

URBAN DESIGN BRIEF



**434 & 484 Barrick Road
City of Port Colborne**

May 12 2026

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1 Introduction

This document has been prepared to satisfy the City of Port Colborne’s request for the submission of an Urban Design Brief in support of the Zoning By-law Amendment application for the lands municipally known as 434 and 484 Barrick Road (hereinafter referred to as the “subject site”). As identified through the pre-consultation process, an Urban Design Brief is required as part of the application package to demonstrate how the proposed development responds to applicable design policies and best practices.

The subject site comprises approximately 6.59 hectares in area, with the concept plan indicating a net development of 4.097 hectares, is located near the intersection of West Side Road (Highway 58 and Barrick Road). The proposed Zoning By-law Amendment would facilitate the development of six 6-storey residential buildings containing a total of 372 rental dwelling units, one commercial building, and a 2 level parking structure. In total, 738 parking spaces are proposed, including 148 spaces provided within the structured parking facility.

As the City of Port Colborne does not maintain a formal Terms of Reference for Urban Design Briefs, this document has been organized according to widely recognized best practices in urban design. Its purpose is to demonstrate how the proposed development fits within the broader community context and how it advances the City’s design objectives. This Brief reviews the architectural concept site plan prepared by Marsh Katsios Architects Inc., as well as the landscape plan prepared by Adesso Design Inc. It also evaluates the proposal’s alignment with the City of Port Colborne’s 2020 Official Plan—particularly Section 3.2.3 Design Guidelines—and responds to the City’s Pre Consultation Comments.

2 Context Analysis

2.1 Subject Site

The subject site is located near the intersection of West Side Road, also known as Highway 58 and Barrick Road. The 43,066.7 square metre parcel has an irregular shape, bounded by environmental lands to the south, West Side Road to the west, and privately owned residential and institutional properties to the east and north. Its southern boundary follows the tree canopy limit, creating a rigid edge. The eastern boundary is predominantly straight until it reaches the north, where a small rectangular extension projects outward. To the west, the site is confined by West Side Road and church property, while the northern edge abuts privately owned residential lots.

Situated at the northern edge of Port Colborne, the subject site is a greenfield area with minimal tree coverage. A mature hedgerow runs along the central and eastern portions of the site, consisting primarily of Black Walnut trees. The parcel also encompasses 434 Barrick Road, where a farmhouse and an accompanying shed are situated on the northern section of the property. A short driveway provides access from these structures to Barrick Road.



Figure 1: Location Map

2.2 Immediate Surroundings:

North

The northern edge of the site is defined by single detached dwellings fronting Barrick Road. Immediately adjacent is the Christian Life Assembly Church, which includes a driveway and both front and rear parking areas at the intersection of West Side Road and Barrick Road. North of Barrick Road is a larger residential subdivision consisting of single detached dwellings extending approximately 615m northward. Within this neighbourhood are Hawthorne Heights Park and Jacob E. Barrick Park. A greenfield parcel is located directly opposite the church.

West

The western boundary is defined by West Side Road (Highway 58), under the jurisdiction of the Ministry of Transportation of Ontario (MTO). Along this corridor are single detached dwellings. Directly across Highway 58 is a 10.95 hectare greenfield site (excluding the Environmental Protection Area) known as the “Northland Estates Residential Development,” which proposes 122 lots and townhome blocks for a total of 222 residential units. The greenfield also includes a sales office accessed from Northland Avenue, though it fronts West Side Road.

South

South of the site are environmental lands extending roughly 50m from the lowest point of the subject property and approximately 100m from the highest point. These lands contain a mature deciduous tree canopy dominated by Black Walnut, Black Cherry, and Sugar Maple.

Further south, a small cluster of single detached dwellings fronts Northland Avenue, which connects Steele Street and West Side Road. Across Northland Avenue is 545 Northland Avenue, a multi-unit residential building, with a similar multi-unit building located immediately to the east. Also, within this area is the former “Golden Years Living Niagara” assisted living facility, now operating in a limited capacity as boarding and lodging but largely vacant.

To the southeast, a subdivision of single detached dwellings continues further south. To the southwest, at the intersection of Northland Avenue and West Side Road (Highway 58), is the Port Colborne Mall containing Canadian Tire, Sobeys, Tim Hortons, a gas station, a pharmacy, and other retail uses.

East

Directly east of the site are single detached homes along Steele Street. Beyond Steele Street, the landscape transitions to farmland and a small greenfield area.

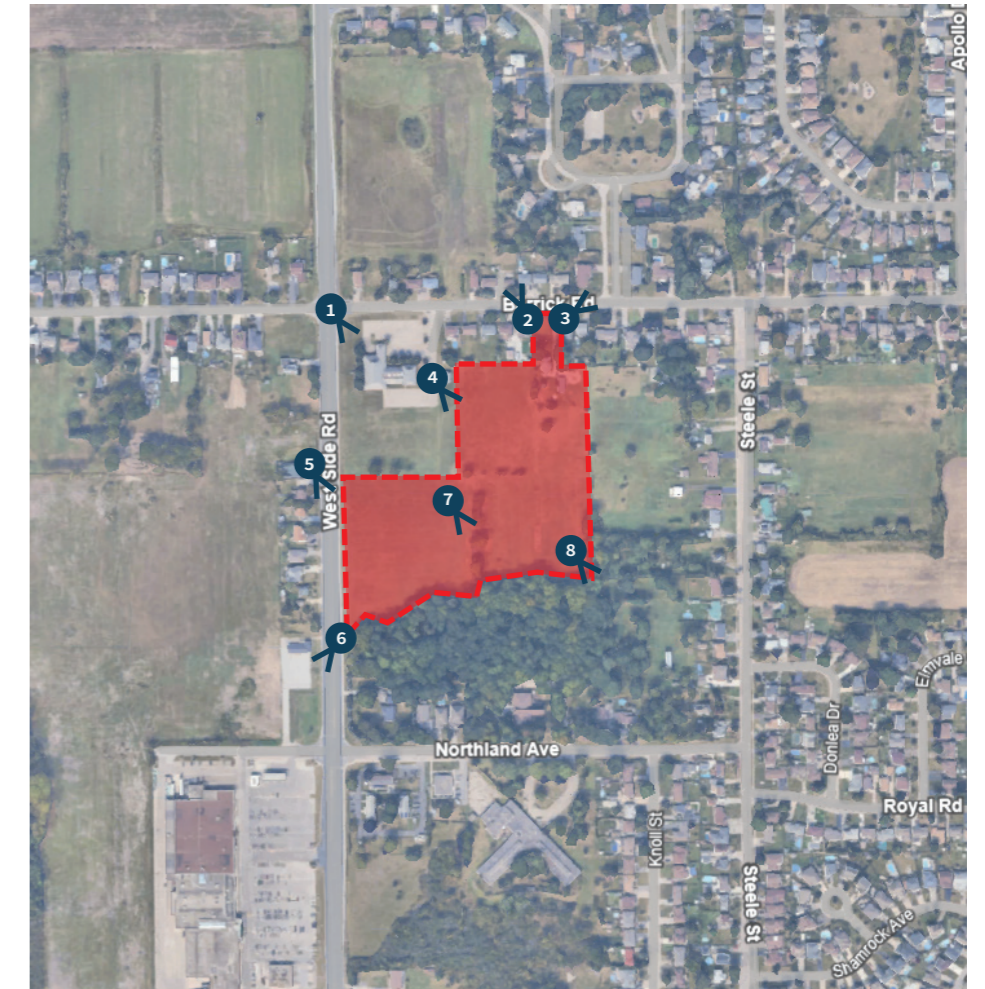


Figure 2: Key Map-Images from Google Earth & Tree Protection Plan



1 View from Intersection of West Side Road and Barrick Road



2 View West along Barrick Road (At Secondary Entrance of Subject Site)



3 View East along Barrick Road (At Secondary Entrance of Subject Site)



4 View Southeast from Church Parking Lot facing Subject Site



5 View South along West Side Road



6 View South Along West Side Road (Facing Port Colborne Mall)



7 View Southeast from Central Hedgerow



8 View South from Eastern Hedgerow

2.3 Regional Analysis

The subject site is located northwest of Port Colborne's Downtown BIA, approximately 2.8 km from City Hall and the primary commercial core. The nearest major transportation connection is West Side Road, with Barrick Road functioning as the largest adjacent local road. The site also sits near the northern end of Steele Street, which extends south toward established neighbourhoods and community amenities.

Within a 400 m radius, the surrounding context is predominantly low density residential uses and undeveloped greenfield parcels identified for future development in purple. Between 600 m and 800 m, residential land continues to be majority of development, with a commercial plaza located southwest of the subject site. Overall, the broader area is characterized by a majority of existing stable neighbourhoods, with significant proposed redevelopment on greenfield lands.

To the west, the region is surrounded by Wainfleet Bog Conservation Area, a significant natural and environmental area, while to the east it is framed by the Trillium Railway corridor, which runs north & south parallel to the Welland Canal.

Legend

- +———— Rail
- Major Arterial
- Minor Arterial
- Residential
- New Development

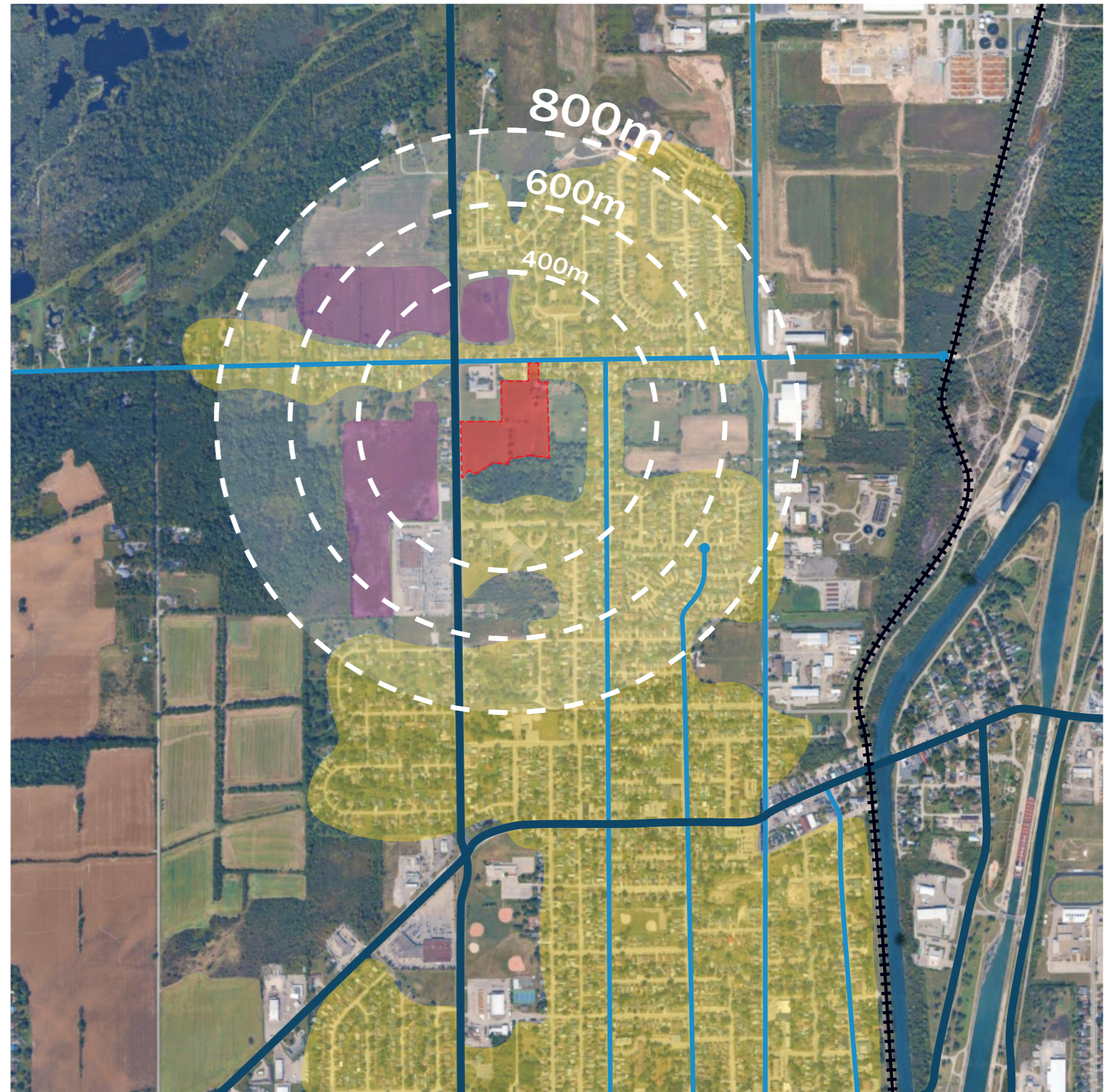


Figure 3: Regional Context & Land Use Map

3 Policy Review

3.1 Niagara Official Plan & Model Urban Design Guidelines update

Niagara Official Plan

The Niagara Official Plan (NOP) was consolidated in May 2024 and came into effect on July 1, 2024. As noted in the Planning Justification Report (PJR), the NOP now functions as the Official Plan for the Region's 12 local municipalities, including the City of Port Colborne.

The Niagara Official Plan includes a dedicated section addressing urban design through the careful consideration of built form and the public realm, and provides direction to support the achievement of complete communities through the application of urban design standards.

The Niagara Official Plan's urban design guidelines outline three main objectives, which include:

- a) commit to excellence in urban design;
- b) enhance the public realm and promote active transportation; and
- c) identify and establish tools for urban design implementation.

These objectives are further supported through detailed policies and guidelines.

At the local municipal scale, such as in the City of Port Colborne, these design guidelines are further refined and implemented through local official plans and in *Section 4.0: Design Proposal*.

Model Urban Design Guidelines update

The Model Urban Design Guidelines update (MUDG update) has been developed to provide best management practices for urban design within the Niagara Region. These guidelines build upon the 2005 Model Urban Design Guidelines, which reflect the 12 local municipalities. The updated guidelines establish guiding design principles related to community design, block design, site design, building design, and building uses.

For the purpose of this Urban Design Brief, these principles are further refined and explored in *Section 4.0: Design Proposal*. Additional refined guidelines and policies referenced in this section are drawn from applicable official plans, which collectively address the municipality's urban design goals and long-term development trajectory.

3.2 City of Port Colborne Official Plan

The Official Plan for the City of Port Colborne (PCOP) was approved on November 25, 2013 and was updated September 5, 2017. The Official Plan establishes long term goals for the community, guides policy, and helps inform how the City manages growth and change. The City is currently undertaking a new Official Plan that will address future growth, infrastructure needs, and environmental protection in Port Colborne through 2056.

For the purposes of this Brief, the current Official Plan is referenced, specifically Section 3.2, and more directly Sections 3.2.1.c and 3.2.3, which outline the Design Guidelines for Residential Communities under the Urban Residential land use designation.

High Density Residential (Section 3.2.1.c)

These lands are intended primarily for residential uses within the City's urban boundary. The proposed development falls under the High Density Residential category as identified in Section 3.2.1.c. This Brief addresses the applicable policies and design considerations associated with this designation, including developments that:

- Be developed as apartment buildings ranging in density from 70 to 100 units per net hectare;
- Have frontage on an arterial or collector road;
- Have commercial uses on the main floor;
- Be oriented on the site to minimize shadows on adjacent low and medium density residential development;

Urban Residential Design Guidelines (Section 3.2.3)

The following Urban Residential Design Guidelines are applicable:

- Section 3.2.3.1 Residential Communities — size, unique identity and character, visually interesting, utilization of parks and open space
- Section 3.2.3.2 Street and Blocks — layout should enhance connectivity and appearance
- Section 3.2.3.3 Housing — multiple-unit housing should have consistent form, massing, and proportions to create a street façade and be consistent with the surrounding built form
- Section 3.2.3.4 Neighbourhood Commercial — be consistent with the surrounding character, cover parking from frontage

These policies are further addressed in Section 4.4 of the Planning Justification Report.

3.3 City Comments from Pre-Consultation

As part of the pre-consultation process, City staff provided comments related to the urban design of the proposed development. The following City comments pertain to the design of the subject site and are to be analyzed in Section 5.0.

Built Form & Massing

- Potential impacts related to height, overlook, shadowing, and privacy appropriately mitigated at the shared lot lines.
- Encouraged to explore opportunities for variation in building height, massing, and architectural design to achieve sensitive transition to neighbouring properties.

Site Planning & Open Space

- Concept identifies 17.7% of the site as landscaped open space, whereas the R4 Zone requires a minimum landscaped area of 25%. Encouraged to review layout and determine alternatives; provide supporting rationale should a reduction be requested.

Parking & Circulation

- Parking significantly exceeds the parking requirement of 1.1 spaces per unit. Reduce amount to improve public realm, landscaping, and circulation.
- Inclusion of a 2-storey parking structure at the centre contributes to the oversupply of parking spaces. Further analysis regarding its necessity, scale, and integration within the development would be beneficial.

Amenity Provision

- Additional information outlining how amenity needs for 372 units will be accommodated, further context and justification as to how this requirement is being addressed.

4 Design Proposal

4.1 Design Vision & Principles

The vision for the proposed development is to provide a high-quality, market-based rental residential community. It will consist of well-designed one- and two-bedroom apartment units that emphasize quality construction, strong architectural design, meaningful greenspace, and functional outdoor and indoor areas that improve livability for residents. In response to limited parking availability in the City of Port Colborne, the proposal prioritizes sufficient on-site parking to support residents without impacting adjacent neighbourhood streets and communities.

The design principles guiding the development are informed by the Niagara Official Plan, the MUDG update, and the City of Port Colborne Official Plan, and reflect best practices in urban design to support responsible intensification while contributing positively to the neighbourhood context.

Safe & Functional Environments

- Locate garbage, loading, and service areas where they do not detract from pedestrian connections or negatively impact views from the street.
- Provide and use fencing, plantings, shrubs, and other visual and physical deterrents to enhance safety and visual appeal.

Sustainable & Resilient Development

- Provide stormwater infiltration by dedicating part of the site to stormwater management.
- Plan building height and massing to ensure the 6-storey buildings and the two-level parkade do not detract from a cohesive visual experience, contributing to a pleasant view of the site from street frontages.

Context Sensitive & Compatible Built Form

- Respond to the site context and the existing and planned character of the surrounding area.
- Ensure buildings achieve a comfortable pedestrian scale by incorporating diverse materials that visually break up massing, reduce bulk, and add interest.

Activation of the Public Realm

- Frame internal streets and open spaces with buildings to reinforce a sense of place and strengthen the public realm.
- Incorporate landscaping, pedestrian pathways, amenities, and well-designed open spaces to support social interaction and create a high-quality pedestrian environment.

Accessible Intuitive Movement Systems

- Create a clear internal street and driveway system that enhances wayfinding, and provide adequate parking to support a growing community given the lack of public transportation.
- Provide continuous, barrier-free pedestrian pathways and promote bicycle and active modes of travel.

4.2 Development Proposal

The proposed development includes six 6-storey residential buildings with front lot line frontage along Barrick Road. Each building has a footprint of approximately 1,018.5 m², resulting in a total residential floor area of 6,111 m². One 1-storey commercial building with a gross floor area of 558 m² is proposed near the main site entrance along West Side Road. Each residential building contains 62 units, resulting in a total of 372 apartment dwelling units across the six buildings. The buildings will be comprised of an equal mix of 186 one bedroom and 186 two bedroom apartments. A stormwater management pond of approximately 0.20 hectares is located near the southwest limit of development.

Vehicular access to the site is proposed through two entrance points: one primary entrance from West Side Road and one secondary entrance from Barrick Road via the acquired lot at 434 Barrick Road. Each building includes dedicated loading areas for garbage collection and service access. A total of 738 parking spaces are proposed, representing a target parking rate of approximately 2.0 spaces per unit. This includes a centrally located two level parking structure providing 148 parking spaces.

Short term bicycle parking spaces are provided through one rolling racks located in front of each building. Each building also includes internal bicycle storage rooms, interior amenity spaces, storage rooms, and additional shared facilities, totalling approximately 2,577.6 m² per building. Landscaped open space accounts for approximately 25% of the 4.097 hectares of development land. One outdoor amenity space is located in front of the northern residential building, with additional greenspace provided through generous setbacks throughout the site.

4.3 Phasing Plan

The proposed development will be divided in four phases to ensure appropriate market absorption and to maintain a target parking ratio of 2.0 throughout all stages of the development process. The phasing strategy is intended to support efficient vehicular and pedestrian circulation across the site, while ensuring sufficient infrastructure and resources are in place at each stage of development.

Phase I is located in the southwest portion of the site and includes the construction of the main entry from West Side Road, two residential buildings, one commercial building, the stormwater management pond, and surface parking.

Phase II is located at the centre of the site and includes the construction of the parking structure, which will support subsequent phases of development.

Phase III is located in the southeast portion of the site and includes two residential buildings and surface parking.

Phase IV is located in the northern portion of the site and includes the secondary site entrance, two residential buildings and surface parking.

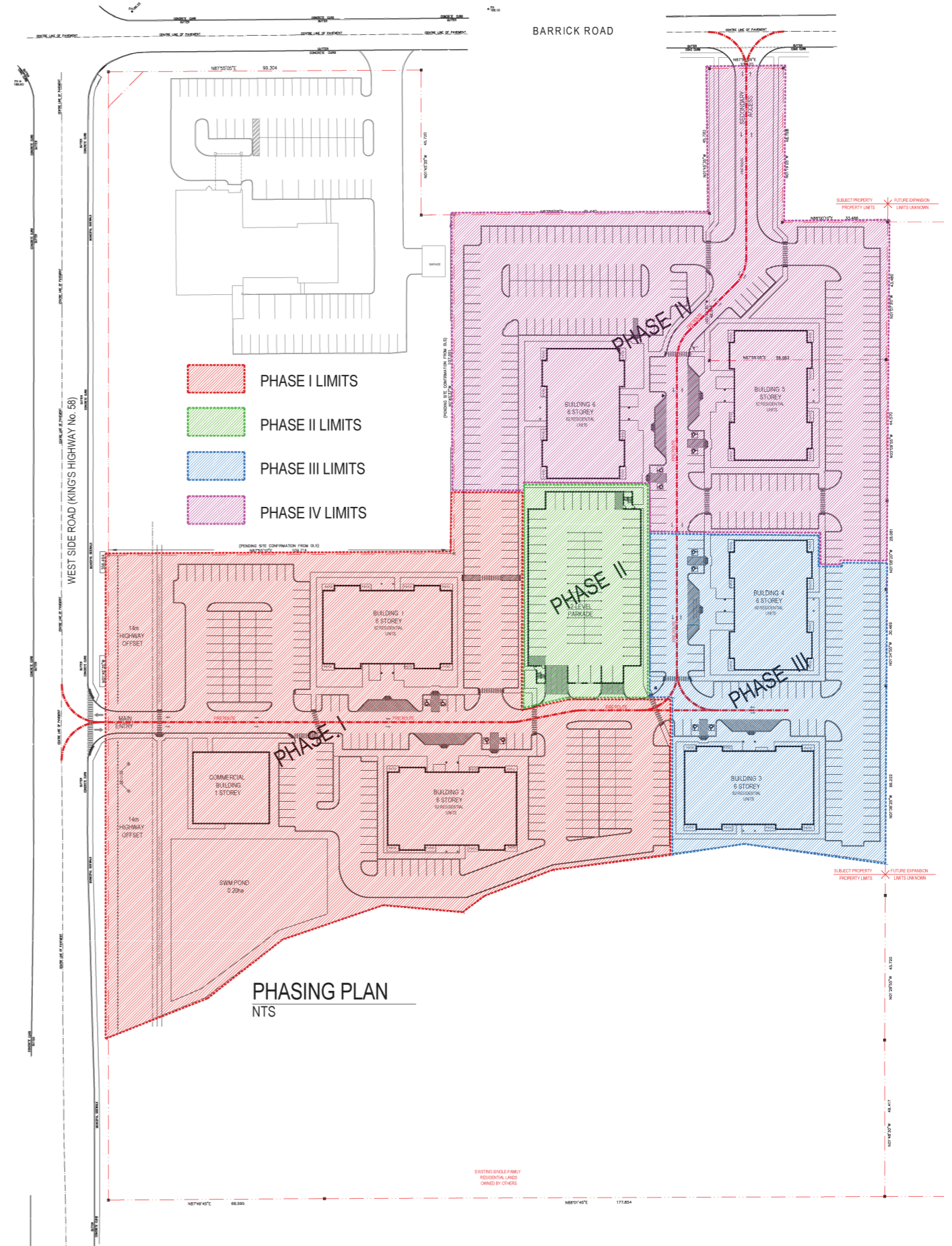


Figure 4: Phasing Plan (Prepared by Marsh Katsios Architects Inc.)



Figure 5: Draft Landscape Plan (Prepared by Adesso Design Inc.)



Figure 6: Proposed Buildings & Parking Structure (Prepared by Marsh Katsios Architects Inc.)

5 Design Analysis

5.1 Site Design

5.1.1 Site Organization

(In response to Port Colborne Official Plan Section 3.2.1.c, Section 3.2.3.2 Street and Blocks, Section 3.2.3.3 Housing, Section 3.2.3.4 Neighbourhood Commercial, 3.2.3.1 Residential Communities)

The site is defined by a radius of less than 400 m, making it walkable and easily accessible for residents to move throughout the area. A clearly defined edge is formed by Barrick Road, West Side Road, and the Environmental Lands to the south. The proposed site will be developed in the density of about 91 units per hectare, making up 372 units. The building frontages face the internal arterial roads of the development, creating active and visible frontages. The site is based on an internal layout near the Intersection of Barrick Road and West Side Road providing internal sidewalks, driveways and parking spaces to enhance resident privacy and security when traveling through the space. The parking structure is located at the center of the site, covered by the 6-storey buildings to create a sense of enclosure and to deter eyesight from the West Side and Barrick Road.

Two residential buildings are located on the western portion of the site adjacent to the commercial building, two are located toward the southeast, and two are positioned along the northern edge of the site. This building distribution creates a balanced and unified site layout by evenly dispersing the six residential buildings and maintaining an appropriate balance between built form and open space.

The commercial building is located fronting the main internal drive aisle adjacent to West Side Road to enhance the streetscape layout, as commercial buildings are intended to be the first elements perceived by pedestrians and vehicular traffic entering the site. This placement also functions as a visual buffer along the drive aisle, providing screening between the internal circulation routes and the stormwater management pond.

Each building has its own loading zone attached to the main entry and secondary routes, which also act as the Fire Route for the site. There is a 14m highway offset from West Side Road to allow for future road widenings, with a pedestrian sidewalk right after before entering the site. The development is also consistent with future proposals in the area, and acts as a gateway development. It matches the character of the South multi-unit dwellings, enhancing the neighbourhoods residential character.

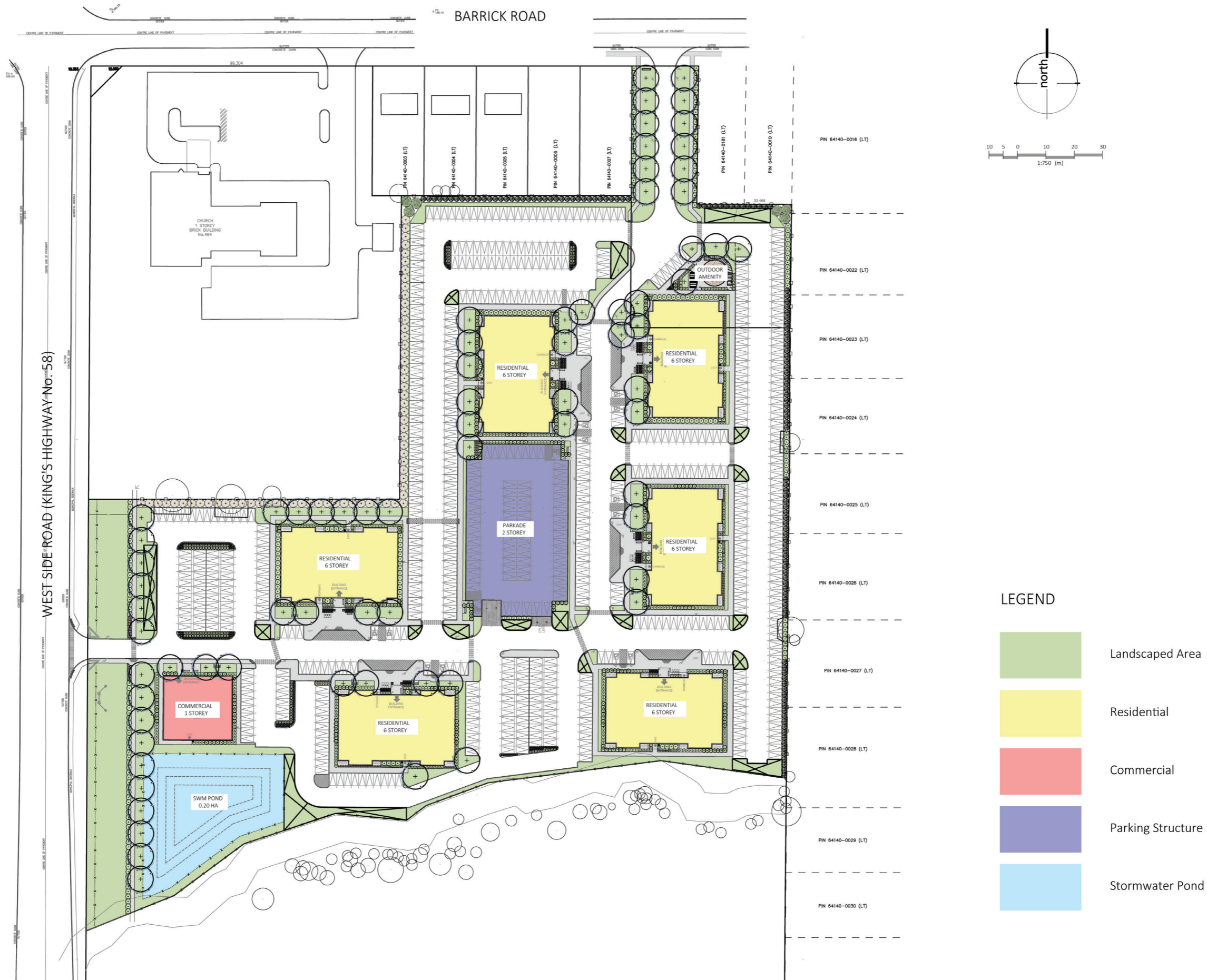


Figure 7: Site Organization Plan

5.1.2 Pedestrian/Vehicular Circulation and Access

(In response to Port Colborne Official Plan 3.2.1.c, Section 3.2.3.2 Street and Blocks & City Comments for Parking & Circulation)

There are two 2-way vehicular entrances serving the site, including a primary entrance from West Side Road and a secondary entrance from Barrick Road. The primary entrance extends eastward into the centre of the site, first providing access to the commercial building and two residential buildings. The secondary entrance connects to the central internal roadway and serves the two northern residential buildings. Together, these entrances feed into the internal roadway layout of the site, as shown in Figure 8.

Two 2-way vehicular entrances and exits are provided to the parking structure, with one entrance serving Level 2 and a second entrance providing access to Level 1 from the fire route connected to the main entry. Throughout the site, landscaped islands are proposed to guide vehicular movement and enhance safety within the internal circulation network.

Pedestrian circulation primarily occurs within the internal site layout, with sidewalks provided along the front and rear of each building. Clearly defined pedestrian crossings are incorporated to enhance safety and improve pedestrian comfort. By providing space for landscaping, buffering, and activity, the sidewalk setbacks help reduce visual and physical conflicts between building entrances and the public realm. Each building includes a primary entrance at the front and a secondary entrance at the rear to enhance circulation and accessibility. The internal sidewalk network connects to the municipal sidewalks along Barrick Road and West Side Road, promoting cohesion and continuity within the broader pedestrian network.

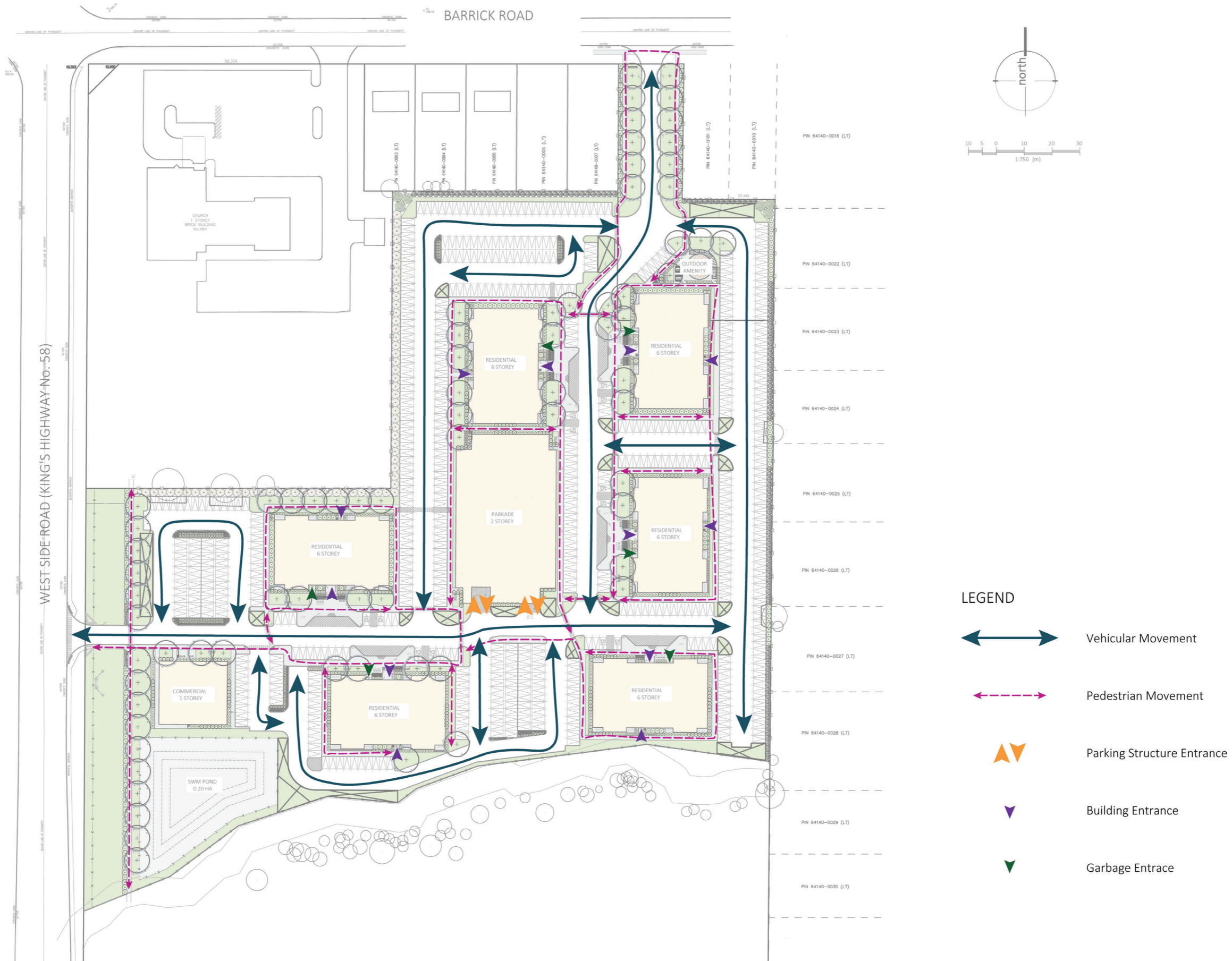


Figure 8: Site Circulation & Movement Map

5.1.3 Landscape and Amenity Areas

(In response to Port Colborne Official Plan Section 3.2.3.1 Residential Communities & City Comments for Site Planning & Open Space, and Amenity Provision)

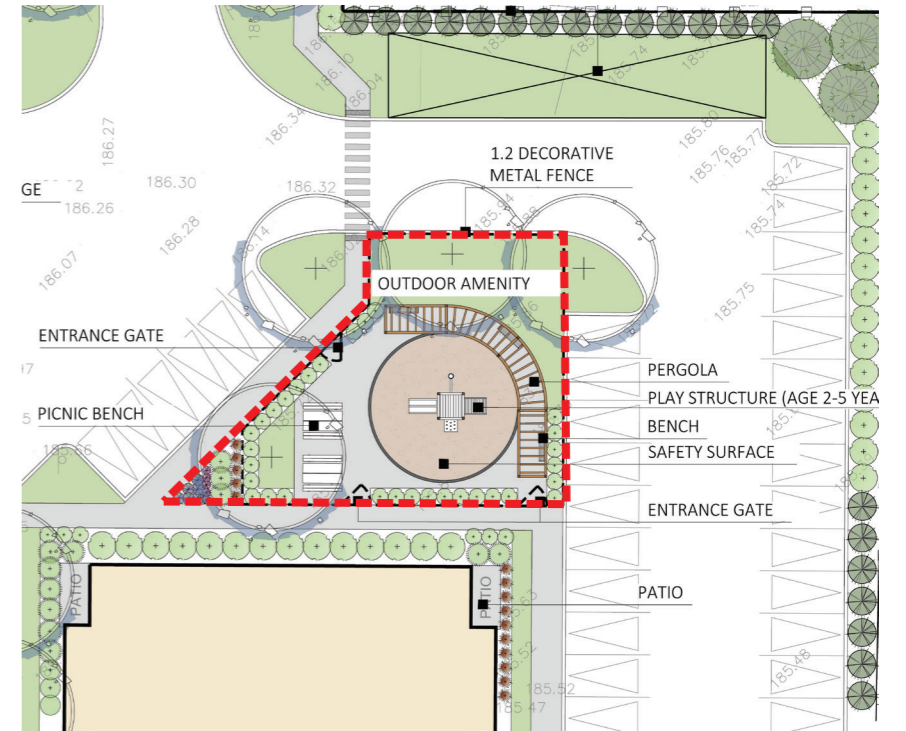
Landscape shrubs, perennials, and tree planting define site entrances and, where feasible, line the edges of the West Side Road (Hwy 58) streetscape, providing visual screening. They also frame the internal edges fronting the Church property, enhancing privacy and offering additional visual screening. Chain-link fencing, wood privacy fencing, and perennials extend throughout the exterior site boundaries, creating a visual barrier and contextual edge while serving as a deterrent. Collectively, these buffer plantings and fencing establish a distinct visual identity for the site, clearly delineating it from the surrounding neighbourhood while providing privacy to neighbouring lots.

Trees, shrubs, and perennials are distributed throughout the site to provide shade, create a cooling effect, and contribute to sustainability by reducing heat islands. Shrubs and plantings located within parking areas and traffic islands create visual identifiers and improve site aesthetics through a cohesive landscape design. Each building entrance features plantings and shrubs that extend around the buildings to rear and side yards, softening angles and complementing architectural features while creating inviting, pedestrian-oriented spaces.

In response to the limited availability of play areas within the neighbourhood, an outdoor amenity space is proposed north of the northeast building, surrounded by perennials and shrubs. The amenity area includes a play structure (ages 2–5 years), benches, safety surfacing, a pergola, picnic benches, and gated entrances connecting to the north and south sidewalks. Unit-level concrete patios are provided throughout the site, primarily at building corners, offering additional private outdoor amenity space for residents.

A 0.20-hectare stormwater pond is proposed in the southwest portion of the site and is surrounded by chain-link fencing to provide a visual barrier and integrate the pond into the landscape design. Snow storage zones are incorporated at strategic locations to accommodate non-intrusive snow storage during winter maintenance and clearing operations.

Each building includes dedicated indoor amenity spaces consisting of a Fitness Room and a Recreation Room, with a combined total area of 104.5 square metres per building. Additional ancillary spaces are also provided within each building, including a Bicycle Storage Room and Tenant Storage Locker Rooms, totaling 429.6 square metres per building. Garbage bins and benches are distributed throughout the site, and two site signs are proposed at the main entrance and the secondary entrance.



LEGEND





-  property line
-  existing tree to remain
-  proposed deciduous tree
-  proposed shrub
-  proposed perennial
-  existing elevation
-  min. 150mm topsoil, fine grade & sod
-  C.I.P. concrete
-  snow storage

Figure 9: Draft Landscape Plan (Prepared by Adesso Design Inc.)

5.1.4 Parking, Loading and Servicing

(In response to City Comments for Parking & Circulation)

The site provides a total of 738 parking spaces, resulting in a target parking rate of approximately 2.0 spaces per unit. This exceeds the requirement of 1.25 parking spaces per unit (465 parking spaces for an apartment building, as set out in the City of Port Colborne Comprehensive Zoning By law (By law 6575/30/18. As outlined in Section 4.5: City of Port Colborne Zoning by-Law (6575/30/18) of the Planning Justification Report (PJR), the proposed parking rate reflects the anticipated needs and demands of the local community. To accommodate these demands, a two level parking garage is proposed. The parking structure is physically screened by surrounding buildings, with the garage semi submerged into the existing grade to minimize its visual presence within the site. The structure will accommodate a total of 148 parking spaces. In addition, the site will include 17 accessible parking spaces, in compliance with AODA guidelines.

Surface parking is distributed throughout the site and includes accessible parking spaces located near each building, visitor parking, and tandem parking spaces. Tandem parking is proposed to assist in achieving the overall target parking rate of 2.0 spaces per unit and is intended to be leased to individual units. This avoids vehicular conflicts typically associated with tandem parking. These spaces are located away from primary internal circulation routes and are separated by small islands to break up long, continuous rows of parking for visual appeal, and safety.

Short term bicycle parking spaces are provided through one rolling bicycle racks located at the front of each building, with additional internal bicycle storage rooms provided within each residential building. Each building also includes a dedicated loading zone to accommodate garbage collection. Waste and recycling will be stored within internal garbage rooms and accessed through a separate, designated service entrance for collection. The waste and recycling will be brought outside to these pick-up zones on garbage collection days. Loading areas are

5.2 Built Form

5.2.1 Height, Massing and Shadowing

(In response to Port Colborne Official Plan Section 3.2.3.3 Housing & City Comments for Built Form & Massing)

The proposed development consists of six 6 storey buildings, with the overall mass broken up using a number of massing techniques including projections and recessions, changes in building materials and colours, and the incorporation of varying window sizes. These techniques reduce the visual scale of the buildings and help mitigate perceived mass.

The massing of all proposed buildings has been designed to create a comfortable pedestrian environment, which will be further enhanced through the provision of private amenity space, including a connected walkway throughout the site. As shown in Figure 12, the proposed building height and setback from the lot line create an angular plane of less than 34 degrees, which is well below the recommended 45-degree angular plane for development. Likewise, the 6-storey building height creates a mid-scale, eye-level experience for pedestrians and is not visually overbearing.

Building designs and architectural elements will be incorporated to add variety to rooflines. All building façades will be articulated, with particular attention given to building elevations visible from the surrounding public realm. No blank walls are proposed. The articulation of larger buildings will include elements that create a rhythm along the streetscape, helping to further break down the overall building mass and enhance the pedestrian experience.

Outdoor living space for individual residential units will be provided in the form of balconies and grade-level patios, contributing to resident amenity space.



Figure 11: Elevations (Prepared by Marsh Katsios Architects Inc.)



W REFER TO WALL TYPE SCHEDULE
W REFER TO WINDOW SCHEDULE

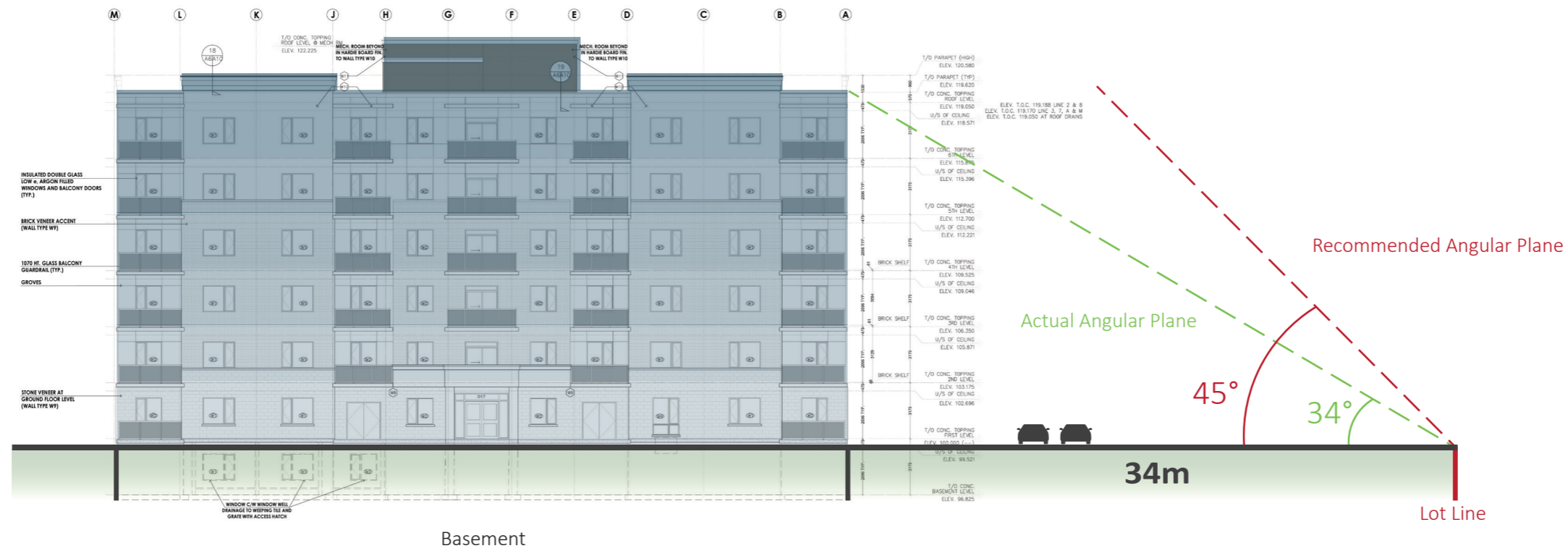
FRONT ENTRANCE ELEVATION
SCALE: 1:100



W REFER TO WALL TYPE SCHEDULE
W REFER TO WINDOW SCHEDULE

REAR ENTRANCE ELEVATION
SCALE: 1:100

Building 5



Building 6

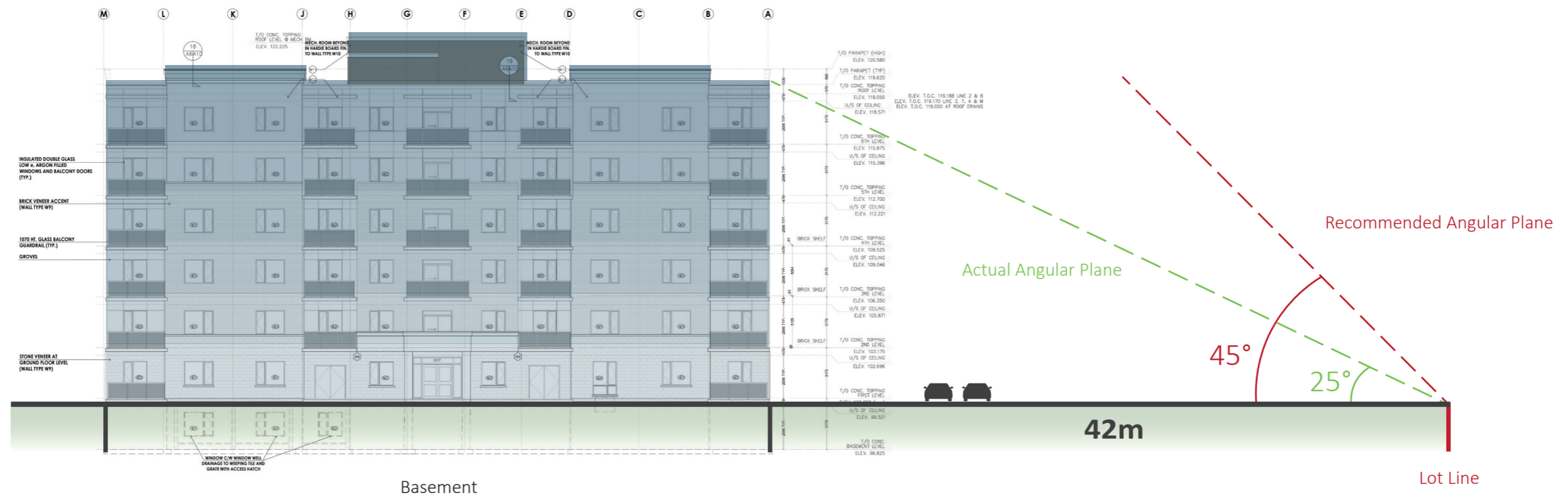


Figure 12: Angular Plane from Lot Line Diagram

Shadow Analysis

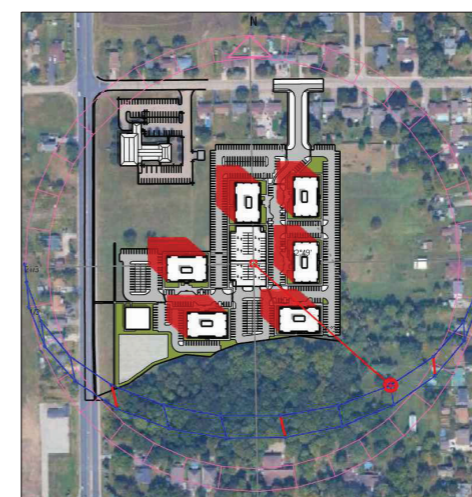
A shadow study is provided to demonstrate that the proposed height and massing have been designed to minimize shadow impacts and ensure appropriate sunlight access, consistent with Urban Design Brief objectives.

The shadow study illustrates the impacts of shadows on the surrounding context created by the proposed 6-storey buildings at key times of day (10:00 a.m., 12:00 p.m., 2:00 p.m., 4:00 p.m., and 6:00 p.m.) during the spring and fall equinoxes (March 21 and September 21), the summer solstice (June 21), and the winter solstice (December 21). These dates represent standard seasonal extremes and averages of the sun's trajectory and are used to analyze potential shadow impacts throughout the year.

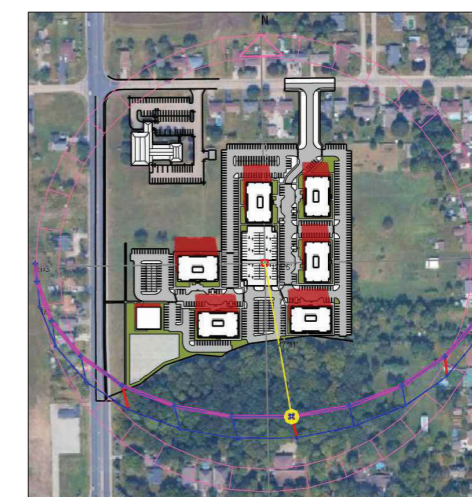
The studies show that the majority of shadows generated fall within the proposed site, with minimal spillover onto residential dwellings along Barrick Road during the winter solstice. During the morning and mid day periods, shadows remain compact and very limited in extent, with longer shadows occurring in the afternoon and primarily affecting the rear of the eastern residential lots.

The shadow analysis indicates that the proposed development does not result in significant shadow impacts on nearby residential dwellings or the adjacent church. The distribution of building massing and setbacks from the main roadways contributes to the limited amount of shadow spillover. This demonstrates an appropriate balance between building form and shadow impacts on surrounding dwellings.

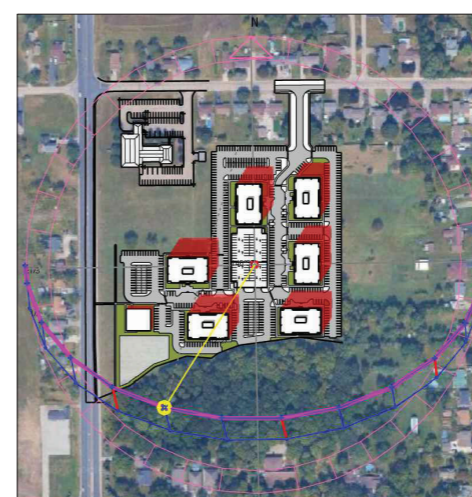
WINTER SOLSTICE



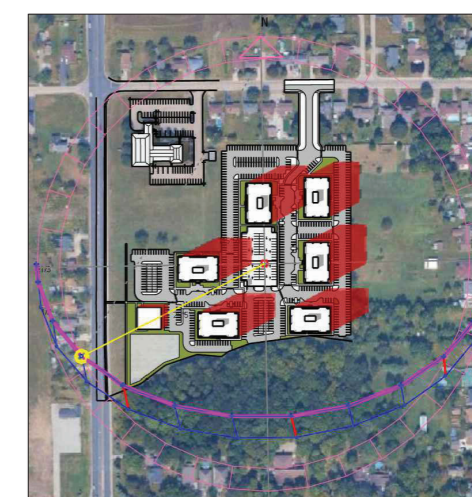
MARCH 21-10:00 am



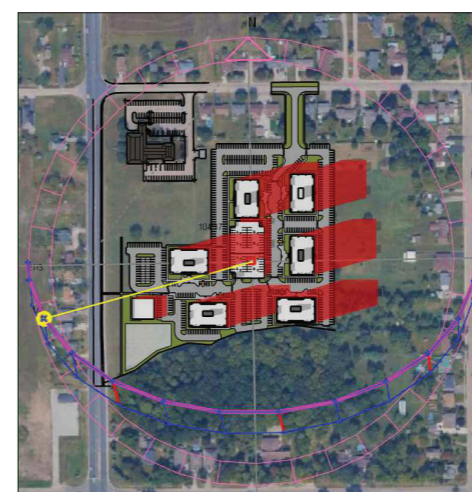
MARCH 21-12:00 pm



MARCH 21- 02:00 pm



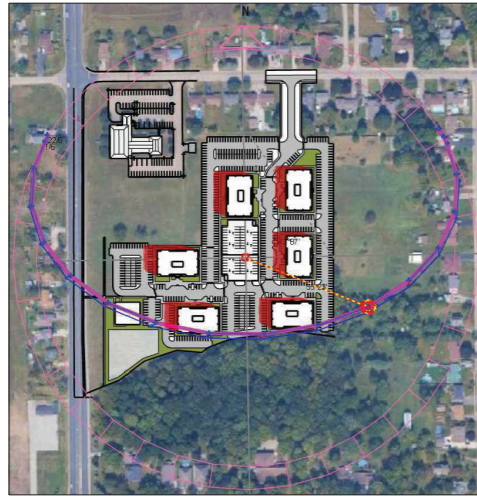
MARCH 21- 04:00 pm



MARCH 21- 05:00 pm

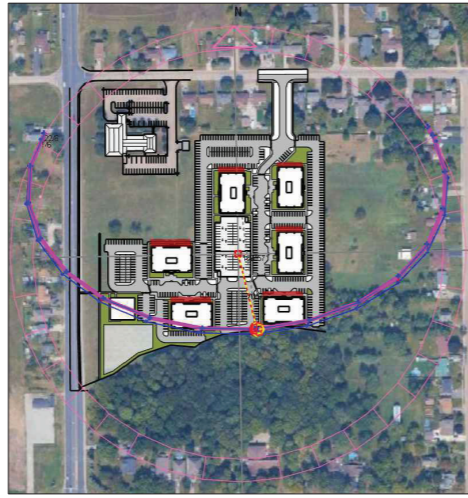
Figure 10: Shadow Study (Prepared by Marsh Katsios Architects Inc.)

SUMMER SOLSTICE

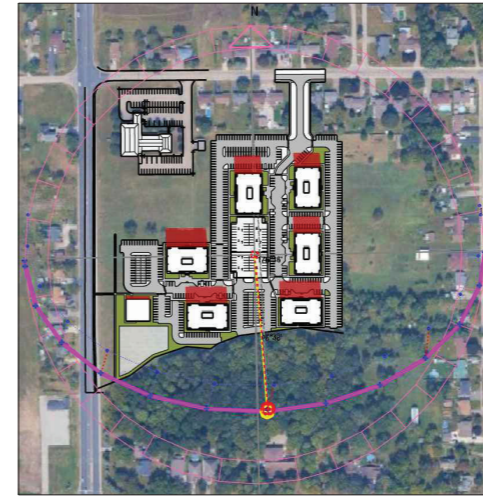


JUNE 21-10:00 am

FALL EQUINOX

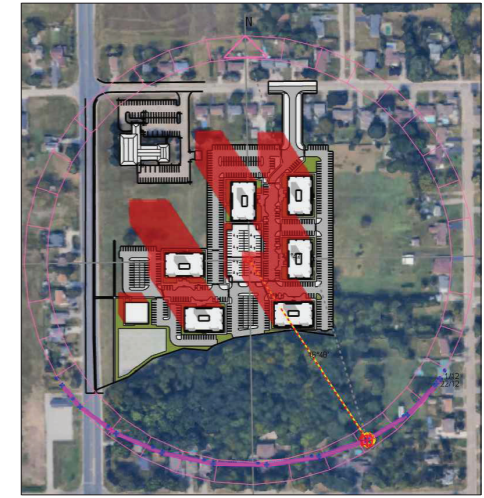


JUNE 21-12:00 pm

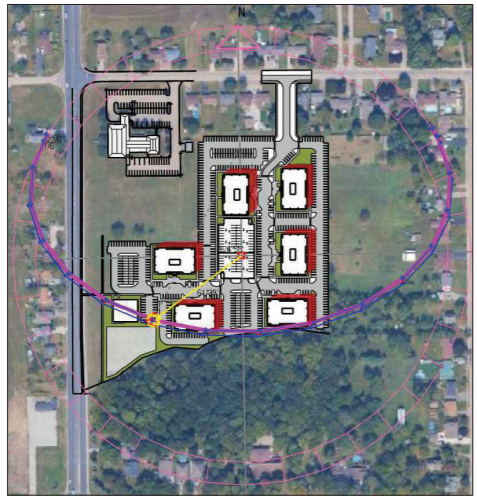


SEPTEMBER 21-12:00 pm

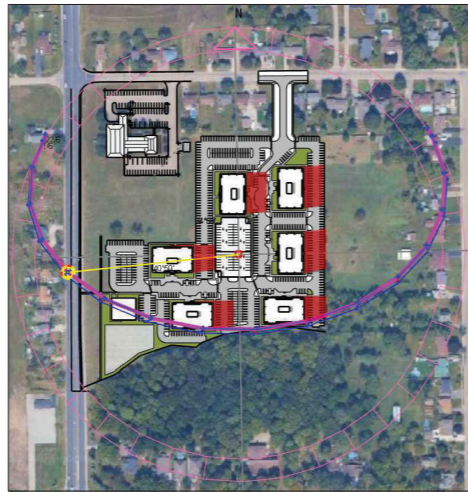
WINTER SOLSTICE



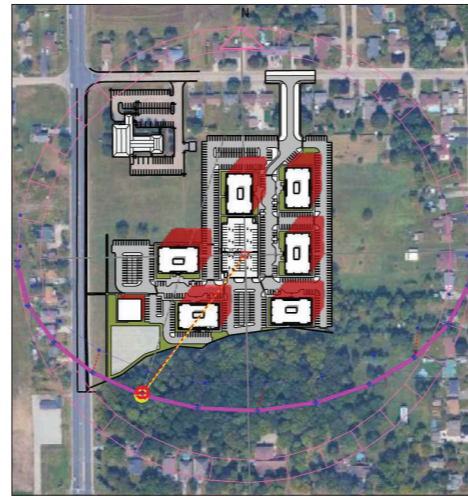
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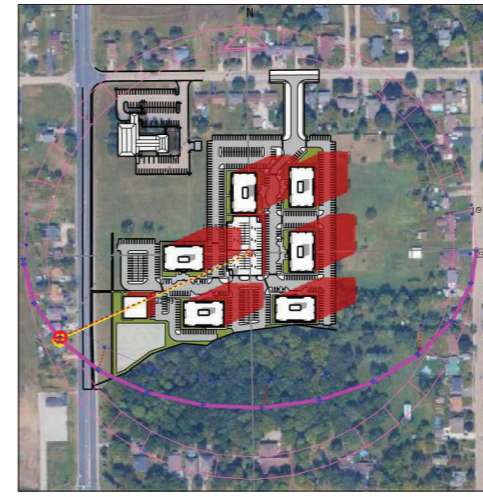
JUNE 21- 02:00 pm



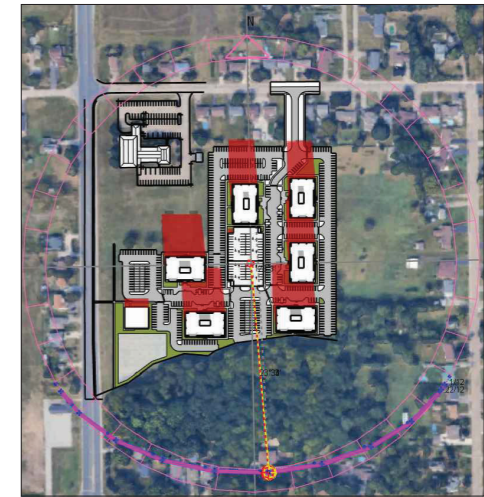
JUNE 21- 04:00 pm



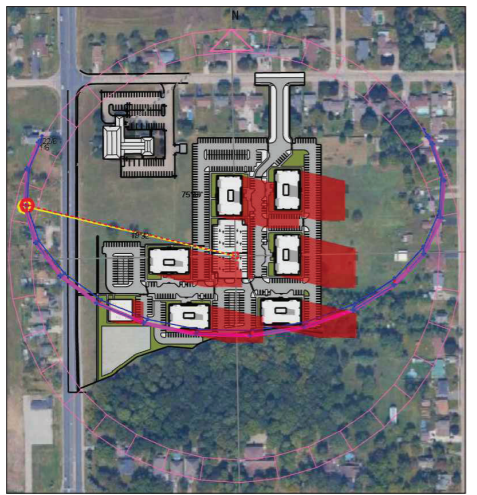
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SEPTEMBER 21- 04:00 pm



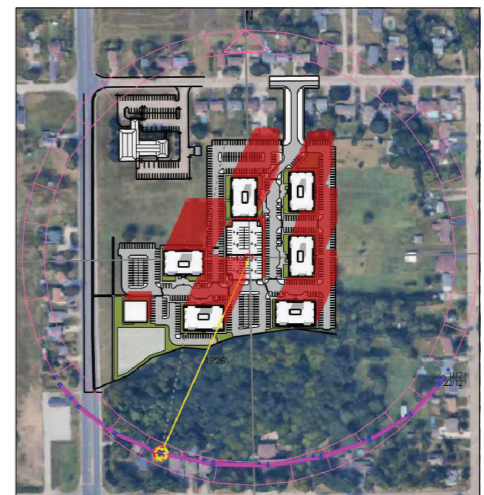
DECEMBER 21-12:00 pm



JUNE 21- 06:00 pm



SEPTEMBER 21- 06:00 pm



DECEMBER 21-02:00 pm

5.2.2 Public Realm & Architecture

(In response to Port Colborne Official Plan Section 3.2.3.3 Housing, Section 3.2.3.1 Residential Communities & City Comments for Built Form & Massing)

The proposed development has been designed to integrate the built form into the existing streetscape in a manner that reinforces the public realm at the pedestrian level. Landscaping will define the boundary between the private and public realms along street edges, while the combination of building materials and architectural detailing will animate the sidewalk experience.

New trees will be planted along internal street edges, and low shrub plantings will be incorporated along pedestrian walkways. Any surface parking areas adjacent to public streets will be buffered through the use of soft landscaping to minimize visual impact on the public realm.

The buildings have been designed with a contemporary aesthetic that emphasizes quality materials and thoughtful detailing. A combination of masonry and panel cladding materials is used across the façades, with a deliberate contrast between the treatment at the base of the building and the upper storeys. This distinction helps break down the overall scale of the building and gives it a clear and readable composition. Framed windows and sliding doors are used consistently across all elevations, creating a strong and unified pattern. Cantilevered balconies with glass railings add depth and horizontal interest to the façades, while a contrasting material at the roofline provides a clean and finished appearance at the top of the building.

Exterior materials will include brick, stone, aluminum trims, fibre cement siding panels and vinyl railing with glass panels, as illustrated in Figure 13. These materials have been selected for their long-term durability and visual appeal. A tonal contrast between the base and upper portions of the building helps ground it visually and reinforces its overall composition. Variation in material texture, particularly in the brick, adds visual interest at close range without disrupting the overall appearance of the building.

The six buildings throughout the subject site will not share a single uniform colour scheme. Instead, a few colour schemes will be used and distributed throughout the development in a deliberate manner, to ensure that buildings with the same colour scheme are not placed side by side or directly across to one another. This approach creates visual contrast and variety across the subject site, developing an overall sense of harmony and community cohesion.



Figure 13: Render of 6-Storey Building Featuring Materiality

5.2.3 Neighbourhood Commercial

(In response to Port Colborne Official Plan Section 3.2.3.4 Neighbourhood Commercial)

The proposed commercial building provides 558 m² of neighbourhood commercial space, meeting the requirement of 150 m² per 100 residential units. The building is strategically located fronting the main site entry to establish a strong visual presence and enhance the overall appearance of the development. The placement, and architectural detail of the commercial building are designed to be visually consistent with the proposed 6-storey residential buildings, ensuring a cohesive and integrated built form across the site. 17 parking spots associated with the commercial building are located to the rear of the building to minimize their visual impact on the public realm and maintain an active and attractive frontage. Landscaping features like shrubs and plantings are incorporated to screen parking areas, further enhancing the streetscape and pedestrian experience.

6 Sustainability

The proposed development integrates sustainable planning, efficient building design, and environmentally responsible practices. Energy-efficient envelopes, LED lighting, Energy Star appliances, low-flow fixtures and low-VOC materials options reduce resource and fossil fuel consumption while improving indoor environmental living quality. The stormwater management pond supports natural filtration and biodiversity, and the site's proximity to transit, schools, and amenities encourages walking and bicycling and reduces the need to use exhaust-emitting automobiles within the area thus promoting a healthy and sustainable community.

Sustainable Development Targets:

- The stormwater management pond provided on-site is designed to reduce reliance on, and impacts to, the municipal stormwater management infrastructure system. Additionally, the pond will support biodiversity by attracting aquatic life and birds, enhance site aesthetics, improve microclimate cooling, collect rainwater, and provide recreational space for residents. This creates an environmentally responsible living community proposed for families and individuals seeking to minimize their carbon footprint by providing an alternative living environment with an emphasis on sustainability, reuse, recycling, and reduction.
- Environmental separation is provided to ensure a controlled and comfortable environment through air tightness in the building envelope and sufficient insulation at all exterior walls, roofs, and other exposed building elements, in order to reduce infiltration and minimize heating and cooling energy use.
- Ventilation and heat recovery systems will be implemented to optimize performance and improve indoor air comfort. The HVAC system is designed to operate when suite windows and doors are closed. Once a window or door is opened, the HVAC system enters standby mode to save energy. All suites will be serviced by their own HVAC system, complete with individual controls for heating and cooling.
- Secure on-site bicycle storage will be provided inside designated rooms within each building for occupants, along with exterior temporary bicycle storage zones for guests.
- Outdoor lighting will be night sky friendly, and care will be taken to minimize light trespass onto neighbouring properties. Recessed lighting will be provided within entrance canopies. All lighting will utilize energy saving LED systems.
- Indoor lighting will incorporate the use and implementation of energy saving LED lighting systems and fixtures.
- High efficiency window systems will utilize double glazing, low E coatings, argon gas filled insulated units, airtight construction, and thermally broken frames. The use of higher quality windows and glazed exterior doors will reduce solar gain and prevent heat loss while maximizing the provision of natural light. All window units, where applicable, will be operable to introduce natural airflow ventilation.
- Water usage reduction and minimized consumption will be achieved through the use of energy efficient low flow faucets and shower heads, low flush toilets, and high efficiency water consuming appliances such as dishwashers and washing machines.
- ENERGY STAR–certified appliances will be specified and implemented throughout the development.
- Low VOC finishes will be used wherever and whenever possible to reduce off gassing and indoor air pollution emissions for items such as paints, sealants, adhesives, caulking, cabinetry finishes, vinyl tiles, and similar materials. Flooring such as carpeting, LVP, and laminate flooring will be installed without adhesives.
- Recycling and waste reduction techniques will be implemented to encourage healthy recycling habits while reducing waste and landfill overfilling, as recommended by City guidelines.

- Renewable technologies are strongly encouraged through the use of green and sustainable materials where possible. Smart thermostats, smart LED lighting, and smart appliances are additional options to consider.
- Natural outdoor furnishings will be used throughout the property, including wooden gazebos, wood benches, wood clad waste and recycling bins, and wood clad planters. Wood offers low embodied carbon emission characteristics, providing a more responsible, natural, and inviting outdoor atmosphere.

7 Conclusion

It is our opinion, as demonstrated throughout this Urban Design Brief, that the proposed development represents a high standard of urban design and is appropriate within the planned and existing context of the City of Port Colborne.

The development responds sensitively to its surroundings through context-compatible massing, articulated built form, and thoughtful site organization that balances density with adequate landscaped open space. The inclusion of neighbourhood commercial uses and sustainable design strategies further contributes to the creation of a complete, resilient, and sustainable community. The proposed built form has minimal impact on surrounding dwellings, with shadowing, massing, and materiality carefully considered to mitigate potential effects.

The proposal supports walkability through intuitive pedestrian and vehicular circulation and enhances the public realm through active frontages and internal amenity spaces. Given the limited availability of public transportation in the area, the proposed parking rate appropriately supports the proposed density and the needs of future residents.

Overall, the proposed development is consistent with the intent and policies of the City of Port Colborne Official Plan and City comments. It represents a positive addition to the city's evolving residential fabric and supports the City's goal of creating new rental housing opportunities.



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Renders, Shadow Study, Phasing Plan, Elevations, Sustainability Report

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