accordance with good planning and urban design principles.*
- ii) New development will foster a pedestrian friendly public realm by featuring a street wall of continuous built form frontage adjacent to any principal streets. This street wall will include active at-grade uses, with building façades incorporating transparent windows, doors, glazing, and other such architectural treatments.*
- iii) The primary building façades should be positioned and oriented along the property line in order to achieve a uniform street edge. Corner lot buildings should be designed to reinforce multiple street facing frontages. Main entrances should be directly accessible from public sidewalks. Exceptions to this rule may be considered where greater setbacks are applied to improve the streetscape by incorporating outdoor patios, extended sidewalks, or other creative publicly accessible uses.*
- iv) Tall buildings will incorporate building articulations, massing and materials that respect a pedestrian scale and create interest. Features that separate buildings from the street or inhibit pedestrian activity, such as fencing or long stretches of blank walls, will be actively discouraged.*

Response:

The material selection for the proposed building fosters and supports a pedestrian-friendly environment. The elevations (Figures 42-45) illustrate natural materials within the 4-storey podium. This corresponds with the materials of the surrounding residential homes, but also creates an intimate quality that supports a human-scaled environment. The built form also establishes a street wall along both roadways which is further supported by incorporating glazing along the ground level. These details support an active streetscape and enhance the pedestrian experience on site. Entrances to the building are proposed along both streets which ensures a highly permeable and easily accessible site. Townhouse units incorporate patio areas which front onto the public sidewalk strengthening the visual relationship between public and private areas. This contributes to the safety and security of the site, promoting eyes on the street. Massing, setbacks and stepbacks for the proposed building carefully consider the surrounding context and the transition between the site and adjacent properties. The design articulates and defines the corner location while still respecting the established and potential future context.

(e) Local Area Compatibility

- i) Where taller buildings are located next to lower scale buildings, design elements which make use of height transitions between sites shall be encouraged. Towers should be located on site away from areas directly adjacent to lower scale buildings. Compatibility between sites is not intended to be interpreted as restricting new development to exactly the same height and densities of surrounding areas, particularly in areas of transition such as the intensification corridors.*

Response:

As previously mentioned, the massing and setbacks of the proposed building provide adequate space and transition between the site and surrounding properties to ensure minimal shadowing impacts while still supporting intensification. Existing low-profile development to the west and south of the site is planned for redevelopment under both the City's current and new Official Plans. The separation distances between the subject building and proposed building within the adjacent property to the south was reviewed by the City during pre-consultation. The 12.5-metre setback for the tower portion of the building as shown on the site plan was considered acceptable by City planning staff, following the pre-consultation meeting.

4.2 CITY OF BARRIE URBAN DESIGN MANUAL

The City of Barrie's Urban Design Manual was revised in 2014 and provides direction for design elements within urban developments. The proposed development incorporates design directives relative to: the physical environment and building siting, pedestrian and vehicular circulation, site servicing, architectural design, and landscape design.

4.2.1 PHYSICAL ENVIRONMENT AND BUILDING SITING

- A. *Incorporate development measures to appropriately address the physical environment of the site and adjacent lands when siting the building(s).*
- B. *Ensure compatibility of the development with adjacent area development. The visual character and unity of the neighbourhood should be enhanced through the subject development.*
- C. *Design buildings at a scale that is compatible with adjacent structures. New buildings should respect the established heights and setbacks in the neighbourhood.*
- D. *Incorporate natural features, major vegetation and topography into the design wherever it can be integrated with development objectives and the interests of adjoining land uses.*
- E. *Design outdoor spaces with regard to the programmed uses, the quality of views and the influences of sun and wind.*
- F. *Locate open storage, loading, garbage enclosures or equipment areas where they are not visibly prominent from public space(s) or street(s).*
- G. *Design the building setback at a pedestrian scale where appropriate and to contribute to a desirable streetscape.*
- H. *Locate active uses such as retail, service shops and restaurants at the street level to encourage pedestrian activity and interaction between internal spaces and the public realm.*
- I. *Locate buildings to meet public transit supportive measures.*
- J. *Design multi-use sites to reduce conflict.*
- K. *Site buildings to reduce the visibility of parking areas or treat parking areas with visual breaks (e.g. landscaping) to reduce the impact.*
- L. *Energy saving designs and features is encouraged. Orient buildings, outdoor spaces and pedestrian activity areas to maximize sunlight exposure during cooler months and shading during the warmer months.*
- M. *Minimize shadows cast on adjacent properties, especially outdoor spaces and pedestrian activity areas.*
- N. *Provide a variety of reliefs and architectural elements within the façade of lengthy “strip” buildings to enhance and diversify the visual presentation of the structure.*
- O. *Consider future site intensification and possible integration with adjacent lands including connections between parking lots.*
- P. *Screen with landscaping external transformers located on arterial roads or highways and in areas of high visibility. Ensure that the landscaping does not prohibit access to operate and maintain the transformer.*
- Q. *Locate buildings close to the street with unobstructed views of the street, parks or open spaces and neighbouring buildings.*
- R. *Orient building entrances and windows toward the street to enhance surveillance.*
- S. *Where appropriate, plan and design mixed land use development and supporting facilities to create and enhance surveillance.*

Response:

The proposed development supports intensification of lands designated as part of the *Urban Growth Centre*. The design considers surrounding built form through considerate massing and material selection to create a consistent streetscape and harmonious neighbourhood integration. Building setbacks and landscaping further contribute to the visual character of the area introducing colour and texture to the site. Planting and fencing are used to buffer the subject property along the south and west edges to ensure privacy and screening between the site and adjacent properties.

The proposed development is transit-oriented in its inherent proximity to established transit infrastructure. Building placement, bicycle storage facilities and proposed circulation routes connect to the greater context of public transit and proposed and existing bicycle trails and lanes, ensuring a development that supports active modes of transportation. The parking facility is located in the central and southwest corner of the subject property which will preserve views and maintain an attractive streetscape by providing proper separation between pedestrian and vehicular circulation.

4.2.2 SITE CIRCULATION

PEDESTRIAN

- A. Provide a safe and convenient and accessible pedestrian network from street to building, parking area to building, and building to building, that is visible from the street and buildings, and clear from visual obstructions.
- B. Provide pedestrian links between neighbouring properties where appropriate.
- C. Provide pedestrian walkways connecting municipal sidewalks to all public institutions, office developments, neighbourhood and larger commercial developments and multi-unit residential developments.
- D. Identify and emphasize major pedestrian routes through the use of signage, pavement markings, bollards, trees, appropriately scaled lighting and continuous hard surfaces.
- E. Minimize pedestrian and vehicular crossings on site.
- F. Provide weather protected shelters and lighting at transit stops.

- G. Install park and street furniture to create monitoring opportunities along pedestrian pathways and open areas.
- H. Discourage dead ends, reducing the potential for entrapment and concealment.
- I. Provide adequate lighting along pedestrian connections.

Response:

As illustrated in Figure 50, the proposed development establishes convenient pedestrian connectivity between the site and surrounding context. The development is considerate of the existing pedestrian circulation and seamlessly integrates with the existing network, enhanced by landscaping and weather protection elements of the building. The circulation diagram illustrates distinct routes for vehicular and pedestrian traffic which will ensure safe and efficient circulation.



Figure 52: Rendering - Jacobs Terrace Garage looking southwest, prepared by SRN Architects

VEHICLE CIRCULATION AND PARKING

- A. *Design parking and vehicular movement plans in a safe, convenient, and easily understood manner with appropriate turning radii and visibility.*
- B. *Provide parking areas with appropriate signage and adequate and uniform lighting for visibility and safety surveillance.*
- C. *Locate parking areas (particularly barrier free parking spaces) in close proximity to building entrances.*
- D. *Incorporate pedestrian circulation within the parking area.*
- E. *Link parking areas on abutting commercial properties to provide for movement between lots.*
- F. *Pave all parking and traffic circulation areas for light and heavy use as required.*
- G. *Clearly define primary vehicle routes on the site through the use of signage, curbing, bollards and line painting. Separate parking areas from primary vehicle routes and driveway entrances to public streets.*
- H. *Provide right angle parking spaces wherever possible with parallel parking only where circumstances dictate.*
- I. *Avoid dead-end parking aisles.*
- K. *Use areas located immediately adjacent to buildings or structures for walkways and/or landscaping and not for parking.*

- L. *Provide landscaping around the perimeter of parking areas and laneways. Use low level screening adjacent to public streets. Use dense screening (i.e. solid fences, coniferous plant material) when adjacent to conflicting land uses. Be sure that landscaping does not create hiding places or be a visual obstacle.*
- Q. *Provide appropriate snow storage areas that do not interfere with pedestrian and vehicle circulation, or sensitive landscape plantings, as well as in an area that could be a visual obstacle.*
- R. *Visitor parking areas should be located near main entrances of buildings and marked with signage, providing visitors with a direct route to and from the building.*

Response:

The proposed vehicular circulation will ensure safe and efficient movement of vehicles, meeting the needs of those driving without compromising those walking and on wheels. The parking area is accessible via Jacobs Terrace and is contained within the built form of the proposed building, therefore preserving the views along the streetscape. The 4-storey parking facility will incorporate the required number of parking spaces according to the Zoning By-law. Visitor parking is proposed at the ground level and will be clearly identified as such. Floor plans for Parking Levels 1-4 can be seen in Figures 20-22.

ACCESS DRIVEWAYS

- A. *Locate site access in a manner that reduces traffic conflict and confusion.*
- B. *Provide mutual driveways where appropriate, especially along major collector and arterial roads to minimize the number of driveways.*
- C. *Ensure pedestrian safety and maximize visibility through the proper location of driveways.*
- D. *Maximize the distance between site access driveways as well as the distance between site access driveways and street intersections.*

Response:

The access driveway to the parking structure is located at the north edge of the property, along Jacobs Terrace. This is designed to reduce the traffic congestion and ensure sufficient distance and separation from the street intersection. The design prioritizes the safety and movement of pedestrians by situating entrances where there is high visibility.



Figure 53: Rendering - Jacobs Terrace garage looking south, prepared by SRN Architects

4.2.3 SITE SERVICES

- A. *Ensure that loading bays, recycling areas and garbage storage facilities are located away from public streets or screened through the use of landscaping, walls and buildings but not to create entrapment areas and hiding places.*
- B. *Eliminate conflict between service/loading areas and vehicle/pedestrian routes.*
- C. *Design on-site circulation to eliminate reversing or maneuvering on public streets.*
- D. *Orient continuous sources of noise and odour away from sensitive adjacent uses. Use noise attenuation measures where necessary.*
- E. *Screen commercial outdoor storage from public streets and adjacent residential uses*
- F. *Locate recycling and garbage handling within the primary building or within an accessory structure. Ensure adequate access for the related service vehicle and a loading space located adjacent to the recycling and garbage handling area.*
- G. *Construct accessory recycling and garbage handling structures as an enclosed building including roof and door/gate and with materials consistent with the primary building. Wood structures are discouraged.*
- H. *Store all recycling and garbage bins within the structure.*
- I. *Provide interior waste storage areas for restaurants and commercial buildings providing food services.*
- J. *Locate utilities underground to improve the appearance of the development. Where above ground utilities are necessary, ensure compatibility with other site features.*
- K. *Provide adequate lighting to ensure safety*

Response:

Site servicing is proposed along the southern edge of the property, with access provided along Innisfil Street. This location ensures a separate and distinct area for service vehicles and will support the safe circulation of vehicular and pedestrian traffic. The design considers the implications of service vehicles along the edge of the property and incorporates landscaping and fencing to assist in providing screening between the site and adjacent property. Garbage and recycling storage is proposed within the building and will be easily accessible via the waste collection area. Utilities are all located underground and within the building, away from the public realm.

4.2.4 ARCHITECTURAL DESIGN

- A. *Ensure that the architectural design is compatible with the developing character of the neighbouring area. Design compatibility includes complementary building style, form size, colour and materials. Ensure that building heights and scale relate to the existing developed form of the area and unify or enhance the building character of the neighbourhood*
- B. *Design multiple buildings on the same site to create a cohesive visual relationship between the buildings.*
- C. *Coordinate exterior building design and detail on all elevations with regard to colour, types of materials, number of materials, architectural form, and detailing to achieve harmony and continuity of design.*
- D. *Locate the main building façade towards a public street or internal courtyard. Principle walls should have windows along the street or interior space to provide casual surveillance and break up the building mass. Where blank walls are unavoidable, use architectural techniques (banding, soldier course, etc.), landscaping, and murals to enhance the elevation.*
- E. *Enclose or screen rooftop mechanical equipment. Integrate roofs and screening with the design of the building in terms of form, materials and colour.*
- F. *Ensure that buildings over 3 storeys in the City Centre contribute to the skyline and all roof top penthouses and equipment is screened in a distinctive manner (e.g. in the form of an angled rooftop design).*
- G. *Design rooftops to have some identifiable shape. Avoid square or flattops on large buildings.*
- H. *Ensure that main entrances to buildings are prominent and identifiable from the street to encourage pedestrian use.*
- I. *Effective use of building materials, architectural details and lighting is encouraged.*
- J. *Ensure that buildings situated on corner lots have presence on both streets.*
- K. *Buildings should be strategically designed to minimize alcoves or hiding spots for offenders to hide in.*
- L. *Buildings should naturally direct visitors toward the main entry point where it is observable by residents and security.*
- M. *Balcony space should be large enough to provide a useable activity area for residents, thereby increasing opportunities for residents to overlook public areas. Balcony railings should be built with transparent or open metal material as it will increase surveillance opportunities.*
- N. *Access points to buildings should be reduced so as to be manageable for security officers.*
- O. *Define entrances to the site and each parking lot with landscaping, architectural design, or symbolic gateways.*

Response:

The architectural design of the proposed development will be compatible with the existing and evolving character of the neighbouring areas. The proposed design will include a similar material palette to the established surrounding neighbourhoods, incorporating brick, and stone into the design. The colour palette will similarly be neutral to ensure a consistent aesthetic.

Main entrances to the proposed building front onto the roadways to establish a visual connection between public and private spaces. Incorporating glazing further encourages eyes on the street and promotes natural surveillance of the area. Landscaping accentuates the proposed accesses to the building which supports an active public realm. The building establishes a streetwall and incorporates architectural features which distinguish certain elements of the building (i.e. podium, and main entrances).

Building details, including material selection and façade articulation, accentuate the built form and create visual interest along the streetscape. The corner location of the site is addressed by incorporating entrances at both the north and east elevation. Massing also defines the corner location, incorporating tiered stepbacks to maintain the 45 degree angular plane.

The location and stepback of the mechanical penthouse maintains views along the streetscape and consolidates equipment storage. The building incorporates recessed and projected balconies within the built form, offering each unit private outdoor amenity space.



Figure 54: Rendering of the proposed development, prepared by SRN Architects

4.2.5 LANDSCAPE DESIGN

- A. *Promote the preservation of existing natural features such as watercourses, specimen, trees, hedgerow and woodlot vegetation wherever reasonably possible in an effort to minimize the environmental impact on the site and surrounding areas.*
- B. *Promote an attractive landscape treatment of the site to soften and improve the visual character of the development by designing a harmonious integration of planting, fencing, retaining walls, hard surfaces, signage, etc.*
- C. *Ensure appropriate plant species are proposed in relation to availability, cold hardiness, mature size and habit, sunlight/soil requirements, moisture/drought tolerance, pollution/salt tolerance, and seasonal effects.*
- D. *Provide traffic islands to delineate primary vehicular traffic routes.*
- E. *Ensure soft landscape areas on the perimeters of the site to delineate boundaries, and establish streetscape appeal, spatial separations, berming and snow storage areas.*
- F. *Strategic landscape screening and/or fencing is encouraged for exposed parking, driveways, storage, services and garbage containment areas.*
- G. *Design landscaping to encourage positive functional relationships between the site uses and their surroundings in order to avoid conflicts, and/or require effective levels of buffering and fencing to minimize those conflicts. Relate landscape treatment of soft areas to their specific function, such as streetscaping, buffering, erosion control and energy conservation (windbreaks/shading).*
- H. *Landscape areas outside the building entrance(s) including barrier free hard surfaces (other than asphalt) to clearly define its function.*
- I. *Provide additional soft landscape areas within the site and foundation planting to reduce the negative impact of continuous expanses of pavement, to help delineate vehicular and pedestrian circulation, and provide opportunities to layer the landscaping between the street and building in relation to façade design.*
- J. *Where appropriate, include the provision of appropriate site amenities and furnishings.*
- K. *Tree preservation is promoted through the City of Barrie Tree Cutting By-law 2002-12 and the issuance of tree cutting permits. In situations where the by-law does not apply, it is the intent of these Guidelines that healthy trees be preserved whenever possible, and that no tree removal occur until the site plan is approved.*
- L. *The following lists are intended to offer a generally acceptable selection of plant species commercially available and suitable for the local climate. It is not intended to limit the design choices of Landscape Consultants.*
- M. *Landscaping should not obstruct sightlines or create hiding places.*
- N. *Conifers can be integrated into landscape plans to provide screening options where required with the option to limb them up to increase visibility or reduce hiding spaces.*

Response:

Landscaping supports an active streetscape by incorporating street trees for shade and planting which articulates entrances. Appropriate building setbacks create adequate space for planting around the building. This contributes to screening from adjacent properties and enhances public realm conditions. The proposed design contributes to a well-rounded community through enhanced circulation routes which connect to the Kempenfelt Bay area. Details related to proposed plant species are provided in the Landscape and Planting Plans prepared by BTI Landscape Architects, and illustrate the incorporation of native species, with a variety of colours and textures.

4.3 INTENSIFICATION AREA URBAN DESIGN GUIDELINES

The above Guidelines were prepared by Brook McIlroy in October 2012. Private Realm Urban Design Guidelines are provided in Section 4.0. The proposed development conforms to the intent of these Guidelines as follows:

TRANSIT SUPPORTIVE DESIGN

- a) *A mix of land uses and higher densities should be promoted around key locations, including Major Transit Station Areas, Intensification Nodes, and the waterfront, in order to create the critical mass required to make transit a viable option.*
- b) *Access to local transit routes should be located within a 10-minute (500 metre) walking distance of most residents.*
- c) *Auto dependent uses such as drive thorough retail and car washes should be discouraged in the Intensification Areas.*
- d) *Transit facilities should be located at public places such as parks and open spaces, community centres, schools, and community facilities such as libraries and galleries.*
- e) *Trails and bicycle routes should link to transit facilities.*
- f) *Secure bicycle parking and storage space is provided where appropriate.*

Response:

The proposed development is a high-density residential building in the *Urban Growth Centre* and a future MTSA under the new Official Plan. The property has direct access to Innisfil Street which is a local transit route. Figure 17 illustrates the proximity and connection to the established transit infrastructure including the GO Transit Station and existing bicycle trails along the waterfront area. The proposed design incorporates long and short-term secure bicycle parking options to encourage active transportation ensuring that residents are not auto dependent.

STRUCTURE PARKING

- a) *When a parking structure fronts onto a street or open space it should be developed with an active at-grade use with an attractive façade that animates the streetscape and enhances pedestrian safety.*
- b) *At a minimum, 50% of the ground floor should be occupied by a use other than parking. In the case of a corner lot, 50% of the front and side of the building should be occupied by an alternative use.*
- c) *A vertical mix of parking, residential and/or office above should be considered a preferred development model, with parking on the lower floors and residential or office above. Shallow retail or office units should face the street minimizing the visual impacts of the structured parking lots.*
- d) *Vehicular access to parking structures should be located at the rear and/or side of buildings away from main building frontages and major streets.*
- e) *Pedestrian entrances for parking structures should be located adjacent to main building entrances, public streets or other highly visible locations.*
- f) *Parking within a structure should be screened from view at sidewalk level and the street-level wall should be enhanced through architectural detailing and landscaping.*

Response:

The proposed parking structure is entirely screened at grade by townhouse units with access to the street and attractive façades that animate the streetscape and enhance pedestrian safety. No portion of the parking structure is exposed to the street which maintains an attractive public realm. Residential units are proposed above the structured parking which establishes a vertical mix of uses. Vehicular parking to the garage is from Jacobs Terrace and not Innisfil Street which is the main building frontage and a Major Collector.

SERVICING AND LOADING

- a) *Loading docks and service areas should be located at the side or rear of buildings and should be screened from public view.*
- b) *Where possible, garbage storage areas should be accommodated internally.*
- c) *Servicing enclosures should be constructed of materials that complement the main building (e.g. no chain link fencing).*
- d) *Service and refuse areas should be paved with an impervious surface of asphalt or concrete to minimize the potential for infiltration of harmful materials.*
- e) *Service and refuse areas should not encroach into the exterior side or front yard set-back.*
- f) *Loading and service areas may occupy the full rear yard if adequate landscape edge and buffer treatments are provided.*

Response:

Waste collection is located within the internal side yard and is largely screened from public view. The waste collection area is asphalt to minimize harmful infiltration. The southerly property is buffered from waste staging and collection area by a 3 metre wide landscape strip with privacy fencing.

BUILDING ORIENTATION AND SITE LAYOUT

- a) *Buildings should be positioned to frame abutting streets, internal drive aisles, sidewalks, parking areas and amenity areas. On corner sites, buildings should be designed to frame both the primary and the secondary street.*
- c) *Main building entrances should be directly accessible from public sidewalks.*
- d) *The front streetwall of buildings should be built to the front property line, or applicable set-back line, to create a continuous streetwall.*
- e) *A minimum of 75% of a building's frontage should be built to the applicable set-back line.*
- f) *The remaining 25% of the building frontage can be set back a maximum of 5 metres to accommodate lobby entrances, bicycle parking, or outdoor marketing area (i.e. cafe seating, display areas, etc.).*

Response:

The proposed development frames the abutting streets of Jacobs Terrace and Innisfil Street. The main building entrances are directly accessible from public sidewalks, where the proposal includes multiple walkways which lead directly to the building. A continuous street wall is established by incorporating a consistent setback of 5 metres along both roadways. The full building frontage (100%) forms the street wall.

BUILDING HEIGHTS

- a) *Buildings within the Intensification Areas should generally be limited to a mid-rise scale, ranging between 4 to 8-storeys.*
- b) *The maximum height (8-storeys) may only be achieved if the built form demonstrates compliance with all other design guidelines (i.e. step-backs, angular planes, etc.).*
- c) *Buildings taller than 8-storeys are encouraged in key areas, including:*
 - *Within the Urban Growth Centre, adjacent to Lakeshore Drive, where existing tall buildings are located and new buildings can capitalize on key views to the Lake. The location and massing of these buildings (and taller building elements) should allow for continuous sunlight on adjacent waterfront parks, and views to Kempenfelt Bay.*
 - *At Primary and Secondary Intensification Nodes, where taller buildings will act as landmarks along the Intensification Corridors, and enhance wayfinding throughout the City.*
 - *On large lots, on a case-by-case basis, where appropriate transitions can be made to adjacent properties and all other guidelines in this section can be met.*
- d) *Taller buildings above 8-storeys should be limited to the sites above where lot size, setbacks, step-backs and building transitions can be made to respect the neighbouring properties. New development within the Intensification Areas will strengthen communities, and accommodate many new residents and jobs. To ensure the most efficient use of existing infrastructure, and create a vibrant streetscape, a minimum level of development is also required. To accomplish this, the City should require a minimum building height.*
- e) *All new buildings must achieve a minimum height of 7.5 metres (2-storeys) to promote intensification and ensure the most efficient use of existing infrastructure.*

Response:

Although the proposed building exceeds the recommended 8-storey height, the 17 storeys is appropriate for the Urban Growth Centre (future MTSA) and takes advantage of its prominent location at the intersection of Jacob's Terrace and Innisfil Street. Adequate setbacks from adjacent properties given building height have been provided, with a full Shadow Study completed to ensure the impacts on the surrounding properties is limited. An angular plane has been implemented along Innisfil Street and much of Jacobs Terrace to ensure appropriate massing transition within the area.

FRONT FAÇADE STEP-BACKS

- a) *A 45-degree angular plane should be applied at a height equivalent to 80% of the width of the right-of-way. Above this 80% height, building envelopes must step-back to adhere to the angular plane.*
- b) *On wider right-of-ways, a 45-degree angular plane applied at 80% of the right-of-way width will result in a step-back at the upper floors of the building. In this case, an additional “pedestrian perception step-back” is recommended to achieve a human-scaled building podium.*
- c) *Step-backs should be a minimum of 1.5 metres. 3 metres is recommended to ensure usable outdoor amenity spaces.*

Response:

The 4-storey podium created through building stepbacks promotes a human scaled street wall. The design incorporates stepbacks throughout the building to preserve angular planes along Innisfil Street and much of Jacobs Terrace.

SIDE BUILDING SET-BACKS

- a) *Where a new building is adjacent to a vacant lot, buildings should be built to the side property line (with no windows) to allow for a continuous streetwall in the future.*
- b) *New buildings must maintain a minimum 5.5 metre distance from existing adjacent buildings that have windows on their side-facing walls.*
- c) *When the new building is set back at least 5.5 metres from the property line, it should incorporate glazing where possible.*
- d) *Additional set-backs will be required when the existing building has its primary windows on the side face. The distance of the set-back in these instances will be determined on a case-by-case basis.*

SIDE BUILDING STEP-BACKS

- a) *Where properties have wider frontages, the building's uppermost storeys can step back sideways - allowing for the application of glazing, thereby reducing the amount of blank sidewalls, should that building be built ahead of its neighbours.*
- b) *Narrow sites will not be able to reasonably achieve side step-backs at the upper levels, and as a result may not achieve their maximum permitted height.*

Response:

Ample setbacks (and stepbacks) from westerly and southerly property lines have been provided where existing buildings are located. Glazing is incorporated along all façades. The site plan incorporates a minimum 12.5-metre stepback for a portion of the building and incorporates glazing along the area facing the proposed new development to west.

BUILDING ARTICULATION

- a) *The façades of large buildings should be designed to express individual commercial or residential units through distinct architectural detailing, including entrance and window design.*
- b) *Despite the use of various architectural styles within the City, the design and material quality should be consistent and building materials and finishes should be complementary.*
- c) *Lots that face on to parks and open spaces should be subject to architectural and landscaping controls in order to provide an optimal interface.*
- d) *Corner buildings at key intersections should emphasize the focal nature and visibility of these buildings through elements such as bay windows, projections, recesses, special materials, and other architectural details.*
- e) *Buildings should incorporate architectural details such as vestibules, recessed entrances, covered walkways, canopies and awnings to provide weather protection.*
- f) *A significant amount of the building frontage on the ground floor and at building base levels should be glass to allow views of the indoor uses and create visual interest for pedestrians. Clear glass is preferred to promote the highest level of visibility.*
- g) *Building elements should be oriented to maximize views to Kempenfelt Bay.*
- h) *Building entrances should work in conjunction with retail uses and can be expressed and detailed in a variety of ways including large entry awnings, canopies or double height glazing. Retractable awnings and canopies may encroach into the public right-of-way provided a minimum of 2.7 metres of vertical clearance is provided. Permanent awnings or canopies that encroach into the public right-of-way may require a permit.*
- i) *Where residential uses are included above retail uses, separate entrances should be provided.*
- j) *Secondary entrances should not be the dominant entrance. However, they should be easily accessible and convenient for service, loading and parking areas.*
- k) *When building frontages exceed 12 metres in width they should be divided into functionally and visually smaller units through the use of façade articulation, internal courtyards, and networks of connected walkways and landscaping.*

Response:

Individual units of the proposed development are expressed through architectural detailing. The design and material quality is consistent and materials and finishes are complementary. The design establishes a focal point at the corner/ intersection which is expressed through a podium that frames the streets and step-backs to meet the angular plane requirements. The floor plans and renderings illustrate details related to canopies which will offer weather protection. Significant clear glazing is incorporated on the ground floor to create a visual connection between the interior and exterior conditions and provide visual interest for pedestrians. Functionally and visually smaller units are created through façade articulation and landscaping.

ROOFS AND ROOFSCAPES

- a) *Mechanical penthouses may exceed the maximum height limit by up to 5 metres, but may not penetrate the recommended angular planes.*
- b) *All mechanical penthouses should be designed and clad with materials that complement the main building façades.*
- c) *The portion of the building roof that is not used for a mechanical penthouse should be occupied by green roofs and/or useable outdoor amenity space.*
- d) *Sustainable technologies, such as photovoltaic panels, are encouraged on the roofs of buildings. These panels must fit within the prescribed angular planes.*

Response:

The mechanical penthouses of the proposed development are no taller than 5 metres in height. They do not encroach the angular planes and are clad with complementary façade materials. The design incorporates three rooftop amenity landscaped areas (2 outdoor amenity areas and one green roof).

MATERIALS

- a) *All new buildings and developments should utilize building materials chosen for their functional and aesthetic qualities, as well as their energy and maintenance efficiency.*
- b) *All exterior building finishes should demonstrate a high quality of workmanship, durability and ease of maintenance.*
- c) *Building materials should be used as they are intended (i.e. colour, texture, etc.), and should not be used to mimic other materials.*
- d) *Finished materials should extend to all sides of the building, including building projections and mechanical penthouses.*
- e) *The ground floor should incorporate a minimum of 60% glazing to enhance safety through casual surveillance.*
- f) *Building materials and finishes on building façades facing onto or visible from public streets and public spaces should not include synthetic siding systems, mirror/heavily tinted glass panels, and unadorned concrete block.*
- g) *Blank walls or unfinished materials along property lines where new developments are adjacent to existing parking areas or smaller-scaled buildings should be avoided.*
- h) *Where possible, construction materials should be recycled to reduce the environmental impacts of extracting and manufacturing new materials.*
- i) *If no salvageable materials are available, efforts should be made to purchase materials from demolition sales, salvage contractors and used materials dealers.*
- j) *New construction materials should be locally sourced to reduce the impacts of transportation. Canadian products are generally designed to withstand our climate.*

Response:

The proposed development meets general compliance with the criteria outlined above. Further details related to the building materiality can be found in Section 3.4.

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5

SUPPORTING STUDIES

5.1 SHADOW STUDY

A Shadow Study has been prepared by SRN Architects to assess the overall impacts of shadows on the surrounding streets, public areas and adjacent properties. The Figures 55-58 represent the shadow impacts in April, June, September and December, illustrating implications in the morning and afternoon. The following discussion provides an overview of key shadow impacts from the proposed development.

April 21

The morning shadows of April 21st cast partially onto the properties northwest of the site, impacting a small portion of the front yard at 17 Jacobs Terrace and 91 and 113 Tiffin Street. Shadowing between 12:00pm and 3:00pm is primarily focused within the site with partial impacts to the public sidewalk along Jacobs Terrace and later Innisfil Street. Impacts on the Jacobs Terrace sidewalk recede by 3:00pm. Shadowing reaches the urban block to the east by this time, with shadows casting along the front yard of 259 Innisfil Street. This area is primarily occupied by a surface parking lot. Evening shadows cast eastward, with further impacts to this property. The site receives adequate sunlight for the majority of the day and the building portion of the property is only impacted between 5:00pm and 6:00pm.

June 21

The morning shadows of June 21st cast shorter shadows overall. The minor shadows cast impact onto 17 Jacobs Terrace, the adjacent property to the site. By 11:00am shadows have receded from this area. Generally, shadow impacts in June are smaller than those of other months. Similarly in the late afternoon, around 4:00pm, the property to the east of the site receives some shadowing.

September 21

The morning shadows of September 21st cast further northwest. The buildings located on 91 and 113 Tiffin Street as well as 17 Jacobs Terrace are only impacted at 9:00am and shadows move to the front yards of all properties by 10:00am. With shadowing elongated and falling in a more eastern direction, the portion of the block to the northeast that is impacted is primarily occupied by a surface parking lot.

December 21

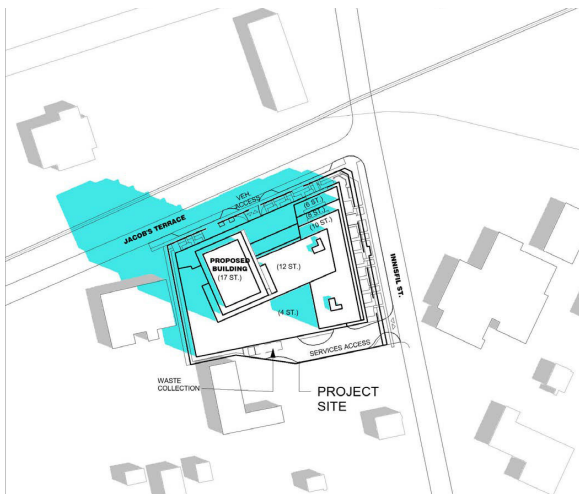
Shadowing during the month of December is generally more prevalent, with longer shadow extents evident in the Figure 58. A larger portion of the properties north of the site are impacted in the morning and into the early afternoon, with shadows now also impacting 250 Innisfil Street. Into the early afternoon, shadows cast in a north east direction and extend to fall on the properties 91 and 113 Tiffin Street. Low-rise dwellings within the block are not impacted for longer than 2 hours in duration.

Summary

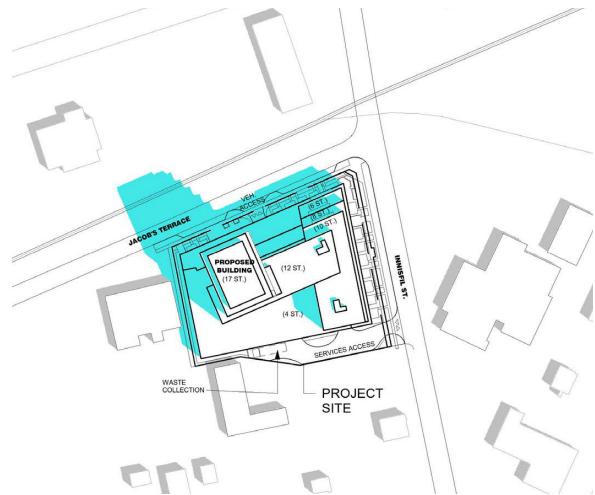
The majority of cast shadow falls onto the right-of-ways along Jacobs Terrace and Innisfil Street. During the morning and early afternoon a portion of the public sidewalk along Jacobs Terrace experiences shadowing, however between early afternoon and evening the shadows transition to impact the public sidewalk along Innisfil Street. This indicates that public sidewalks are not in shadow for an extensive period of time. Surrounding properties receive minimal casting from the proposed building, with surrounding lands typically not impacted for longer than 2 hours a day.

Impacts on low-rise dwellings to the northwest, northeast and adjacent property to the east generally occur in moderation. Impacts during Spring and Summer are minor and during fall and winter the properties receive adequate sunlight throughout the remainder of the day.

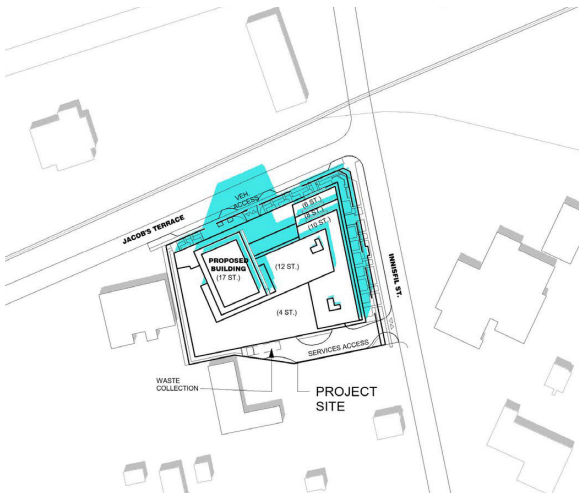
The proposed development contributes to and supports intensification by introducing a taller built form into the area without compromising access to sunlight for the surrounding. The building design provides sufficient separation to mitigate shadow impacts by complying with the angular plane requirements and incorporating appropriate setbacks and transitions. This shadow study concludes that the proposed development does not generate any prolonged and adverse shadowing on the surrounding context.



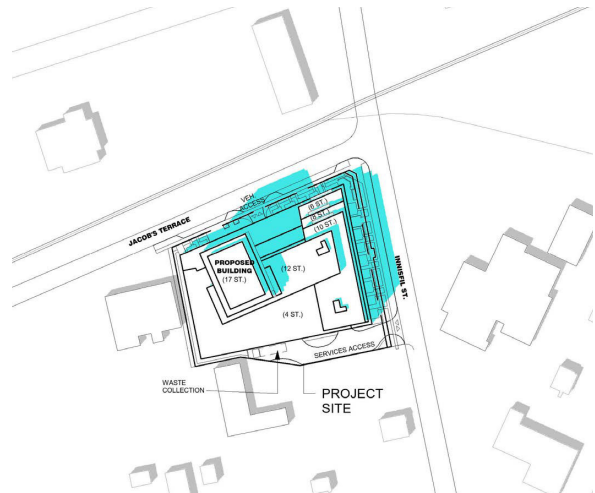
April 21st - 9:00am



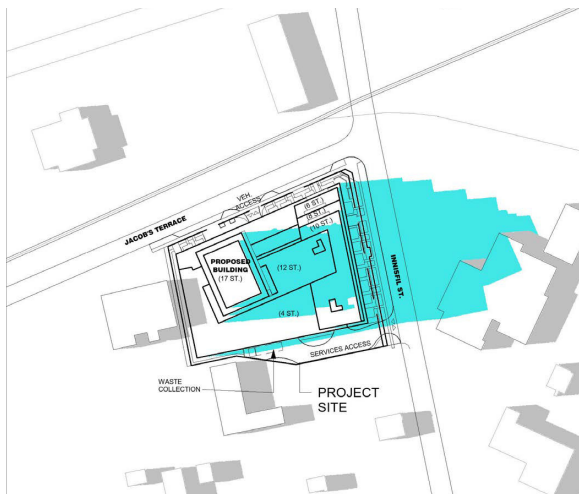
April 21st - 10:00am



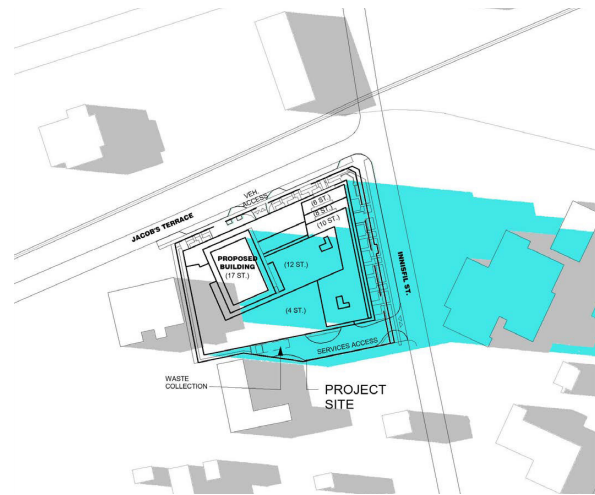
April 21st - 1:00pm



April 21st - 2:00pm

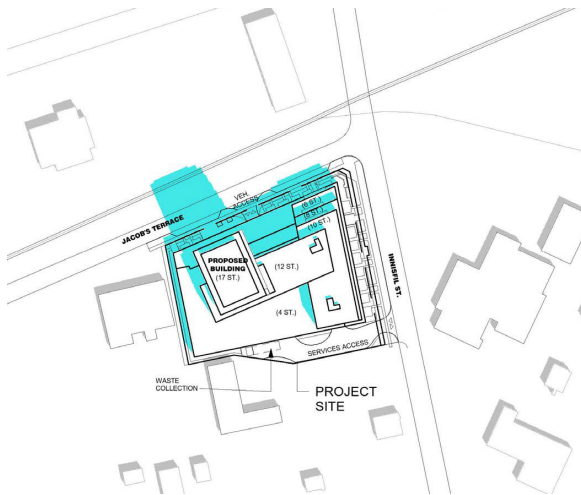


April 21st - 5:00pm

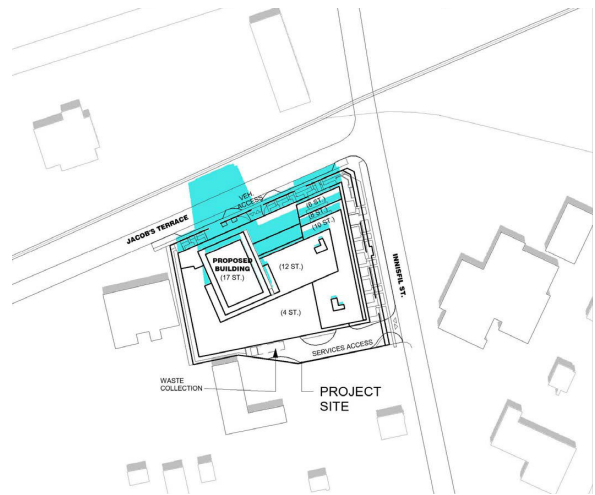


April 21st - 6:00pm

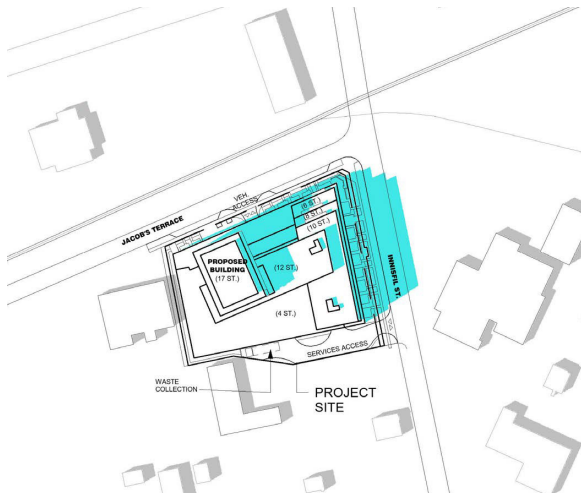
Figure 55: Shadow Study - April, prepared by SRN Architects



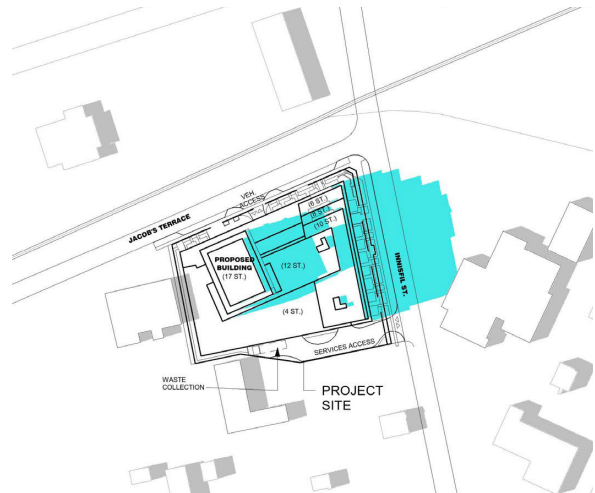
April 21st - 11:00am



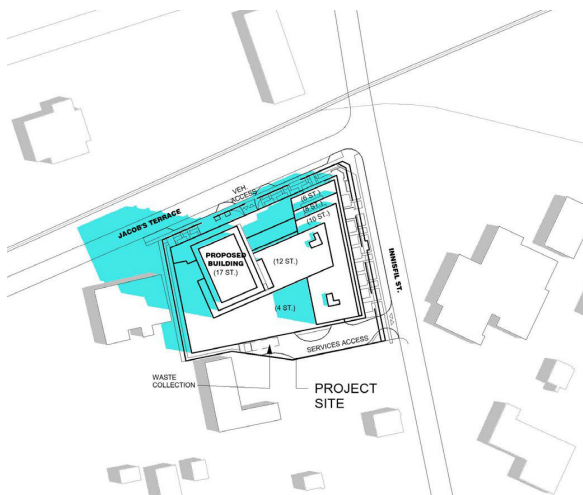
April 21st - 12:00pm



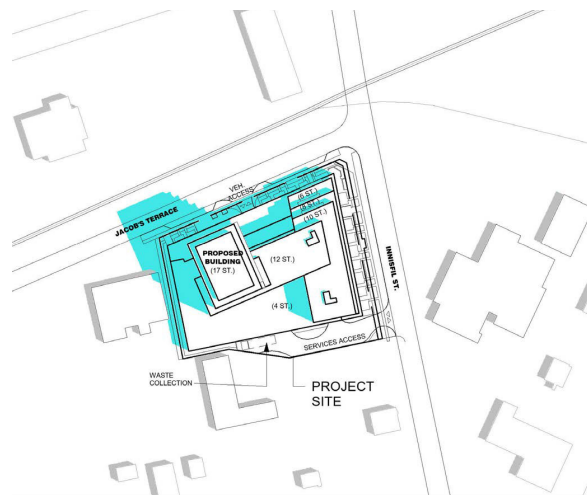
April 21st - 3:00pm



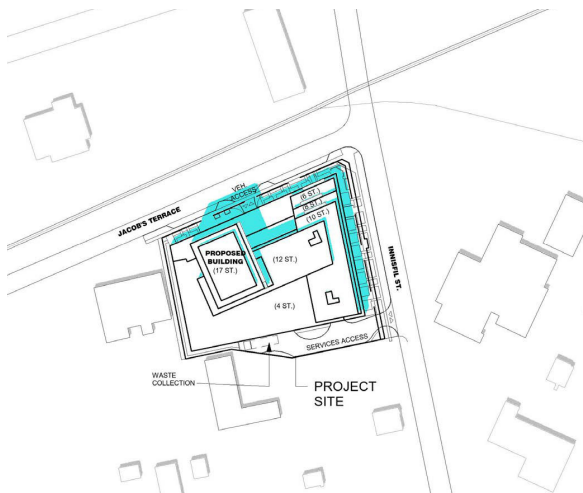
April 21st - 4:00pm



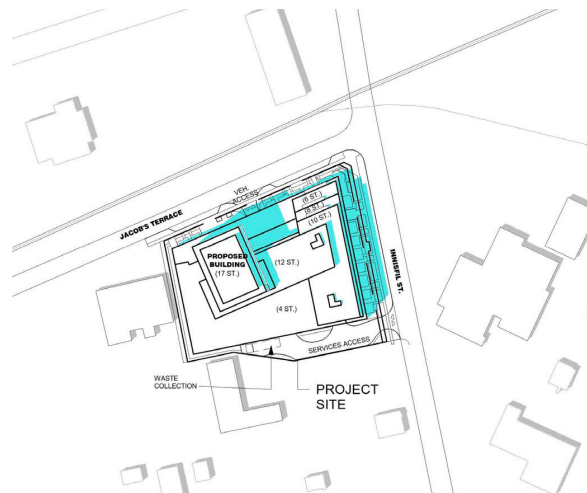
June 21st - 9:00am



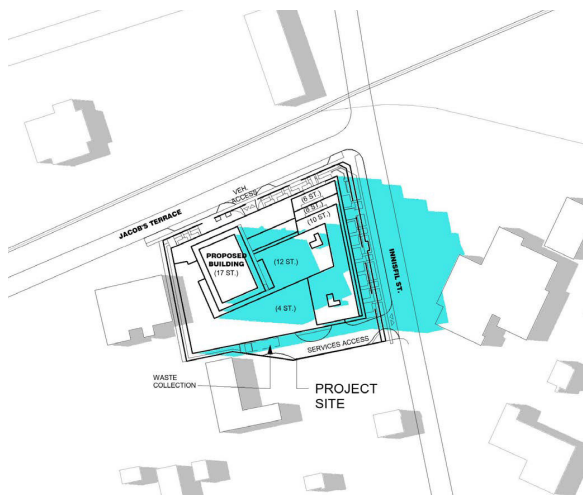
June 21st - 10:00am



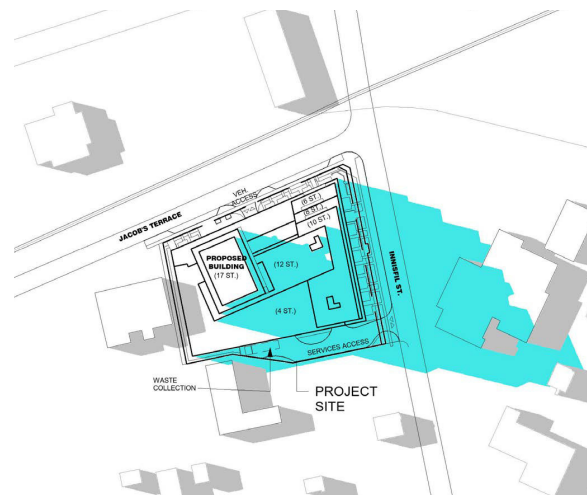
June 21st - 1:00pm



June 21st - 2:00pm

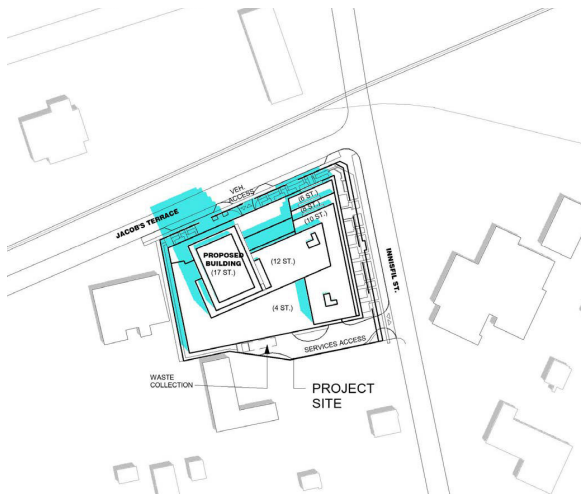


June 21st - 5:00pm

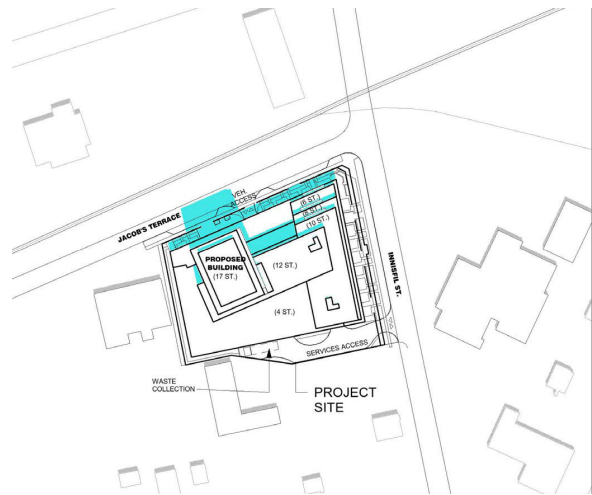


June 21st - 6:00pm

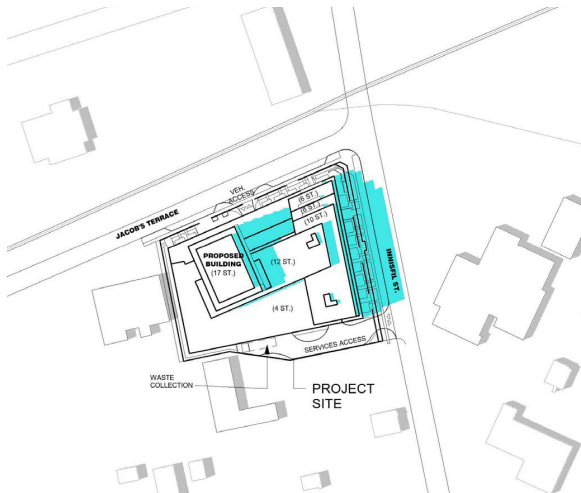
Figure 56: Shadow Study - June, prepared by SRN Architects



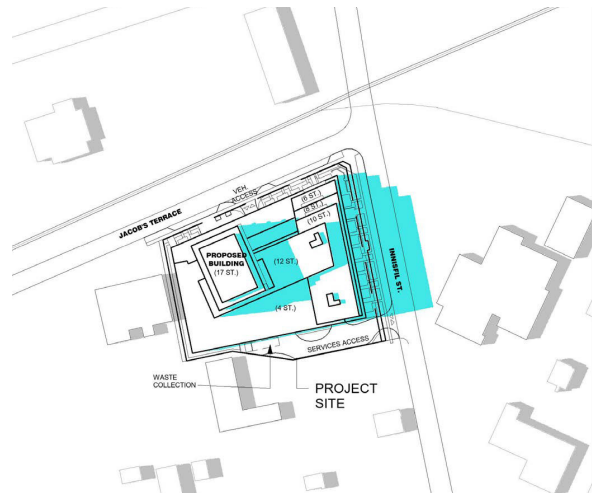
June 21st - 11:00am



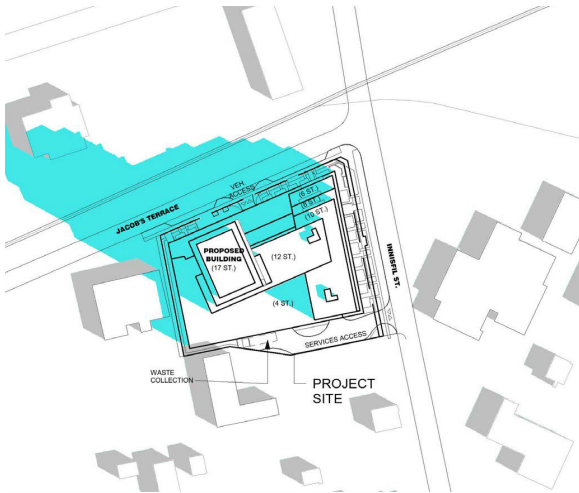
June 21st - 12:00pm



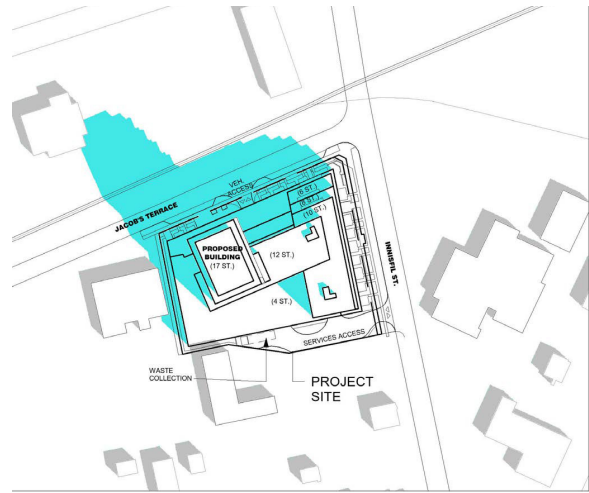
June 21st - 3:00pm



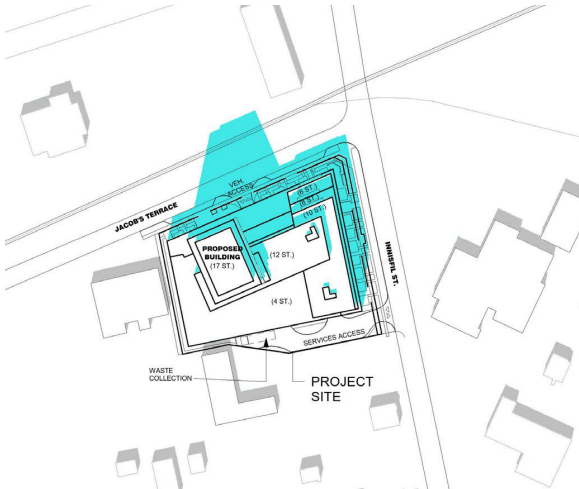
June 21st - 4:00pm



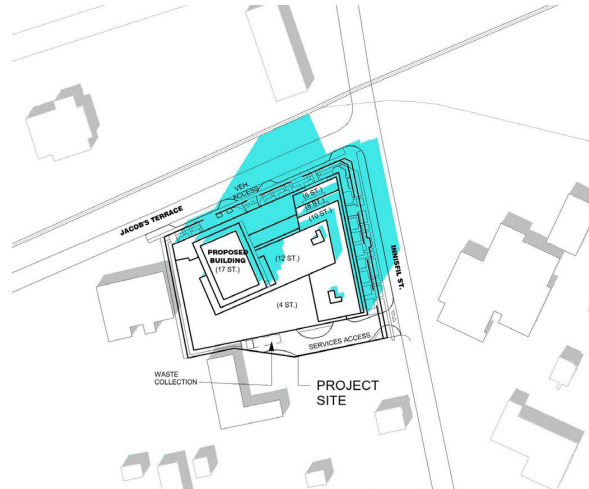
September 21st - 9:00am



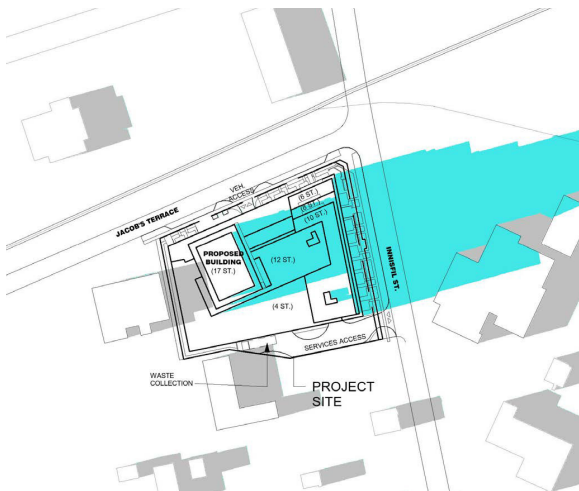
September 21st - 10:00am



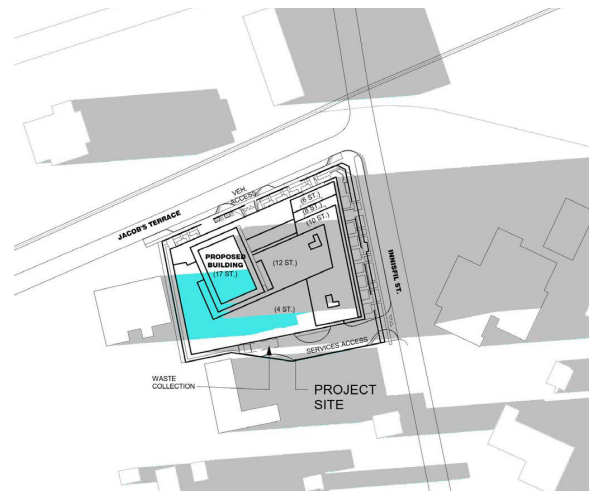
September 21st - 1:00pm



September 21st - 2:00pm

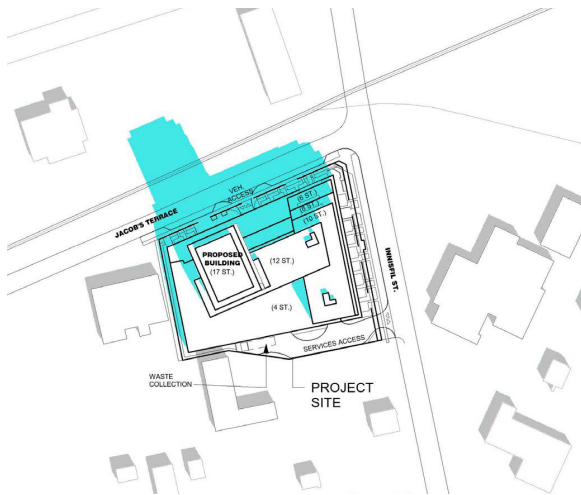


September 21st - 5:00pm

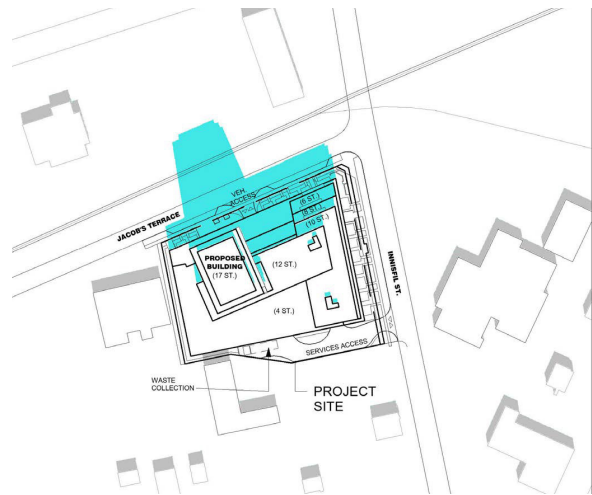


September 21st - 6:00pm

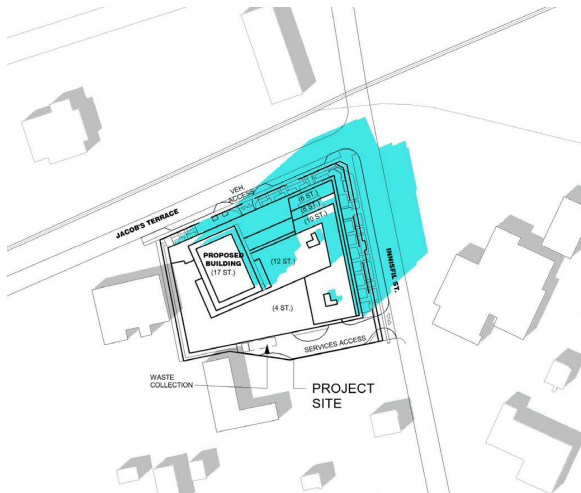
Figure 57: Shadow Study - September, prepared by SRN Architects



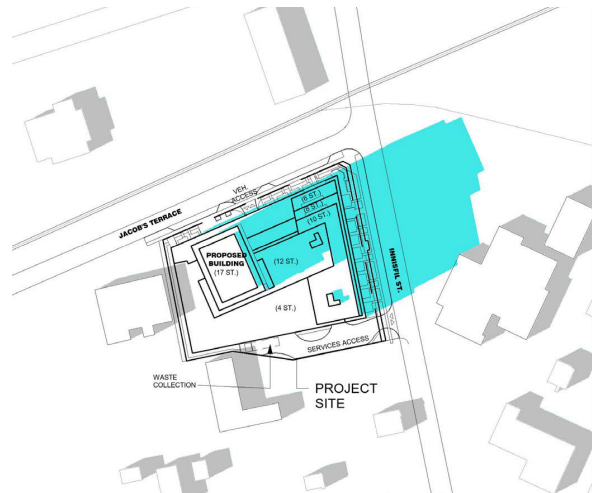
September 21st - 11:00am



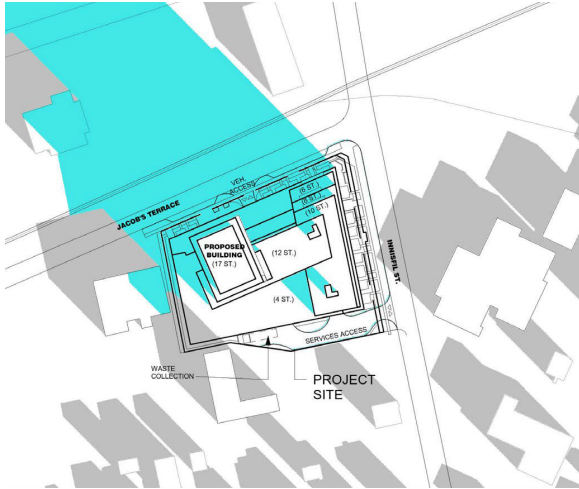
September 21st - 12:00pm



September 21st - 3:00pm



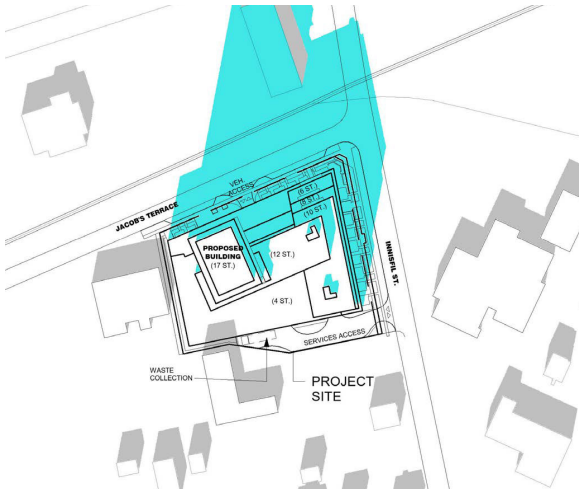
September 21st - 4:00pm



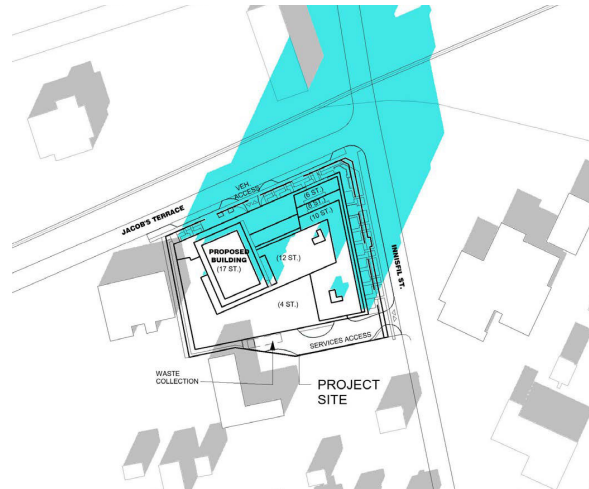
December 21st - 9:00am



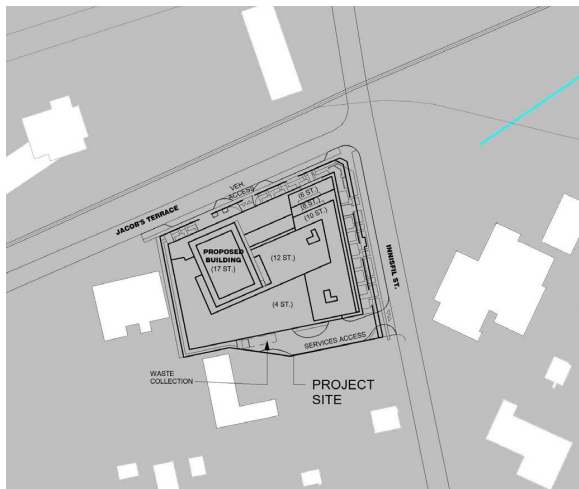
December 21st - 10:00am



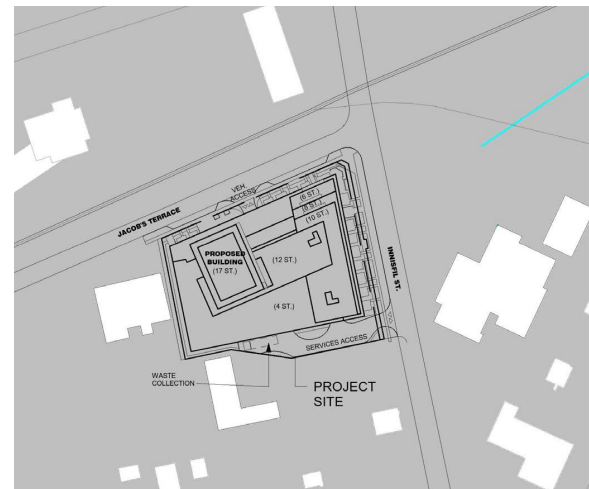
December 21st - 1:00pm



December 21st - 2:00pm

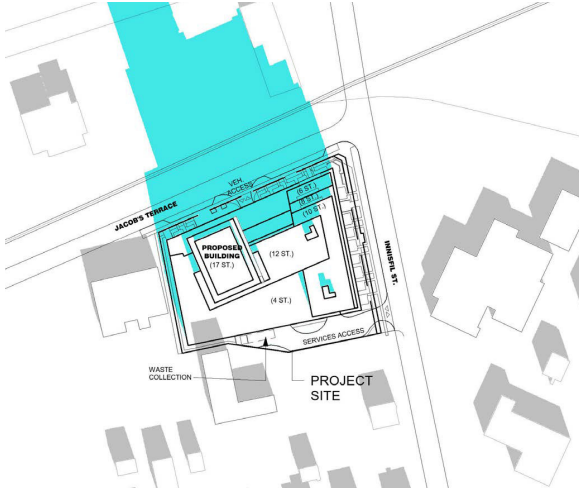


December 21st - 5:00pm

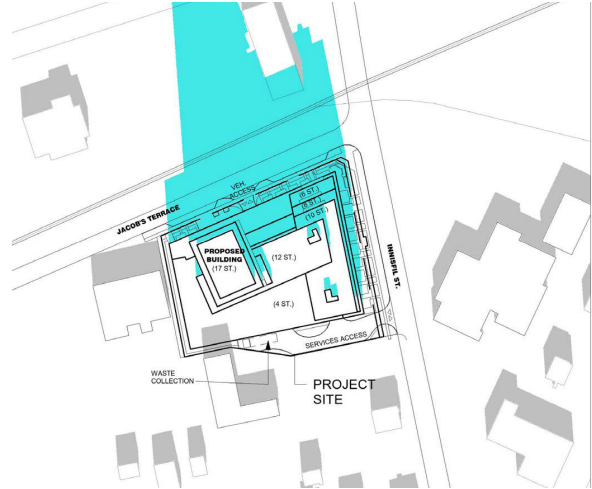


December 21st - 6:00pm

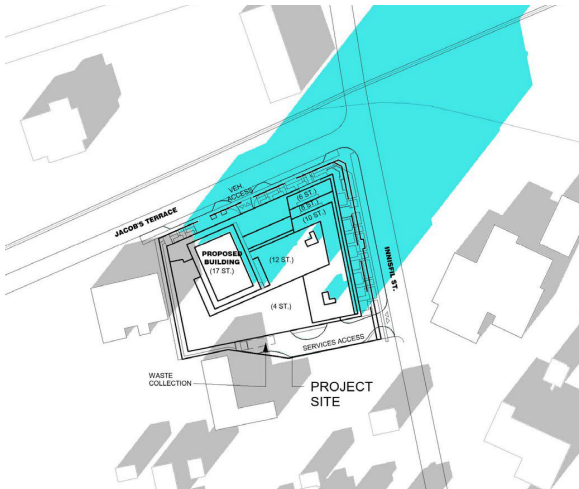
Figure 58: Shadow Study - December, prepared by SRN Architects



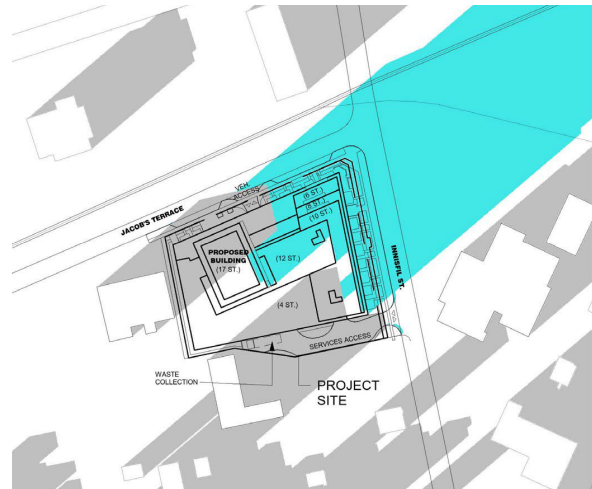
December 21st - 11:00am



December 21st - 12:00pm



December 21st - 3:00pm



December 21st - 4:00pm

6 CONCLUSION

With the site location within the *Barrie City Centre* and *Urban Growth Centre*, the proposed development represents thoughtful intensification, considering the existing surrounding built form and land uses. The Site Plan illustrates a high-rise residential building that is considerate of the surrounding context while maximizing on views, and the proximity to existing transit infrastructure and future MTSA. The architectural design, building placement and orientation define the corner location while maintaining appropriate setbacks and angular plane requirements to mitigate shadow impacts on the surrounding. The massing and building siting ensure appropriate transition to adjacent properties and create a comfortable experience for pedestrians and cyclists. Landscaping and efficient circulation routes will enhance the public realm and encourage active and animated street frontages. Strategic landscaping and high-quality architecture will establish a visually appealing site. Overall, the proposed development supports the establishment of a complete community and adheres to the City of Barrie Official Plan policies, the City of Barrie Urban Design Manual Guidelines and the Intensification Area Urban Design Guidelines.

