URBAN DESIGN BRIEF
87-109 Ashley Street

City of Hamilton
Zoning By-law Amendment

June 2024

SUBMISSION FOR DRP

GSP group WITH LINTACK ARCHITECTS INCORPORATED

PREAMBLE

"As outlined during Formal Consultation with the City of Hamilton on May 29, 2024, this Urban Design Report was to address relevant urban design policies within the Urban Hamilton Official Plan. These relevant policies were noted to include those found within Section B.3.3 (Urban Design Policies) and Section B.2.4 (Residential Intensification Policies).

The related Planning Justification Report prepared by GSP Group and submitted with the applications also addresses these noted policies and others which were deemed relevant to the Planning matters associated with the Zoning By-law Amendment. These two reports should be read in conjunction with one another when considering compliance and conformity with the Urban Design directions of the City."

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1. BACKGROUND

1.1 Proposal

Tyros Development Ltd. retained GSP Group Inc. to prepare an Urban Design Report supporting a Zoning By-law Amendment application to facilitate the development of a six-storey multiple dwelling that contains 136 units and provides 91 parking spaces on the lands municipally known as 87-109 Ashley Street ("Site") in the City of Hamilton. It's important to highlight that approximately four parking spaces are allocated to the rear lot, with the intention of sharing this space with the designated waste set-out area. Notably, Tyros Development Ltd. also owns this rear property.

1.2 Purpose

A Zoning By-law Amendment ("ZBA") is required in order to facilitate the Proposed Development on the Site. An Urban Design Report was identified as a requirement of these applications as per the Formal Consultation Document dated July 26, 2021. The City of Hamilton's Guidelines for Urban Design Briefs provide terms of reference for the preparation of such briefs. Generally, Urban Design Briefs are meant to *"provide urban design rationale for the urban designs components of the development...it cannot simply be a reflection of, or argument for a preferred development scheme...but instead should explain why the proposed development represents the optimum design solution"*.

1.3 Report Outline

Based on the matters for consideration and evaluation identified in the pre-submission consultation record, this Urban Design Brief contains:

- A description of the existing physical conditions on the Site (Section 2);
- A description of the Site's surrounding area and neighbourhood context (Section 3);
- Outline of the design policy and guideline references (Section 4)
- A description of the design components of the proposed development (Section 5);
- An assessment of the proposed design concept with respect to relevant design policies and guidelines (Section 6); and,
- A summary of the report findings (Section 6).

1.3 Supporting Studies and Materials

The Urban Design Brief has considered the following plans and reports prepared in support of the subject application:

- Preliminary Grading Plan prepared by Lanhack Consultants Inc.;
- Site Plan prepared by Lintack Architects Inc.;
- Floor Plans prepared by Lintack Architects Inc.;
- Sections prepared by Lintack Architects Inc.;
- Landscape Concept Plan and Renderings prepared by Adesso Design Inc. and
- Shadow Study Graphics prepared by GSP Group;

2. SITE LOCATION AND CONTEXT

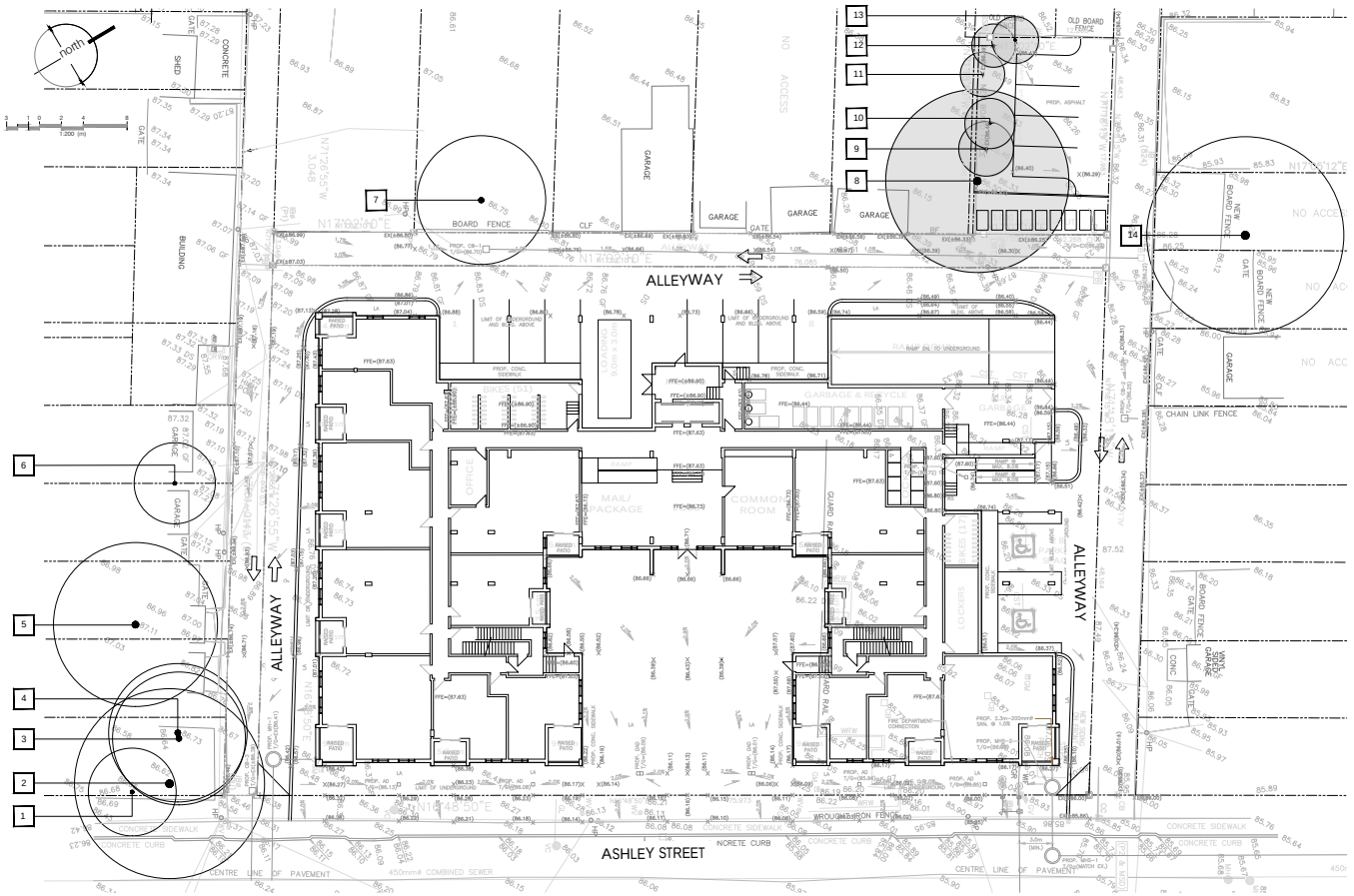
2.1 Site Location and Existing Conditions

The Site is rectangular in shape and has an area of 0.36 hectares. In its current state, the Site is one and a half storey light industrial building with various tenants, such as window tinting service and eco energy home service. The existing building has a frontage of approximately 76 metres along Ashley Street with an opening to accommodate at-grade parking spaces. It is also surrounded by three (3) alleyways to the north, west, and south. To facilitate the proposed development, the existing building is proposed to be removed.

2.2 Existing Vegetation

The Site's topography is generally flat in nature without any abrupt grade changes moving across the Site. Based on the Tree Protection Plan prepared by Adesso Design Inc. (see Fig. 2), a total of 14 trees were identified on the Site, out of which 6 trees will be removed for construction and 8 trees will be retained without injury. Compensation via planting or cash-in-lieu will be required in accordance with the City.

Fig.1: Site Location



Tree #	Species (Common Name)	Species (Botanical Name)	DBH (cm)	Crown Class*	Condition**	Crown Width (m)	Comments	Potential Impacts from Construction	Ownership	Recommendation
1	Horse Chestnut	*Aesculus hippocastanum*	25	CD	F	8	Split at 2m, asymmetrical canopy	None	Neighbouring	Save
2	Tree of Heaven	*Ailanthus altissima*	90	D	P	17	Rotting bark, multiple leaders at 5m from previous cuts, dead branches, hydrolines	None	Neighbouring	Save
3	Manitoba Maple	*Acer negundo*	20	S	FP	12	Light supressed, leaning north	None	Neighbouring	Save
4	Manitoba Maple	*Acer negundo*	18	S	FP	12	Light supressed, epicormic branching	None	Neighbouring	Save
5	Red Maple	*Acer rubrum*	18, 20, 22	D	F	14	Growing into shed	None	Neighbouring	Save
6	Manitoba Maple	*Acer negundo*	35	D	F	7.5	Growing out of shed (not surveyed)	None	Neighbouring	Save
7	Apple	*Malus domestica*	45	D	G	12		None	Neighbouring	Save
8	Black Locust	*Robinia pseudoacacia*	45, 50	D	G	16	Double leader from base, growing into fence	Conciflict with proposed development	Private	Remove
9	Manitoba Maple	*Acer negundo*	28	CD	P	5	Water sprouts, epicormic branching, poor form, leaning northwest	Conciflict with proposed development	Private	Remove
10	Norway Maple	*Acer platanoides*	24	CD	F	4.5	Dead branches (not surveyed)	Conciflict with proposed development	Private	Remove
11	Tree of Heaven	*Ailanthus altissima*	16	D	G	4		Conciflict with proposed development	Private	Remove
12	Norway Maple	*Acer platanoides*	14	D	G	4	(Not surveyed)	Conciflict with proposed development	Private	Remove
13	Tree of Heaven	*Ailanthus altissima*	10	CD	G	4.5	(Not surveyed)	Conciflict with proposed development	Private	Remove
14	Manitoba Maple	*Acer negundo*	110	D	P	18	Dead branches, rotten base, poor form (not surveyed)	None	Neighbouring	Save

MIGRATORY BIRDS AND NESTS:

1. The Owner and Contractor must be aware of the Migratory Birds Convention Act, 1994 - specifically;
   - No tree removal or construction activity shall contravene the Act.
   - Construction activities with the potential to harm migratory birds or their nest should be restricted from March 15 to August 31.
   - If work must occur during the migratory bird breeding season, a nest survey should be taken by a qualified avian biologist.
   - A mitigation plan (showing active nests and appropriate buffers) may be required for review and approval by the Canadian Wildlife Services.

TREE REMOVAL:

1. No trees shall be removed prior to municipal approvals of the Tree Management/Tree Preservation Plan.

* CROWN CLASS
Dominant- (D) Emergent canopy (receives full sunlight)
Co-dominant - (C) Not fully emergent (top of canopy receives sunlight)
Intermediate - (I) Sub-canopy tree (receives partial sunlight)

** CONDITION - consideration of trunk integrity, crown structure and crown vigor
Good - few or no issues related to trunk integrity, crown structure or crown vigor
Fair - minor issues related to trunk integrity, crown structure (form, some dead or damaged branches) or crown vigor (20-80% healthy foliage)
Poor - issues with trunk integrity such as cavities or exposed dead wood, poor crown structure (poor form, no clear leader, significant dead or damaged branches) or poor crown vigor (<20% healthy foliage)

*** RECOMMENDATION
The decision to remove or retain a tree is subject to the forecasted development impacts, the structural condition of the tree (e.g. cracks, cavities, decay, weak branching, leaning, hazard potential), the biological condition of the tree (e.g. pest or disease concerns, overall health) and the suitability of the tree in its location (e.g. hardiness, soil conditions, salt tolerance, visual obstruction, available soil volume)

CHART LEGEND/CODES

DBH: Diameter at Breast Height (cm)

Trunk Integrity (TI): G = Good, F = Fair, P = Poor

Crown Structure (CS): G = Good, F = Fair, P = Poor

Crown Vigor (CV): G = Good, F = Fair, P = Poor

Crown Class: D = Dominant, CD = Codominant, I = Intermediate, S = Suppressed

NOTE:
Written permission from the neighbouring property owner is required prior to removal or injury of any boundary tree(shared ownership) or any tree that is not fully on the subject property.

NOTE

1. A 'Verification of Tree Protection Letter' by the tree management professional is to be provided to the Director of Planning at the City of Hamilton to confirm that all tree protection measures have been installed prior to the undertaking of any grading activities.

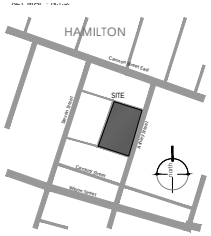
PRIVATE TREES >10cm DBH TO BE REMOVED:	6
MUNICIPAL TREES TO BE REMOVED*:	0
REQUIRED COMPENSATION TREES (1:1)	6
FUTURE STREET TREES:	8
PROPOSED TREES (SEE LANDSCAPE PLAN)	14
OUTSTANDING 6 COMPENSATION TREES TO BE COMPENSATED FOR THROUGH CASH-IN-LIEU PAYMENT	0

Tree #2

Tree #3

Tree #7

Trees #8-12



LEGEND

property line

2 existing tree number (refer to chart)

existing vegetation to remain

existing vegetation to be removed

86.69 x existing elevations

(86.66) x proposed elevations

NOT FOR CONSTRUCTION
ISSUED FOR REVIEW & COMMENTS ONLY

NOTE:
Vegetation inventory undertaken by Matthew Madigan, Adesso Design Inc. on 2023-05-09.

REVISIONS/ SUBMISSIONS

#	DATE	DESCRIPTION
1	2023-06-05	Issued for review
2	2024-02-13	Issued for review
3	2024-02-21	Issued for submission

STAMP

CLIENT
Tyros Development Ltd.

MUNICIPALITY
City of Hamilton

PROJECT
Ashley Street Multi-Res
87-109 Ashley Street, Hamilton
Ontario

MUNICIPAL FILE NUMBER

SHEET
Tree Protection Plan L-1

adesso design inc.
landscape architecture
69 John Street South, Suite 250
Hamilton, ON L8N 2B9
t. 905.526.8876
www.adesodesigninc.ca

Fig.2: Tree Protection Plan prepared by Adesso Design Inc.

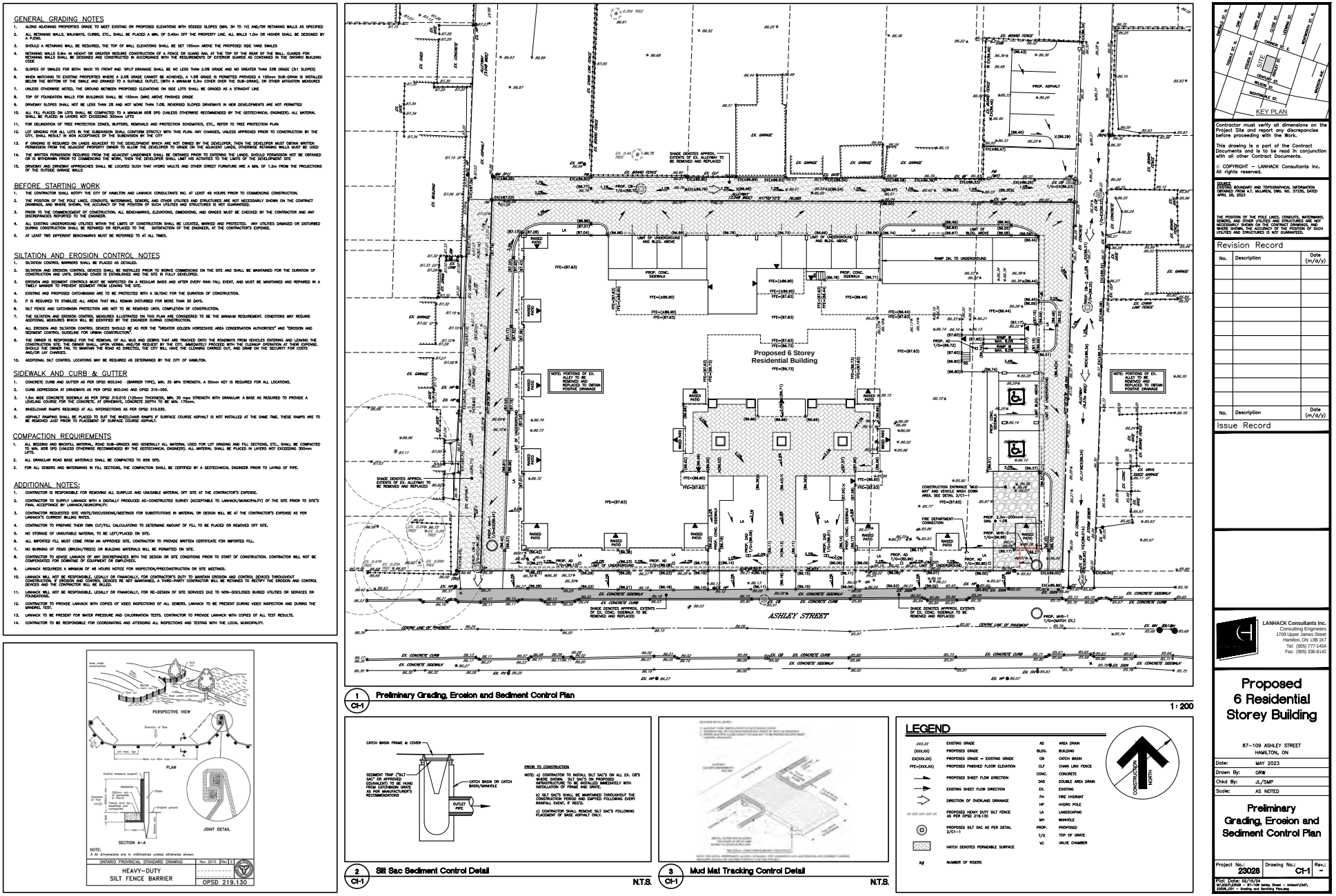


Fig.3: Preliminary Grading, Erosion and Sediment Control Plan is prepared by Lanhack Consultants Inc.

2.3 Transit Connections

Two HSR routes surround the Site, and they are the Cannon Route (#3) and Wentworth Route (#12).

The Cannon Route (#3) extends as east as Parkdale Avenue North and as west as James Street North. A smaller loop surrounds the Site and consists of Cannon Street, James Street North, Wilson Street, and Sherman Avenue. Notable destinations along the route include the Hamilton GO Centre on Hunter Street, J.C. Beemer and Tweedsmuir Parks, Beasley Park, Beasley Community Centre, commercial shops, cafes, and restaurants along James Street, and Tim Hortons Field. Transit service runs weekdays and weekends. On the weekdays, buses are scheduled more frequently at 15-minute intervals during typical commuter times (6:00am to 9:00am and 1:00pm to 6:00pm). Frequency of the service outside the typical commuter periods and up until 10:00pm extend to half an hour. On weekends, the frequency is half an hour, with overall reduced operation times on Sundays.

The Wentworth Route (#12) loops north to south and covers Burlington Street East, Wentworth Street North, Stinson Street, and Victoria Avenue South. Notable destinations along the route include Hamilton General Hospital, North Central Community Park, Norman Pinky Lewis Recreation Centre, Cathy Wever Elementary School, Hamilton Continuing Care (nursing home), and J.C. Beemer and Tweedsmuir Parks. Transit service is only provided on weekdays with a half hour frequency starting from 6:00am to 7:00pm.

Aside from the local transit routes, there are higher order transportation infrastructure opportunities in proximity to the Site. The West Harbour GO Station and Hamilton GO Centre are within ± 2km of the Site. The Site is also between two future stations on the B-Line as part of the upcoming BLAST Rapid Transit Line and Priority Transit Corridor on King St.

Road Connections

The Site is directly surrounded by Cannon St, Ashley St, Century St, and Steven St. All the streets except for Cannon St are considered local streets, which according to the Urban Hamilton Official Plan (UHOP) Policy C.4.5.2 f), are intended to provide direct land accesses while the secondary function is to enable the movement of low volumes of traffic to collector roads. The policy further explains that sidewalks should be provided on both sides of the street and traffic calming measures (e.g. speed humps) may be implemented.

Cannon St and other roads such as Wilson St and Wentworth St N which more broadly surround the Site are identified by UHOP Policy C.4.5.2 d). They are intended to carry moderate volumes of intra-municipal and inter-regional traffic through the City. Even more broadly on the west side, Victoria Avenue North is considered a major arterial road. UHOP Policy C.4.5.2 c) specifies the main function of major arterial roads is to carry high volumes of intra-municipal and inter-regional traffic.

Fig.4: City of Hamilton Road Network and Active and Sustainable Transportation Infrastructure

Source: UHOP Appendix B - Major Transportation Facilities and Routes (2022) HSR System Map (2019) Hamilton Bike Map (2023) and Schedule C - Functional Road Classification (2023)

3. NEIGHBOURHOOD CONTEXT

3.1 Surrounding Context

The Site is within an approximate 15-minute walk to services and amenities for daily living, such as grocery stores, places of worship, and commercial hubs and corridors consisting of a variety of personal service establishments such as hair salons and medical and pharmacy uses. It is also in proximity to parks and open spaces that have a range of passive and active programming, as well as are designed for various scales of catchment areas (e.g. local neighbourhood vs. City-wide parks). Finally, it is within 1.5km of two recreation centres, a community hall rental, and Hamilton General Hospital.

More notably, within an approximately 2km radius of the Site is a wide range of schools between the public and Catholic school boards, as well as elementary to high school. In fact, during the site walkabout with the Gibson and Lansdale Community Planning Team on June 9th, 2023 and community meeting on June 14th, several community members mentioned the alleyways surrounding the Site experienced foot traffic by students walking to and from these various schools and the surrounding neighbourhoods. They described that the alleyways were often used as the preferred routes to navigate between local streets, such as Steven Street and Century Street, and the schools, rather than Cannon and Wilson Streets. It was often noted at these community engagements that Cannon and Wilson were generally always busy with car traffic, which made the students uncomfortable, so as soon as they could, they would access the local streets by cutting through the Site via the various alleyways.

Finally, the Site experiences excellent connectivity to a wide range of transportation options. The Site is within a 150m radius of bus stops for routes #3 and #12 of the Hamilton Street Railway. It is also within 2km of two major GO Transit Station hubs in Downtown Hamilton (West Harbour and Hamilton Centre) which is an approximately 30-minute walk, 15–20-minute HSR transit connection, or 10-minute drive or bike ride away according to Google Maps. The Site is also approximately 450m from the future Wentworth Station and 1km from the future Wellington Station that are on the future B-Line of the BLAST Light Rail Transit Network running on King Street, a Priority Transit Corridor according to the Urban Hamilton Official Plan.

The connectivity of the Site to these points of interest and active and sustainable transportation networks addresses complete community objectives that aim to locate a variety of housing options closer to services and amenities that support daily living and functions.

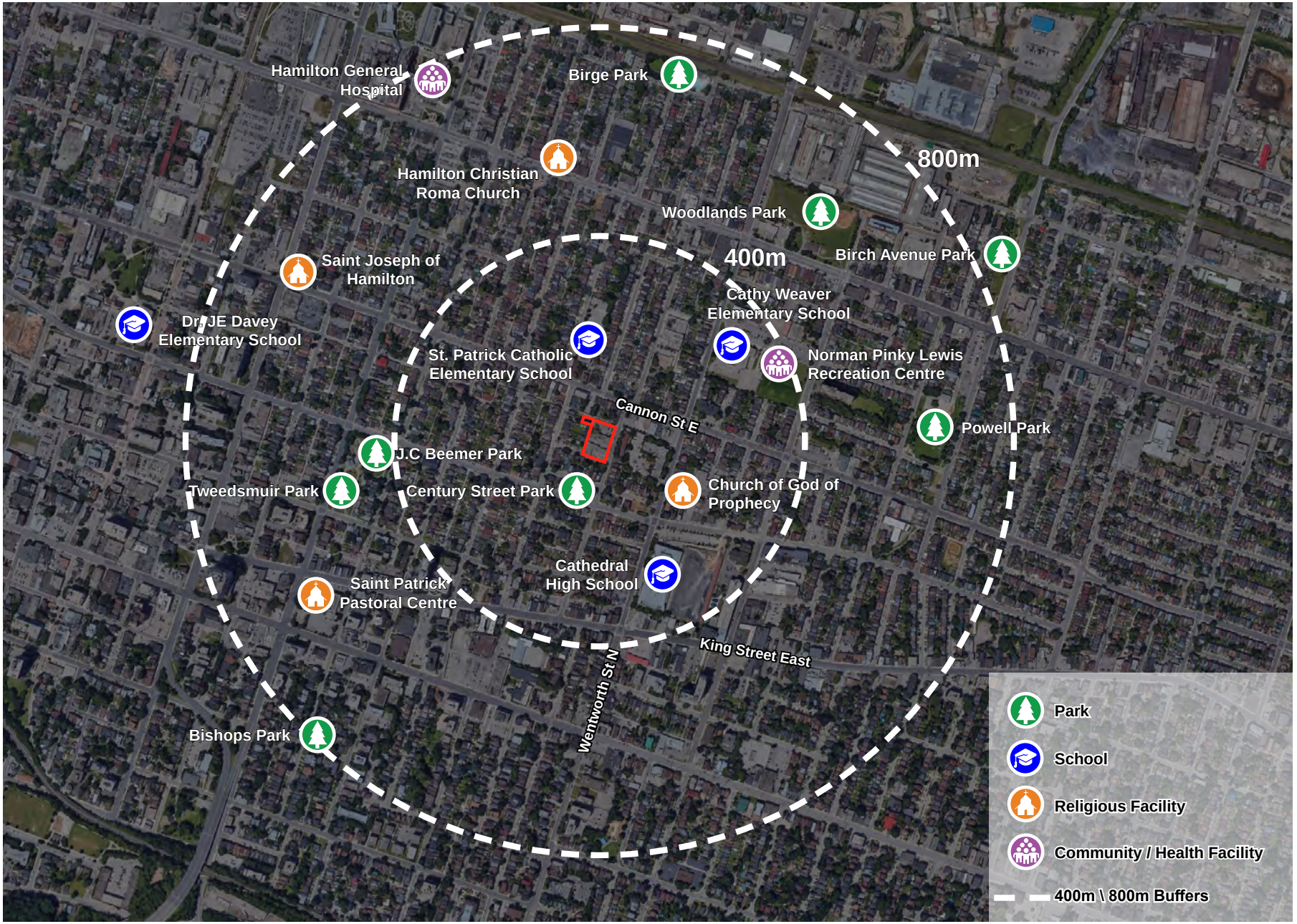


Fig.5: Surrounding site context

Fig.6: Adjacent Building Height Diagram

3.2 Immediate Site Context

View from the alleyway looking east towards Ashley Street

View from the alleyway looking north

NORTH: Immediately to the north of the Site is a public alleyway east-west direction with east access from Ashley Street and west access from Steven Street.

The rear yards of low rise residential properties and commercial properties back onto the alleyway. These properties are deep and narrow lots with frontage along Cannon Street.

View of the townhouse block located on the opposite side of Ashley Street

View of the Community Health Centre building located at the corner of Cannon Street and Ashley Street.

View of the detached dwellings located further south of the Site with frontage along Ashley Street

EAST: Immediately east of the site is the Ashley Street right-of-way, with a townhouse block situated on the opposite side of the street. Public sidewalks are present on both sides of Ashley Street.

At the corner of Cannon Street and Ashley Street stands a three-story community health centre building, accessible via a driveway from Ashley Street. Moving south along Ashley Street, there are residential buildings ranging from two to three stories in height. A public alleyway runs between these residential properties, extending eastward from Ashley Street to connect with Wentworth Street.

View of the alleyway from Ashley Street

View of the alleyway from the south side of the existing building looking west

SOUTH: Similar to the north side, the south side of the site features a public alleyway running east-west, accessible from Ashley Street to the east and Steven Street to the west.

The rear yards of low rise residential properties back onto the alleyway. These properties are characterized by deep and narrow lots, adorned with mature trees, and have frontage along Century Street.

View of the alleyway from the west side of the Site, looking north

View from the alleyway looking towards the Site from northwest corner - proposed designated waste set-out area and proposed surface parking area. The owner owns this property

WEST: The public alleyway is also present on the west side of the Site, running north-south direction. Board-on board fence and outdoor accessory structures of the adjacent low rise residential properties abut the alleyway.

The owner also owns a small piece of property located on the northwest corner of the Site abutting the alleyways as shown in the photo below.

4. DESIGN POLICY AND GUIDELINES REFERENCES

4.1 Urban Hamilton Official Plan

The Site is designated “Neighbourhoods” in the Urban Hamilton Official Plan’s Urban Structure (Schedule E) and also designated “Neighbourhoods” in the Urban Hamilton Official Plan’s Urban Land Use designations (Schedule E1) The Neighbourhoods designation is generally intended to accommodate a mix of uses and forms to create a complete community.

UHOP, Vol.1, Section B.3.3 – Urban Design Policies
Section B3.3 of UHOP outlines urban design policies that focus on shaping the physical environment of urban areas within the City. The proposed design references the following sections:

- Urban Design Goals (B.3.3.1)
- General Policies and Principles (B.3.3.2)
- Built form design (B.3.3.3)
- Storage, Service and Loading Areas (B.3.3.7)
- Access and Circulation (B.3.3.9)
- Parking (B.3.3.10)
- Barrier Free Design (B.3.3.11)

UHOP, Vol.1, Section 2.4 – Residential Intensification
Section B.2.4 of UHOP outlines residential intensification policies related to increasing the density and development intensity of residential areas within the city or urban area. These policies aim to efficiently utilize land, urban services, and transportation networks while supporting existing community facilities. The focus is on promoting vibrant neighborhoods, nodes, and corridors by offering a variety of housing options to meet the current and future needs of the population.

4.2 City-Wide Corridor Planning Principles and Design Guidelines

The purpose of the City-Wide Corridor Planning Principles and Design Guidelines (“CDG”) is to guide site and building design for properties along Primary and Secondary Corridors in the City of Hamilton. The Site is located three blocks from the Primary Corridor (or approximately 300 metres from King Street) within the UHOP. The CDG strive to guide the development of compact, mixed-use urban environments that support transit and active transportation as well as promote and support development which enhances and respects the character of existing neighbourhoods. The guidelines provide specific direction in terms of angular plane requirements for new buildings, building orientation, vehicle access location, landscaping, and streetscapes.

4.3 Site Plan Guidelines

Section 6.4 of the Hamilton Site Plan Guidelines provides design guidance specific to apartment buildings, the goal of which is to achieve a “high standard of site and building design is necessary to create a quality living environment, contribute to the streetscape, and integrate higher density housing into existing neighbourhoods”. The relevant guidelines address site design, landscaping and open space, building design, and parking and service areas.

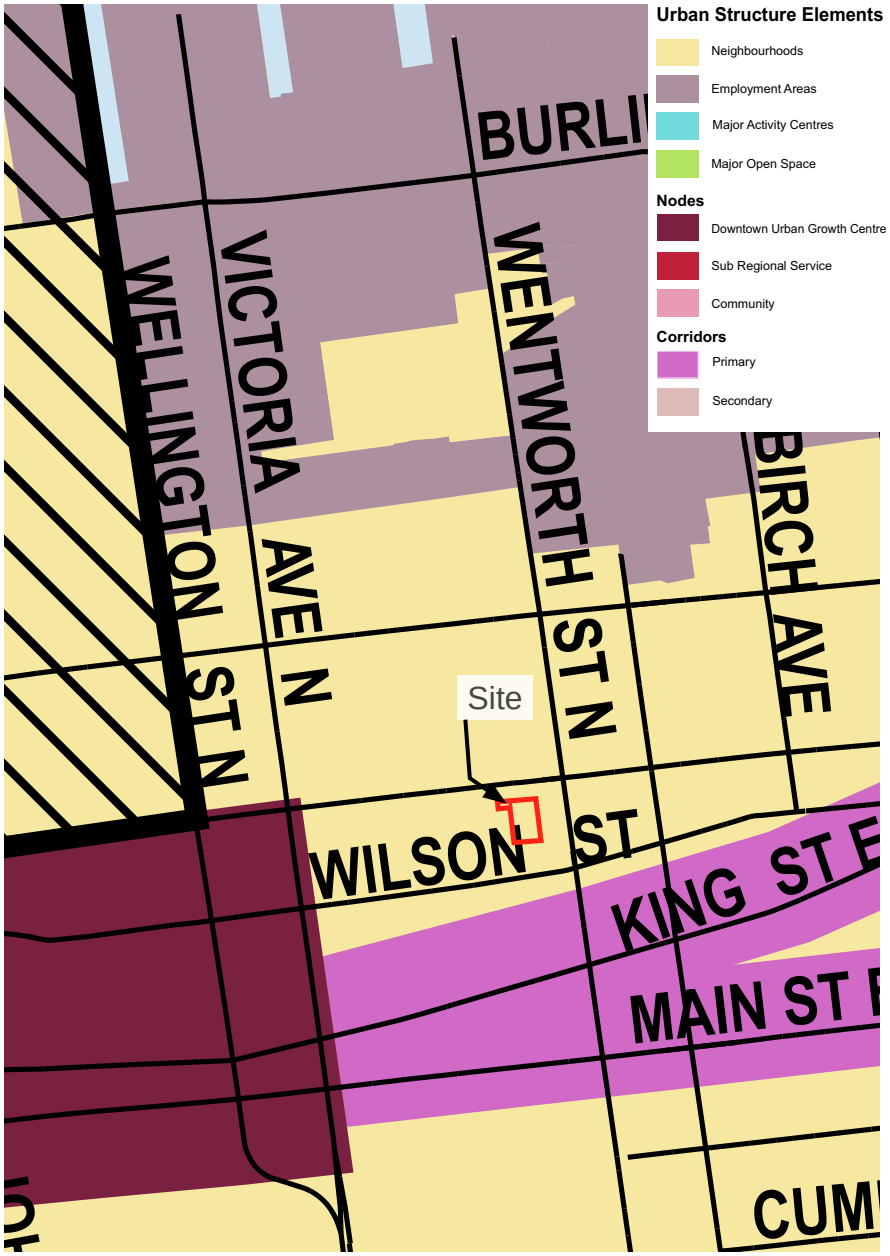


Fig.7: Urban Structure (Schedule E) in UHOP (2021)

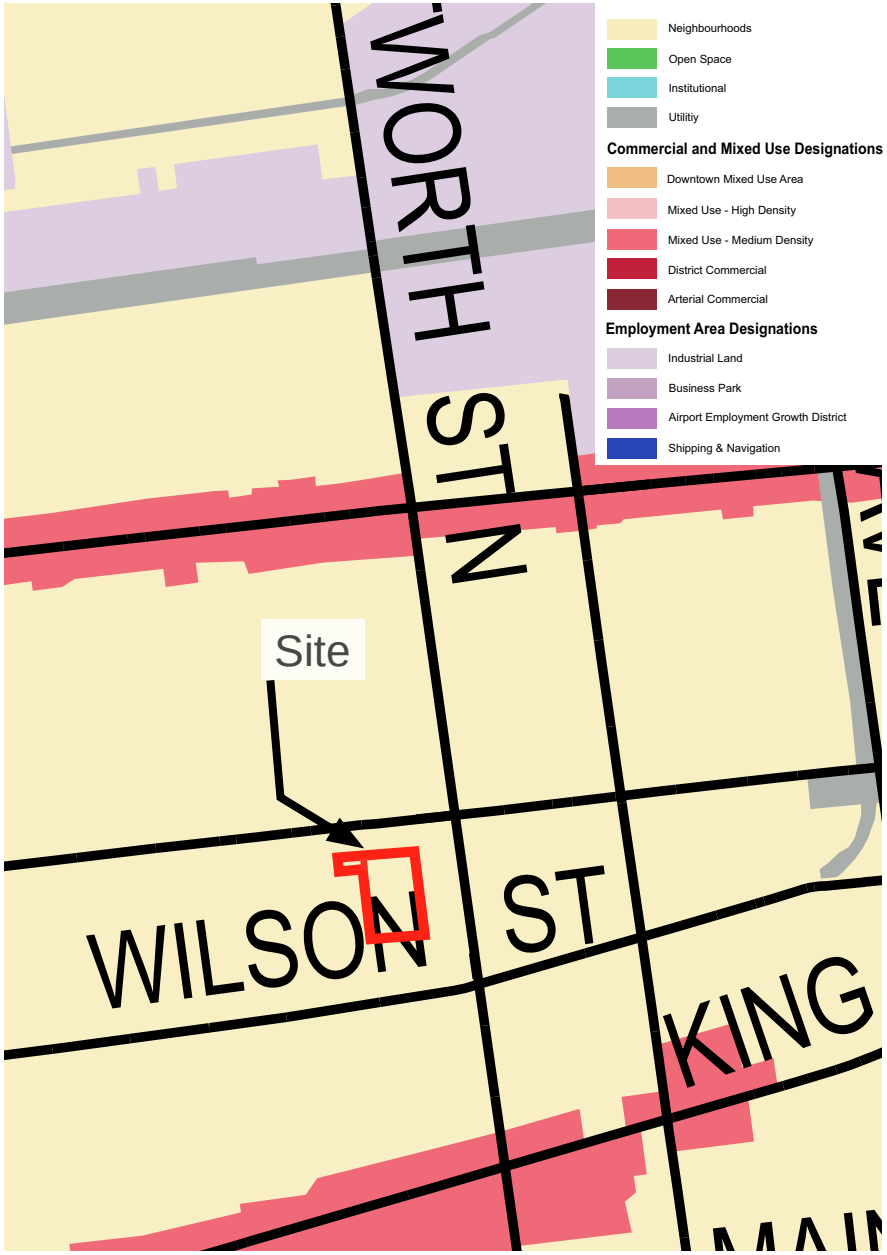


Fig.8: Urban Land Use Designation (Schedule E-1) in UHOP (2022)

5. PROPOSED DEVELOPMENT

The proposed development is a six-storey multiple dwelling containing 136 dwelling units and 91 parking spaces. The proposed building features a “U” configuration oriented towards Ashley Street, with its entrance and lobby area situated within the inner curve of the “U”.

The proposed building covers 63% (2,329 square metres) of the Site and has a total gross floor area of 15,171 square metres. Surface parking, loading and staging areas, garbage and recycling, as well as ramp access to the underground parking garage is located on the northern and western portion of the Site and facing the surrounding alleyways. Landscaping is proposed surrounding the building, but more notably in a courtyard area facing east and onto Ashley Street to frame the main entrance. The total landscaped area covers 21% (822 square metres) of the Site.

The suite mix of the proposed development ranges from studio to two bedroom and den units, with the majority of units being one-bedroom (57% and 77 units) and two-bedroom and den (22% and 30 units). Of the total number of parking spaces, 14 are surface parking which includes two barrier-free parking spaces. The remaining 77 spaces are accommodated underground on one level and include two barrier-free spaces. Although the proposed development is six stories, the heights and associated step backs vary as the stories progress upwards.

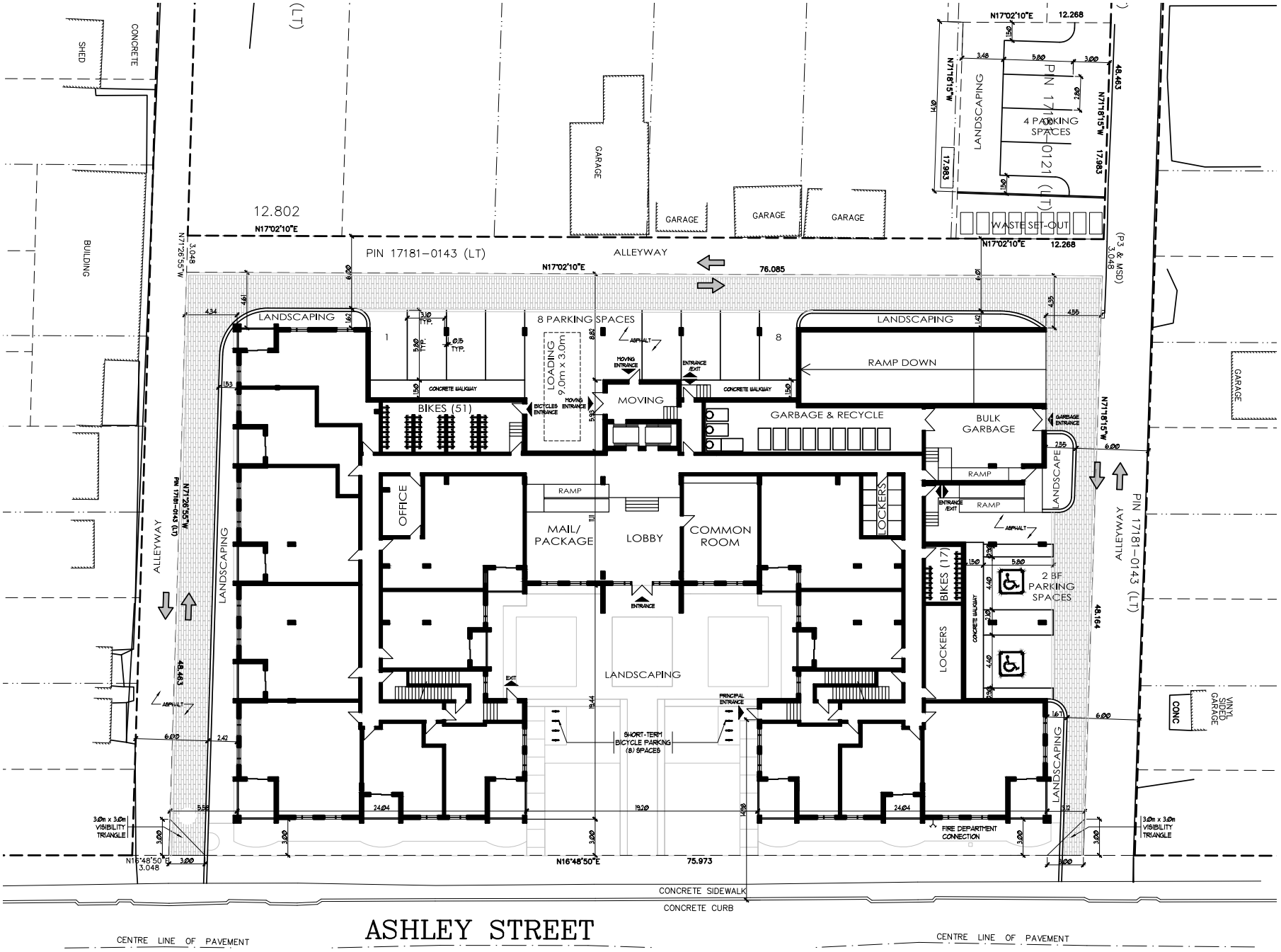


Fig.9: Site Plan prepared by Lintack Architects Inc.

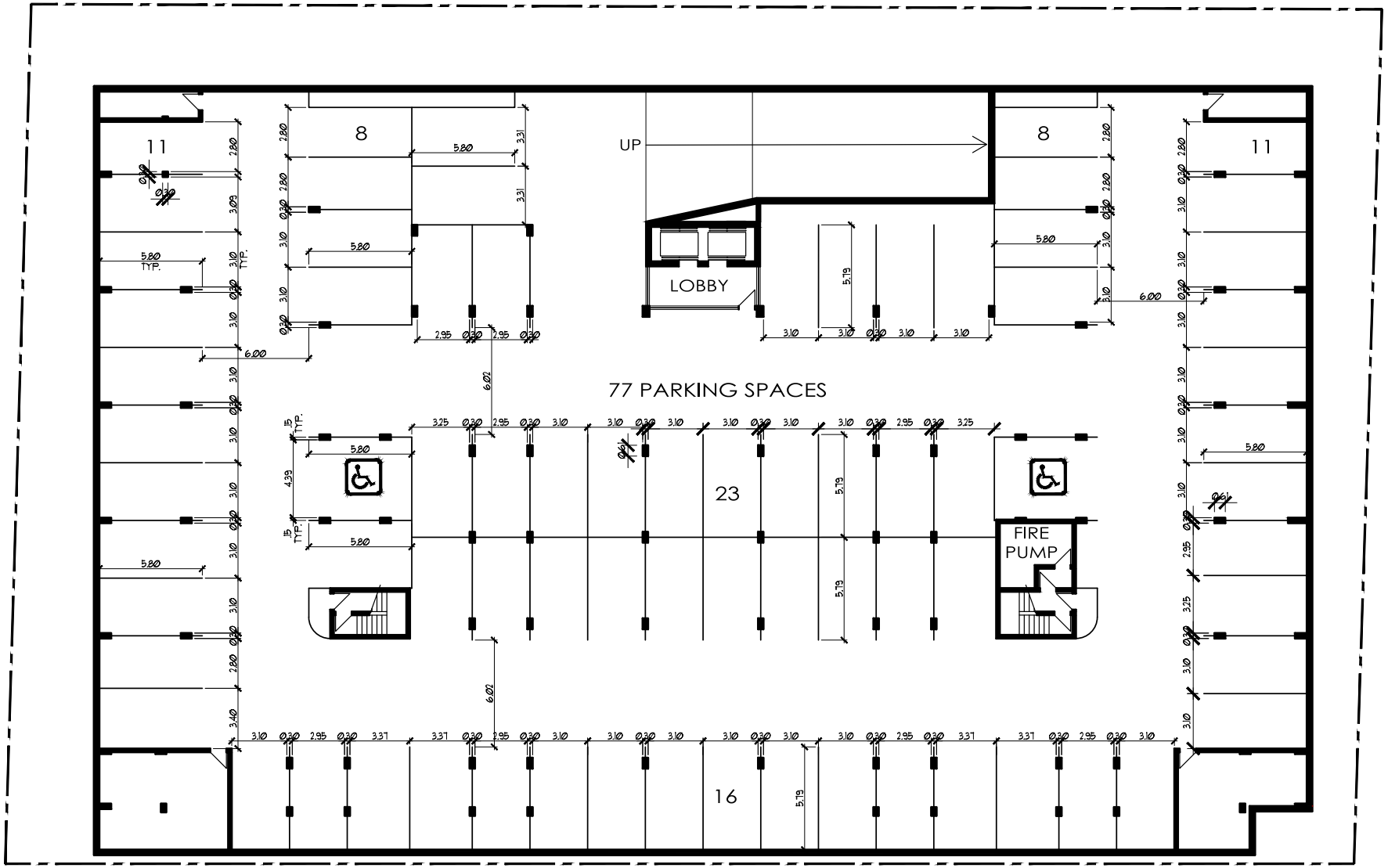


Fig.10: Underground Parking Plan prepared by Lintack Architects Inc.

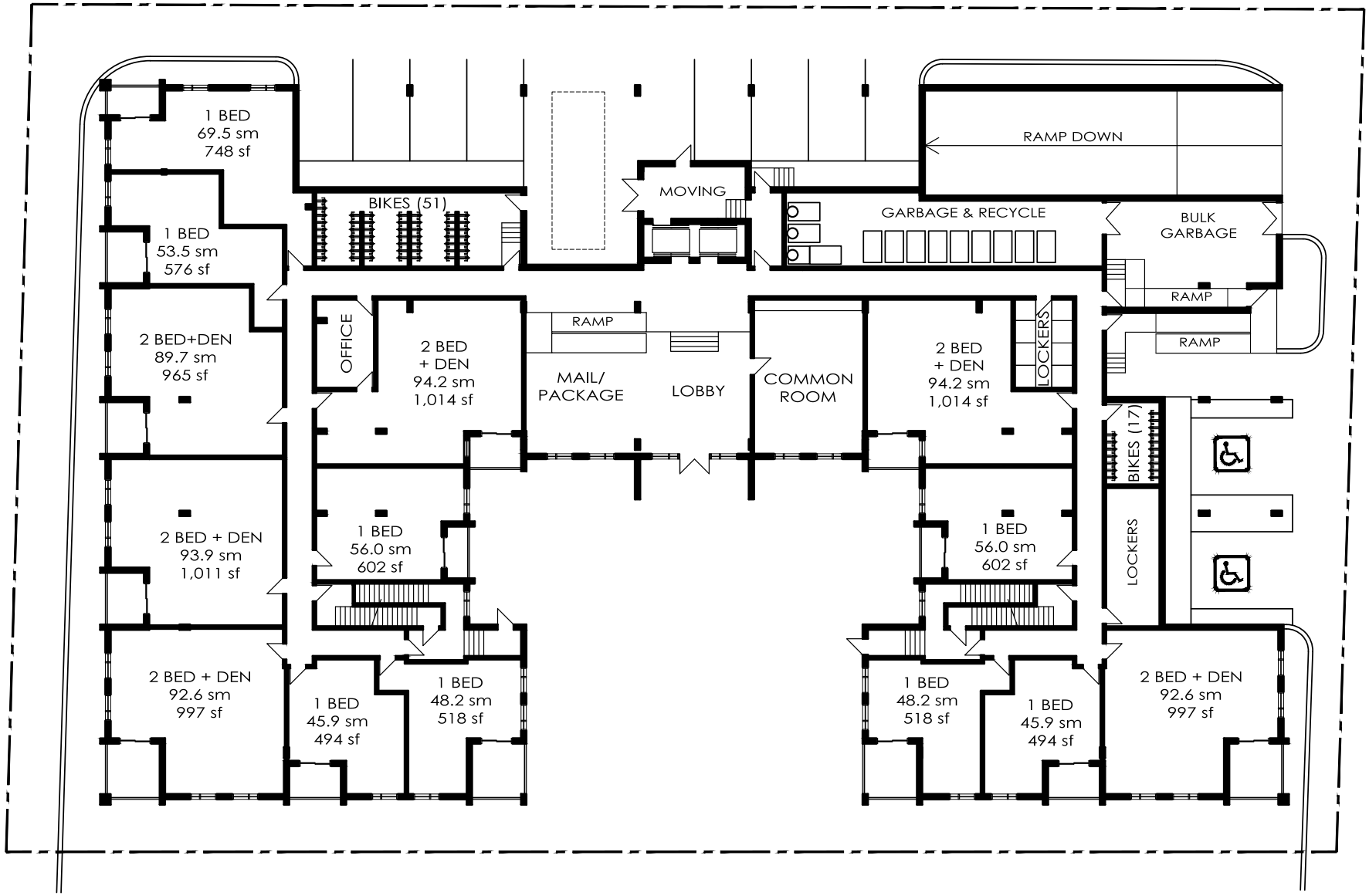


Fig.11: Ground Floor Plan prepared by Lintack Architects Inc.

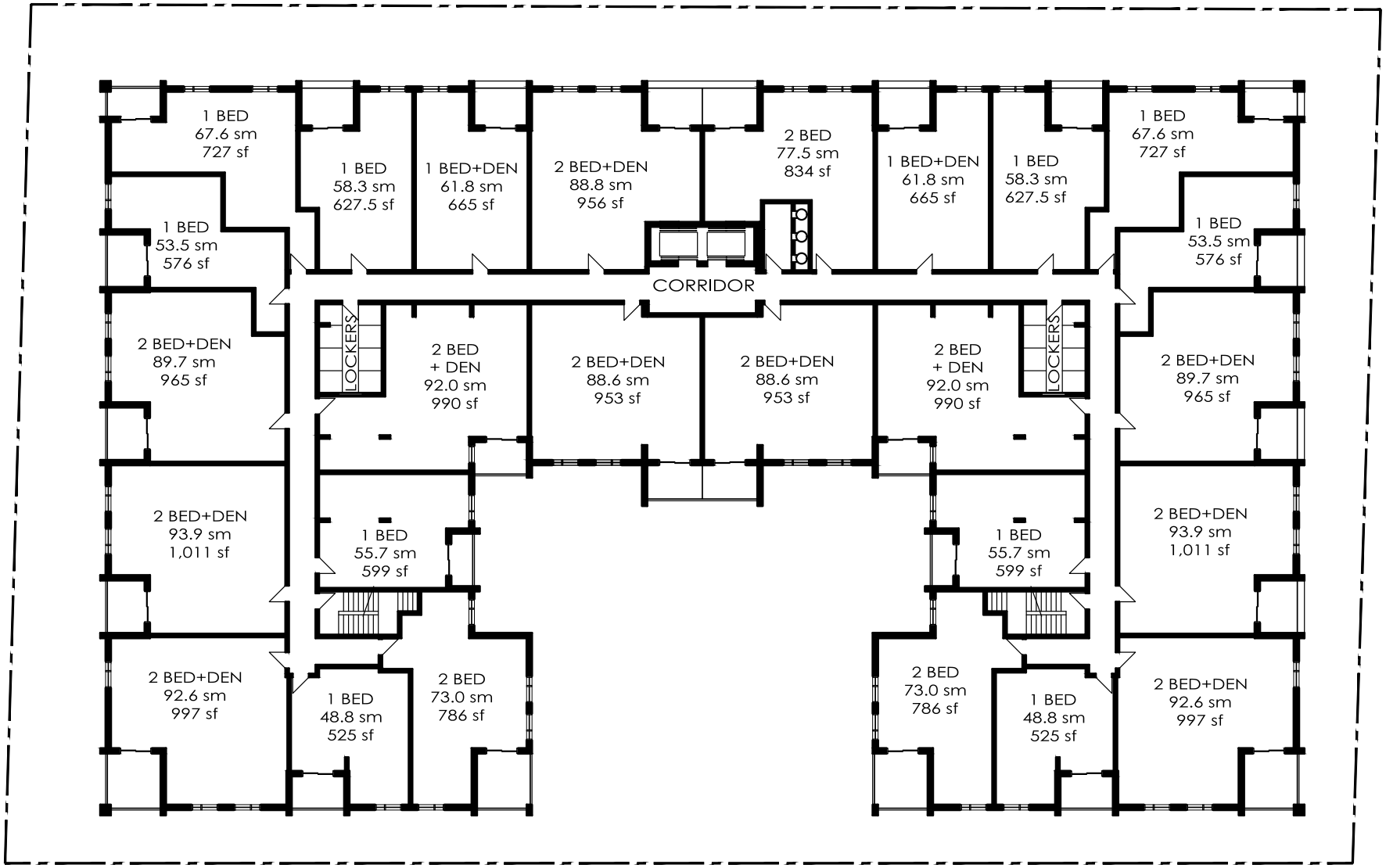


Fig.12: Floor Plan prepared by ABA Architects Inc.

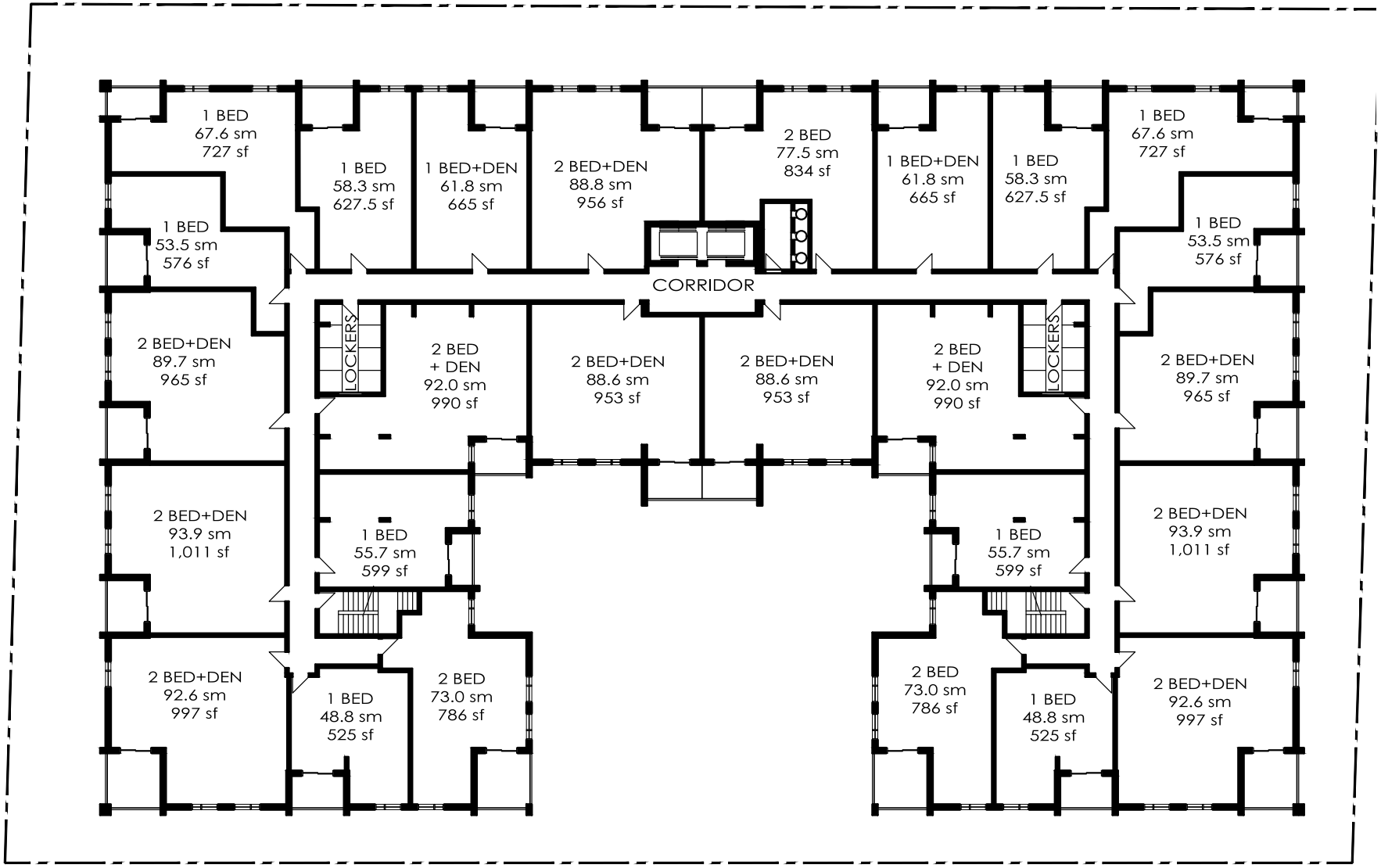


Fig.13: Third Floor Plan prepared by Lintack Architects Inc.

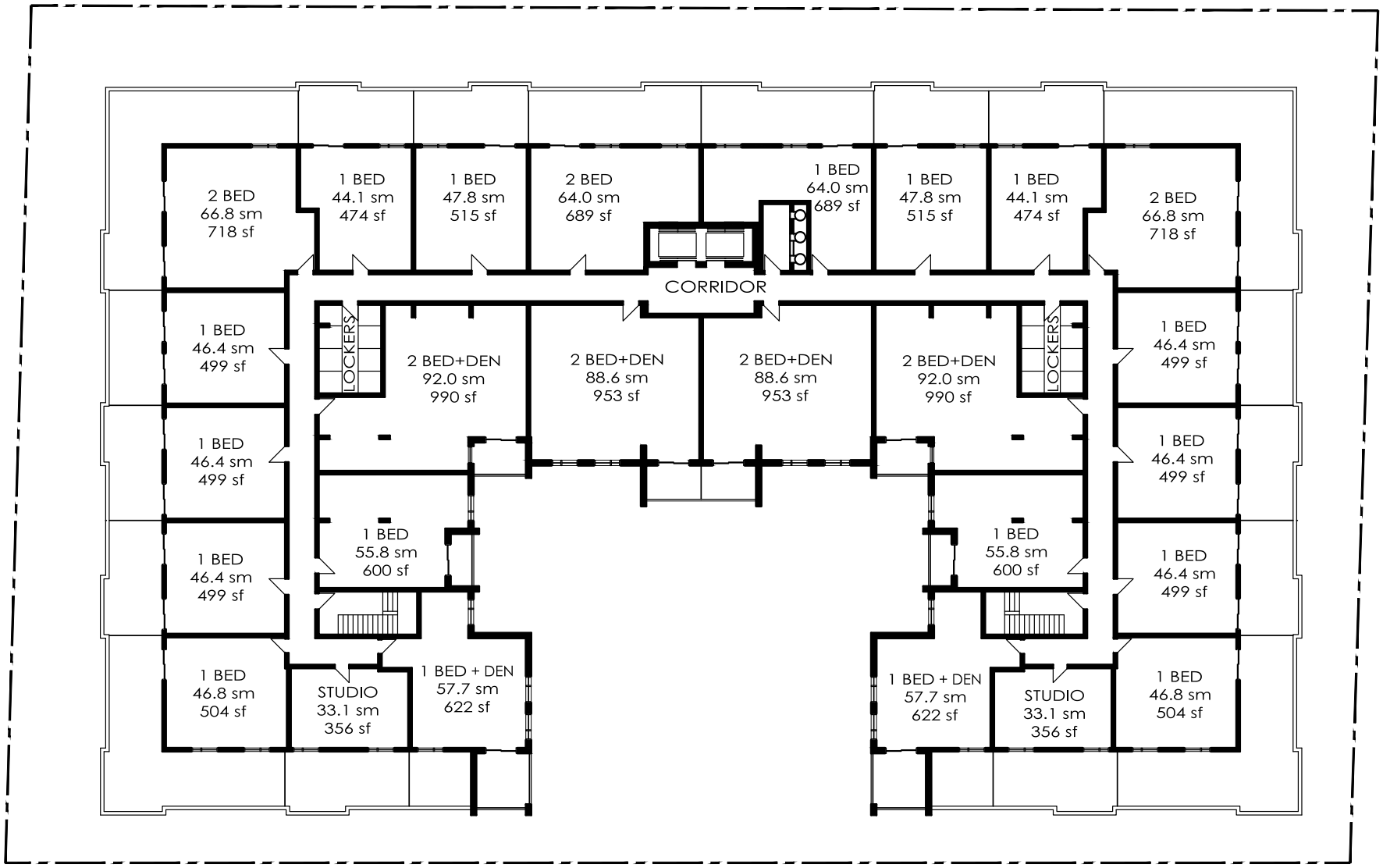


Fig.14: Fourth Floor Plan prepared by Lintack Architects Inc.

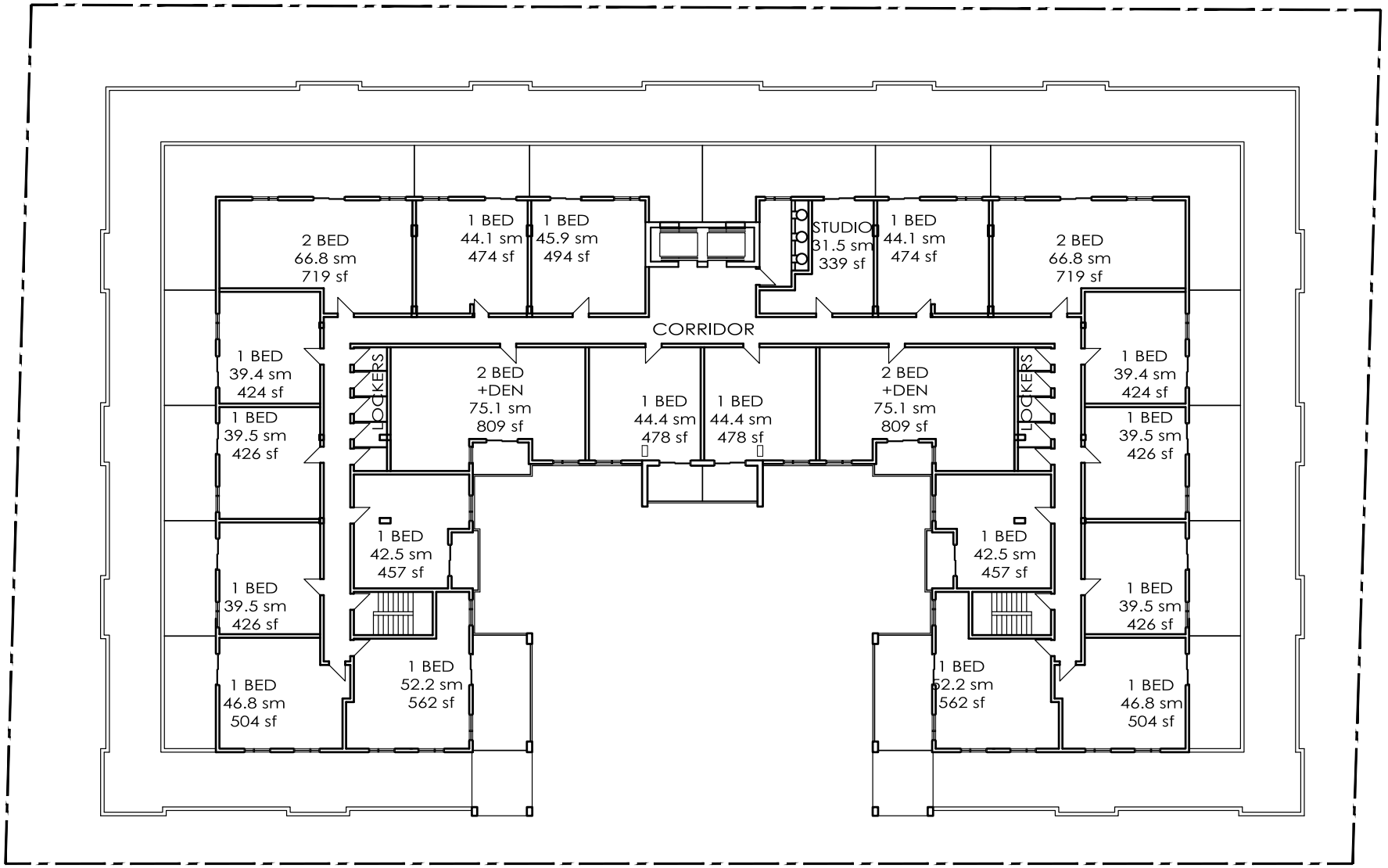


Fig.15: Fifth Floor Plan prepared by Lintack Architects Inc.

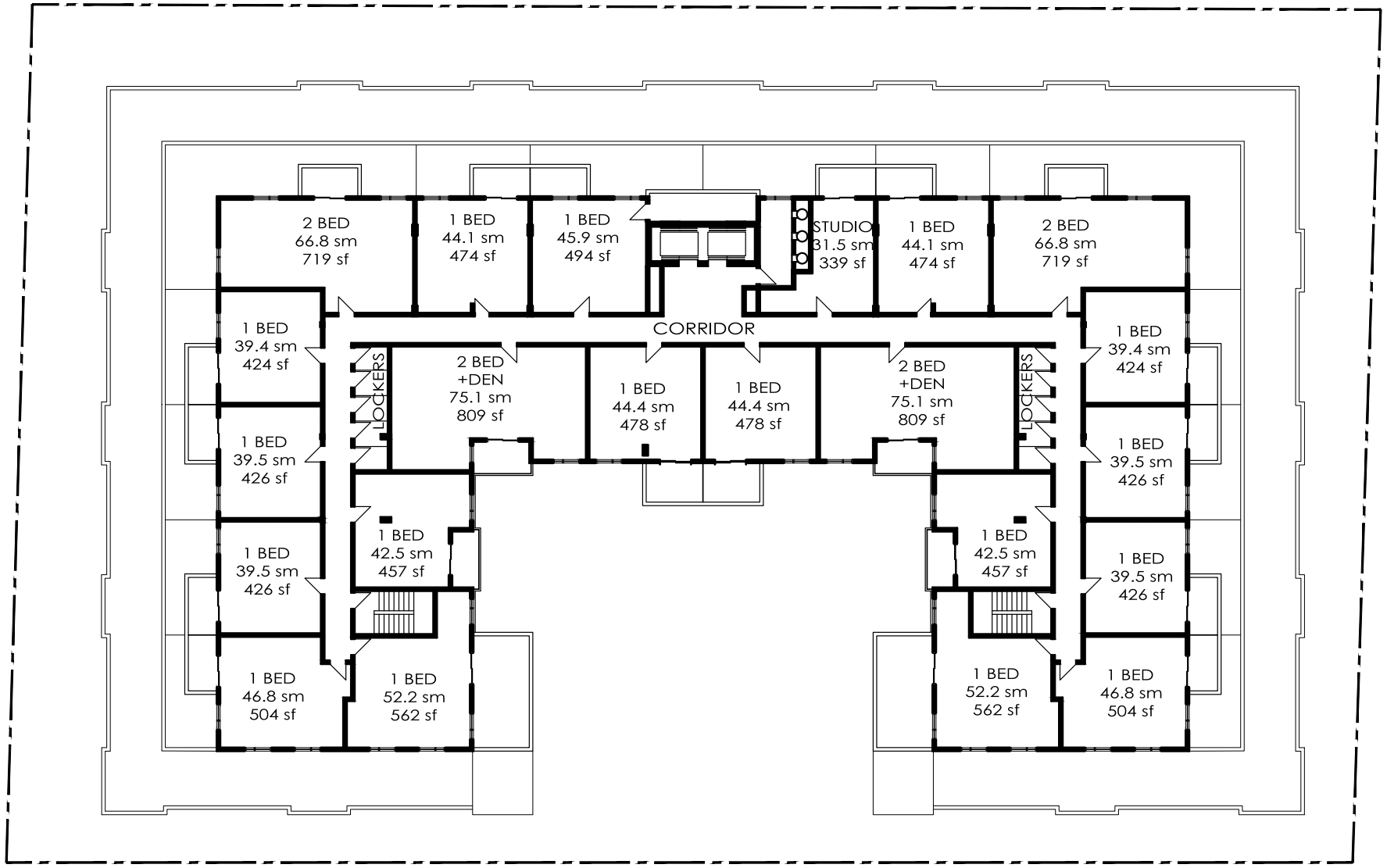


Fig.16: Sixth Floor Plan prepared by Lintack Architects Inc.

5.1 Building Positioning

The proposed building is situated close to the property line to create a strong urban edge along Ashley Street, with a setback of 0.6 meters (post road widening). The building extends continuously for approximately 67 meters, except for the section where the courtyard is proposed. The courtyard is 19.2 metres wide and 19.44 metres deep which provides sufficient area for comprehensive landscaping with provision for short term bicycle parking spaces. The building is setback approximately 3 to 4.5 meters from the building's edge to the property lines abutting the alleyways, and approximately 6 to 8 meters from the building's edge to the low-rise residential properties to the north, west, and south.

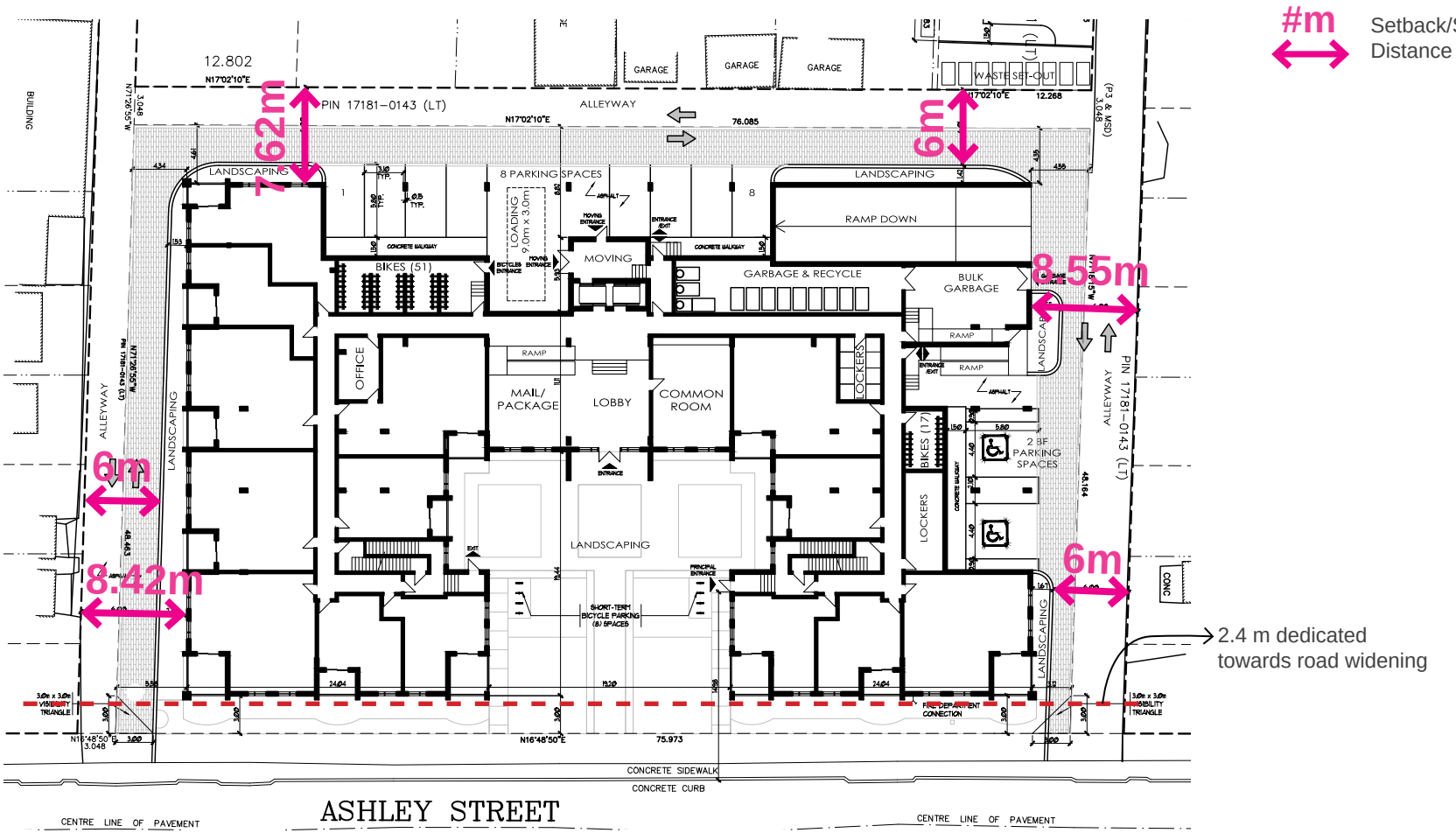


Fig.17: Building Setbacks And Separation Distances Diagram.

5.2 Building Scale and Massing

The proposed building has a footprint of 2,329 square metres (25,069 square feet), and overall height of 19.80 metres. The building's massing is articulated through a "U-shaped" configuration, creating a central courtyard that is directly accessible from the main street. This courtyard entry enhances the building's integration into the urban fabric, providing a transition between public and private spaces. At-grade residential units facing Ashley feature window openings and patios with a 3-metre landscape buffer along the street facing building edge, maintain a pedestrian-friendly environment akin to the townhouse block located directly across from the development. This design strategy not only enhances the streetscape but also integrates the building seamlessly into the surrounding neighbourhood. Likewise, the design extends to the south side of the building, bordering the alleyway. Presently, the alleyway lacks illumination and active uses, despite being heavily traversed by pedestrians. The proposed development will help revitalize the alleyway by incorporating similar ground-floor design elements and functions. With the addition of lighting, landscaping, and at-grade patios facing the alleyway, there will be "more eyes on the street," providing natural surveillance by residents and users of the space. These improvements will make the alleyway safer and more inviting, transforming it into an active and vibrant part of the neighborhood, thereby enhancing the overall urban experience.

The proposed building is considered a mid-rise building, and its height does not warrant a defined podium and tower portion. However, the building steps back 3 metres from the fourth floor on all the sides of the building with an additional stepback of 3 metres from the fifth floor for the north, west and south facing facades to provide a gradual transition of building height from the existing low rise residential properties surrounding the Site. Private terraces are planned on top of each of these stepbacks, aligned with the respective residential units. Screening dividers will be installed between each unit to ensure privacy. The sixth-floor features individual balconies cantilevering outwards, distinct from the continuous slab of the floor below. The top will be defined with a mechanical penthouse defining the roofline, stepped back again from the edges of the building, away from the public realm.

Front Elevation

Rear Elevation

Fig.18: Elevations prepared by Lintack Architects Inc.

Fig.19: Aerial view of the proposed development from the rear side of the building

Fig.20: Aerial view of the proposed development as seen from Ashley Street

5.3 Vehicular Access and Circulation

The proposed vehicular accesses to the Site are located on both the north and south sides, connecting to the existing alleyways from Ashley Street. These proposed driveways will lead to the rear eight parking spaces and provide access to the underground parking garage via a ramp. An additional four parking spaces are located on a rear lot to the west of the site and will share space with the designated waste set-out area. This rear property is also owned by Tyros Development Ltd.

5.4 Pedestrian Access and Circulation

Pedestrian access and circulation to the proposed building are entirely separate from vehicular access. Multiple access points are proposed on various sides of the building to accommodate different destinations on the property.

The main residential entrance, which includes a lobby area, common room, mail room, and office, is located in the middle of the building, facing the courtyard and oriented towards Ashley Street. Another residential access, closer to the Ashley Street edge, provides easy convenience for the fire department. Both entrances are directly accessible from the Ashley Street sidewalk.

A third access point is located near the barrier-free parking spaces on the north side of the building. Finally, an access is also proposed on the western side of the building, adjacent to the parking spaces.

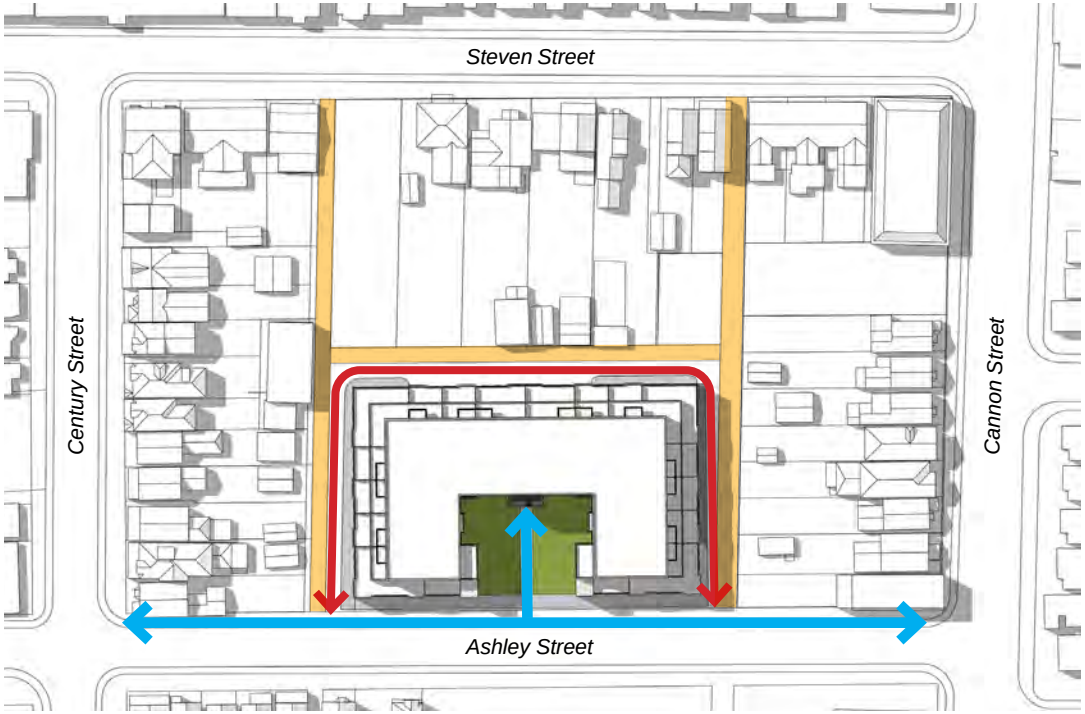


Fig.21: Circulation Diagram

5.5 Parking

A total of 91 parking spaces are proposed for the site. These include 77 spaces in a single level of underground parking and 14 surface parking spaces located on the north and west portions of the Site. The surface parking spaces are positioned behind the building, away from Ashley Street, to maintain an active street edge and minimize disruption to the pedestrian sidewalk. Eight surface parking spaces are located behind the rear of the building to the west, four on the northwest side facing side of the Site and two barrier-free parking spaces are located north of the building. The parking spaces directly abutting the building are covered by the extension of the floor above the ground floor, providing overhead weather protection for these parking areas.

The proposed development also includes both short-term and long-term bicycle parking for residents. The short-term bicycle parking area is located within the courtyard and is directly accessible from Ashley Street. Long-term bicycle parking spaces are proposed on the ground floor, adjacent to the entry points of the building, and easily accessible from the abutting alleyways to the north and west of the Site.

At-grade parking spaces

Below-grade parking spaces

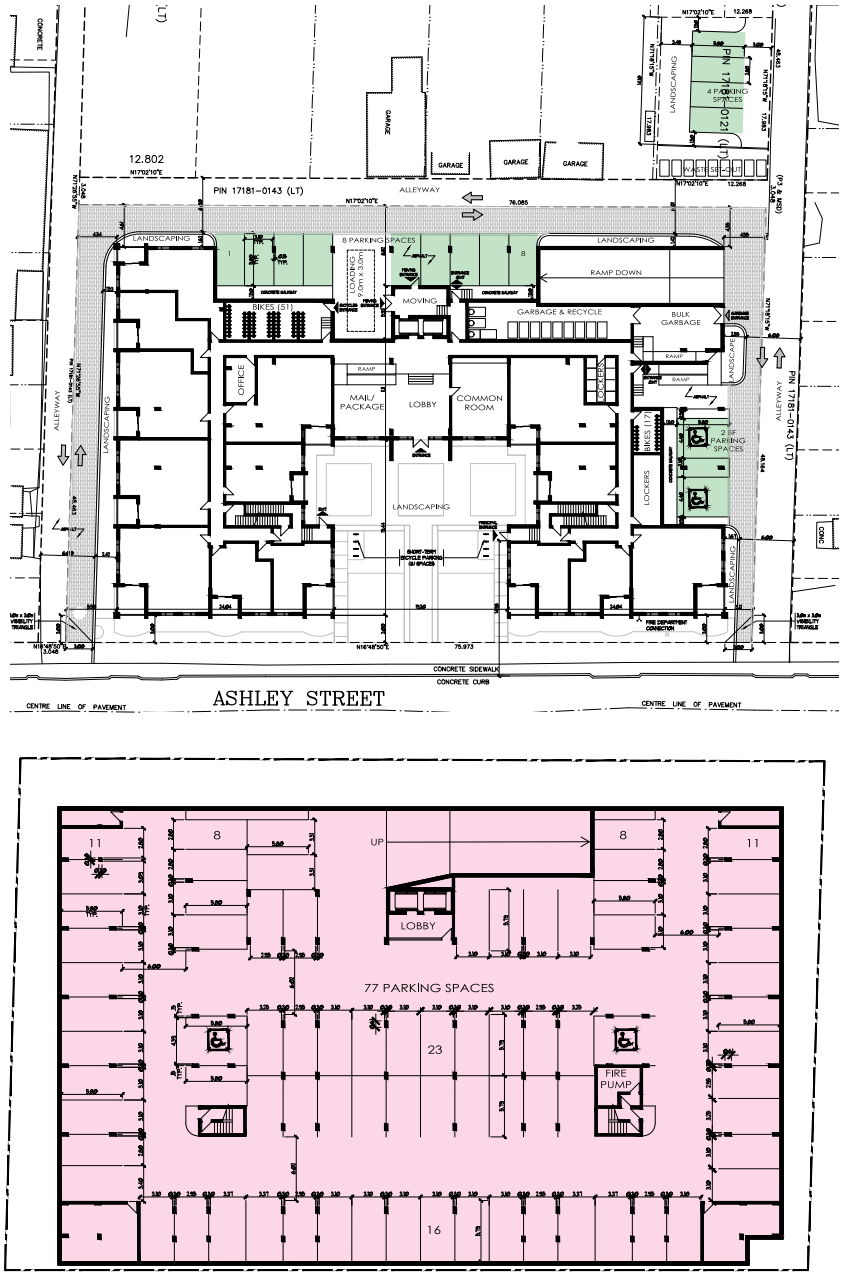


Fig.22: Floor plans showing at-grade and below-grade parking spaces

5.6 Service and Loading Areas

The loading and service areas for the proposed building is located on the western side of the building, facing the internal driveway and alleyway. An internal garbage room is located on the ground level with access from the north side of the building. A designated waste set-out area is proposed on the northwest side of the Site which is also owned by the owner. Emergency service vehicles will be serviced from Ashley Street, with a residential entrance conveniently located near the Ashley Street interface for quick and easy access to the building. Mechanical equipment and utility rooms are incorporated within the underground parking garage and rooftop spaces.

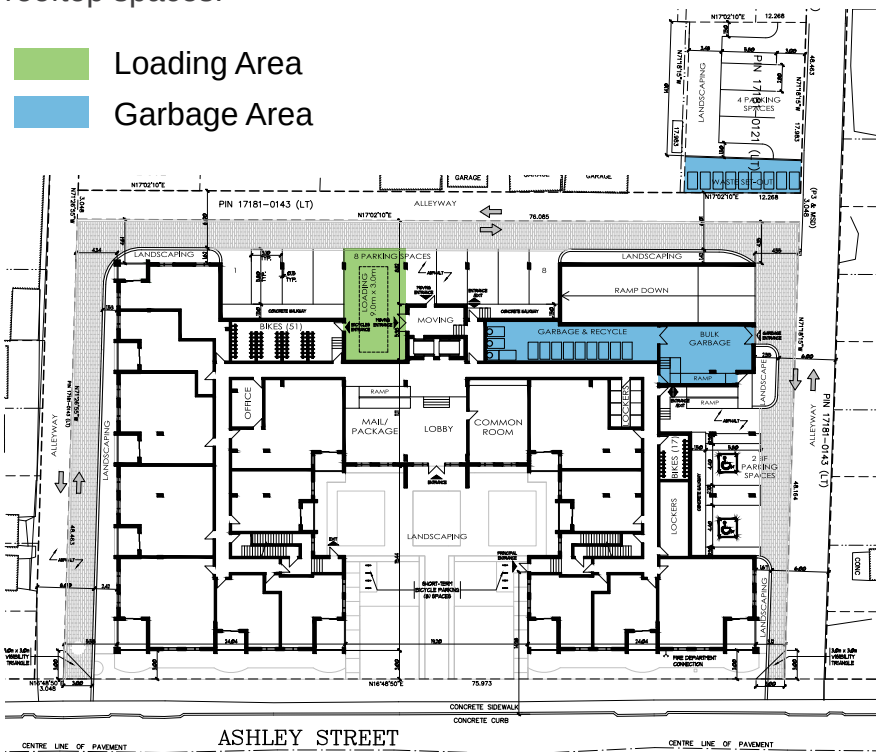


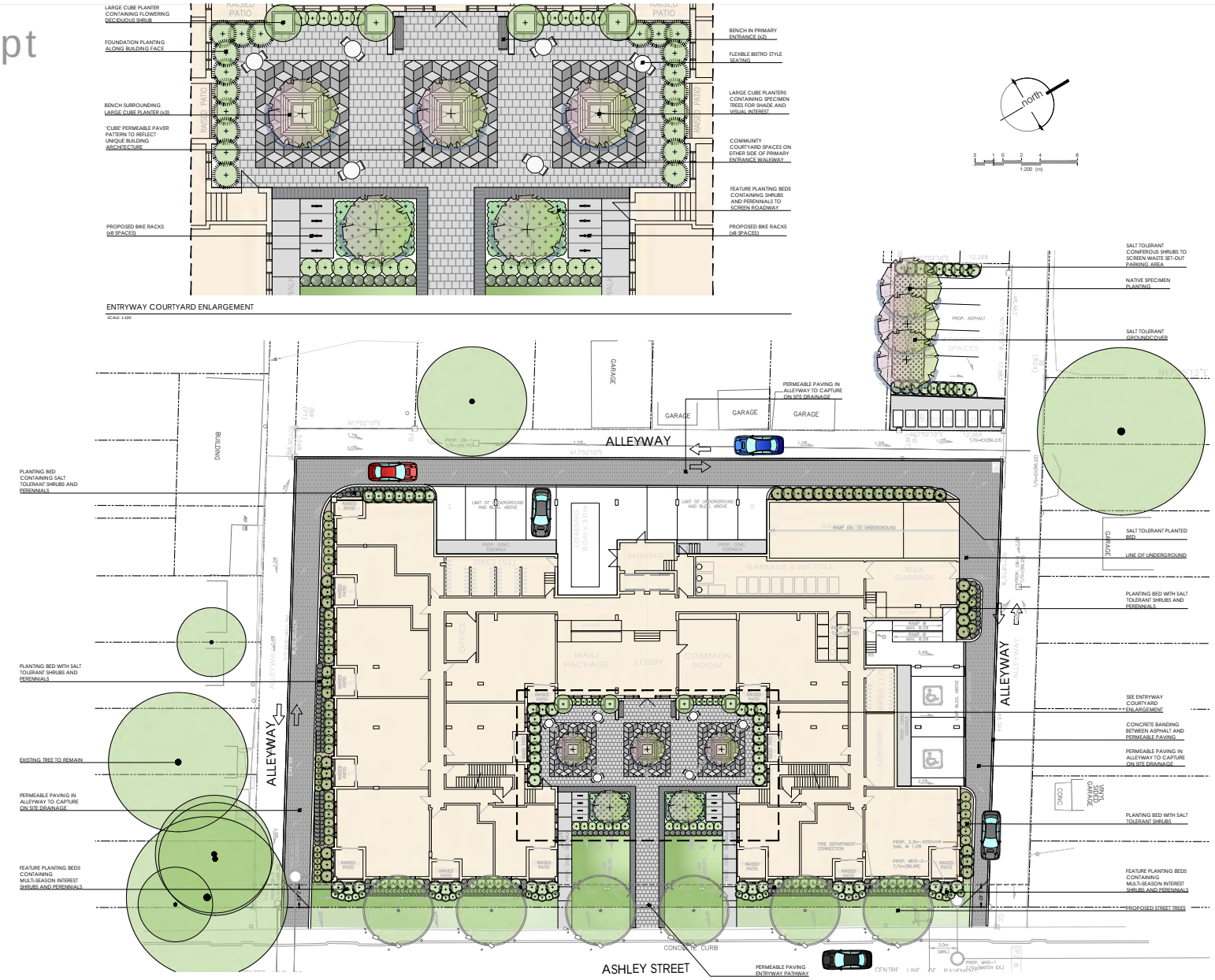
Fig.23: Ground plan showing loading and garbage areas

5.7 Streetscape and Landscape Design

A conceptual Landscape Plan has been prepared by Adesso Design Inc. The plan highlights the important landscape elements that will contribute to the overall design and aesthetic of the proposed development. The plan shows the new tree types and tree locations on the Site and a design concept for the landscaped areas particularly the proposed courtyard space, designed to serve as a communal gathering spot. The courtyard space will include outdoor seating and landscaping in the form of foundation planting along the inner courtyard, permeable pavers and large cube planters containing flowering deciduous shrubs along with bench surrounding the planters. Additionally, perimeter landscaping planting is proposed along the north, east and south sides of the building abutting the alleyways and the main street edge. Street trees are also proposed along Ashley Street interface to provide shade and an attractive streetscape. The driveway surfaces will consider different coloured decorative surface patterns to distinguish from the abutting alleyways.

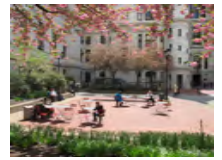
Detailed design will further explore and illustrate these public and public/private spaces. Lighting elements at the time of detailed Site Plan Approval design will address appropriate lighting levels for safety in these higher pedestrian activity areas. Opportunities for incorporating landscaping elements and surface treatment that promotes stormwater infiltration will be explored at detailed design stage.

concept

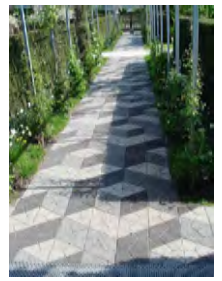


BENCH SURROUNDING LARGE CUBE PLANTER

LARGE METAL CUBE PLANTERS



COMMUNITY COURTYARD SPACE WITH FLEXIBLE BISTRO STYLE SEATING



CUBE PAVER PATTERN

COURTYARD WITH MIX OF HARDSCAPE AND SOFTSCAPE

Fig.24: Landscape Concept Plan prepared by Adesso Design Inc.

Fig.25: Renderings showing the courtyard space and the streetscape along Ashley Street, prepared by Adesso Design Inc.

5.8 Building Articulation

The architectural design proposes a contemporary expression with no blank facades. All elevations are detailed with glazing, articulation, and a mix of materials. Windows and openings are regularly spaced on all elevations while balconies are proposed for all units in all buildings. Recessed balconies are positioned at regular intervals along the elevations, while the U-shaped building layout adds spatial interest, contributing to vertical articulation and breaking down the apparent scale of the longer building elevations. This vertical articulation is further enhanced through differentiation of materials and colors. Horizontal articulation is achieved by providing step backs on the upper storeys, creating a visual break and reducing the perceived height and mass of the building. These step backs also allow for the creation of terraces and additional outdoor spaces, enhancing the building's functionality and aesthetic qualities.

The core cladding materials include red clay face brick and grey-toned stucco for the lower portion of the building, and cream-toned stucco finish for the upper storeys with grey-toned stucco as accents for balconies.

Fig.26: Front elevation showing building materials

5.9 Sustainability

At the broader city-level of sustainable development, the proposed development represents a compact and efficient residential project situated on the edge of a Neighbourhood designation, complementing the adjacent Can-non Street corridor. The current light industrial building is less compatible with the surrounding context, whereas the proposed residential development better aligns with community objectives to provide diverse housing options near essential services and amenities.

The new building will offer a variety of living spaces, from 1-bedroom suites starting at approximately 500 square feet to 2-bedroom plus dens up to 1,000 square feet. This range supports many intensification and redevelopment goals for an active and sustainable transportation network. The site and building design prioritize sustainable transportation options, promoting car-free living due to the site's proximity to downtown and excellent transit access, including several local routes and two major GO Transit stations in Downtown Hamilton. Safe and direct pedestrian connections from Ashley Street to Cannon Street and King Street are integrated into the design.

Most parking will be provided in an underground garage, reducing the heat island effect. Bicycle parking will be available both at grade and below grade to encourage alternative transportation modes. Buildings will feature internal garbage areas with systems for sorting waste, recyclables, and organic materials. Local manufacturers or sup-pliers will be prioritized for construction materials that are durable, renewable, and recycled, with low VOC emissions to improve indoor air quality.

Indoor water design will comply with Ontario Building Code standards, incorporating water-efficient fixtures such as low-flush and dual-flush toilets. Landscaping will use native and drought-tolerant species requiring minimal irrigation.

The building design will also adhere to energy efficiency standards in the Ontario Building Code, including:

- Effective thermal resistance of doors and windows.
- Energy conservation glazing exceeding standard Code requirements.
- Air barrier systems for infiltration control.
- Centralized HVAC systems with programmable thermostats.
- Internal lighting with automatic controls to shut off nonessential lighting.
- Residential units will feature Energy Star appliances, energy-efficient lighting, programmable thermostats, and high-efficiency mechanical systems.
- Low-flow plumbing fixtures will help reduce water consumption.

Through these strategies, the development aims to create a sustainable, efficient, and environmentally friendly community.

5.10 Microclimate Impact Analysis

Shadow Analysis

GSP Group prepared the Shadow Impact Analysis for the proposed development (enclosed in Appendix A of this Brief). Shadow impact diagrams provided in Appendix A are for March 21 (Spring Equinox), and September 21 (Fall Equinox) at 1.5 hour intervals between sunrise and sunset, as well as noon.

Generally, it concludes that the proposed development will meet the guidelines set for shadow impact analysis by the City of Hamilton on nearby established residential neighbourhoods and the public realm. The building form and orientation of the proposed development ensures that sun shading impact is minimal upon the neighbouring residential properties.

6. RESPONSE TO POLICY AND GUIDELINE FRAMEWORK

6.1 Response to Official Plan Policies and Design Guidelines

This section provides a detailed response as to how the proposed redevelopment's design is informed by and responds to the applicable design policies. The responses are broken down into general design themes that capture the corresponding policy and guidelines, followed by a description of the design response and contribution. Policies from each applicable document are highlighted in the colours and acronyms below:

Urban Hamilton Official Plan (UHOP)

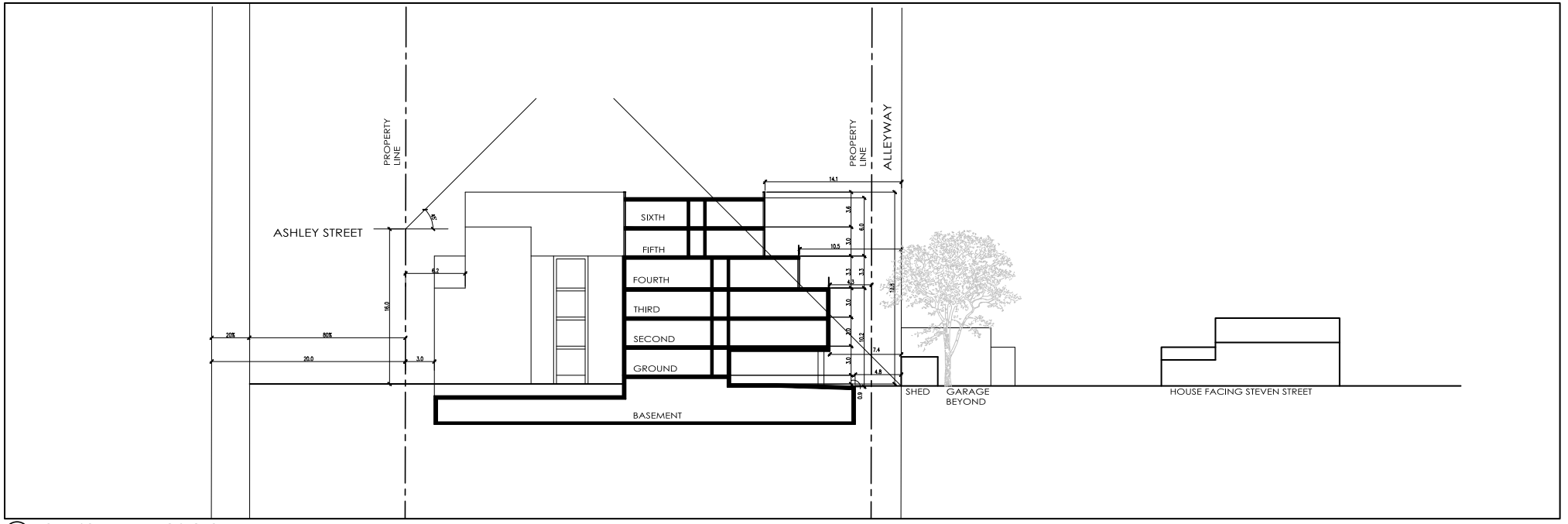
City-Wide Corridor Planning Principles and Design Guidelines (CDG)

Site Plan Guidelines (SPG)

Site Context	
Policy/Guideline Reference	**Design Response and Contribution**
Urban Design Policies UHOP, Vol. 1: B.3.3.2.1, B.3.3.2.4.a)-b), B.3.3.2.4.g), B.3.3.3.1 CDG: 4.11	The Site is located on the edge of the "Neighbourhood" designation in the Urban Hamilton Official Plan (UHOP), that supports a range of residential types and densities. The proposed development is well-integrated into the existing context, complementing the adjacent commercial and mixed-use concentrated Cannon Street corridor. The proposed development is located within a 15-minute walk to essential services, amenities, parks, schools, and Hamilton General Hospital, enhancing community sustainability. The proposed development incorporates transition measures like stepbacks and a pedestrian-friendly façade relative to abutting properties. It is oriented to reinforce and animate the street with an open, inviting courtyard featuring high-quality landscaping and safe pedestrian-focused public space at street level. The intensification of the Site, coupled with existing and active transportation infrastructure, will support the use of car-free options within the surrounding neighborhood and beyond.

Built Form	
Policy/Guideline Reference	**Design Response and Contribution**
Urban Design Policies UHOP, Vol. 1: B.3.3.3.2, B.3.3.3.3, B.3.3.3.4, B.3.3.3.5e) CDG: 4.3.1 SPG: 2.2, 4.4, 6.4	The proposed development aligns with the policies by minimizing impacts on abutting buildings and public spaces through measures like overall site design and stepbacks, ensuring privacy and sufficient sunlight for abutting properties. It respects existing and planned street proportions through appropriate massing, with consistent setbacks and stepbacks. By adopting a “U-shaped” building configuration with setbacks and step backs, the building seamlessly integrates with surrounding low-rise residential properties, preserving the visual harmony of the neighbourhood. The proposed building has an overall height of 19.8 metres, adhering to the prescribed heights outlined in the zoning regulations, ensuring compatibility with the surrounding built environment. Regularly spaced windows, varied materials, and recessed balconies provide vertical articulation, and upper storey step backs at fourth and fifth stories are optimized to minimize shading impacts on adjacent properties, as confirmed by the Shadow Impact Analysis. The proposed 6-storey building’s massing with setbacks and stepbacks for the upper storeys maintains a 45-degree angular plane from Ashley Street property, measured at a height equal to 80% of the width of the right of way. (see Fig. 26) According to the CDG, new buildings should be limited in height by a 45 degree build to plane, measured from a public alleyway along the rear of a property. The proposed design includes stepbacks from the fourth floor onwards, maintaining compliance with the recommended 45-degree angular plane, except for a minor deviation on the third floor.

	The intent of the guideline was carefully considered in the building design. While the third floor slightly deviates from the 45-degree angular plane, the overall design positively responds to the guideline's intent. The angular plane is intended to mitigate adverse impacts such as shadowing and overlooking. The shadow study analysis shows that shadowing impacts are localized to the west of the proposed building, primarily affecting the rear yards of low-rise properties. The proposed building provides sufficient separation distances of approximately 6 to 8 metres from the proposed building's edge to the low-rise residential properties to the north, west, and south. Additionally, the rear yards of the adjacent low-rise residential properties are deep and narrow lots, minimizing shadow and overlook concerns. Existing tree canopies and accessory structures on some of these residential properties also serve as additional buffers.



2 NORTH-SOUTH BUILDING SECTION
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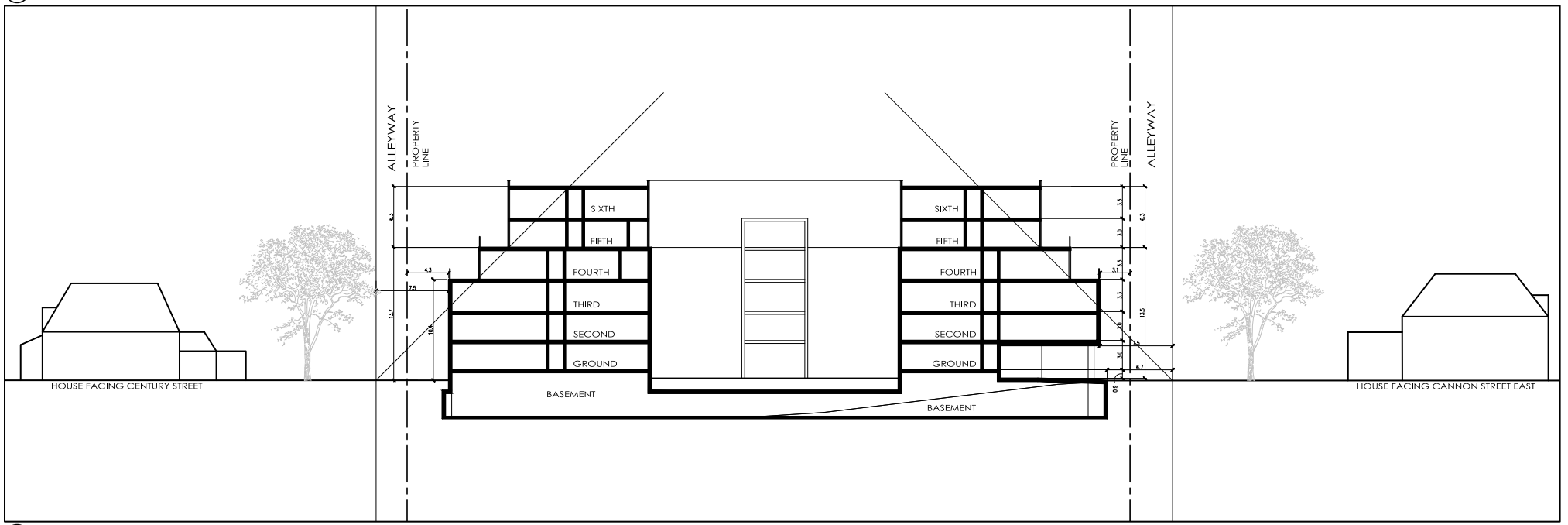

1 EAST-WEST BUILDING SECTION
A4.0 SCALE 1:200

Fig.27: Angular Plane Diagrams prepared by Lintack Architects Inc.

Streetscape and Landscape Design	
Policy/Guideline Reference	**Design Response and Contribution**
Urban Design Policies UHOP (Vol.1): B.3.3.1.3, B.3.3.2.3.g), B.3.3.2.4.d)-g), B.3.3.2.5.a), B.3.3.2.9, B.3.3.2.10, B.3.3.3.5 a)-c) CDG: 4.5, 4.10 SPG: 2.2, 2.5, 3.3, 6.4	The proposed building is strategically positioned to frame Ashley Street to form a continuous street edge, and the U-shaped layout with a central courtyard improves urban integration. The design fosters a comfortable pedestrian environment by positioning principal façades and primary entrance parallel to and close to the street. The main entrance faces the courtyard and Ashley Street, ensuring easy pedestrian access and enhancing sidewalk vitality. The courtyard space will include outdoor seating and landscaping in the form of foundation planting along the inner courtyard, permeable pavers and large cube planters containing flowering deciduous shrubs along with bench surrounding the planters. The at-grade residential units with patios and a landscape buffer align with the tree-lined streetscape across from the development. The driveway surfaces will consider different-coloured decorative surface patterns to distinguish from the abutting alleyways. The adjacent alleyway will be further improved with lighting, landscaping, and ground-floor design elements which includes window openings and patio spaces facing towards the alleyway and the street. This design encourages visibility to and from the public sidewalk and the alleyway, fostering a feeling of safety and connectivity.

Compatibility with Existing and Planned Community	
Policy/Guideline Reference	**Design Response and Contribution**
Residential Intensification UHOP (Vol.1): B.2.4.1.4.d), B.2.4.2.2.b)-d), B.2.4.2.2.g)-h), B.2.4.4 Urban Design Policies UHOP (Vol.1): B.3.3.1.5 and B.3.3.1.8, B.3.3.2.3.a)-b) and f), B.3.3.2.6, B.3.3.3.2, B.3.3.3.3	The proposed building is compatible with the surrounding land uses by • providing built form transition (including stepbacks); • providing an open, inviting courtyard space featuring landscaping and ground floor setbacks to create an accessible and safe pedestrian focused public space at street level. • providing sufficient parking spaces located away from the public realm; • using high quality building materials and colours that are complementary to those in the local area; • providing recessed balconies and upper storey stepbacks on the nearest elevations facing the properties to the north, west and south to reduce potential overlook/privacy impacts; • minimizing the impacts of shadowing and maximizing light to adjacent properties and the public alleyways through the proposed building location and massing. Additionally, the Site is located on the edge of the Neighbourhood land use designation, within approximately 500 meters of the City's downtown center and 300 meters of King Street, a Primary Corridor as per the City's Schedule E – Urban Structure. The proposed building represents appropriate intensification at the periphery of neighbourhoods. It aligns with the Urban Hamilton Official Plan (UHOP), which anticipates that even within the "Neighbourhoods" designation, which already contains a mix of land uses and residential densities, higher-density residential development will occur. There are several examples of these kinds of forms and residential densities existing in neighbourhoods across Hamilton. Notable addresses include: 225 East Avenue North (Landsdale Neighbourhood, Indwell's The Oaks), 465 King William St. (Landsdale Neighbourhood), Claremont Court Apartments (surrounding 155 Stinson Street, Stinson Neighbourhood), Duchess Apartments (161 East Avenue S, Stinson Neighbourhood), and 86 Herkimer Street (Durand Neighbourhood).

Site Access	
Policy/Guideline Reference	**Design Response and Contribution**
Urban Design Policies UHOP (Vol. 1): B.3.3.9.1-5 CDG: 4.6.6-7 SPG: 3.2	The proposed access driveways for the development align with the existing access points associated with the alleyways along Ashley Street, minimizing disruption of the public sidewalk. The site design maintains a similar street frontage to the existing building, with the addition of a central courtyard space featuring enhanced landscaping, thus maximizing the areas available for landscaped areas. All vehicular circulation is directed towards the underground parking garage and surface parking area located to the rear of the building, away from the Ashley Street public realm. Vehicular movements are separated from the on-site pedestrian movements by directing on-site vehicular traffic towards the west of the Site or rear side of the building towards the underground parking garage and the surface parking areas. The proposed driving aisles will be clearly demarcated and differentiated through permeable paving with concrete banding. This approach will provide visual and functional definition of the Site, as well as clearly distinguish the driving aisles from the adjacent public alleyways. Landscaped walkways are proposed within the central courtyard, where high levels of pedestrian traffic are expected, particularly from the Ashley Street public sidewalk to the main building entrance. These walkways will feature concrete pavements and permeable paving, along with tree planting and ground planting and grassed areas to provide pedestrian comfort and shade. Pedestrian walkways will remain uninterrupted by vehicular movements, as vehicular traffic is directed towards the west of the Site or the rear of the building, leading to the underground parking garage and surface parking areas.

Parking	
Policy/Guideline Reference	**Design Response and Contribution**
Urban Design Policies UHOP (Vol. 1): 3.3.2.5.b)- d), 3.3.1.4, 3.3.3.5.d), B.3.3.10.1-10, B.3.3.11 CDG: 4.6.1-3 SPG: 2.5, 2.6, 6.4	The proposed development includes 77 spaces in a single level of underground parking and 14 surface parking spaces located to the side and rear of the building. Surface parking is located on the north and west sides of the building and is recessed within the building's design, with the floors above extending over it. This placement minimizes its impact on pedestrian areas by keeping it away from Ashley Street, thus maintaining a continuous pedestrian-friendly environment along Ashley Street. The main entrance will provide barrier-free and flush access with a direct connection to the public sidewalk. An AODA-compliant ramp is provided on the northwest side of the building, conveniently located next to the barrier-free parking spaces.

Servicing and Loading	
Policy/Guideline Reference	**Design Response and Contribution**
Urban Design Policies UHOP (Vol. 1): B.3.3.7.1-3 CDG: 4.6.4 SPG: 3.4, 3.5	Service and loading areas will be screened from Ashley Street through building placement and will be located internal to the building (mechanical room, garbage room and storage rooms). Move-in functions and waste removal will occur at scheduled times in the designated loading area in a controlled manner to allow smooth in and out access of the vehicular movements.

7. CONCLUSION

Based on the review contained in this report, it is our opinion that the proposed design respects and appropriately responds to the applicable urban design policies and guidelines contained within the City of Hamilton's Urban Hamilton Official Plan and the City of Hamilton Site Plan Guidelines. In summary, the proposed development represents good design as it:

- Provides opportunity for residential intensification and the provision of a housing alternative and is appropriately situated in a location with access to Ashley Street and adjacent public alleyways.
- Establishes a street-oriented and pedestrian-friendly design with building massing that lines the public street, a human-scaled and well-defined building base, an open and inviting central courtyard space, and architectural detailing that adds visual interest along the ground floor of the street-facing elevations.
- Provides appropriate massing and built form that is sensitive to the scale of the surrounding neighbourhood and mitigates potential shadow impacts to adjacent properties and the public realm through a thoughtful transition of building height, scale and stepbacks.
- Places all parking, loading and servicing facilities, behind the proposed building, away from the public streets.

APPENDIX A

Shadow Study

Sun Shadow Study

87-109 Ashley Street, Hamilton, ON

Feb., 2024
Project No. 22071

Prepared for:
Tyros Development Limited
719 Jerseyville Road West
Jerseyville, ON
L0R 1R0

Prepared by:
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LINTACK ARCHITECTS INCORPORATED

GSP group

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Purpose

The following Sun Shadow Study has been prepared by GSP Group Inc. in support of a Zoning By-law Amendment to facilitate the redevelopment on the lands municipally addressed as 87-109 Ashley Street ("the Site") in the City of Hamilton.

The Site fronts on to Ashley Street, with a frontage of 76 m, and is surrounded by three (3) alleyways to the north, west, and south. It has a total Site area of 0.366 hectares.

The proposed development is comprised of a six (6) storey multiple dwelling residential building that contains 136 units and provides 91 parking spaces. The total building height, excluding the mechanical penthouse, is approximately 19.8 m.

The objective of the City of Hamilton's Development Application Guidelines: Sun Shadow Study is to:

"maintain quality, comfortable and inviting public spaces and pedestrian environments by demonstrating that a development will not cause undue shade on the subject lands, and on the surrounding context, including building facades, private and public outdoor amenity and open spaces, parkland, school yards and buildings, sidewalks and other components of the public realm."

The Sun Shadow Study is required for buildings 6 storeys or higher, for the Official Plan Amendments, Zoning By-Law Amendments, Site Plan Control and Minor Variance applications.

The following analysis demonstrates how the proposed development will cast shadow on the surrounding urban context and discuss the mitigation strategies, if required, for any undue shadow impact.

Analysis Method - Technical Criteria

Following the City of Hamilton's Development Application Guidelines for a Sun Shadow Study, the analysis is based on the following:

Dates and times
- Spring Equinox, March 21st at solar noon and hourly intervals starting 1.5 hours after sunrise and ending 1.5 hours before sunset.
- Fall Equinox, September 21st at solar noon and hourly intervals starting 1.5 hours after sunrise and ending 1.5 hours before sunset.

Time Zone - Eastern
- Eastern Standard Time: Universal Time minus 5 hours
- Daylight Saving Time: Universal Time minus 4 hours

Geographical Coordinates
- Latitude: N 43 degrees 14'30"
- Longitude: W 79 degrees 51'00"

Astronomic True North was determined through accurately geo-locating the building model in the SketchUp application. The 3D model of the proposed building was provided by Lintack Architects Inc. and the base map for surrounding context was created using Google Earth.

The shadow analysis incorporates three simulated conditions:

1. It illustrates the current condition of the shadows, shaded in the colour gray.

2. It establishes the as-of-right condition based on the height as per the Site's current C2 "Neighbourhood Commercial" zoning: Maximum height of 11m. The as-of-right shadows are shaded yellow in the shadow analysis diagrams.

3. It establishes the proposed condition based on the 6-storey (21.2 m) mid-rise building. The proposed height complies with the proposed site re-zoning to C5 "Mixed Use Medium Density Zone" and is shaded in a light blue in the shadow analysis diagrams.

As-of-right Building Model

Proposed Building Model

Assessment Criteria and Analysis - Impact

The City's Sun Shadow Guidelines include Impact Criteria and considerations analysis as follows:

Criteria A - Public realm

Shadows from proposed development shall allow for a minimum of 3 hours of sun coverage between 10:00am and 4:00pm as measured from March 21st to September 21st on public sidewalks, and public and private outdoor amenity space such as patios, siting areas, and other similar programs.

Quantification & Assessment

Ashley St. and low-rise development to west:
With the application of building step-backs and setbacks, the proposed development successfully mitigates any undue shadow impact and will allow a minimum of 3 hours of sun coverage (pg. 5 & pg. 16) between 10am and 4pm on public sidewalks, and public and private outdoor amenity spaces such as patios, sitting areas, and other similar programs.

Low-rise development to north and internal courtyard:
The proposed development allows for a minimum 3 hours of sun coverage for majority of the adjacent properties but fails to meet the criteria on a small portion of the rear yards immediately north of the proposed development and will have approximately 2.5 hours of sunlight between 10am and 4pm. The affected area is used as private driveway for parking and the As-of-right building massing will also have the same result, and thus has minimal negative impact.
The internal private courtyard will have a minimum of 3 hours of sun coverage, between 10 am to 4pm, for approximately 40% of the area. However, with any proposed mid-rise building and given our geographical location, avoiding casting any shadows onto the north side would be difficult to achieve.

Criteria B - Common Amenity Areas

Shadows from the proposed development shall allow for a minimum of 50% sun coverage at all times of the day as measured from March 21st to September 21st on public plazas, parks and open spaces, school yards, and playgrounds.

Quantification & Assessment

The proposed development allows for at least 50% sun coverage on all public plazas, parks, open spaces, school yards, and playgrounds during all test times.

Criteria C - Primary Gathering Spaces in Downtown Hamilton

Downtown Hamilton contains a number of parks, squares, plazas and open space areas that serve as civic gathering spaces in the Downtown area. The quality, image, and amenity of these spaces strongly affect how people perceive the Downtown. Development shall not cast any new net shadow between 10:00 a.m. and 4:00 p.m. as measured from March 21st to September 21st on Gore Park, Prince's Square, City Hall Forecourt, Whithern Museum and Ferguson Station.

Quantification & Assessment

During all test times the proposed development avoids casting any shadow effects on all key downtown civic gathering spaces listed in the Terms of Reference.

MITIGATION MEASURES

Orientation
This proposed location and the orientation will have the least shadow impact on the public sidewalks given the geographic location of the site.

Height and Massing
The 6-storey building design proposed has been appropriately located on the Site to mitigate any undue shadow impact due to height and massing.

Step-backs and 45 Degree Angular Plane
The proposed building gradually steps back above the 3-storey base, reducing the overall massing along the street edge and providing transition to adjacent low-rise residential. Additionally the proposed building conforms to the 45 degree angular plane along Ashley St., which minimizes shadow impacts.

The application of these mitigation measures results in minimal unacceptable shadow impacts from the proposed development, when considering the City's Sun Shadow criteria.

Conclusions

This assessment of the proposed development proves to meet the intent of shadow impact criteria as outlined in the City of Hamilton's Development Application Guidelines for sun shadow studies. With the application of setbacks, step-backs, and building orientation, the proposed building design results in acceptable shadow impacts pursuant to the City's shadow impact criteria.

SPRING EQUINOX - MARCH 21ST

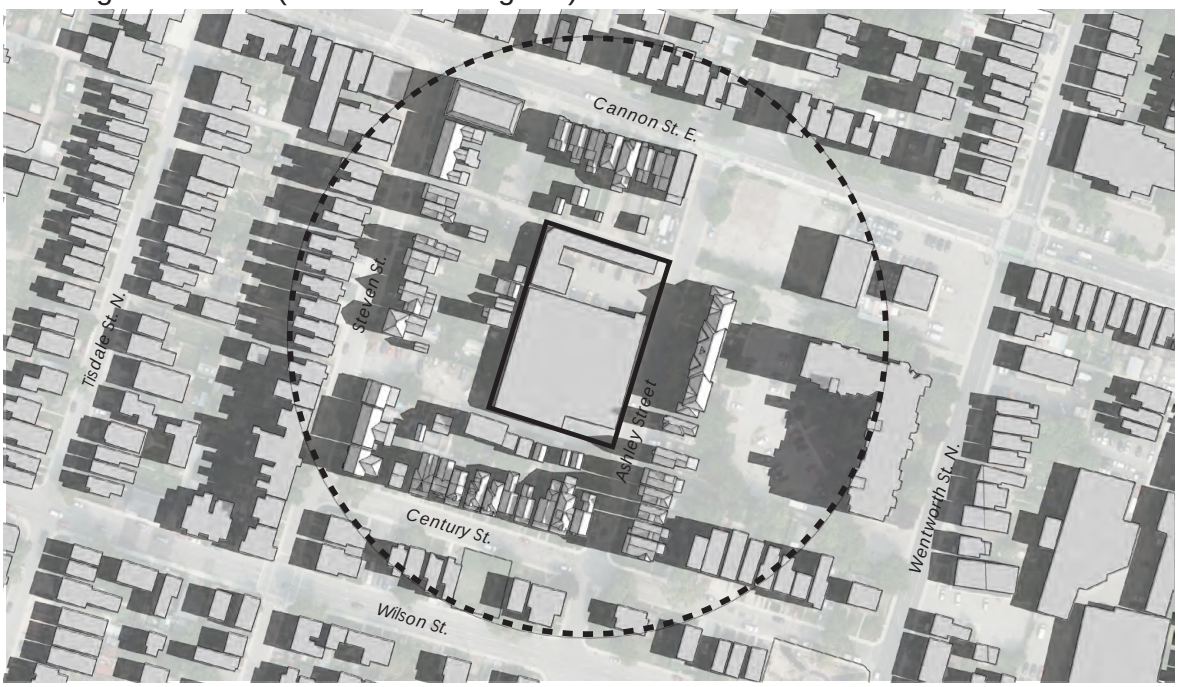
Shadow Interval (City's shadow impact criteria)

- Solar Noon.
- Hourly intervals starting 1.5 hours after sunrise and 1.5 hours before sunset.

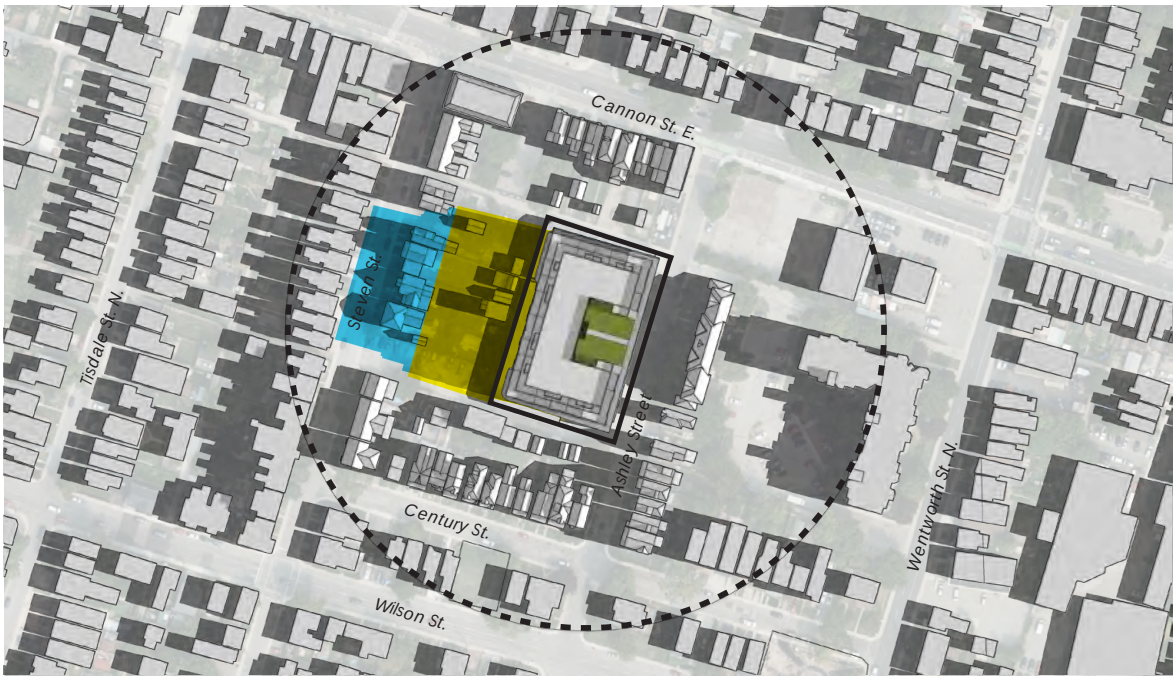
Sunlight Hours | Between 10am to 4pm

5+ Hour
4+ Hour
3+ Hour
2+ Hour
1+ Hour
Less than 1 Hour

Existing Condition (Vacant Parking Lot)



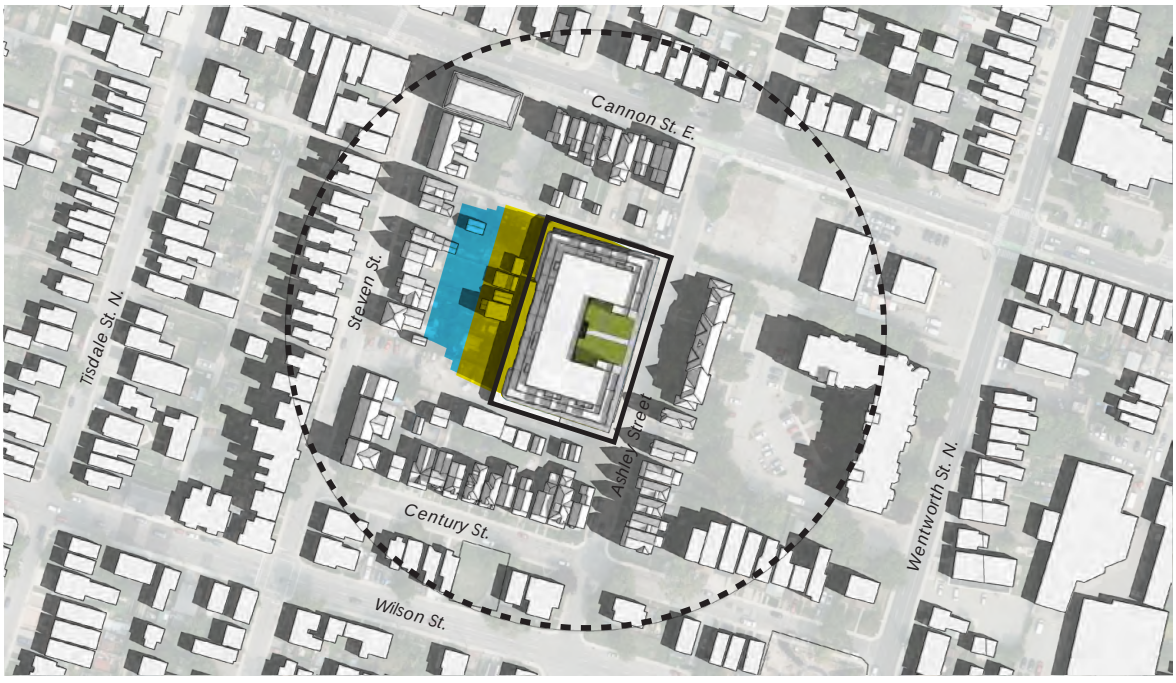
Proposed Condition



As-of-right Shadow
Net New Shadow
Existing Shadow
Distance Of Shadow Impact
(4X Building Height: 19.8mx4=79.2m)
Property Boundary

Existing Condition (Vacant Parking Lot)

Proposed Condition



As-of-right Shadow
Net New Shadow
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Distance Of Shadow Impact
(4X Building Height: 19.8mx4=79.2m)
Property Boundary

Existing Condition (Vacant Parking Lot)

Proposed Condition

As-of-right Shadow

Net New Shadow

Existing Shadow

Distance Of Shadow Impact
(4X Building Height: 19.8mx4=79.2m)

Property Boundary

Existing Condition (Vacant Parking Lot)

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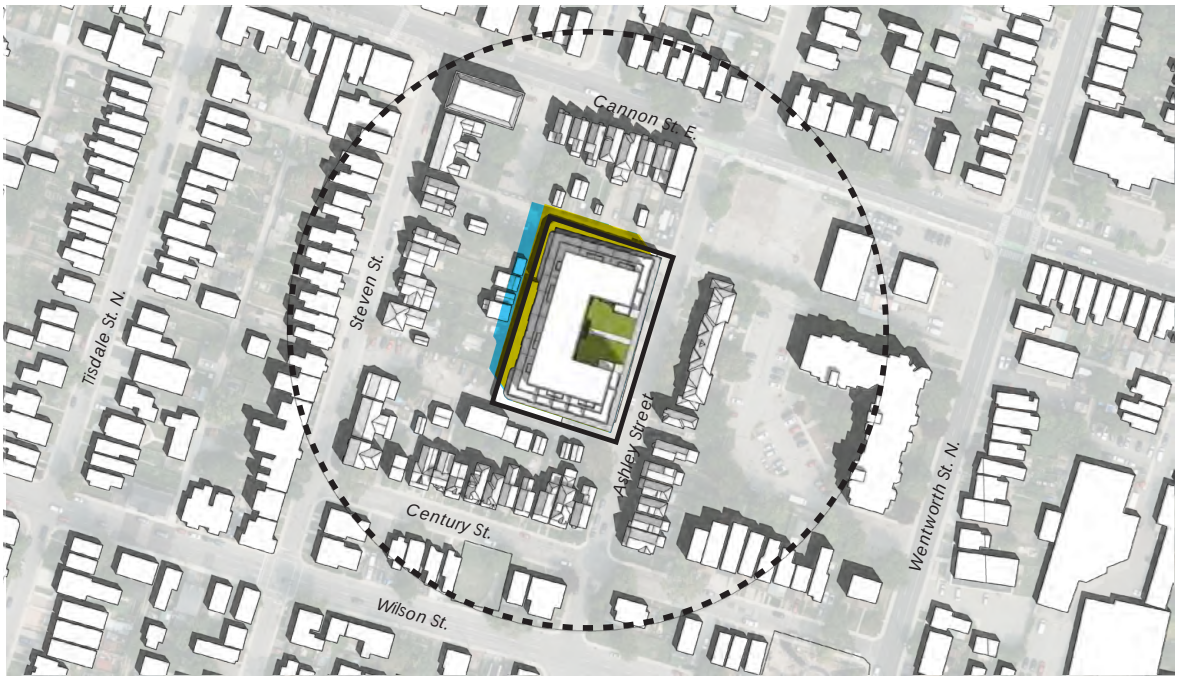

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(4X Building Height: 19.8mx4=79.2m)
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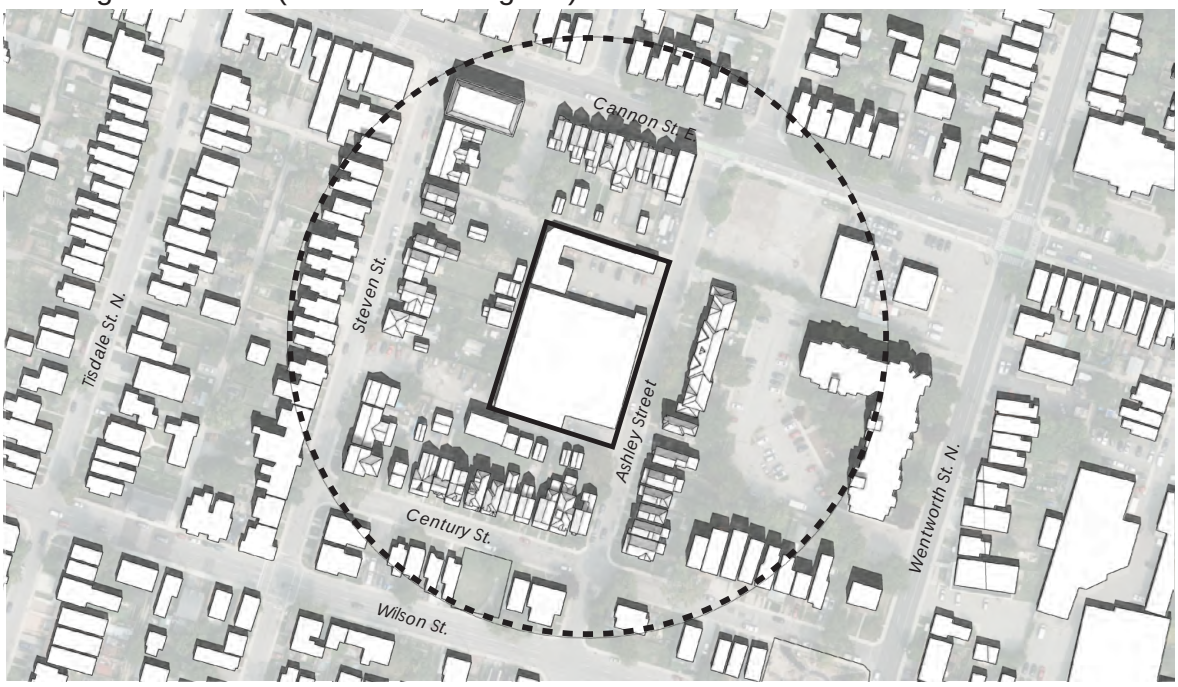

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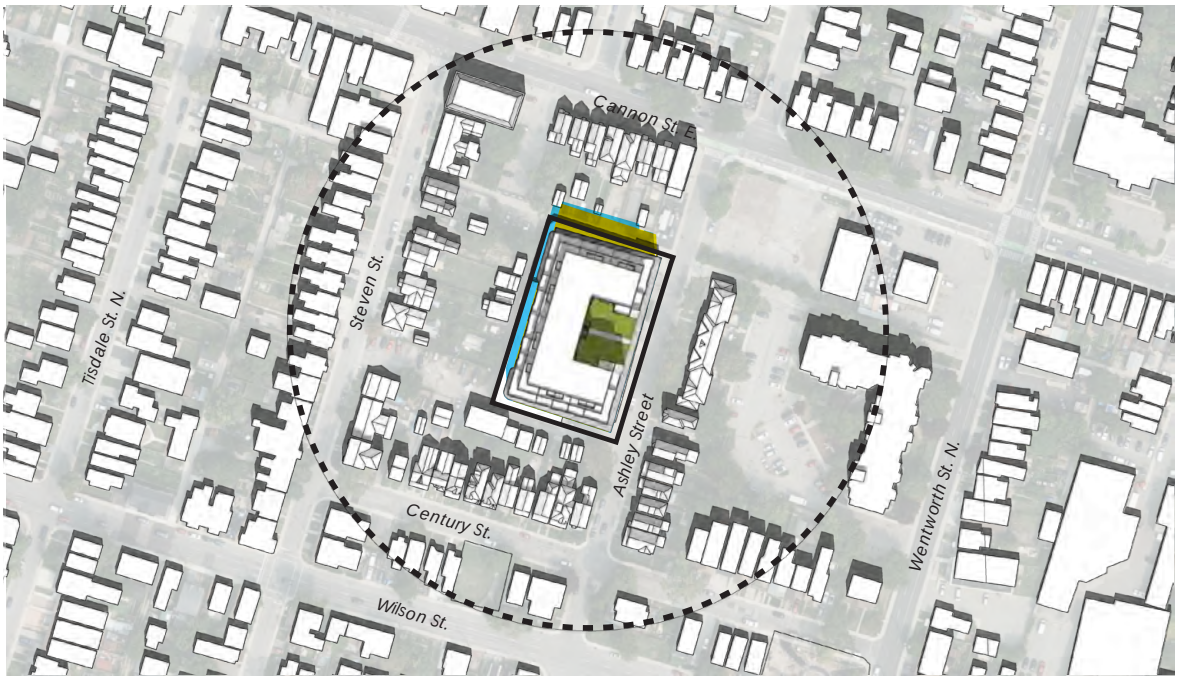

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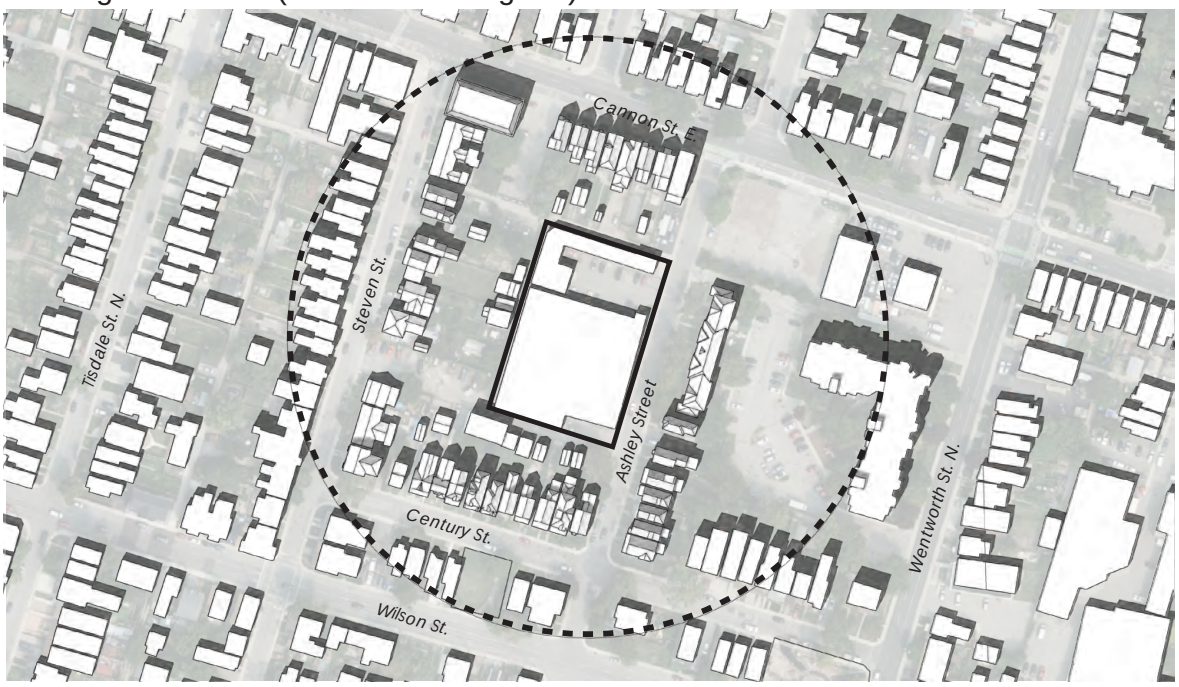
Distance Of Shadow Impact
(4X Building Height: 19.8mx4=79.2m)

Property Boundary

Existing Condition (Vacant Parking Lot)



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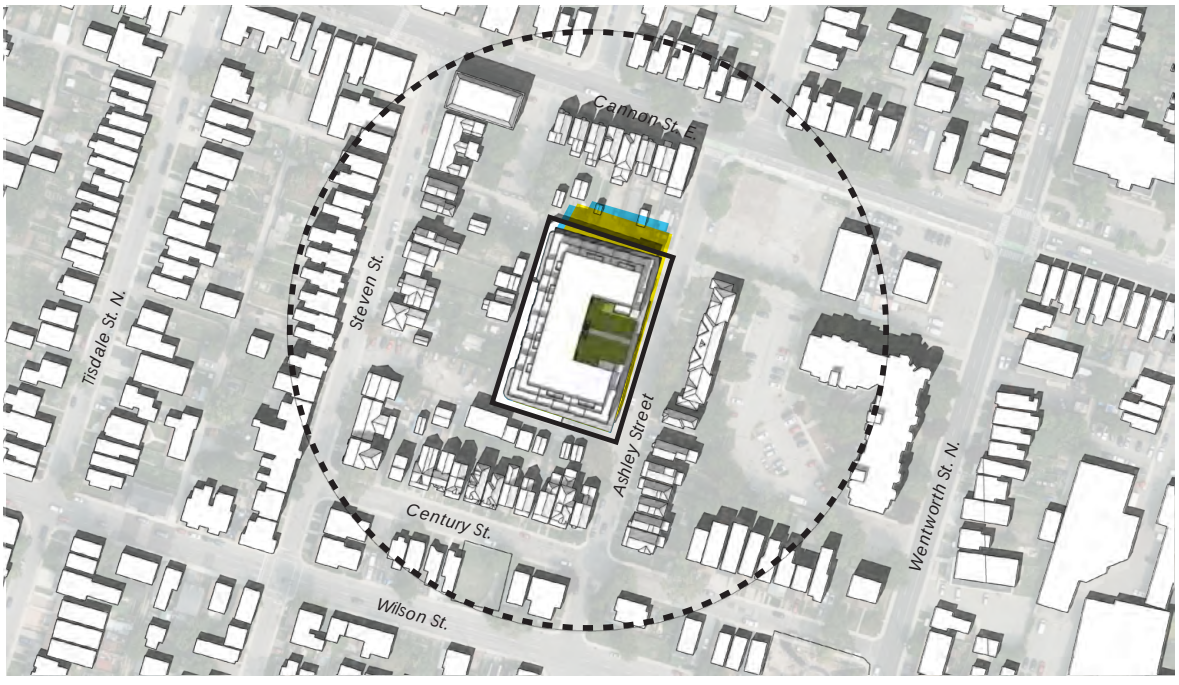

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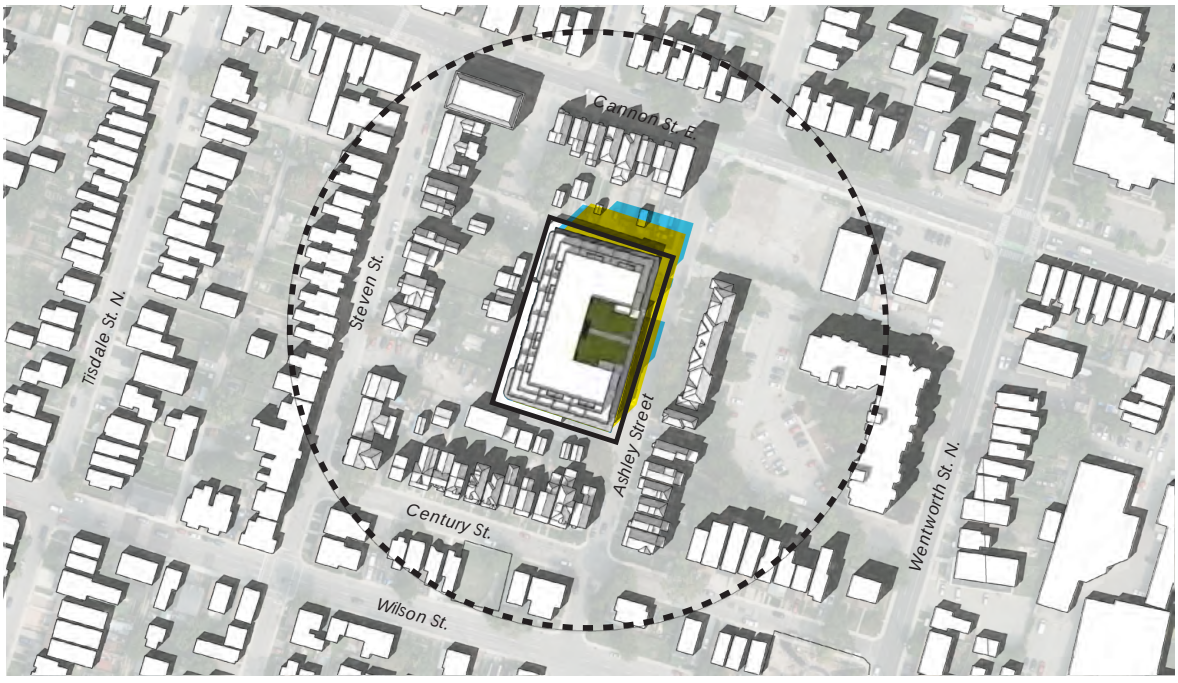

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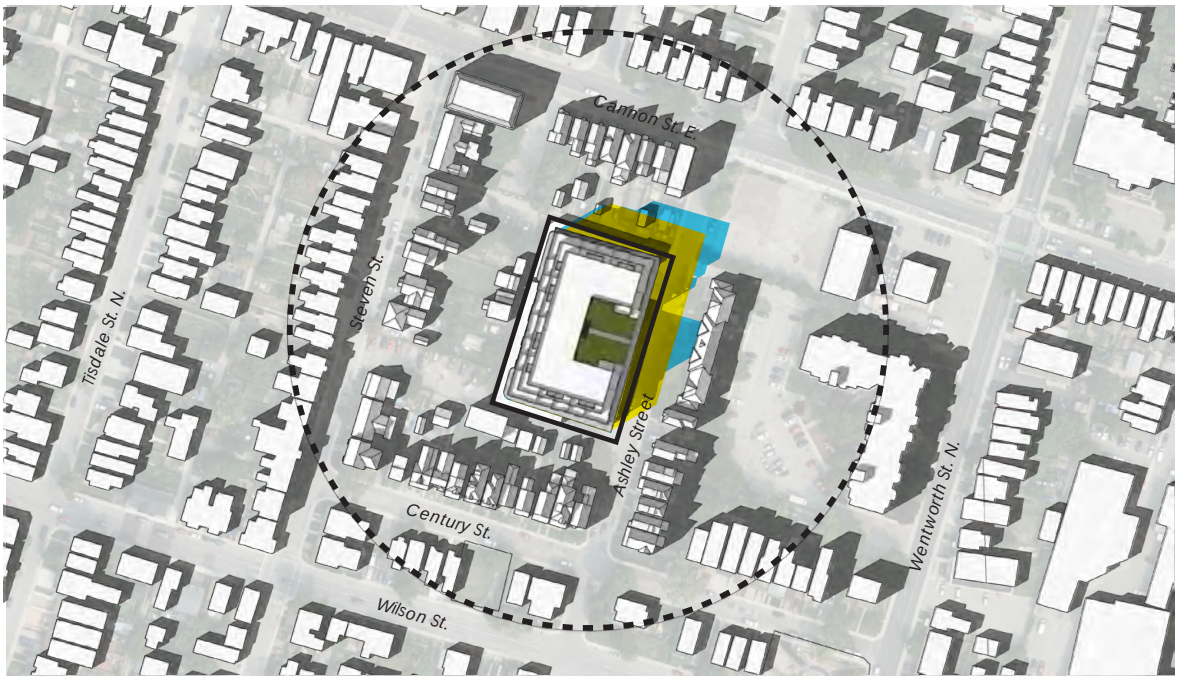

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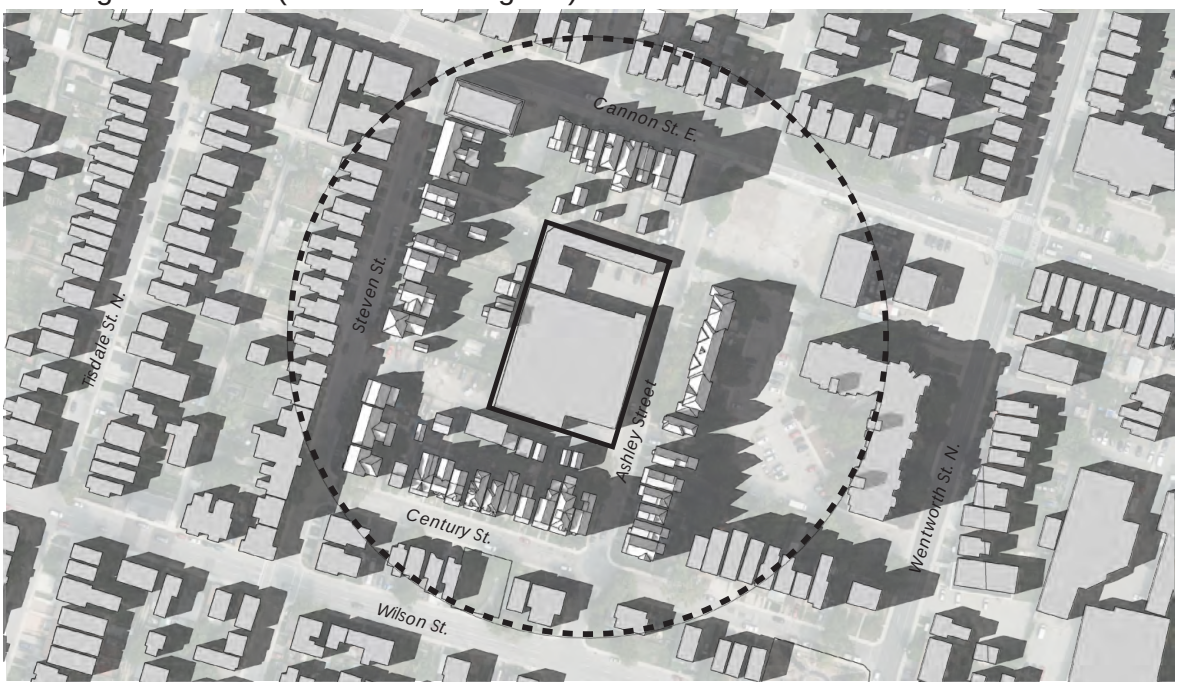

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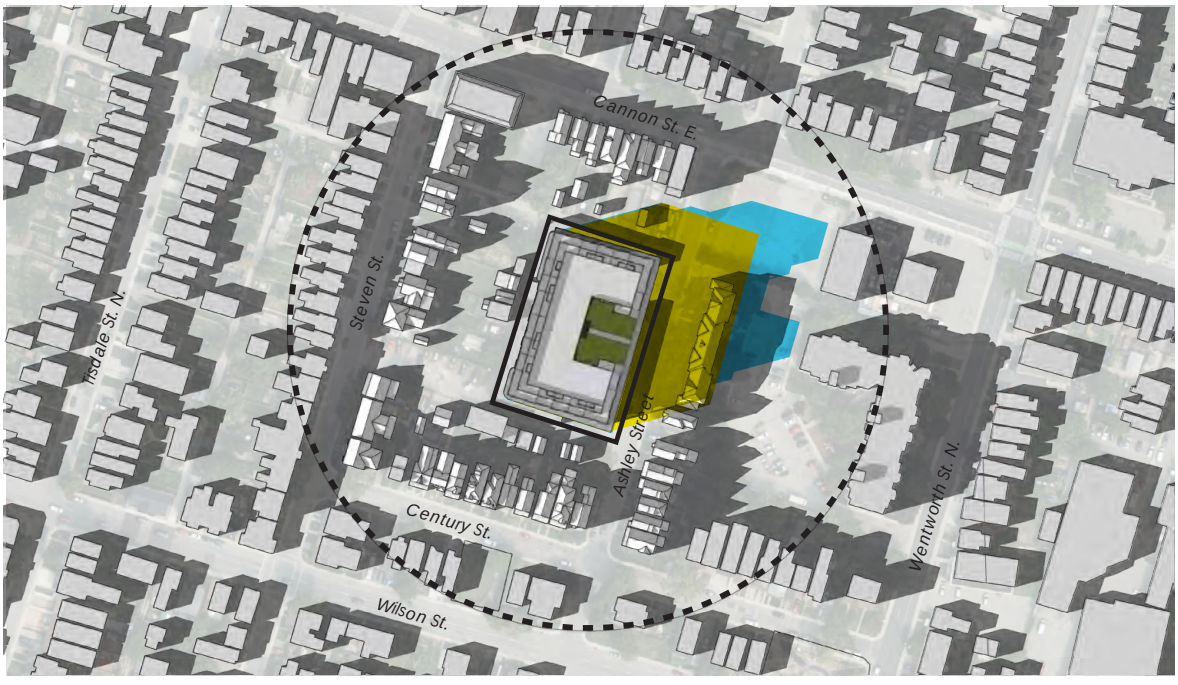

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Property Boundary

FALL EQUINOX - SEPTEMBER 21ST

Shadow Interval (City's shadow impact criteria)

- Solar Noon.
- Hourly intervals starting 1.5 hours after sunrise and 1.5 hours before sunset.

Sunlight Hours | Between 10am to 4pm

5+ Hour
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Less than 1 Hour

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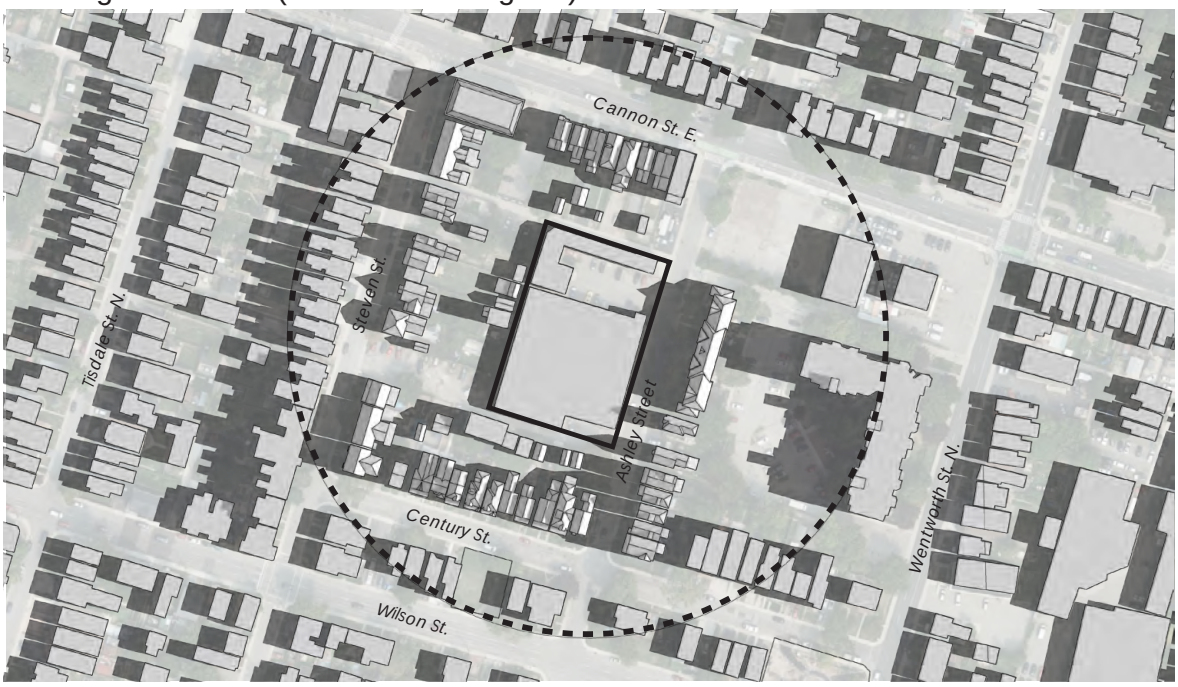
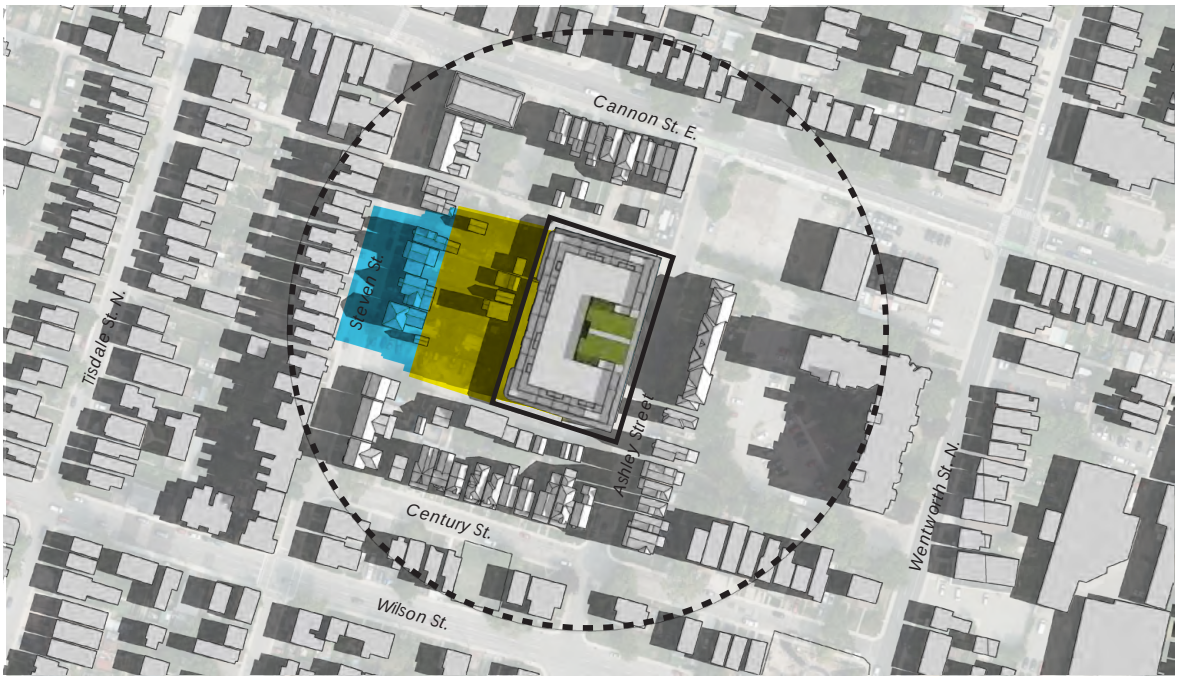


Proposed Condition



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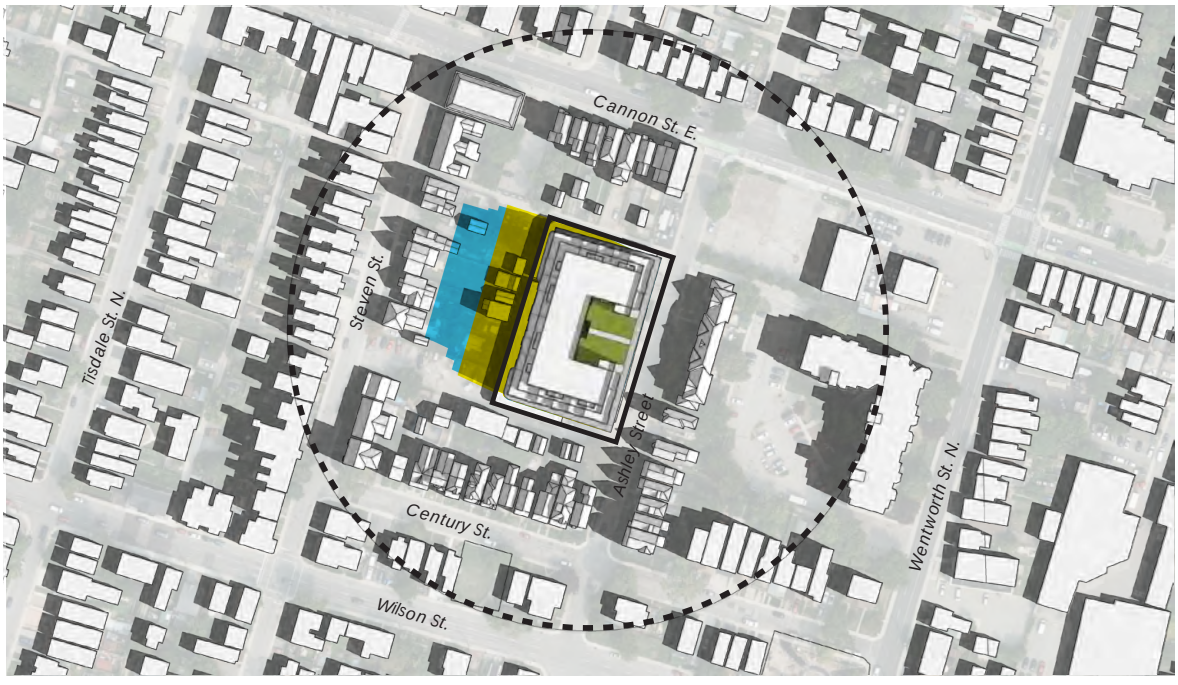

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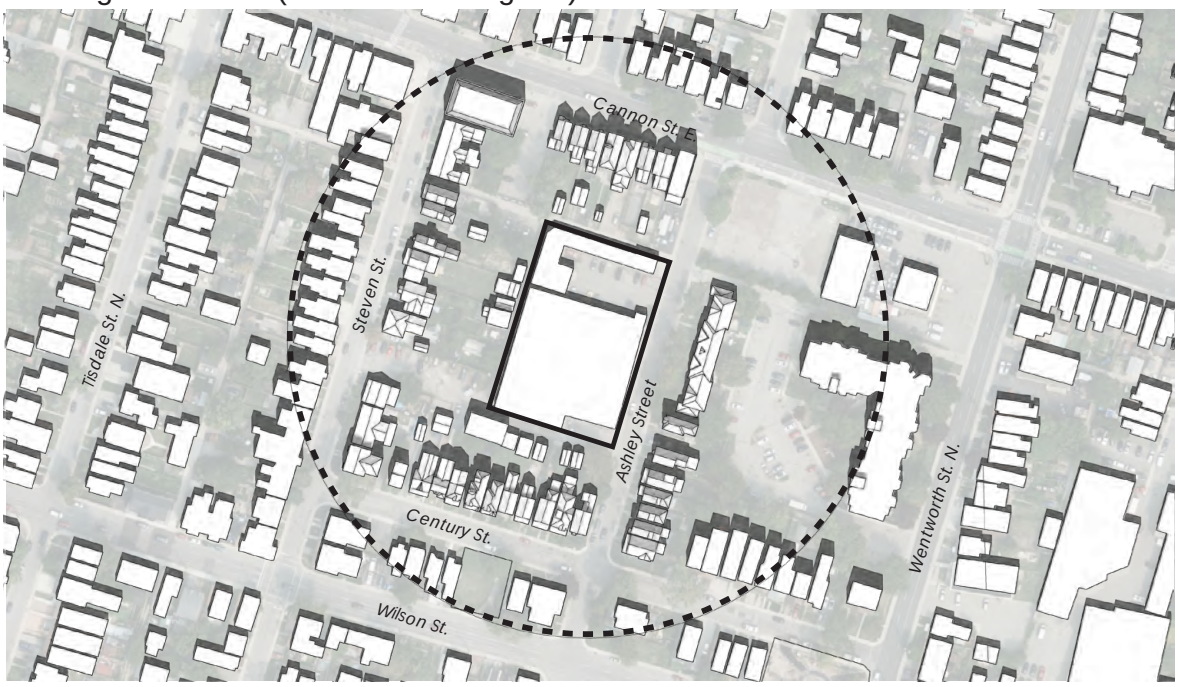

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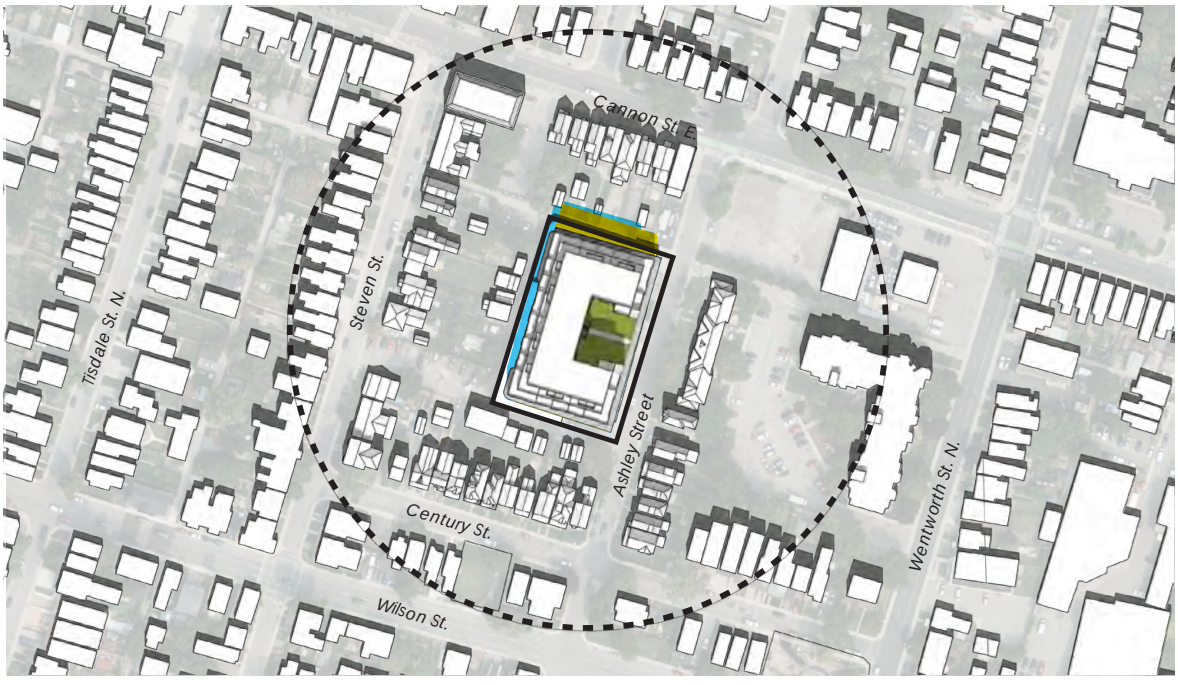

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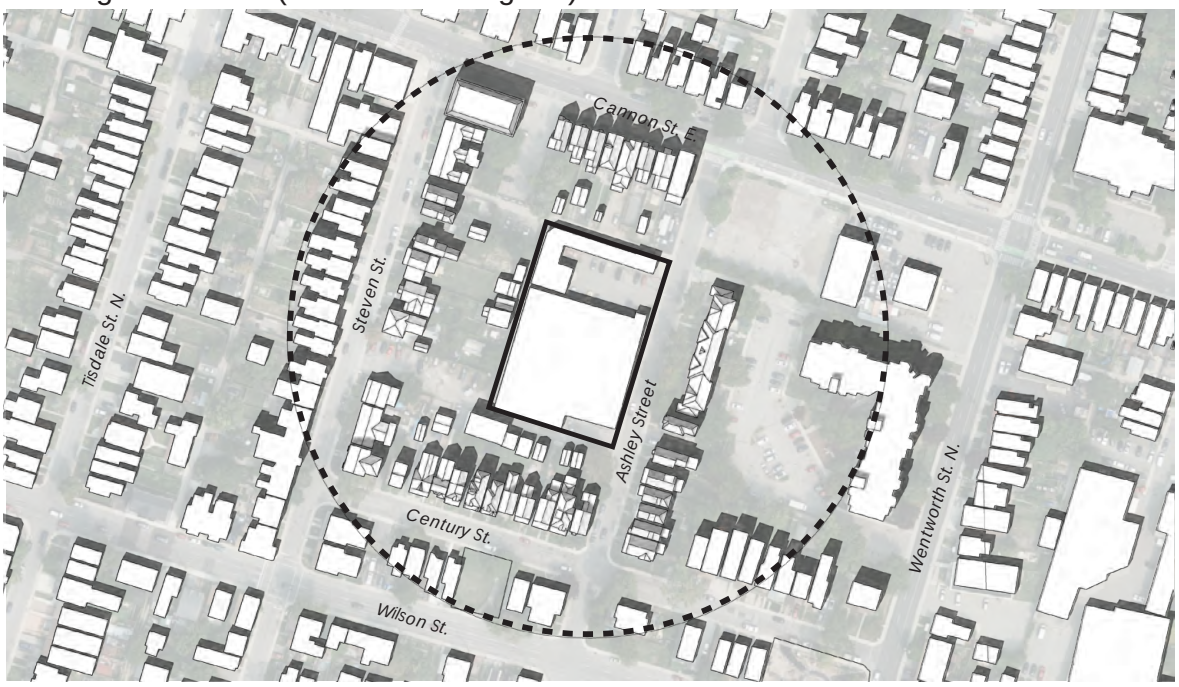

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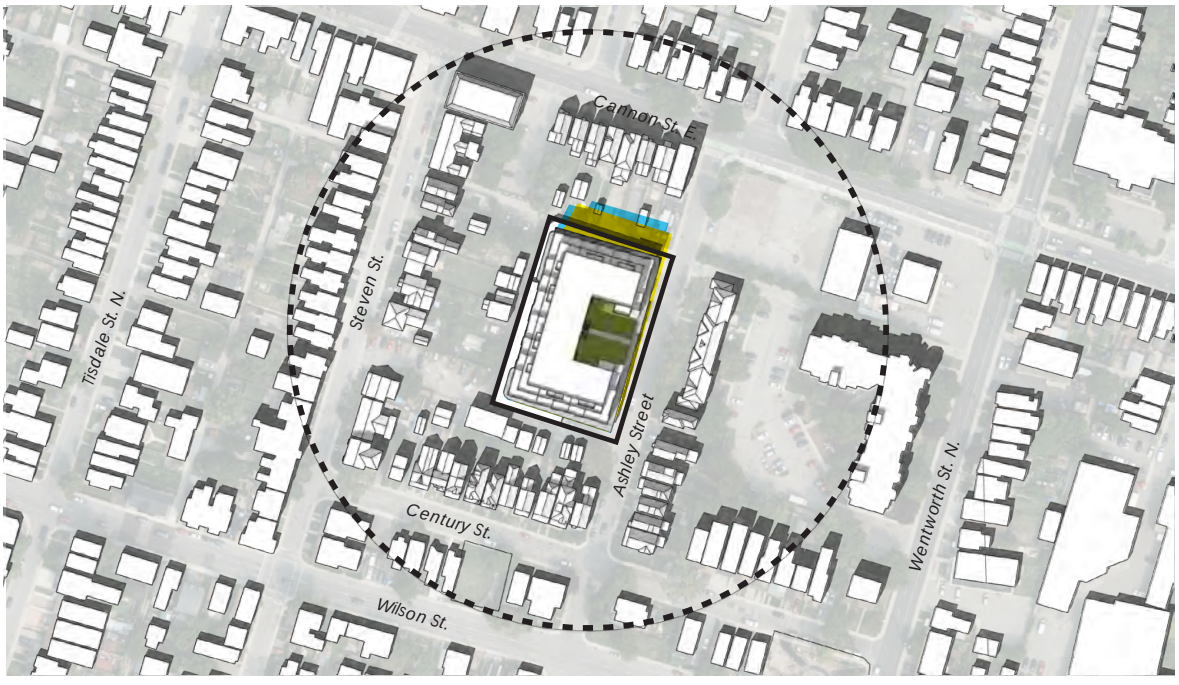

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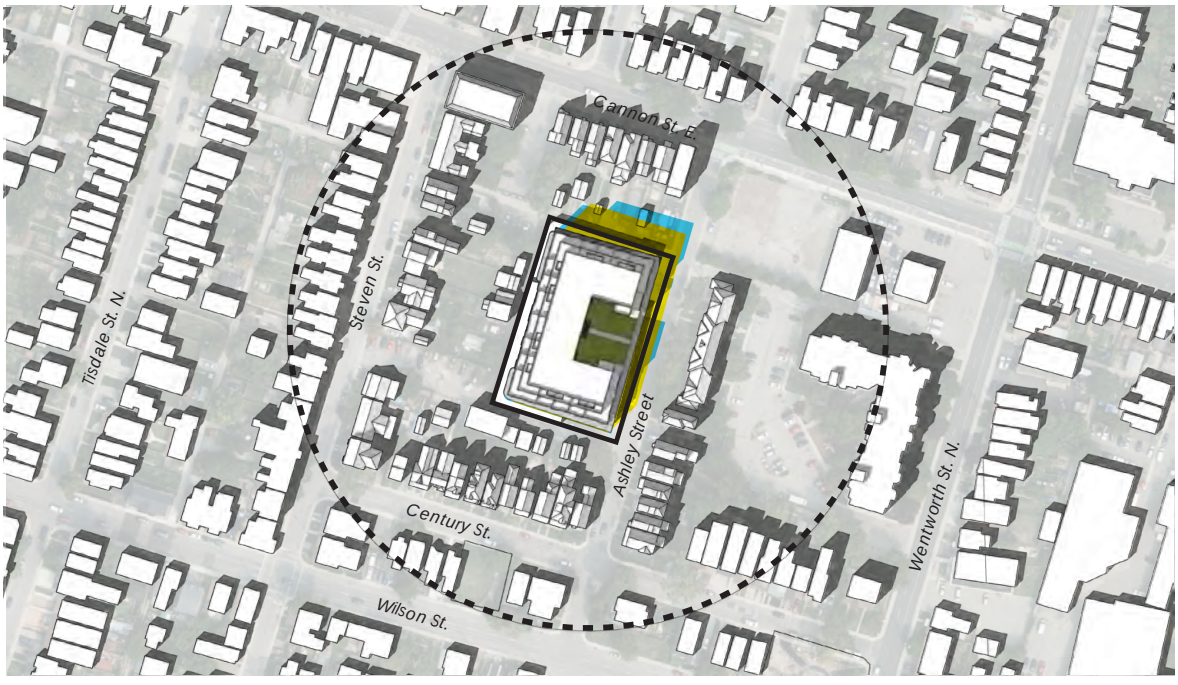

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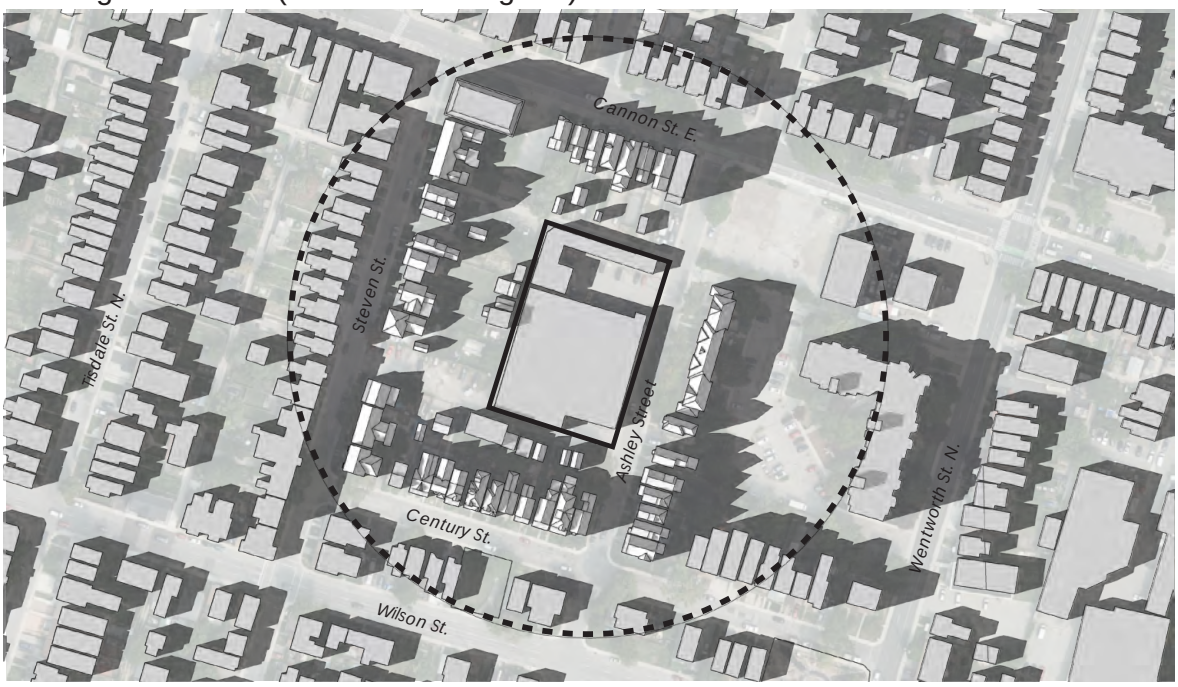

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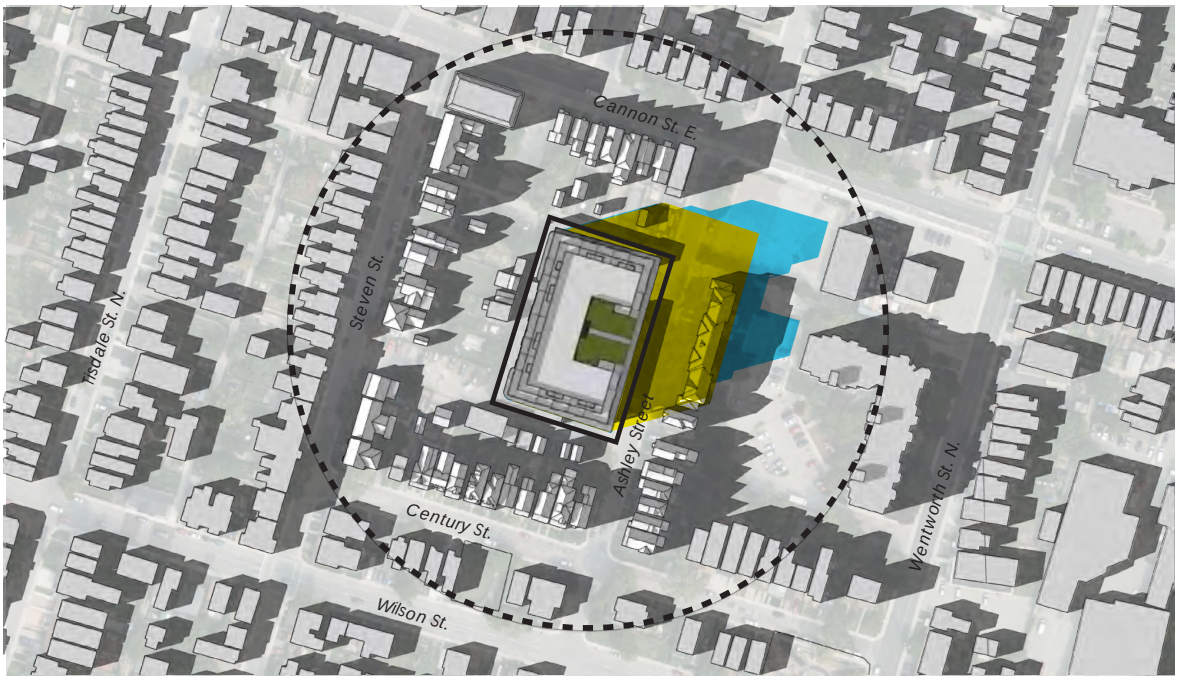

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Property Boundary

REFERENCES

1) Hamilton Development Application Guidelines: Sun Shadow Study

2) Sun rise and sun set times for the City of Hamilton, timeanddate.com (https://www.timeanddate.com/sun/canada/hamilton?month=9&year=2019)

3) Base map, building location and height: Google earth.

GSP group