



TUNNEY'S PASTURE MASTER PLAN

MASTER PLAN REPORT

OTTAWA, ONTARIO
SEPTEMBER 2014



Tunney's Pasture Master Plan

*A Long Term Vision to Guide the
Future Development of Tunney's Pasture*



Approved by the National Capital Commission, Board of Directors
on September 16, 2014

Acknowledgements

The Tunney's Pasture Master Plan is a partnership initiative led by Public Works and Government Services Canada in cooperation with the consultant team, federal and local agencies, stakeholders, and the general public. The following list acknowledges the efforts and contributions of those involved in the completion of the Master Plan.

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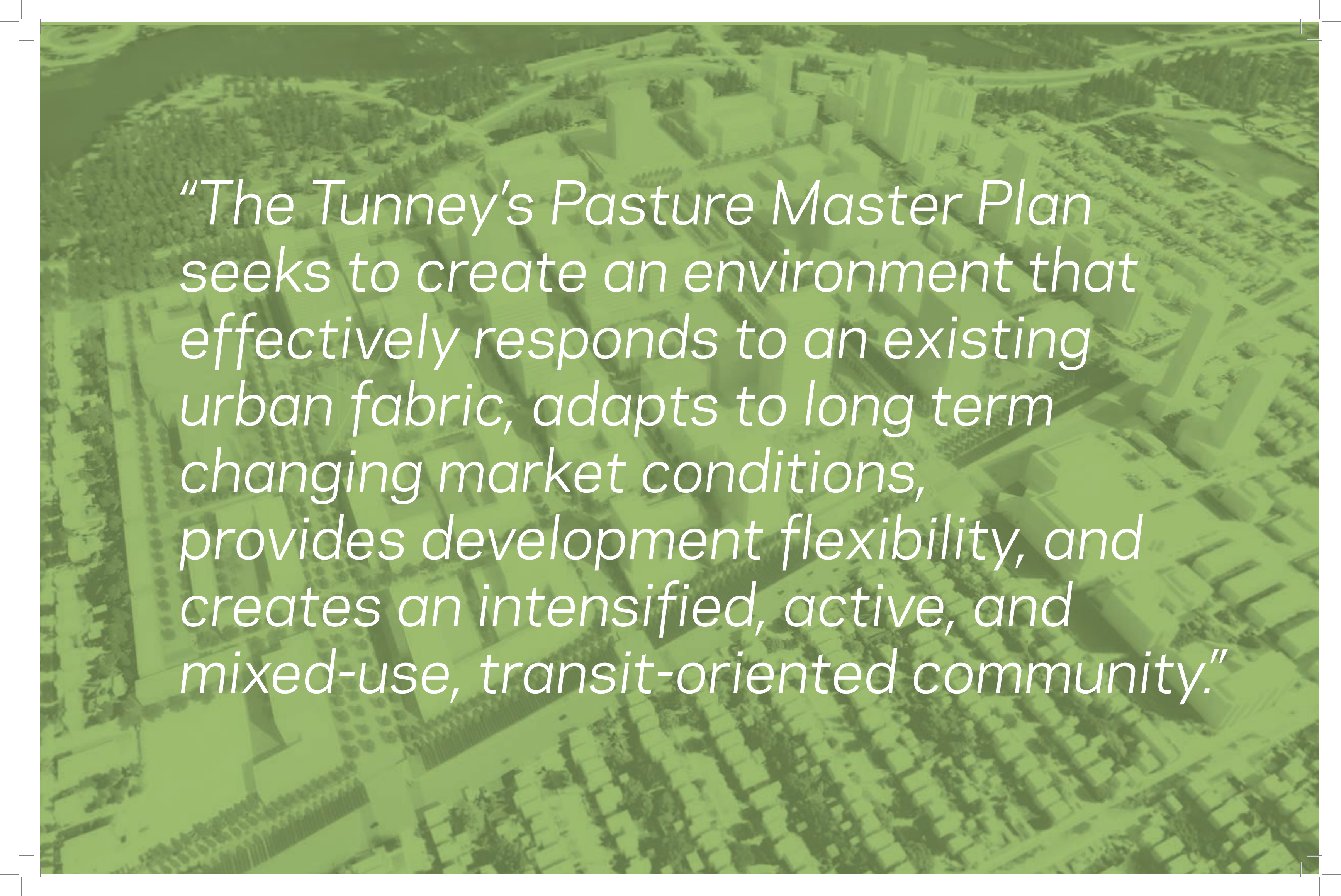
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Federal employees, members of the public and local community associations

An aerial photograph of a city, likely New York City, showing a mix of urban development and green spaces. The image is overlaid with a semi-transparent green filter. The text is centered over the image.

“The Tunney’s Pasture Master Plan seeks to create an environment that effectively responds to an existing urban fabric, adapts to long term changing market conditions, provides development flexibility, and creates an intensified, active, and mixed-use, transit-oriented community.”



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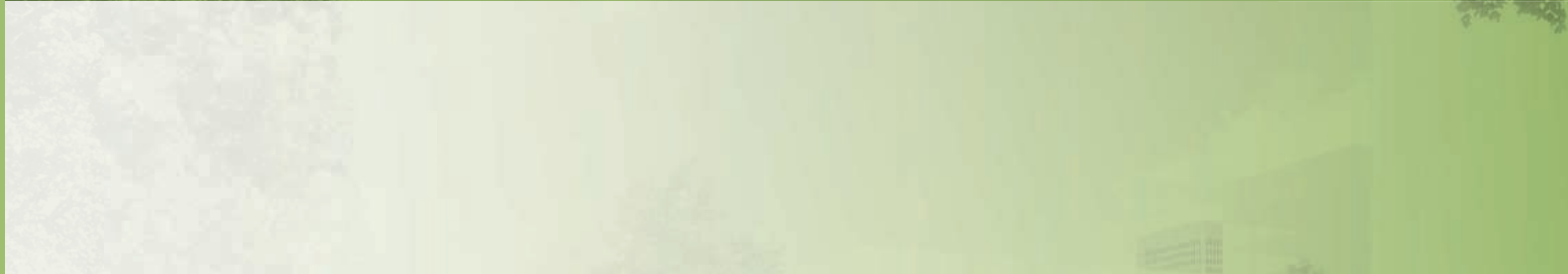
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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

1.1 TUNNEY'S PASTURE TODAY

Tunney's Pasture is a federal government workplace campus in the City of Ottawa that currently accommodates approximately 10,000 employees. Located four kilometres west of the City of Ottawa's downtown core, the 49-hectare site is bounded by the Ottawa River and the Sir John A. MacDonald Parkway to the north, Scott Street and the communities of West Wellington and Hintonburg to the south, Parkdale Avenue and the community of Laroché Park (Mechanicsville) to the east, and the community of Champlain Park to the west. The site is located in Kitchissippi Ward 15.

The site is comprised of nineteen buildings in varying conditions; the majority of which fall under the custody of Public Works Government Services Canada (PWGSC). Several federal government departments are currently located on site, including:

- Health Canada;
- Statistics Canada;
- National Defence;
- Library and Archives Canada; and
- Measurement Canada (an agency of Industry Canada).

The principal uses of existing buildings as a percentage of gross floor area (GFA), are:

- Office Space (68%)
- Storage (17%)
- Laboratories (6%)
- Processing (5%)
- Support Uses (3%)
- Computer Use (1%)

As part of its strategic long-term planning, PWGSC has created the Tunney's Pasture Master Plan to meet the federal government's current and future office accommodation needs. As one of the primary federal employment nodes in the National Capital Region (NCR), Tunney's Pasture will play a central role in meeting future demand.

Tunney's Pasture Master Plan

1.2 TUNNEY'S PASTURE MASTER PLAN

Following the inclusive process outlined in Section 2.3 *What is a Master Plan?*, work has progressed through strategic visioning, the development of preliminary planning concept options, and iterative stakeholder engagement and input, arriving at a final Tunney's Pasture Master Plan.

Key objectives of the Tunney's Pasture Master Plan include:

- creating a leading-edge employment community;
- providing flexibility to meet continuously evolving needs of government departments and agencies;
- achieving high standards in urban design, planning, and sustainable development;
- taking full advantage of the Tunney's Pasture transit station as a key TOD enabler;
- focusing on community integration;
- guiding long-term investment;
- contributing to the federal image;
- respecting the Greber legacy; and
- implementing a more effective and efficient use of the site.

Taking the above into consideration the Tunney's Pasture Master Plan will guide the transformation of Tunney's Pasture from a traditional employment centre to a vibrant, mixed use neighbourhood, founded upon Transit-Oriented Development (TOD) best practices, progressively integrating with rapidly evolving surrounding neighbourhoods, and providing high quality public realm and amenity for the broader community.

In meeting the above objectives, key features of the Tunney's Pasture Master Plan include:

- an employment/support retail hub and key Transit Station civic plaza at Tunney's Station, providing a community focal point and entrance gateway to Tunney's Pasture;
- office and other employment opportunities for approx. 22,000 – 25,000 employees;
- multi-unit residential areas providing approx. 3,400 – 3,700 units, offering opportunities to live close to work and public transit;
- a block devoted to a major Community Park for active community uses;
- integration with adjacent neighbourhoods, and enhanced connectivity and interface with Ottawa River lands;
- a development strategy for Parkdale Ave. that sensitively addresses uses, heights and open space connections;
- enhanced connectivity through a finer grain urban street grid, pedestrian/cycling routes and enhanced community linkages; and
- built-in flexibility to support federal portfolio needs and address variations in real estate market demands.

1.3 QUALITY OF LIFE

While the Tunney's Pasture Master Plan offers significant programmatic changes it also speaks to a uniquely attractive quality of life at Tunney's Pasture. A typical "day in the life" in the new Tunney's Pasture neighbourhood can start by arriving at the Tunney's Station by LRT; or waking up in a new home along Sir Frederick Banting, and walking or cycling to work through urbane, tree-lined streets. Along the way kids can be dropped off at a daycare close to the Community Park, and a morning coffee enjoyed at one of the nearby cafés on the Tunney's Pasture Station Plaza. Conveniently close to places of employment will be a variety of parks, squares and terraces; all perfect for a break or as places to productively work away from the office. After the work day is over, ready access to extensive green spaces, the Ottawa River trail system, recreational facilities and shopping provides an array of choices; all supporting a balanced lifestyle. Evening time can consist of enjoying Tunney's Pasture's amenity-rich neighbourhood with family and friends, or catching the LRT downtown to enjoy Ottawa's many fine attractions.

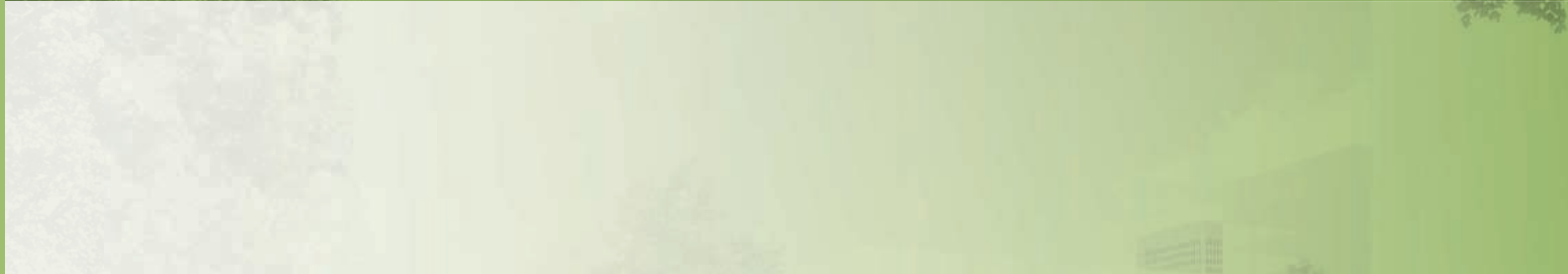


Figure 1.1: Tunney's Pasture Master Plan Render

INTRODUCTION

02





02

INTRODUCTION

2.1 MASTER PLAN STUDY AREA

Tunney's Pasture is located in the City of Ottawa within the National Capital Region (NCR). The site is bounded to the north by the Sir John A. MacDonald Parkway, to the south by the city Transitway/Scott Street, to the east by Parkdale Avenue and to the west by the Champlain Park Neighbourhood.

The Tunney's Pasture Master Plan study area is depicted in Figure 2.1.



Figure 2.1: Tunney's Pasture Master Plan Study Area



Figure 2.2: Tunney's Pasture Study Area Character

2.2 BACKGROUND

Public Works and Government Services Canada (PWGSC) commissioned the Tunney's Pasture Master Plan (TPMP) project to:

- Establish a clear vision for the future development of Tunney's Pasture, and;
- Better accommodate federal employees through a mixed-use development of office, service commercial and residential uses.

As the main custodian of Tunney's Pasture, PWGSC is responsible for the master plan project. The Department strategically manages its real estate portfolio to optimize existing federal office space and meet the government's need for affordable, productive work environments, and a full range of real property services.

An Employment Centre

The site currently accommodates approximately 10,000 employees within nineteen buildings, the majority of which fall under the custody of PWGSC. Several federal government departments are also located on site, each having different space needs for the future.

Original Vision vs. Current Condition

Tunney's Pasture was originally envisioned within the 1950 Gréber Plan as an employment campus in a park-like setting. Today the site includes a mature park amenity but is largely defined by aging buildings, underutilized open spaces, and a disconnected grid of over-sized blocks and streets. The distances between buildings, extensive surface parking, relative remoteness of Tunney's Pasture transit station and exposed siting of the campus result in an uncomfortable pedestrian environment. The isolating suburban condition in Tunney's Pasture is increasingly at odds with the mature and changing city fabric that adjoins the site.

Public Transit Opportunity

Tunney's Pasture is currently serviced by a transportation network that includes an existing Bus Rapid Transitway (BRT) and local bus routes. To further improve connectivity to the city, Tunney's Pasture Station has been planned as a terminus station in the expansion plans for the Confederation Line light rail transit (LRT) system - slated to be operational by 2018. The planned Tunney's Pasture Station will improve existing public transit access to the site for both employees and residents living in the area. This significant opportunity has already become a driver for Transit Oriented Development (TOD), with densification now underway in the area close to the station.

Moving Forward

Taking into consideration the conditions and opportunity noted above; there is a clear need for the efficient use and distribution of federal lands, optimum use of improved regional connectivity and positive integration with surrounding communities. These in turn are contributors towards the vision for a new Tunney's Pasture.

2.3 WHAT IS A MASTER PLAN?

A Master Plan is a comprehensive long range strategy that is intended to voice and direct the vision, development and future of a community. Master Plans are based upon extensive research and analysis; providing recommendations that define and structure sustainable growth and change. These are founded upon a "four pillars" balancing of a diversity of environmental, social, cultural and economic considerations; including but not limited to heritage, existing versus future context, land use, natural environment, transportation, community population, mix of live/ work/ enjoy uses, public realm, community amenities and cultural diversity.

A Master Plan is developed in a collaborative process that includes public input, professional consultancy, governmental guidance and political approval. Through proactive partnerships with a broad range of stakeholders Master Plans define and respond to key needs and drivers; interconnecting site, local neighbourhood, municipal, regional and broader goals. The resulting programmatic elements of a Master Plan form a dynamic expression of integrated city-building; weaving site and City into a cohesive whole.

Master Plan documents are graphically visual and clear; with the intent of openly communicating strategic vision and its implementation to all stakeholders.

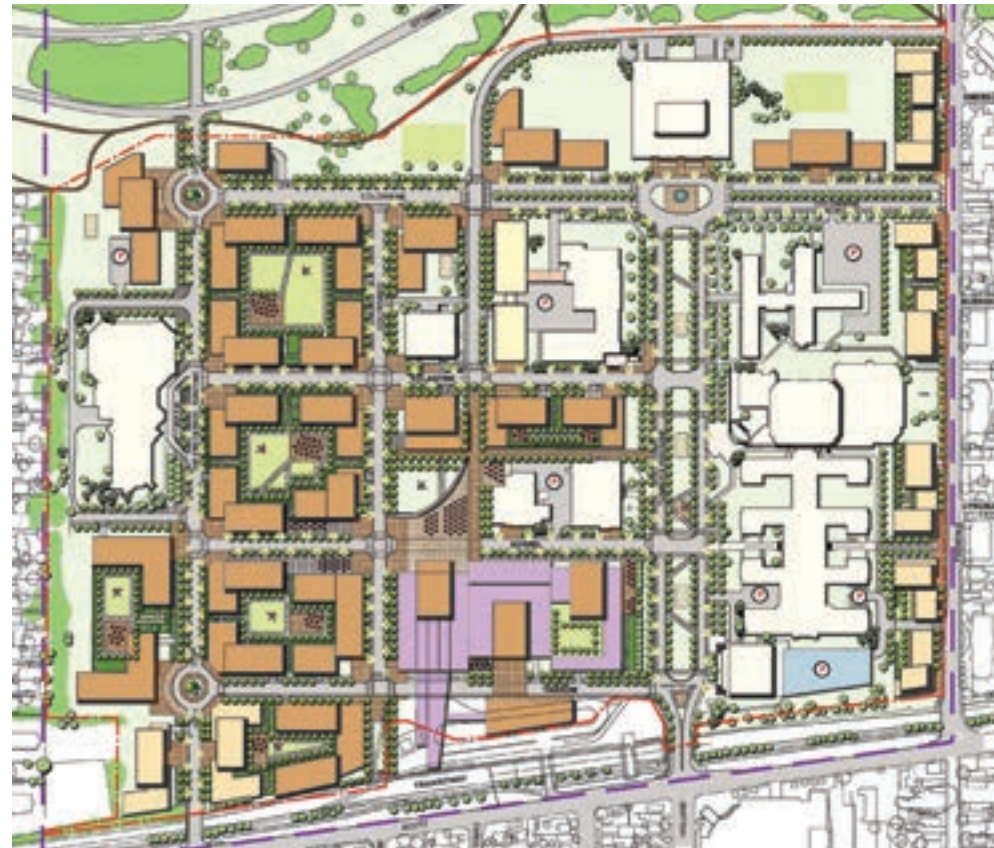


Figure 2.3: Tunney's Pasture Preliminary 'Urban Grid' Concept

2.4 VISION AND OBJECTIVES OF THE MASTER PLAN

The intent of PWGSC is to transform Tunney's Pasture from its current condition into a vibrant mixed use urban community. The objectives of the Tunney's Pasture Master Plan are to:

- create a leading-edge employment community;
- achieve high standards in urban design, planning, and sustainable development;
- focus on Transit-Oriented Development and community integration;
- guide long-term investment;
- contribute to the federal image;
- respect the Gréber legacy; and
- implement a more effective and efficient use of the site (improving building arrangement and increasing density and diversity of land uses).

The guiding principles to achieve the above objectives are to:

- be a landmark environmentally sustainable employment site;
- be an integrated and valued part of a larger community;
- be an attractive, safe, and complete employment site;
- be a connected and public transit-oriented development;
- provide a diverse mix of uses and arrangement of buildings;
- create a Master Plan that is flexible in its application to the site; and
- maximize federal government values and new opportunities.

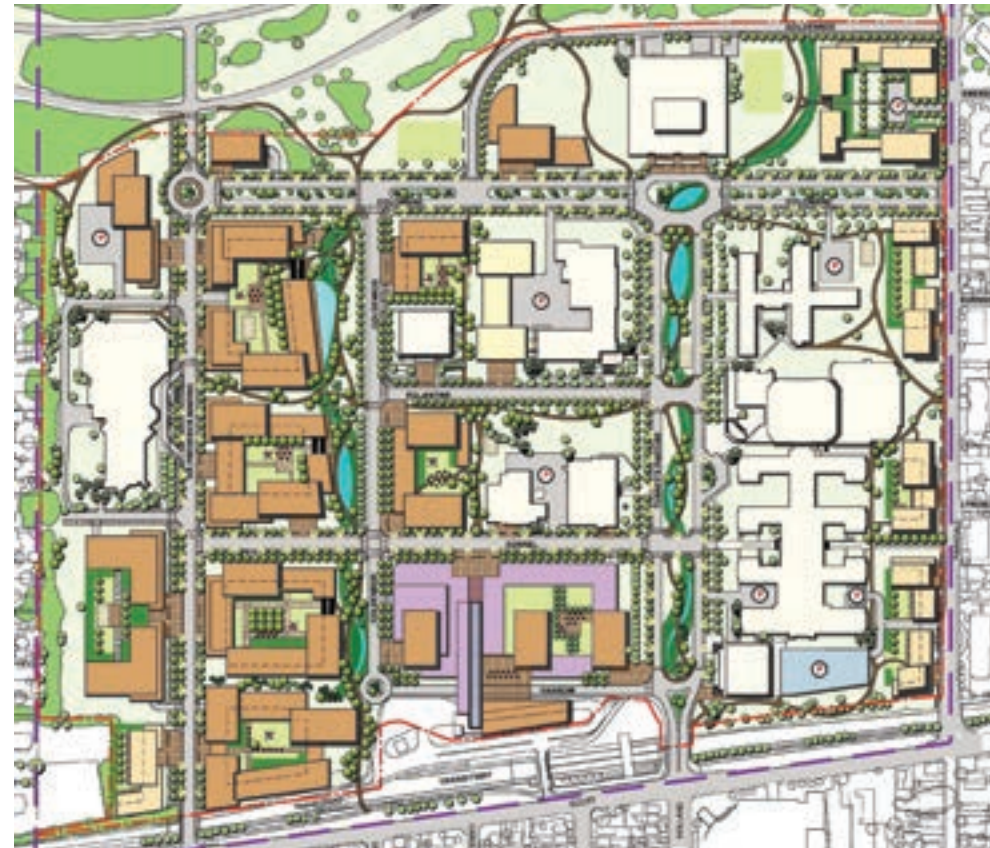


Figure 2.4: Tunney's Pasture Preliminary 'Green Corridor' Concept

2.5 MASTER PLAN PROCESS

The Tunney's Pasture Master Plan is the culmination of a process that began in September 2009. The Master Plan process was organized according a five-phase process:

- | | |
|----------------------|--|
| ▪ Phase One | Project Inception |
| ▪ Phase Two | Project Analysis |
| ▪ Phase Three | Options Development
(Public Open House) |
| ▪ Phase Four | Draft Master Plan Recommendations and Documentation
(Public Open House) |
| ▪ Phase Five | Final Master Plan Recommendations and Documentation |

Phases One and Two

Extensive studies and research defined phases one and two of the process to attain an accurate basis for design assumptions. Goals, objectives, and guiding principles were established to guide the development of the master plan.

Phase Three

Two master plan options (Figures 2.3 and 2.4) were designed, each exploring distinct approaches to the redevelopment of Tunney's Pasture. Both options envisioned a Transit-Oriented Development (TOD) strategy and mixed-use environment that consisted primarily of office space with interspersed retail and residential uses. Throughout this phase, PWGSC and the consultancy team presented the evolution of options to the National Capital Commission (NCC), City of Ottawa, and other government agencies to vet the vision and criteria that formed the development programme upon which both options were designed. After the two options were completed, a public open house was held for federal employees, members of the public and the media. Both sessions were attended by approximately 500 people, who were encouraged to document and submit their comments on the two preliminary options.



Figure 2.5: Tunney's Pasture Final Master Plan Concept

Phase Four

Guided by the development preferences and patterns indicated by attendees at the open houses, PWGSC and the consultancy group merged elements from the two options into a preferred master plan concept (Figure 2.5), while rethinking the quantity and distribution of functional programme uses and public realm amenity. The preferred master plan concept was presented to federal employees, members of the public and the media, at another public open house. Results from this open house were very positive; with the preferred master plan concept widely endorsed by attendees.

Phase Five

As an end result of the iterative master plan process of design and community engagement outlined above, this final master plan document was prepared. The TPMP recognizes the site's heritage and 21st century needs, while implementing:

- a Transit-Oriented Development master plan strategy;
- a strong, vibrant mix of uses that includes office precincts, residential neighbourhoods, a retail/commercial centre, and community amenities;
- a high quality public realm network that offers urban-scaled streets and blocks, tree-lined thoroughfares, and a mix of significant outdoor spaces;
- an enhanced multi-modal circulation network that supports pedestrian, cyclist, public transportation, and vehicular transportation;
- highly permeable and connected site edges where appropriate; encouraging public accessibility within and beyond Tunney's Pasture;
- sensitive built form and open space transitions to adjacent neighbourhoods; and
- an agile and flexible master plan that anticipates and accommodates change.

2.6 MASTER PLAN STRUCTURE

1. **Executive Summary:** The Executive Summary provides an overview of the report and establishes the foundation upon which the master plan was based.
2. **Introduction:** The Introduction serves as the overview and rationale behind the development of Tunney's Pasture Master Plan, and discusses the study area, vision, and process of the master plan.
3. **Planning Context:** The Planning Context section outlines the relationship between this master plan and other relevant provincial, regional, and municipal policy documents, as well as their respective impacts on the master plan.
4. **The Site Today:** The Site Today section explores the existing conditions of the site. The inventory and analysis of existing site systems provides a paradigm upon which to evaluate the master plan concept.
5. **The Master Plan:** The Master Plan section establishes the overall intent for future development of Tunney's Pasture. In addition to breaking down each of the site systems (inclusive of land use, built form, circulation, open space, design elements, microclimate, and servicing and infrastructure) this section denotes the character of each precinct within the site. A development programme also provides an array of relevant development statistics that have been generated based on full build-out of the Master Plan.
6. **Urban Design Guidelines:** The Urban Design Guidelines section identifies general urban design recommendations for development of built form and block typologies on the site.
7. **Implementation:** The Implementation section provides a framework to guide the build-out of the Tunney's Pasture Master Plan over its planning horizon.

Technical Appendix: Separate companion document with additional details on microclimatic data, transportation, and infrastructure servicing for the Master Plan.

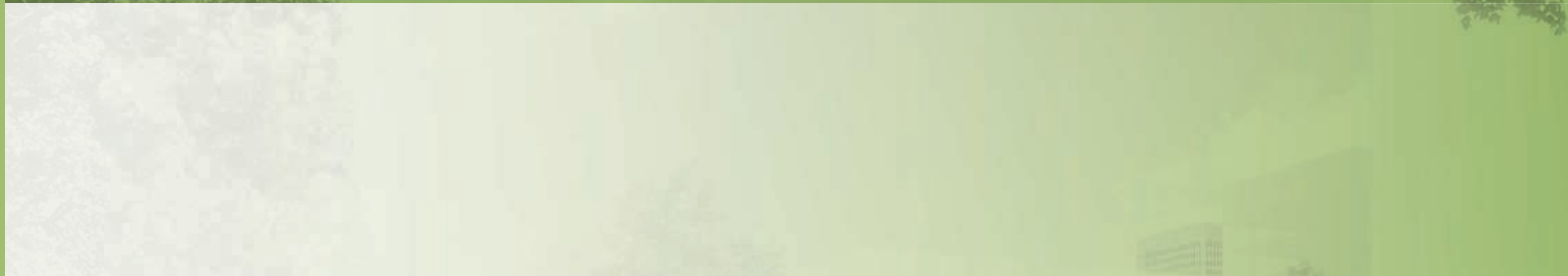


Figure 2.6: Tunney's Pasture Local Context

PLANNING CONTEXT

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PLANNING CONTEXT

3.1 POLICY FRAMEWORK

This section explores the key policy documents and planning initiatives that set the foundation for the Tunney's Pasture Master Plan. .

City of Ottawa Official Plan (2003)

The City of Ottawa Official Plan (2003) is the primary over-arching tool for managing growth and development in Ottawa. The plan provides a vision of future growth for the City of Ottawa and sets the policy framework to guide its physical development over the plan horizon to 2021.

Schedule B (Urban Policy Plan) of the City of Ottawa Official Plan designates the entire Tunney's Pasture site as a Mixed-Use Centre. The Mixed-Use Centre designation applies to areas that have been identified as strategic locations on the rapid-transit network and sit adjacent to major roads. They act as focal points of activity, both within their respective communities and within the larger municipal structure. Mixed-Use Centres constitute a critical element in the City's growth management strategy, being areas with high potential to achieve compact and mixed-use development. They are limited in number and represent opportunities for substantial growth.

Development at Mixed-Use Centres should take advantage of opportunities offered by transit for both internal and external commuting and ease of access for pedestrians and cyclists. By virtue of careful attention to design, orientation and a mix of uses, development in Mixed-Use Centres should contribute to the diversity of land use in the immediate area and foster the creation of vibrant centres of activity, particularly within the urban area outside the Greenbelt. It is the intent of the Official Plan that intensification continues to focus on nodes and corridors to support the public transportation system, to create an essential community focus, to allow for minimum travel and to minimize disruption in existing stable neighbourhoods.

City of Ottawa Zoning By-law 2008-250

The City of Ottawa Zoning By-law 2008-250 zones the entire Tunney's Pasture Master Plan study area as a Mixed-Use Centre (MC). The purpose of the Mixed-Use Centre zone is to:

- ensure that the areas designated Mixed-Use Centres in the Official Plan accommodate a combination of transit-supportive uses such as offices, secondary and post secondary schools, hotels, hospitals, large institutional buildings, community recreation and leisure centres, day care centres, retail uses, entertainment uses, service uses such as restaurants and personal service businesses, and high- and medium-density residential uses;
- allow the permitted uses in a compact and pedestrian-oriented built form in mixed-use buildings or side by side in separate buildings; and
- introduce development standards that ensure medium to high profile development while minimizing its impact on surrounding residential areas.

National Capital Commission Land Use Policy Plans

The Plan for Canada's Capital (PCC) is the federal government's guiding policy statement on physical planning and development of the National Capital Region (NCR). The National Capital Commission (NCC) recognizes that there are three dimensions to sustainable development: economic, social and environmental. Any decisions on planning matters must be made in an integrated manner.

Tunney's Pasture is designated as a federal office node on the PCC's land use concept plan, and is subject to the policies that apply to federal office and research facilities. The goal for federal accommodations located in the non-core area of the Capital (such as Tunney's Pasture) is to ensure that federal employment nodes and facilities meet the program needs of federal departments and that the functions and characters of these areas are compatible with surrounding communities. Specific land use policies that apply to Tunney's Pasture include:

- intensify accommodation development in existing federal nodes before creating new nodes or dispersing federal accommodation wherever possible;
- encourage a comprehensive and consultative approach to the planning, real asset management and development of federal nodes and facilities;
- locate employees in federal nodes that are close to (e.g., within walking distance) regional public transit stations or bus stops wherever possible;
- integrate commercial, private/public sector research and development, institutional and/or residential forms of development that complement existing land uses in federal nodes wherever possible; and
- encourage a 'public face' that explains the site program of a node facility.



Figure 3.1: City of Ottawa Impression of Tunney's Pasture Transit Station Entrance



Figure 3.2: City of Ottawa Impression of Tunney's Pasture Transit Station Forecourt



Figure 3.3: City of Ottawa Impression of Tunney's Pasture Transit Station Interior

Transit-Oriented Development Guidelines (2007)

Tunney's Pasture is located on the City of Ottawa's Bus Rapid Transit (BRT) network and will accommodate a major transit station for the future Confederation Line; Ottawa's Light Rail Transit (LRT) system.

In September 2007 the City of Ottawa approved guidelines for Transit-Oriented Development (TOD). As defined by the City of Ottawa, transit-oriented development is, "a mix of moderate to high-density transit-supportive land uses located within an easy walk of a rapid transit stop or station that is oriented and designated to facilitate transit use". A major challenge associated with TOD is providing a range of uses and densities that complement transit users and the local community.

The Transit-Oriented Development Guidelines are organized into six sections: land use, layout, built form, pedestrians and cyclists, vehicles and parking, and streetscape and environment. The broad guidelines encompass all types of transit-oriented development. Guidelines that may inform the Tunney's Pasture Master Plan are summarized below.

Land Use

- Guideline 1: Provide transit supportive land uses within a 600 meters walking distance of a rapid transit stop or station. Transit supportive use include: townhouses, apartments, child care facilities, hotels, medical clinics, restaurants, affordable housing, libraries, recreational and cultural facilities, fitness clubs, movie theatres, call centres, offices, high schools and post secondary institutions.

Layout

- Guideline 6. Create pedestrian and cycling "short cuts" that lead directly to transit. Pathways require a minimum 6-metre right-of-way. Ensure these "short cuts" are maintained and free of ice and snow in winter. Look for opportunities

to link "short cuts" to the larger greenspace, pedestrian and cycling networks. Note that carefully planned street networks should not require "short cuts".

- Guideline 8: Locate the highest density and mixed uses (apartments, offices, etc.) immediately adjacent and as close as possible to the transit station. This could be provided within one building or within several adjacent buildings.
- Guideline 9: Create transition in scale between higher intensity development around the transit station and adjacent lower intensity communities by stepping down building heights and densities from the transit station.

Built Form

- Guideline 14: Provide architectural variety (windows, variety of building materials, projections) on the lower storey's of buildings to provide visual interest to pedestrians.
- Guideline 15: Use clear windows and doors to make the pedestrian level façade of walls facing the street highly transparent in order provide ease of entrance, visual interest and increased security through informal viewing.

Pedestrians and Cyclists

- Guideline 16: Design pedestrian connections that are convenient, comfortable, safe, easily navigable, continuous and barrier-free and that lead directly to transit.
- Guideline 29: Provide convenient and attractive bicycle parking that is close to building entrances, protected from the weather, visible from the interior of the building and that does not impede the movement of pedestrians.

Vehicles and Parking

- Guideline 32: Provide no more than the required number of vehicle parking spaces, as per the Zoning By-law. Consider cash-in-lieu and on-street parking. Reductions in Development Charge fees may also be available for developments that provide reduced parking. The new draft Zoning By-law

allows for reduced motor vehicle parking requirements in lieu of cycling infrastructure (Part 4, Section 111 [13]) and also waives parking requirements on Traditional Mainstreets for lots that are 20 meters or less in width (Part 10, Section 197 [10b]).

- Guideline 33: Develop a Transportation Demand Management (TDM) plan that is integrated with the City's TDM initiatives and mechanisms. The City's TDM Section, within the Public Works and Services Department, is available to assist in developing a TDM plan.
- Guideline 34: Encourage the sharing of parking spaces for uses that have peak parking demands at different times of the day, such as offices, restaurants and cinemas. The City's Zoning By-law includes reduced parking requirements for shared parking provisions, which helps to make more efficient use of parking areas.

Streetscape and Environment

- Guideline 49: Provide seating along walkways and sidewalks greater than 50 metres in length and at key scenic viewing locations. Ensure benches and other amenities are located as to provide at least two meters of unencumbered sidewalk.
- Guideline 50: Incorporate special street lighting in significant areas to help define a pedestrian realm and to promote walking to and from transit.



Figure 3.4: City of Ottawa Impression of Tunney's Pasture Transit Station Platform

City of Ottawa Confederation Light Rail Transit Line

The Confederation Light Rail Transit (LRT) Line will replace the existing Transitway that is adjacent to the southern edge of Tunney's Pasture along Scott Street, and is expected to be completed in 2018. At a cost of \$2.1 billion, the LRT line is Ottawa's largest transportation infrastructure project since the construction of the Rideau Canal. With the city's population expected to grow by 30 percent by 2031, and the existing public transportation network at capacity in the downtown core, the LRT is considered essential to Ottawa's future economic prosperity, environmental health and social well-being.

The Confederation Line will be a central spine in OC Transpo's integrated transit network. It will run 12.5 kilometers from Tunney's Pasture Station in the west to Blair Road Station in the east, connecting to the existing Bus Rapid Transitway at each terminus, and to the O-Train at Bayview Station. There will be 13 stations along the line. With a 2.5-kilometre tunnel through the downtown core, travel time between Tunney's Pasture Station and Blair Road Station will be less than 24 minutes. Above ground, much of the route runs within the existing Transitway corridor.

The Confederation Line will launch with a planned peak capacity of 10,700 passengers per hour in each direction, with potential to grow to over 18,000 passengers per hour in each direction by 2031. Residential and employment growth within 600 metres of each of the stations, particularly those outside downtown, will be critical to realizing the full potential of the LRT. The second phase of the LRT project, targeted for completion by 2023, will extend the Confederation Line west to Bayshore Shopping Centre and southwest to Baseline Station.



Figure 3.5: Scott Street CDP Demonstration Plan

Community Design Plans

With the implementation of extended transit services across the city, the City of Ottawa has responded to increasing development pressure for its downtown core by preparing Community Design Plans (CDPs) to direct intensification, development, and public realm improvements. While CDPs in the vicinity of Tunney's Pasture have been undertaken for Bayview Station District, Wellington Street West, and Richmond Road/Westboro, only the Scott Street CDP directly impacts the site, as it encompasses the study area.

The CDP for the Scott Street district was approved in 2014. The document provides overarching objectives and strategies for long-term growth, intensification, and development around Tunney's Pasture, Mechanicsville, North Hintonburg and West Wellington. The CDP reinforces the character of these existing neighbourhoods, including Tunney's Pasture, while establishing a vibrant mixed use centre, integrating higher density development, enhancing the open space network and improving mobility with complete streets.



Transit-Oriented Development Plans

In anticipation of land development pressure in proximity to the LRT stations, City of Ottawa Council has established priority areas for the creation of transit-oriented development (TOD) plans. The TOD plans are to be prepared for areas within approximately 800 metres of six future transit stations, where CDPs have not been initiated. These six existing bus rapid transit stations are to be converted to LRT stations by 2018, as part of the City's first phase of LRT construction.

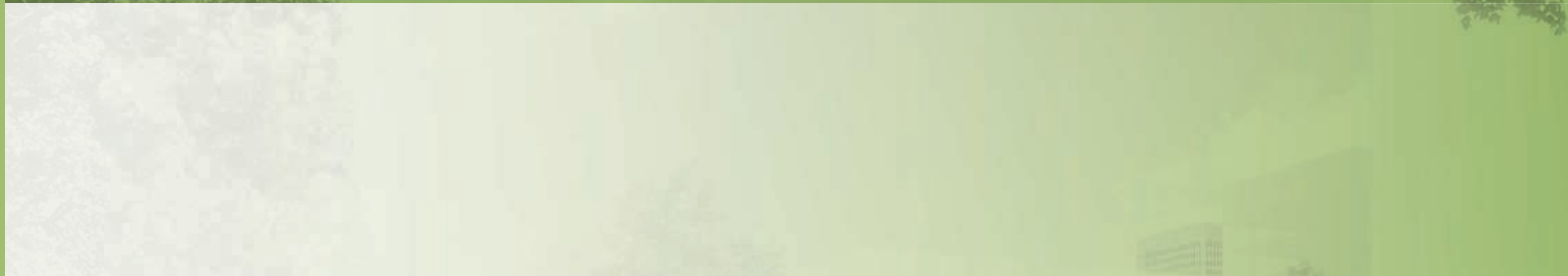
One of the primary goals of the TOD studies is to support public transit usage by improving pedestrian and cycling access to the stations and by providing opportunities for additional types of development at transit-supportive densities. These plans set the stage for future transit-supportive, or "intensified", land development by adding opportunities for additional land use types and densities in appropriate locations. The plans establish minimum densities for new development, and permit buildings up to 30 storeys on sites close to the stations.

TOD Plans for Tremblay (formerly Train), St. Laurent and Cyrville station areas have been completed, and were approved by Council in November 2012. In January 2013, the Planning and Growth Management Department at the City of Ottawa commenced TOD studies for Lees, Hurdman and Blair station areas. These TOD plans are expected to be completed in the near future.

THE SITE TODAY

04





04 THE SITE TODAY

4.1 SITE CONTEXT

Regional Context

Tunney's Pasture is located in the nation's capital, the City of Ottawa, in eastern Ontario. The site is situated four kilometres west of Parliament Hill and the downtown core, and directly south of the Ottawa River.

Tunney's Pasture is well serviced by its surrounding vehicular transportation network; and is located one kilometre north of the Trans-Canada Highway (Highway 417) Parkdale Avenue exit. Its location is also adjacent to the Sir John A. MacDonald Parkway; as well as the Trans-Canada Trail which provides multi-use connections within the region for pedestrians and cyclists. The site is also a primary destination within existing (Bus Rapid Transit and City bus), and future (Light Rail Transit) regional public transportation networks.

The site is uniquely located at the southern fringe of the Ottawa River parklands, allowing for optimal access to the waterfront and greater open space network of the region. The location also fosters sweeping northern views of the Ottawa River and beyond to Hull and Gatineau Park, Québec.

Local Context

The northern edge of the study area is defined by Sir John A. Macdonald Parkway and the parklands of the Ottawa River. The southern edge of the study area is defined by Scott Street; an arterial road as identified in Schedule E of the City's Official Plan. The stable neighbourhoods of West Wellington and Hintonburg are situated to the south of the site, beyond Scott Street. The eastern edge of the study area is defined by Parkdale Avenue and the neighbourhood of Mechanicsville, while the western edge of the site is defined by the rear property boundaries of residential units fronting Northwestern Avenue, which belong to the neighbourhood of Champlain Park.

Neighbourhoods to the south, east, and west of Tunney's Pasture are predominantly low-density stable residential neighbourhoods, largely composed of two to three storey single detached units. However, recent development in the Mechanicsville neighbourhood has seen an influx of higher density residential towers along Parkdale Avenue.



Figure 4.1: Regional Context of Tunney's Pasture

4.2 EXISTING CONDITIONS



Figure 4.2: Southward View of Site and Existing Condition of Tunney's Pasture Driveway

Site Panorama (1 of 3)

First picture of three taken in sequence of the Tunney's Pasture site and surrounding lands from the top of the Brooke Claxton Building to form a panoramic shot (summer season). The image is looking north along the Tunney's Pasture Driveway, Holland Avenue and the surrounding neighbourhood communities. All buildings, except the Environmental Health Centre and Health Protection Building, are shown in this series of pictures.



Figure 4.3: Southwestward View of Site

Site Panorama (2 of 3)

Second picture of three taken in sequence of the Tunney's Pasture site and surrounding lands from the top of the Brooke Claxton Building to form a panoramic shot (summer season). The image is panned out to the west of Tunney's Pasture Driveway to show the property, Sir John A. MacDonald Parkway and the Ottawa River to the west and north of Colombine Driveway. All buildings, except the Environmental Health Centre and Health Protection Building, are shown in this series of pictures.



Figure 4.4: Westward View of Site

Site Panorama (3 of 3)

Third picture of three taken in sequence of the Tunney's Pasture site and surrounding lands from the top of the Brooke Claxton Building to form a panoramic shot (summer season). The image is panned out to the west of Tunney's Pasture Driveway to show the property, Sir John A. MacDonald Parkway and the Ottawa River to the west and north of Colombine Driveway. All buildings, except the Environmental Health Centre and Health Protection Building, are shown in this series of pictures.



Figure 4.5: Ottawa River Parklands

Ottawa River and Park Lands

A photographic view (summer season) taken from the top of the Brooke Claxton Building looking toward the north. In the foreground of the picture is the Sir John A. MacDonald Parkway and the Ottawa River. In the background, the City of Gatineau and the Gatineau Park are visible



Figure 4.6: Eastward View of Parkdale Avenue, Downtown Ottawa, and Parliament Hill

Parkdale Avenue

A photographic view (summer season) taken from the top of the R.H. Coats Building looking east toward the City of Ottawa core down Scott Street. In the foreground is Parkdale Avenue and the neighbouring communities of Laroche Park and Hintonburg.



Figure 4.7: Westward View of Scott Street, OC Transpo BRT Line, and Adjacent Neighbourhoods

OC Transpo BRT Station, Hintonburg and West Wellington Neighbourhoods

This photo is taken from the top of the R.H. Coats Building looking west. In the foreground of the photograph is the OC Transpo Bus Rapid Transit Station and abutting green space adjacent to Yarrow Driveway.



Figure 4.8: Existing Condition of Tunney's Pasture and Northward View of the Ottawa River and Gatineau

Tunney's Pasture Driveway

An aerial view looking northward up Tunney's Pasture Driveway and culminating at the Brooke Claxton Building. The view includes the National Capital Commission Sir John A. MacDonald Parkway and the Ottawa River to the north of the site. Tunney's Pasture Driveway is the main street in Tunney's Pasture with a wide, grassed median and is lined with trees on both sides. It intersects Colombine Driveway in front of the Brooke Claxton Building with a traffic ellipse. On the left there is the Laboratory Centre for Disease Control and on the right we see the Statistics Canada Main Building, the Jean Talon Building, the Health Protection Building and the Environmental Health Centre.



Figure 4.9: Southeastward View of Site

Parkdale Avenue to Tunney's Pasture Driveway Panorama

A photograph view (summer season) taken from the Brooke Claxton Building looking to the east and southeast of the Tunney's Pasture site and surrounding neighbourhood communities. The western limit of the photograph shows Tunney's Pasture Driveway and Holland Avenue. The photograph includes portions of the Environmental Health Centre building, the Health Protection, Jean Talon, Statistics Canada Main Building and the R.H. Coats Building. Two parking areas fronting Parkdale Avenue also appear in the photograph.



Figure 4.10: Northwestward View of Site

Surface Parking

A photograph view (summer season) looking northwest towards the Ottawa River, showing the amount of land dedicated to surface parking lots.



Figure 4.11: Existing Pedestrian Realm Conditions

Streetscapes

A photograph (summer season) of the Eglantine Driveway and Tunney's Pasture Driveway intersection. The photograph illustrates pedestrian crossings, on-street parking usage and the difference in streetscaping treatments between primary and secondary thoroughfares.



Figure 4.12: Existing Right-Of-Way and Streetscape Conditions

Streetscapes

A photograph (summer season) of the pedestrian sidewalk within the boulevard of Tunney's Pasture Driveway. The photograph illustrates the pedestrian light standards along the sidewalk, the treed landscaped boulevard and some on-street parking on Tunney's Pasture Driveway.



Figure 4.13: Residual Open Space within Tunney's Pasture

Residual Open Spaces

A photograph (summer season) showing one of the parking areas on the Tunney's Pasture campus and the abutting open space boulevard. Also shown is a cluster of ash deciduous trees abutting the parking lot and internal street.



Figure 4.14: Jacques Gréber's 1950 Plan for the National Capital

4.3 SITE HERITAGE

The name Tunney's Pasture dates back to the nineteenth century. During that time, the property was largely used as a grazing pasture by Anthony Tunney who built a house in the area in 1867.

In Jacques Gréber's 1950 Plan for the National Capital, the Tunney's Pasture site was identified as one of several decentralized government employment nodes within the capital region as a solution to the lack of space in the immediate vicinity of Parliament Hill. The overall Plan was designed by planner Jacques Gréber based on modern design principles of the day. The layout of Tunney's Pasture is one of "buildings in a park setting". It is typical of the Beaux Arts approach to urban planning with a primary and secondary axial grid of tree-lined streets, with large central and edge boulevards and intersecting green spaces. The buildings are low-rise, post-war, federal government styled, with large setbacks from the street to accommodate vegetation, landscaping and provide open space for users. The accommodation of buildings within "this area, developed as a park, and in the midst of planted spaces..." (Gréber, 1950), remains as "one of the few [significant] fragments of the Gréber Plan to be constructed," (Graham, 2003, p.36).

During the 1970's, the site went through a transition period with the introduction of new infill buildings of varying heights including several office towers. The building typologies diverged from original proportions and cladding materials. The construction of some of the new buildings resulted in a breakdown of portions of the original Gréber's master plan grid of avenues and boulevards, with some of the buildings being constructed over parts of the original grid of avenues and boulevards.

Tunney's Pasture has experienced little change in development since the late 1970's. This is in contrast to the changes that have occurred in surrounding neighbourhoods during the same time frame, which has resulted in isolation between the site and its local context. In addition, some of the buildings within Tunney's Pasture are nearing the end of their intended life cycles and require a strategy to meet current building codes, whether repaired, retrofitted, or demolished.

Tunney's Pasture Master Plan

As a result, PWGSC Real Property Branch has taken the initiative to develop the Master Plan for Tunney's Pasture to guide the future evolution of the government node. The heritage value and character of Tunney's Pasture has been previously studied and documented in Tunney's Pasture History and Heritage Character by Fern Mackenzie Graham (2003), and Tunney's Pasture Master Plan Background Analysis Report by Corporate Research Group.

The Tunney's Pasture Master Plan is a unique opportunity to build upon the heritage values of the Gréber's 1950 Plan for the National Capital, and its subsequent expression.

With a low development density and site coverage, existing buildings within Tunney's Pasture achieve a site coverage of only 17%, while surface parking accounts for 20%, right-of-ways account for 26%, and open space accounts for 37%.

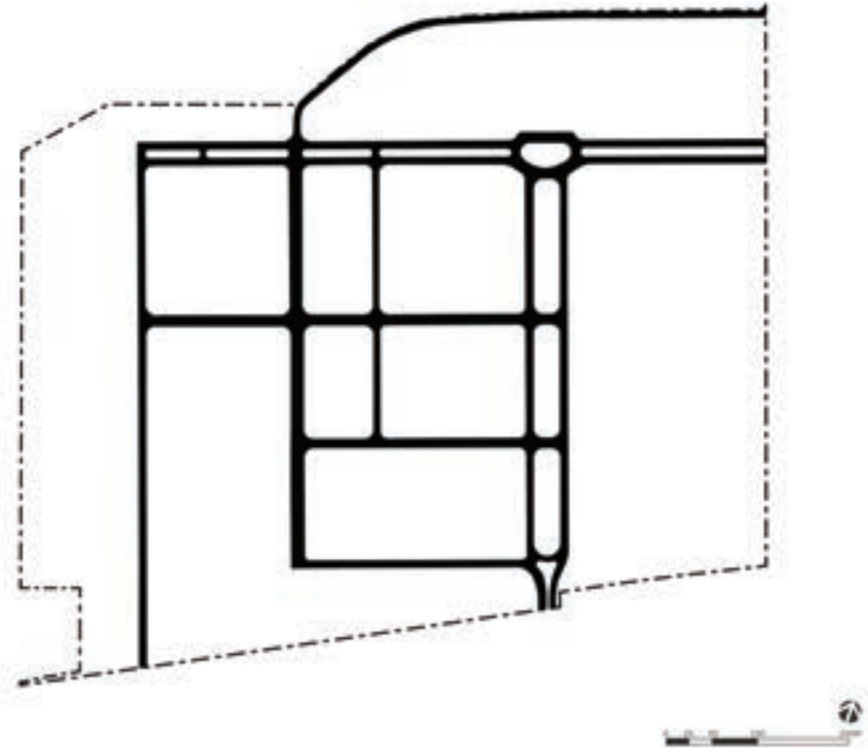


Figure 4.15: Existing Street Network Figure-Ground Plan

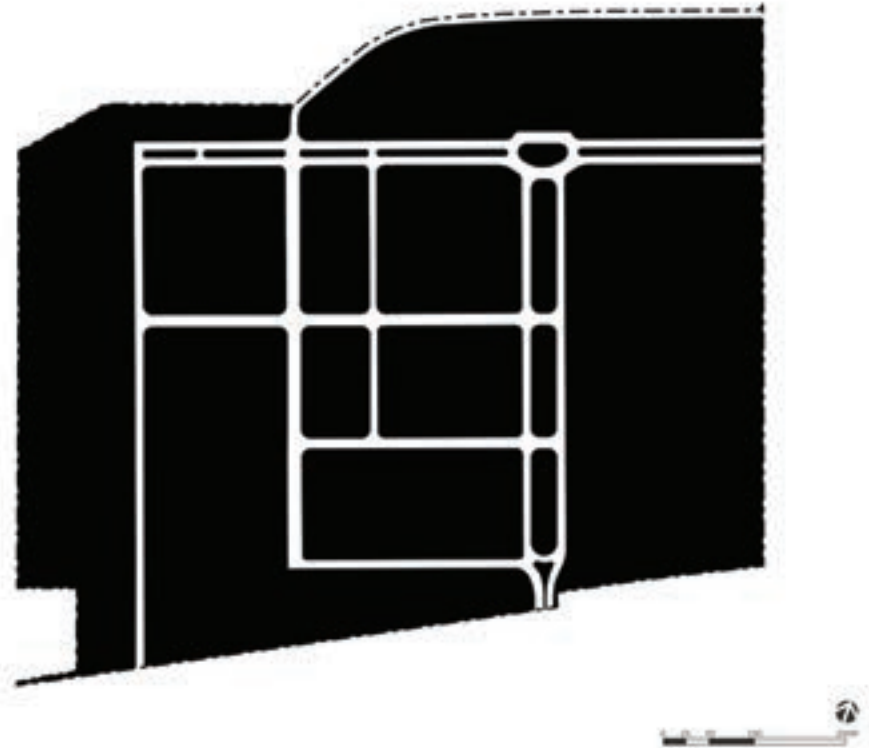


Figure 4.16: Existing Block Network Figure-Ground Plan

4.4 BUILT FORM

Streets

The existing street network adheres to a grid pattern that connects into Tunney's Pasture from adjacent neighbourhoods to the south, east, and west. While this grid pattern enhances user orientation and way finding, its broken street connections offer limited physical connections to Mechanicsville to the east, and Hintonburg and West Wellington to the south. No direct connections link Tunney's Pasture to the neighbourhood of Champlain Park to the west.

Blocks

Due to parking requirements, the existing street system defines a block network that includes many super blocks. The street grid only includes three north-south connections and three east-west connections that cross the entire site. This results in a large-grain block network, defined by the broken street grid. The super block conditions created generally support automobile use and challenges pedestrian movement.

Building Footprints

Existing building footprints on the site closely depict the character of their respective functions. As the majority of existing buildings are federal government offices and labs, this single-use environment has resulted in a low density development style, fostering low-rise buildings with large floor plates. This results in lengthy and minimally articulated street edges; creating a monotonous street character within the site and significant walking distances along inactive built form edges.

Open Space

The site's open space is largely composed of residual areas, with minimal programmed open spaces. Residual areas are those which are not designed to serve a specific purpose, becoming remnants from various development initiatives. In contrast, programmed open spaces are purpose-designed to foster events, activities, and functions. Surface parking also occupies a large proportion of the site's undeveloped lands and negative space in the figure-ground plans. Tunney's Pasture Master Plan

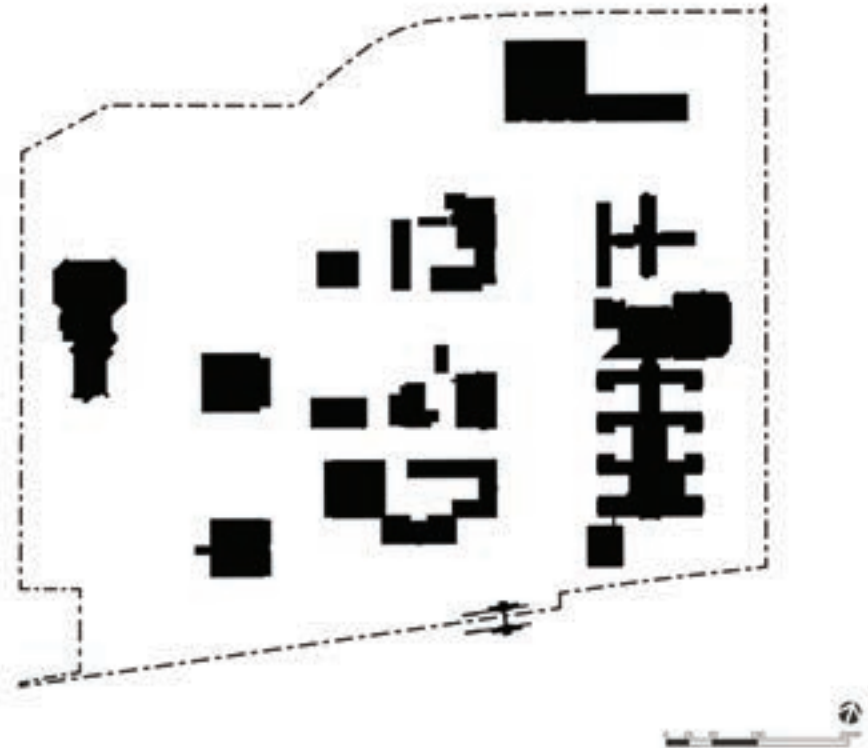


Figure 4.17: Existing Building Footprint Figure-Ground Plan

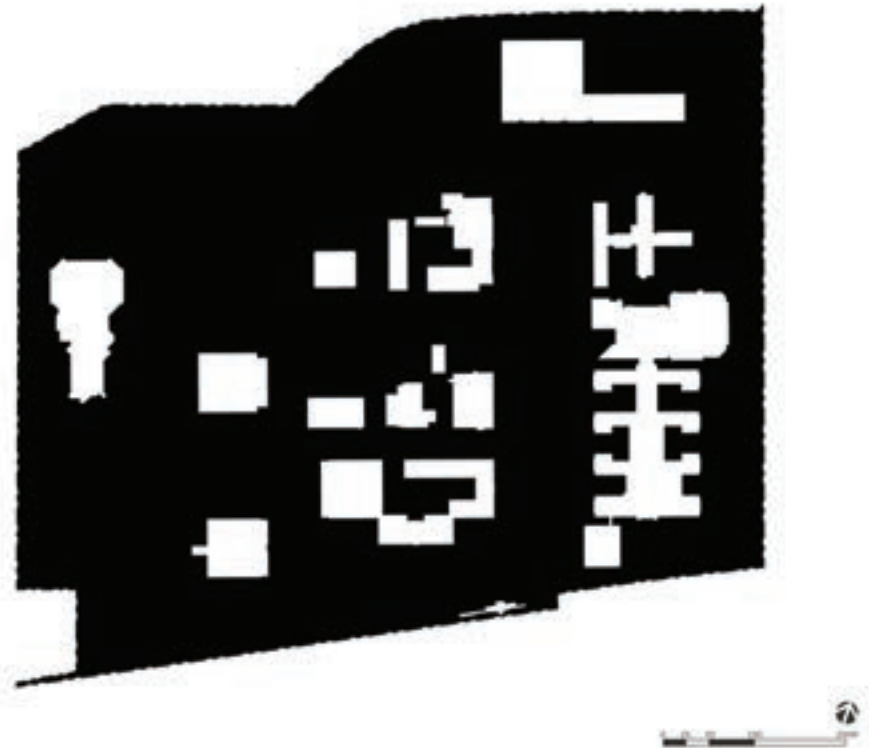


Figure 4.18: Existing Open Space Figure-Ground Plan



Figure 4.19: Existing Land Use

4.5 BUILDING INVENTORY

Tunney's Pasture is comprised of nineteen buildings, the majority of which fall under the custodianship of Public Works and Government Services Canada (PWGSC). Various federal departments are located on site including Health Canada, Statistics Canada, National Defence, Library and Archives Canada and Measurement Canada, an agency of Industry Canada. The principal use of buildings' Gross Floor Area (GFA) is 68% Office space, 6% Laboratory, 17% Storage, 5% Processing, and 1% Computer use.

Land Use

Existing land uses in the vicinity of Tunney's Pasture are predominantly residential along the site's southern, eastern, and western edges. A concentration of low density residential development (1-4 storeys) exists along Northwestern Avenue and the southern edge of Scott Street, while medium density residential development (5+ storeys) exists along Parkdale Avenue between Scott Street and Sir John A. Macdonald Parkway. Parkdale Avenue is currently experiencing significant change with higher density (and higher height) development along the east edge of the Avenue.

Local commercial activities are primarily concentrated along Scott Street, which include a mixture of retail establishments, restaurants, and automotive care centres. The most notable commercial uses in the immediate area are located at the Holland Cross building at the intersection of Scott Street and Holland Avenue, which is frequented by many employees of Tunney's Pasture. Limited services and amenities are also dispersed across the site, inclusive of cafeterias and bank machines.

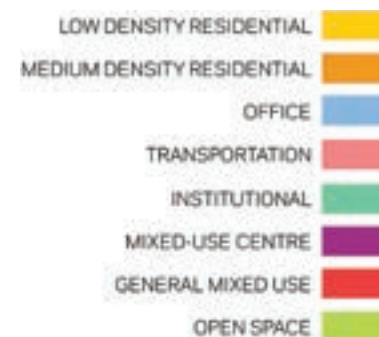


Figure 4.20: Existing Building Inventory

Building Inventory

An inventory of existing buildings within Tunney's Pasture is summarized below, and depicted in Figure 4.20 above:

1. R.H. Coats Building
2. Finance Building
3. Statistics Canada Main Building
4. Standard Lab Building
5. Jean Talon Building
6. Laboratory Centre for Disease Control
7. Health Protection Building
8. Environmental Health Centre
9. Brooke Claxton Building
10. Butler Hut
11. Animal Breeding Building
12. Central Heating & Cooling Plant
13. Finance Annex
14. Public Archives General Records Centre
15. DND Building
16. Occupational Health Unit Building
17. Public Archives Personnel Records Centre
18. Jeanne Mance Building
19. Sir Frederick G. Banting Research Centre



Figure 4.21: Existing Building Heights

Building Heights

The site predominantly consists of low-profile buildings, with most building heights at four storeys or below. Four buildings within the site rise above the four-storey plane. These higher-profile buildings range from 14 to 26 storeys, and are centrally located within the site, maintaining a certain level of compatibility with adjacent neighbourhoods by setting back from the surrounding lower-profile neighbourhoods. The generally sharp difference in building heights illustrates the site's lack of transition to the surrounding neighbourhoods. Recent development along the east edge of Parkdale Avenue (and planned at the southwest corner of Parkdale Avenue and Scott Street) includes towers that are similar in height to the taller buildings of Tunney's Pasture.

4.6 CIRCULATION

Street Network

The street network within the study area is highly influenced by its surrounding context. Intersections/access at Scott Street, Parkdale Avenue, the Sir John A. MacDonald Parkway, and Holland Avenue all provide connections into Tunney's Pasture. The street grid pattern efficiently orders the site and creates a framework around which all elements and systems are organized.

Tunney's Pasture Driveway is the site's primary roadway, comprised of two lanes of traffic in each direction that are separated by a wide central boulevard.

Sir Frederick Banting Driveway is a four-lane extension of Ross Avenue that provides a north-south connection between Scott Street and Colombine Driveway.

Colombine Driveway is also a four-lane collector that connects Parkdale Avenue with Sir Frederick Banting Driveway, and includes a central green median.

Goldenrod Driveway is an internal street that does not connect directly with Scott Street, but provides an alternate north-south connection within the site. North of Colombine Driveway, Goldenrod Driveway changes direction from a north-south to east-west, and serves parking areas along the northern edge of the site. It also provides connection to the Sir John A. MacDonald Parkway.

Chardon Driveway runs parallel to Goldenrod Driveway, linking Colombine Driveway with Sorrel Driveway.

Eglantine Driveway, Sorrel Driveway, and Yarrow Driveway all provide east-west linkages; while only Eglantine provides a connection across the site from Tunney's Pasture Driveway to Sir Frederick Banting Driveway. All of these tertiary connections are two-lane collector streets, although Sorrel Driveway and Yarrow Driveway operate as a pair of one-way streets (Sorrel Driveway westbound, Yarrow Driveway eastbound).

Tunney's Pasture Master Plan

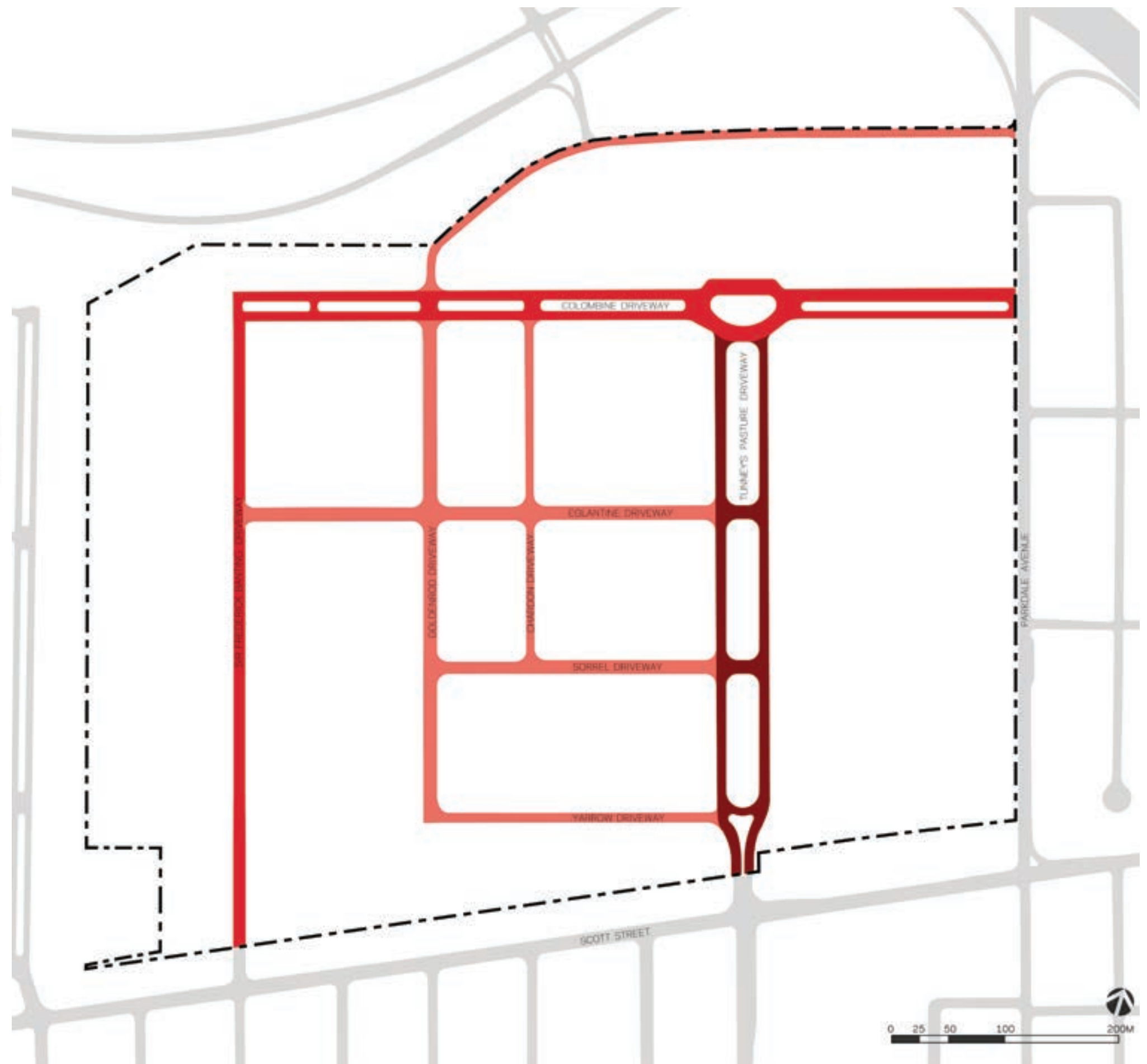


Figure 4.22: Existing Street Network



Figure 4.23: Existing Site Access

Site Access and External Circulation

The principal (and ceremonial) access to Tunney's Pasture is provided by Tunney's Pasture Driveway, which is an extension of Holland Avenue north of Scott Street. Other primary entryways into Tunney's Pasture include a second southern entrance at the intersection of Sir Frederick Banting Driveway and Scott Street, the Sir John A. Macdonald Parkway entrance at the Parkdale Avenue exit to the north, and the eastern entrance at the intersection of Colombine Driveway and Parkdale Avenue. Secondary entryways exist mainly at parking access points, and are found along Parkdale Avenue. There is also an access point between Goldenrod Driveway and Sir John A. Macdonald Parkway.

Scott Street, a four-lane undivided urban arterial with sidewalks on both sides, forms the southern boundary of the study area and is separated from the site by the Western Transitway. Intersecting with Scott Street and forming the eastern boundary of the study area is Parkdale Avenue, which is a two-lane major collector linking the Sir John A. Macdonald Parkway with Carling Avenue, south of Highway 417. Forming the northern boundary of the site, the Sir John A. Macdonald Parkway is a four-lane divided urban parkway under jurisdiction of the National Capital Commission (NCC).

Both Scott Street and Parkdale Avenue are classified as arterial roadways in the City's Official Plan. All other streets in the direct vicinity of Tunney's Pasture, including roadways within the site itself, are classified as local roads.

The Western Transitway runs parallel to the southern edge of the study area, with a station located at the northwest corner of the intersection of Tunney's Pasture Driveway and Scott Street, providing direct public transportation access to the site.

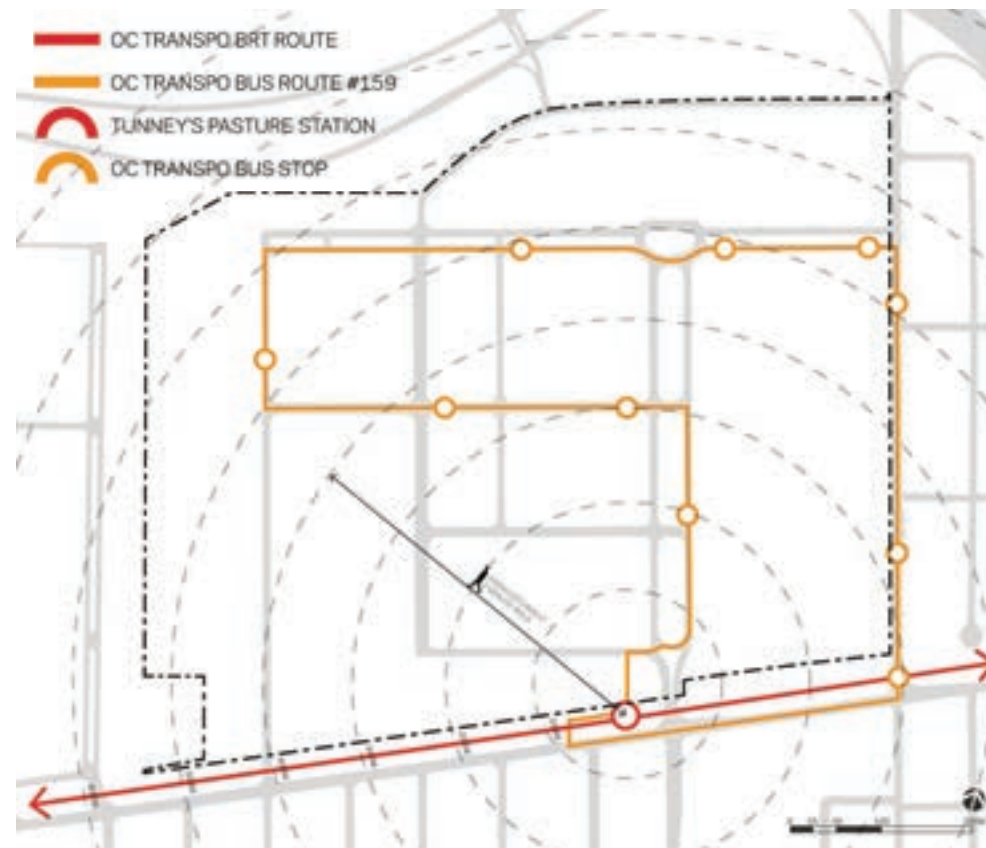


Figure 4.24: Existing Public Transportation Network

Public Transportation Network

Tunney's Pasture is served by two public transportation systems: OC Transpo operated by the City of Ottawa, and the Société de transport de l'Ottawa (STO).

Tunney's Pasture has a distinct advantage because of its adjacency to the Western Transitway corridor, which operates along Scott Street with a station at Tunney's Pasture. Providing multi-directional service from the Central Business District, this system links the east and southeast transitway corridors that serve Orléans and Riverside South respectively, with the west and southwest corridors that serve Kanata and Barrhaven respectively.

A total of 39 individual OC Transpo Routes pass through the Tunney's Pasture Station every weekday, comprised of the following:

- 12 regular routes that operate throughout the day, every day, of which 5 start and end at Tunney's Pasture;
- 9 weekday peak-period routes that operate from Monday to Friday between 6:00 and 9:00, and again between 15:00 and 18:00, of which 3 start and end at Tunney's Pasture; and
- 18 express weekday peak-period routes that operate from Monday to Friday between 6:00 and 9:00, and again between 15:00 and 18:00.

Within the site, OC Transpo also operates a weekday peak-period route (#159) that runs north on Tunney's Pasture Driveway, west on Eglantine Driveway, north on Sir Frederick Banting Driveway, east on Colombine Driveway, and south to Scott Street on Parkdale Avenue. This route provides direct access to all regions of the site.

Two regular routes (#6 and #176) also operate on Parkdale Avenue along with one weekday peak-period route (#82). One regular route (#16) and one weekday peak-period route (#150) also operate on Scott Street.

The STO provides direct services between Gatineau and Tunney's Pasture, operating across the Champlain Bridge to the Sir John A. Macdonald Parkway and within the site.

Recent data analysis indicates that on a daily basis, approximately 5,000 passengers arrive at and depart Tunney's Pasture by public transportation bus services. This represents approximately 40% of the transit modal split of all trips to and from Tunney's Pasture. Afternoon peak-period trips provided by bus services account for approximately 50% of the transit modal split.

The first phase of the City of Ottawa Light Rail Implementation Strategy envisions the operation of LRT as far west as Tunney's Pasture transit station. The station is proposed to be reconfigured to operate as an interim terminus for both LRT and BRT, until LRT is extended further west during phase two of the implementation strategy.



Figure 4.25: Existing Pedestrian Circulation

Active Transportation Network

Pedestrian Network

Figure 4.25 highlights the walking distance and time to various location points on site from the future Light Rail Terminus Station/OC Transpo Station. Some building locational points noted are: the R.H. Coats building within a 100 metre radius of the station and a walking time of 1.35 minutes; the Statistics Canada main building within 200 metres of the station and a 4.15 minute walk; the Sir Frederick G. Banting Research Centre building within 500 metres of the station at a 9.3 minute walk; and finally, the Brooke Claxton building within 500 metres of the station and a 8.4 minute walk. Other time distances shown from the station are: the Laboratory Centre for Disease Control at a 5.35 minute walk; the Standard Lab Building at a 3.35 minute walk; the Central Heating and Cooling Plant at a 4.4 minute walk; the Public Archives General Records Centre at a 4.25 minute walk; and the Public Archives Personnel Records Centre at a 6.36 minute walk.



Figure 4.26: Existing Cycling Network

Cycling Network

There is currently limited formal cycling infrastructure within the site. There are no designated bicycle lanes in Tunney's Pasture, although Scott Street, Holland Avenue, and Tunney's Pasture Driveway are designated as unsigned on-road cycling routes by the City of Ottawa.

Outside of the study area, a bicycle path runs parallel to Scott Street, with access to Tunney's Pasture at Tunney's Pasture Driveway and Sir Frederick Banting Driveway. In addition, a Multi-Use Pathway (MUP) runs along the Ottawa River with three southward connections to the site. These are located at the western terminus of Colombine Driveway, the northwest corner of Goldenrod Driveway, and the eastern terminus of Goldenrod Driveway.



Figure 4.27: Existing Site Parking

Parking

Parking areas are distributed throughout Tunney's Pasture, and are provided in the form of surface parking. 3,207 on-site parking spaces are provided in various parking lots and in the form of on-street parking. Each parking space is marked for a specific designation as either employee parking, visitor parking, taxi stand or for delivery area.

Existing parking areas are characterized by inconspicuous and utilitarian lots that are greatly distanced from the street. This is accompanied by poor parking conditions throughout the site. Poorly designed lots, such as those on Sir Frederick Banting Driveway and Goldenrod Driveway, with four parking aisles that let out onto the street create unsafe conditions; likely to cause conflicts between vehicles on the street and those searching for a parking space. The west end of Sorrel Drive also transforms into a passage way through a parking lot, further increasing potential for vehicular conflicts.

4.7 OPEN SPACE

Existing open spaces within Tunney's Pasture provide important visual relief and contribute to a sense of the vastness of the site. In addition to the Ottawa River parklands at the northern edge of the site, existing open spaces on the site consist of driveway boulevards, landscaped spaces and residual open areas.

While some spaces are well-landscaped and mature, most areas create an under-utilized and fragmented open space network. Fragmentation of this network prevents defined through-site connections to regional open space systems. Poor definition of these spaces results in their ambiguity and reduced pedestrian comfort. Open spaces are also not programmed for specific functions or activities, which plays a role in the under-utilization of spaces. The site's single use as an employment site further reduces opportunities to utilize open space.

The above said, participants at Master Plan process open house sessions, who live in adjacent neighbourhoods and/or work on site, did indicate that Tunney's Pasture open space is used often and on an informal basis (e.g.: for lunch breaks, walks, exercising pets, informal games, relaxation, to gain access to/from Ottawa River and related parklands, etc.).

Open Space Typology

The open space typologies on the following page further identify the strengths and weaknesses associated with each predominant type of open space within Tunney's Pasture.

FUNCTIONAL OPEN SPACE
RESIDUAL OPEN SPACE
OTTAWA RIVER PARKLAND



Figure 4.28: Existing Open Space Typology



Figure 4.29: Tunney's Pasture Driveway Boulevard

Functional Open Space

Functional Open Spaces contribute to the quality of life, landscape character and overall identity of Tunney's Pasture. They are spaces that can be programmed and utilized for active and/or passive recreation. These include large boulevards and large open spaces connected to buildings on site.

The green median dividing traffic flow on Tunney's Pasture Driveway for example, is a key element of the site's character, and yet contributes little to the quality of landscape due to its current state. Lamp posts interrupt the continuity of the boulevard, and the tree-less lawns create an unattractive recreational area. The lack of trees in these spaces also reduce pedestrian comfort, providing little shading or microclimatic relief. These spaces however, are heavily used for lunch-hour activities and special events.

With an improved landscape strategy, these open spaces could transform into a vital component of the site's overall identity and facilitate both improved site connectivity and conditions for active and passive recreation.



Figure 4.30: Residual Open Space within Tunney's Pasture

Residual Open Space

Residual Open Spaces contribute little to the image, continuity or function of the landscape in Tunney's Pasture. These spaces serve no inherent purpose and are typically just remnant from the development of buildings and parking lots. These spaces are typically open lawns, or lawns with little vegetation, and as such require regular and costly upkeep.



Figure 4.31: Ottawa River Parklands North of Tunney's Pasture

Ottawa River Parklands

The landscape of Tunney's Pasture is largely defined by the visual characteristic of adjacent woodlots and parklands. Woodlots of the Ottawa River Parklands define the northern and western perimeters of Tunney's Pasture. These woodlots are composed of a blend of deciduous and coniferous trees, with a dense, biodiverse, and voluminous deciduous understory that creates a strong visual edge of the site. However, the location of these woodlots along the perimeter of the study area minimizes their utility for site users. Opportunities exist to extend elements of the woodlots into the interior of the site, and to create connections between Tunney's Pasture and the Ottawa River Parklands.

4.8 SITE ELEMENTS

Tunney's Pasture has several distinct design elements that characterize the site. One of the most integrated of these elements is the strong axis of Tunney's Pasture Driveway. This axis emphasizes the importance of Tunney's Pasture Driveway itself, strengthens the spine of the site and directs views to the landmark Brooke Claxton building at its terminus.

View corridors are also integrated into the site design. The street grid network preserves north-south and east-west views throughout and beyond the site, increasing both safety and visual amenity. The street grid should be further implemented to enhance connectivity and existing view corridors.

The site also has strong edge conditions that define the site within the greater community. These edges are created by a contrast in built form and land use; including a large ditch created by the transitway along the south edge of the site. Large employment footprints within the site contrast with smaller residential footprints outside, and are separated by either a right-of-way or vegetative buffer.

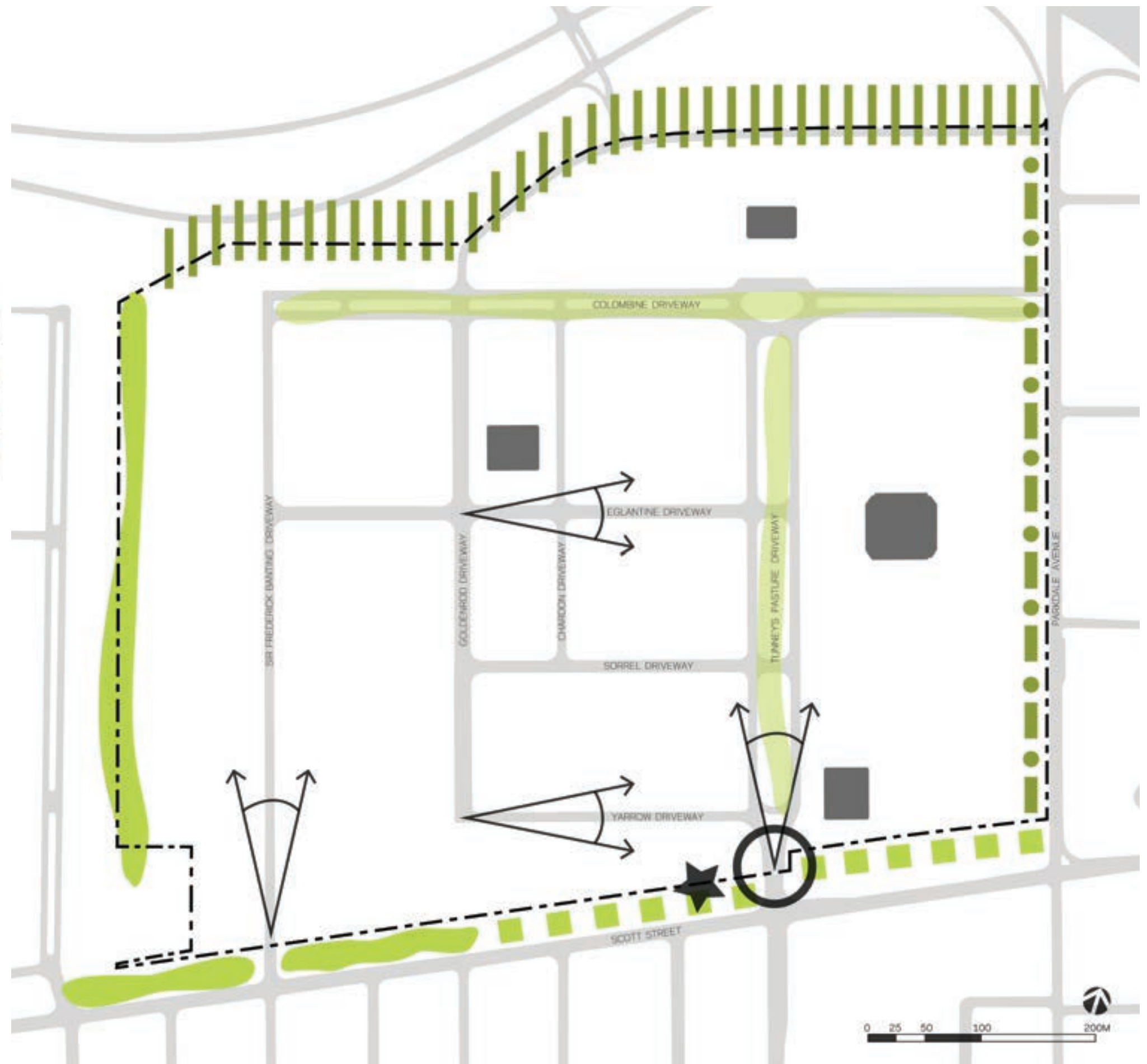
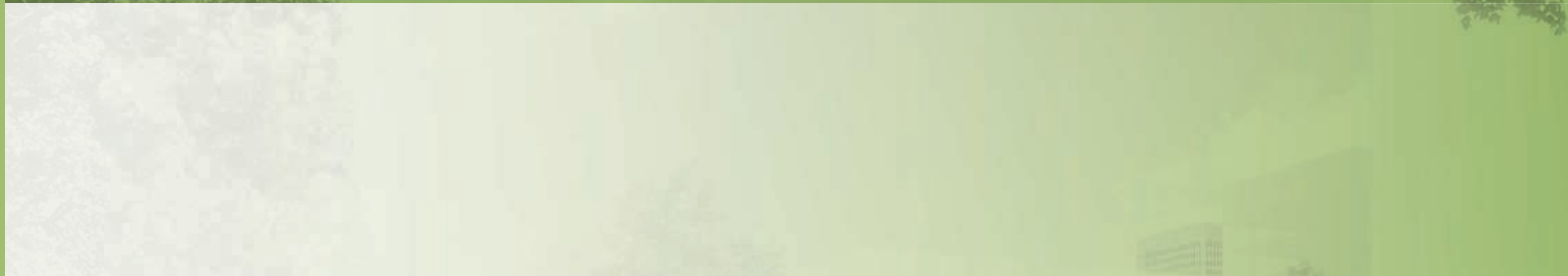


Figure 4.32: Existing Site Elements

MASTER PLAN

05





05 MASTER PLAN

5.1 MASTER PLAN VISION

Building upon the objectives outlined in Introduction Section 2.3 of this document, PWGSC and the consultancy team have worked together to create a Master Plan with built-in flexibility for changing portfolio and real estate market needs and that envisions:

1. a mixed-use employment hub at Tunney's Pasture Station, serving as a community focal point and entrance gateway to Tunney's Pasture;
2. office & other employment opportunities for 22,000 – 25,000 employees;
3. 3,400 – 3,700 residential units to enable live-work opportunities;
4. a major public open space block for active community uses;
5. integration with adjacent neighbourhoods through enhanced connectivity and interface with Ottawa River parklands;
6. appropriate uses, heights and open space connections along Parkdale Avenue;
7. enhanced connectivity through a finer street grid, better pedestrian/cycling routes and other community linkages.



Figure 5.1: Tunney's Pasture Master Plan Concept

5.2 LAND USE

Land uses in the Tunney's Pasture Master Plan have been developed and distributed to achieve a sustainable transit-oriented community; containing a vibrant mix of uses that are well-integrated with adjacent neighbourhoods.

Land uses have been designed to convey overall intent for site development while maintaining a high degree of flexibility. The Land Use Plan illustrated in Figure 5.2 allows the Master Plan to respond to changes in market trends and stakeholder needs. Land use synergies have been mapped to achieve a critical mass of dynamic complementary mixed uses, and provide potential added value to Tunney's Pasture.

Land use strategies applied within the Master Plan aim to:

- foster a highly animated and active mixed use node around Tunney's Pasture Station;
- integrate office, retail, and residential uses into the site to allow for a vibrant community at all times of the day;
- provide appropriate transitions towards existing stable residential neighbourhoods adjacent to the site;
- connect open spaces to provide an integrated network of areas for people to gather, relax, and recreate; and
- connect with natural features and amenities beyond the study area.

Using the above strategies, the master plan will achieve the following:

Population

Residential	9,328
Employment	24,515

Land Use

Residential Unit Count	3,731
Existing Office GFA (to remain)	274,606 m ²
Proposed Office GFA	231,786 m ²
Existing Laboratory GFA (to remain)	24,523 m ²
Proposed Laboratory GFA	16,202 m ²
Service Commercial GFA (minimum)	8,474 m ²

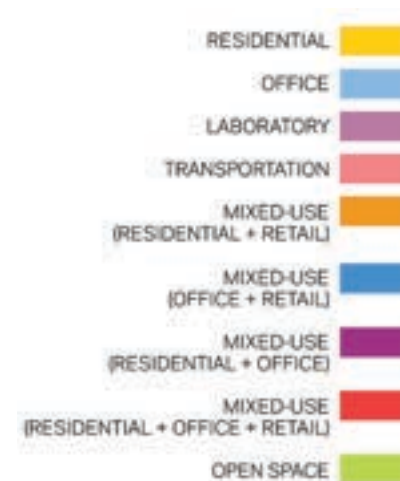


Figure 5.2: Land Use



Figure 5.3: Office Character

5.3 LAND USE DESCRIPTIONS

Office

Tunney's Pasture will remain a dynamic economic and employment centre within the City of Ottawa; with offices being one of the primary uses on site. The Master Plan concentrates this work place centrally around Tunney's Pasture Driveway, creating a strong employment core for the community. The majority of office space at Tunney's Pasture will accommodate federal government needs while also providing the potential for some market-based office space. This use may also include:

- **Office Amenities:** Small-scale retail (such as cafés and convenience stores) serving employees may also be provided in the ground floor of these buildings.
- **Open Spaces:** Acknowledging and strengthening the heritage and character of the site, each block of office buildings will include private or semi-public open space or courtyard space that will be directly accessible from within the buildings.



Figure 5.4: Residential Character

Residential

Residential uses will be distributed throughout the site; providing an animated live/work community and integrating Tunney's Pasture with adjacent neighbourhoods. The mix of proposed residential building types is indicative of housing market trends for urban Ottawa. High and medium density development will meet the growing market demand for convenient, low maintenance options; while three to four storey townhomes accommodate a demand for at-grade living with private outdoor space. The following provides further strategies for different residential building types:

Apartments / Condominiums

The Master Plan utilizes a TOD approach to development; locating medium and high density residential development in areas to the west and north of the mixed-use core at Tunney's Pasture Station. Recent residential development on surrounding streets, such as Parkdale Avenue, provide a rationale to develop similarly scaled residential buildings within the site; but with greater sensitivity. Building heights will step down where needed to transition to the surrounding lower height neighbourhoods. This built form may also accommodate:

- **Affordable Residential:** Within new apartment or condominium development it is recommended that affordable units be provided to ensure an open and accessible community.
- **Neighbourhood Amenities:** Small-scale retail (e.g.: cafés, convenience stores and other commercial) serving residents may also be provided in the ground floor of these buildings.

Townhouses

Townhouse development will be accommodated along the western edge of the site. This complements the existing two to three-storey residential character of the surrounding neighbourhoods adjacent to Tunney's Pasture, and increases the residential variety within Tunney's Pasture.



Figure 5.5: Laboratory Character

Laboratory

Expanded laboratory facilities will be provided in strategic areas of the site to accommodate federal government needs. Given this highly specialized function and need for connectivity with specific government departments, laboratory uses are concentrated adjacent to office uses.



Figure 5.6: Mixed-use (Office/Residential) Character

Mixed-use (Office/Residential)

Mixed-use sites accommodating both office and residential uses will be located on the periphery of office use areas; strategically located to the northwest of the site and along the western edge of Parkdale Avenue. This feature provides a transition between purely office and residential use areas of the Master Plan, and also offers the potential for live-work opportunities.

As well this land use type offers the flexibility to develop market office space within Tunney's Pasture. This use will be particularly attractive given close proximity to public transit, residential, retail, great open spaces and amenities, and government agencies and services.



Figure 5.7: Mixed-use (Office/Retail) Character

Mixed-use (Office/Retail)

The Master Plan centralizes the majority of retail around a public transit-oriented core; creating a hub of activity for Tunney's Pasture and the surrounding community. Retail components of buildings are located on the ground floor (with office use on the floors above) to activate streets and public spaces; especially areas with the highest volume of pedestrian traffic. The mix of retail and office use will help to support a vibrant civic core that is active throughout the wider hours of the day.



Figure 5.8: Mixed-use (Residential/Retail) Character

Mixed-use (Residential/Retail)

Creating a great community to live in requires a strong blend of neighbourhood amenities. The Master Plan locates this mixed-use land use designation in the primarily residential western precinct of Tunney's Pasture, directly abutting the new Community Park.

Unlike the small neighbourhood amenities permissible in the residential use, the retail on the ground level of these mixed-use buildings are intended to be larger scale amenities (e.g.: restaurants, daycare, etc...); creating an animated edge along the significant new Community Park. With varying market demands and phased population growth in mind; while at-grade retail use is preferred there is flexibility for these locations to be residential.



Figure 5.9: Mixed-use (Residential/Office/Retail) Character

Mixed-use (Residential/Office/Retail)

The most flexible land use designation in the Master Plan includes residential, office, and retail uses. To ensure a vital, active community core, and provide development flexibility, this land use is located immediately adjacent to the Tunney's Pasture Station. This approach allows agile response to market trends and needs over time.

Convenient access to a key public transit hub and civic plaza makes this a "place of choice" location for residents, commercial offices, and larger anchor retailers such as grocery stores.

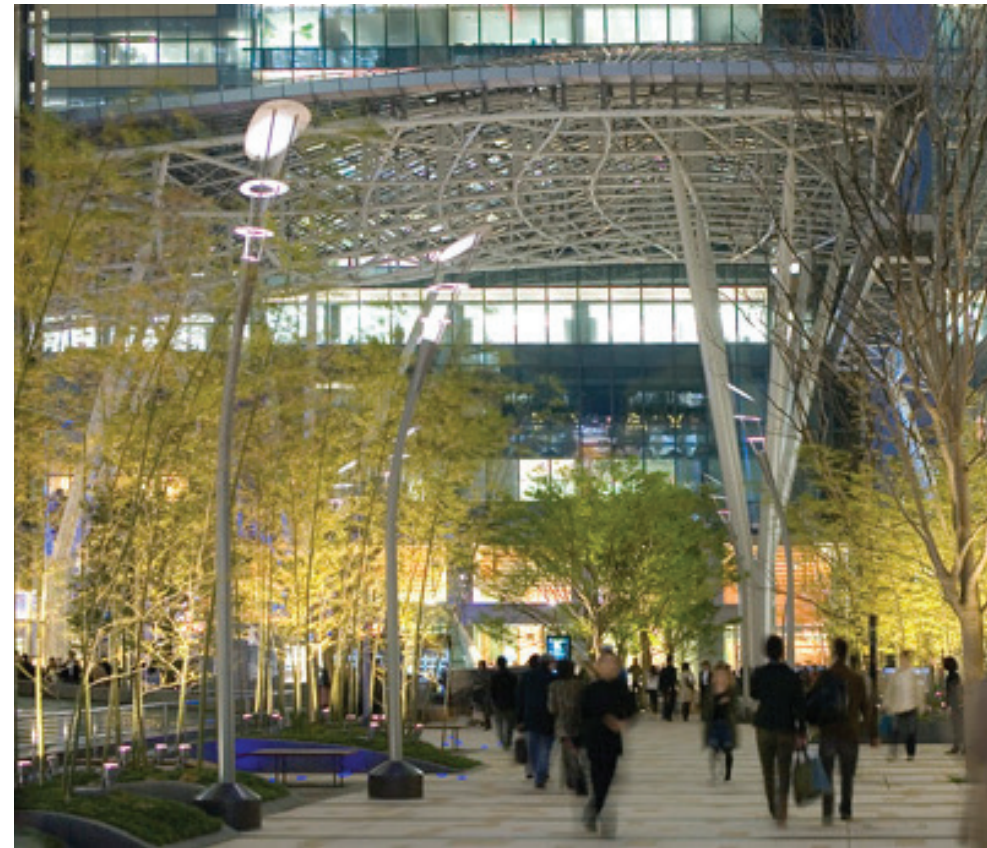


Figure 5.10: Open Space Character

Open Space

Open space has been a defining characteristic of Tunney's Pasture, with its original design laying out broad avenues and abundant landscape. The new Master Plan seeks to capture the spirit of this tradition; with a permeable, publicly accessible tapestry of landscape settings framed within a more urban context.

Open spaces in the Master Plan vary in size and character; from green parks to urban plazas and courtyards, and well-treed thoroughfares. Some of these spaces, like Tunney's Pasture Driveway, retain their original scale and visual impact; acknowledging the civic creativity and defining presence of the Gréber Plan. This weave of existing and new strikes a balance between tradition and 21st century urbanity.

Two new major open spaces are included in the Master Plan, which include:

- a large Community Park on Sir Frederick Banting Driveway that will fulfil many green space needs for the community, and serve as a primary multi-purpose recreational space within the site; and
- the Transit Plaza that will serve as an activated civic space in the heart of the Master Plan; well suited to a range of activities, from daily life to large scale community events.

As well the Master Plan includes smaller parks, courtyards and plazas; providing a variety of attractive active and passive spaces throughout Tunney's Pasture.

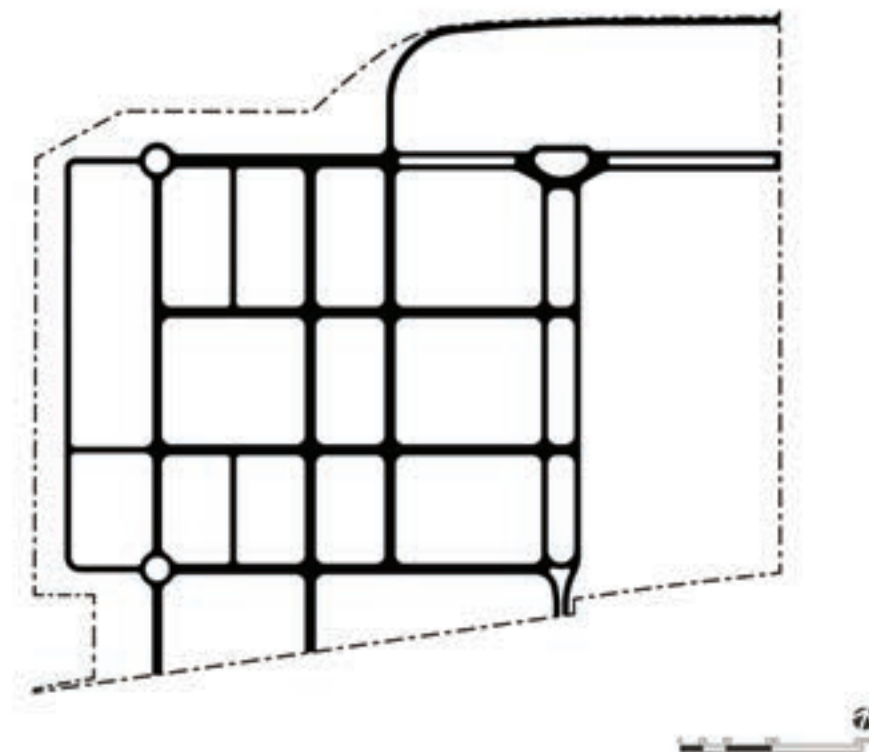


Figure 5.11: Street Network Figure-Ground Plan

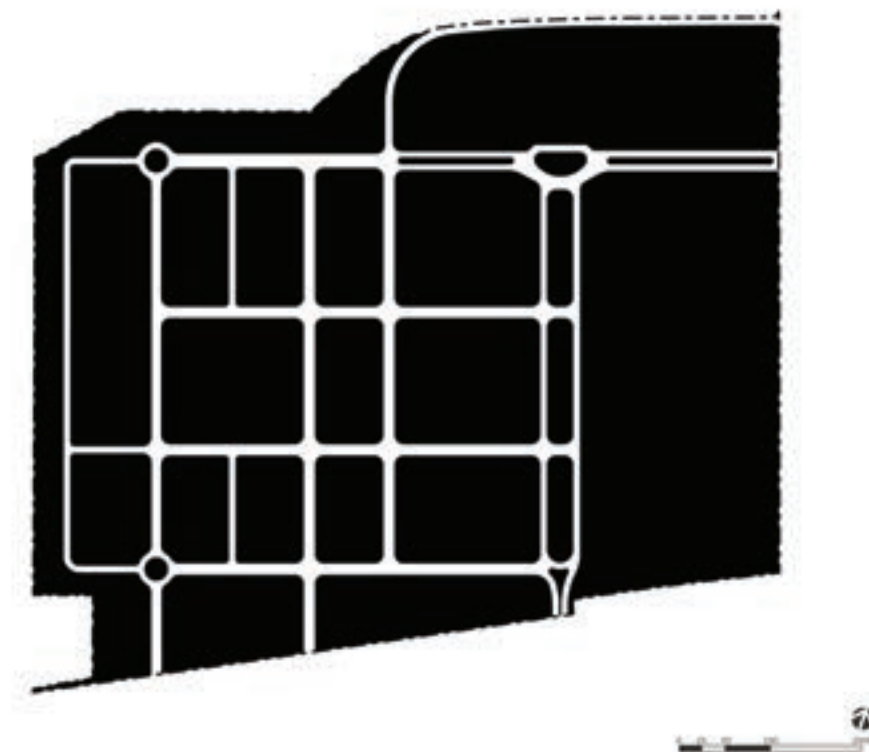


Figure 5.12: Block Network Figure-Ground Plan

5.4 BUILT FORM

The following diagrams outline a systematic study of the site's built form; with the street grid and overall block pattern defining the relationships between plots and the street network. The urban fabric is then further defined and articulated to explore relationships between building footprints and open spaces of the public realm.

Streets

The existing street grid of Tunney's Pasture has been integrated into the Master Plan's strategy for a finer grain street network. This includes new connections, proposed to enhance pedestrian and vehicular connectivity in both north-south and east-west directions.

Blocks

Existing super block conditions within the study area have been broken down into smaller urban-scale blocks; allowing increased permeability throughout the site and more easily developable parcels of land. Where blocks accommodate multiple building footprints, mid-block connections provide increased accessibility and built form articulation.

Building Footprints

Working within the framework of the Master Plan's "streets and blocks" network, resulting building footprints enable urban design opportunities for finer grain articulation and visual/physical connectivity.

Open Space

Open space on the site is defined by building footprint, street network, edge conditions and Greber Plan tradition. Open spaces are interconnected to provide a highly accessible outdoor amenity network. The distribution of these spaces throughout the Master Plan is enhanced by the creation of an open space typology; identifying distinctive character for each of the types within Tunney's Pasture. This is explored in detail within this chapter.

Tunney's Pasture Master Plan

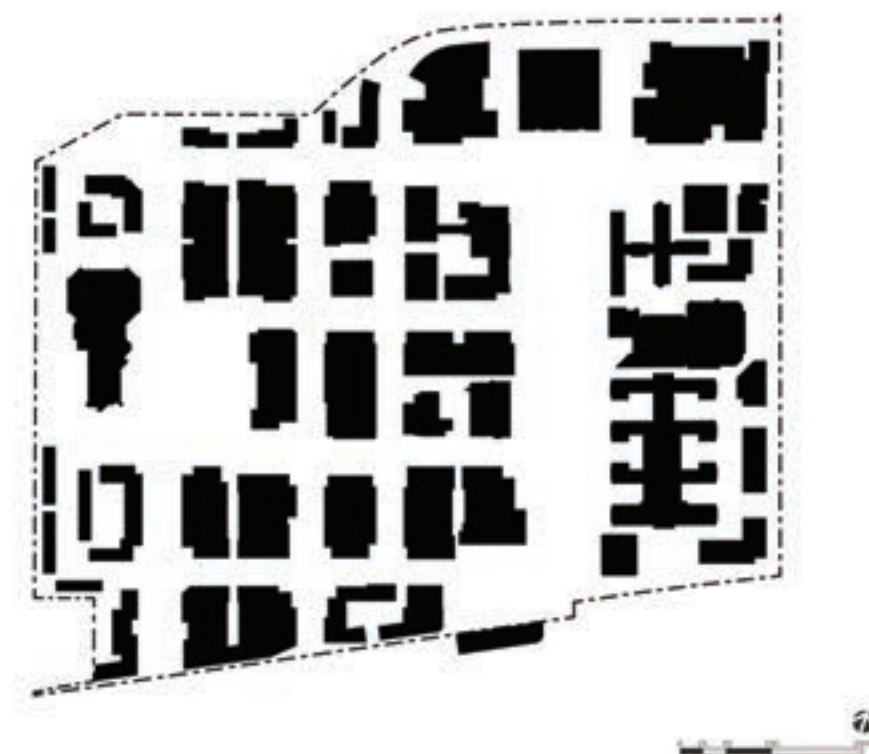


Figure 5.13: Building Footprint Figure-Ground Plan

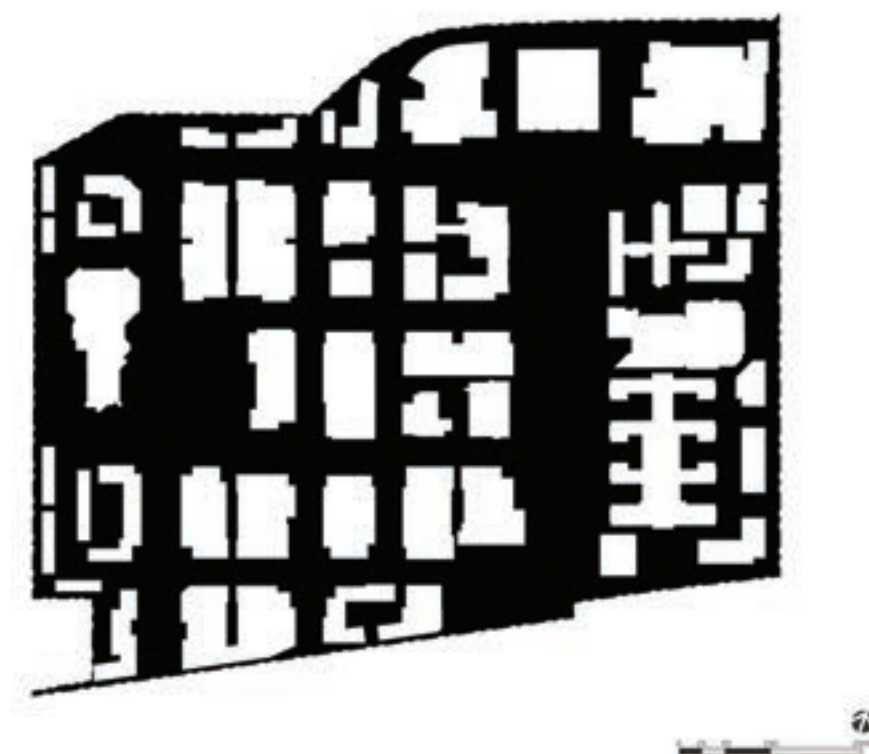


Figure 5.14: Open Space Figure-Ground Plan

Building Heights

A distinctive feature of Tunney's Pasture for years has been its "towers in a park" skyline profile. The new Master Plan acknowledges this tradition; maintaining the prominence of the original towers while carefully adding new development.

Rather than distribute taller buildings throughout the entire site, the Master Plan concentrates density and height at key points of interest that include site gateways and major nodes such as Tunney's Pasture Station and the new Community Park. The distribution of building height is also informed in part by:

- the location and heights of existing towers on the site and in the surrounding context; and
- building heights tapering down from the centre of the site towards the edges, in consideration of adjacent neighbourhoods.

Surrounding neighbourhoods are predominantly composed of low-density residential development ranging between two and three storeys in height. Where new buildings are proposed to abut these established neighbourhoods building heights are limited to three storeys. This is evident along the western edge of the study area.

Development along Scott Street adopts a denser built form strategy, with mid-level buildings along the street and increasing height towards Tunney's Pasture Station; as well as select higher counterpoints to existing taller buildings.

In contrast, building height along the west edge of Parkdale Avenue is purposefully lower than development along the east edge of the Avenue. The intent is to provide respite from the height and density bordering the east edge, create a distinctive transition to Tunney's Pasture, and provide a setting for the taller existing Tunney's Pasture buildings to maintain prominence. Building height on the site climbs towards the north end of Parkdale Avenue; responding to the adjacent new residential towers proposed along the east side of the Avenue, while remaining mindful of the remaining context of that neighbourhood.

The creation of an iconic gateway is proposed at the south entrance to Tunney's Pasture Driveway with the addition of a new office building. This building is strategically formed and placed to counterpoint the existing R.H. Coats tower. The resulting gateway will frame a view of the Brooke Claxton tower, which will remain as a signature feature along the northern edge of site; and a prominent terminus for the Tunney's Pasture Driveway axis.



Figure 5.15: Building Heights



Figure 5.16: Tunney's Pasture Master Plan Render



Figure 5.17: Proposed Streets

5.5 CIRCULATION

Street Network

The proposed street network outlined in the Master Plan is based upon the principle of creating complete streets; improving existing circulation and providing connectivity into surrounding context.

Using existing streets as the foundation upon which to build a finer grain street network, the Master Plan retains the unique quality and character of Tunney's Pasture while enhancing streetscapes and accommodating increased site density. Jacques Gréber's 1950 plan for the National Capital set out a clear logic for developing the site with a well-integrated street and open space network. The proposed street grid and open space system achieves this Gréber Plan goal; establishing stronger connections into surrounding neighbourhoods. At the same time, the flow of traffic is dispersed both into and out of the site, due to increased integration with the broader vehicular circulation network. Streetscape conditions will further emphasize Gréber's vision. Primary streets such as Tunney's Pasture Driveway, Colombine Driveway, and Sir Frederick Banting Driveway are improved with bike lanes, high quality landscape, and a well-defined and safe pedestrian realm. Secondary and Tertiary streets and laneways maintain strong linkages to Primary arteries while providing a comfortably-scaled landscaped public realm.

The Master Plan proposes a hierarchy of streets as depicted in Figure 5.18. Demonstration street sections indicating a general street character and style may be found in separate technical appendices. While these street sections will inform municipal processes, they are purely for demonstration purposes. Further discussions with the City of Ottawa will be required if:

- Any specific street standards or dimensions are to be applied;
- Any streets are to be publicly assumed; or
- Any streets are to be privately held.

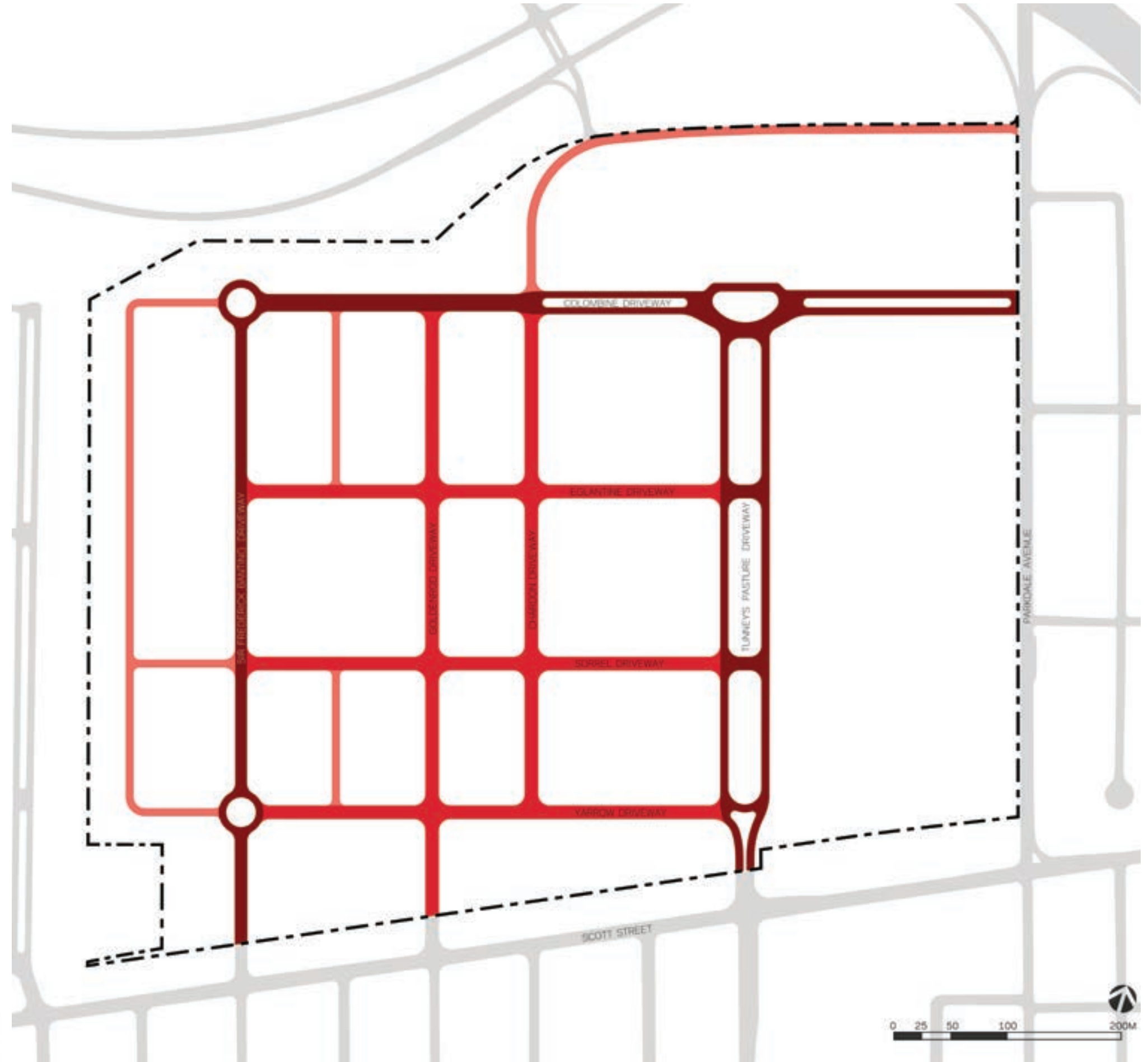


Figure 5.18: Street Network



Figure 5.19: Primary Street Character



Figure 5.20: Primary Street Character



Figure 5.21: Primary Street Character

Primary Streets

Primary streets in the Master Plan include Tunney's Pasture Driveway, Colombine Driveway, and Sir Frederick Banting Driveway. These streets make up the main north-south and east-west spines of the site.

Tunney's Pasture Driveway is the key gateway to the site; maintaining a strong axis and view corridor from Scott Street to the Brooke Claxton Building at the terminus of Tunney's Pasture Driveway. The character of Tunney's Pasture Driveway remains intact; maintaining the Greber Plan tradition and a creating a strong identity for the Central Precinct.

Tunney's Pasture Driveway's distinct, large boulevard median is a defining element of the site. It conveys the importance of open space in Tunney's Pasture more broadly, and is large enough to accommodate playing fields and areas that will help to ensure street activity and recreation along its extent. The inclusion of a mix of uses in the surrounding vicinity will further encourage the use of this open space throughout the day and increase community safety. The remainder of the right-of-way allows for a divided carriageway that defines the green median, with two lanes in each direction. The outer-most lane of the carriage way also serves as a street parking and loading zone during off-peak hours in the evenings and overnight.

Colombine Driveway and Sir Frederick Banting Driveway allow for direct connections through the site and preserve linear view corridors. Although the right-of-way varies due to context and bordering uses throughout Tunney's Pasture, the character of Primary streets remains uniform.

Colombine Driveway includes an existing central green median, which enables safe pedestrian crossing and provides pedestrians with landscaped respite from traffic. The balance of the right-of-way provides a divided carriageway with a narrower green median. Colombine Driveway consists of only one lane of through traffic in each direction, accompanied by an additional outer lane providing permanent areas for street parking and loading; articulated with traffic-calming vegetated bulbouts.

The character and prominence of Sir Frederick Banting Driveway is enhanced to serve pedestrians, cyclists, and new development, with an expanded right-of-way and boulevard condition. The predominant strategy for Sir Frederick Banting Driveway consists of creating a 'complete' green street. It will also consist of a multi-directional carriageway with one or two lanes of through traffic in each direction, and where necessary include a centre turning lane.

On all Primary streets a separated cycle way (designed for cyclist safety through separation of bikes and vehicles) will be provided. This will encourage cycling as a mode of transportation within and beyond the site, with connections to the local and regional cycling networks. A generous planting buffer will separate the cycle way from a spacious sidewalk; providing safety for cyclists and pedestrians. The buffer will be a consistent treed edge; providing appropriate shading of the sidewalk in the summer and reduced wind velocity in the winter to create a comfortable pedestrian microclimate.

Primary Streets are intended to be well manicured and support secondary east-west site connections to ensure permeability. The streetscape will consist of high quality street furniture, lighting, planting and paving materials to encourage pedestrian and cyclist activity; reflecting the importance of these primary streets.



Figure 5.22: Primary Streets



Figure 5.23: Tunney's Pasture Driveway Render



Figure 5.24: Secondary Street Character



Figure 5.25: Secondary Street Character



Figure 5.26: Secondary Street Character

Secondary Streets

Secondary streets extend throughout the interior of Tunney's Pasture, and provide north-south and east-west connectivity across the site. Secondary streets allow for integrated connections through the site and implement a strong grid pattern while defining linear view corridors. The character of secondary streets is intended to be intimate, with a smaller right-of-way providing direct access to buildings, courtyards, and parking.

The right-of-way condition of Secondary Streets consists of a multi-directional carriageway with one lane of traffic in each direction. This is accompanied by an additional lane providing permanent areas for street parking and loading, articulated with vegetated bulbouts. The sidewalk is lined with street trees which provide shade in the summer, and reduce wind velocity in the winter to create a comfortable microclimate for pedestrians.

The streetscape will consist of high quality street furniture, lighting, and planting and paving materials to encourage pedestrian activity, and to enhance site identity by ensuring consistent treatment with Primary streets.



Figure 5.27: Secondary Streets



Figure 5.28: Interior Streetscape Render (Note: Far Towers are on Parkdale Avenue beyond Study Area)



Figure 5.29: Tertiary Street Character



Figure 5.30: Tertiary Street Character



Figure 5.31: Tertiary Street Character

Tertiary Streets

Tertiary streets are intended to provide access into larger blocks and to some site edge areas in the Master Plan. The blocks form the north and south boundaries of the Community Park; and the edge areas include Goldenrod's extension into the north east corner of the site, and the townhouses along the west edge of the site.

These landscaped streets are intended to accommodate vehicles, bikes and pedestrians within a narrower right-of-way and at a slower traffic pace; contributing to overall site accessibility. The streetscape will consist of high quality street furniture, lighting, and planting and paving materials to encourage pedestrian activity, and to enhance site identity by ensuring consistent treatment with Primary streets and Secondary streets.



Figure 5.32: Tertiary Streets



Figure 5.33: Public Transportation Network

Public Transportation Network

Tunney's Pasture Station is a key transit-oriented development catalyst in the Master Plan; with its function and location influencing mixed use land use types/allocation, density placement, public realm, civic amenity, integration with surrounding neighbourhoods, and other strategies.

The Station will be an active node and anchor a multi-modal network of circulation into and out of the site. The proposed Confederation Light Rail Transit (LRT) Line will provide rapid transportation and access to Tunney's Pasture, as part of a larger integrated public transportation network. This network will provide many connections to Bus Rapid Transit (BRT) and local bus systems to collectively strengthen the City of Ottawa's regional public transportation web and increase the number of transit options available to residents and employees in Tunney's Pasture and its surrounds. Proposed LRT and BRT routes will continue along Scott Street with a stop at Tunney's Pasture Station, while city buses will enter the site at the station and may continue routing through the site. Currently, over 30 bus routes provide access to Tunney's Pasture Station at various times of the day, from an array of locations within the City of Ottawa.

Although this significant public transportation strategy will decrease dependency on the private automobile, solutions to handle the volume of traffic are still required and have also been addressed. A new bridge that will connect Goldenrod Driveway to Scott Street above the LRT line will also improve connectivity and traffic flow to the south.



Figure 5.34: Active Transportation Network

Active Transportation Network

The active transportation network outlined in the Master Plan focuses on the priority of pedestrians and cyclists.

Pedestrians

The pedestrian network outlined in the Master Plan is comprehensive; including an extensive streets network, multi-use path network and a series of strategic mid-block connections. As noted in Section 5.6, all right-of-ways within the site will support high quality pedestrian circulation, with wide sidewalks separated from the carriage way. In addition, pedestrianized pathways are envisioned to connect Tunney's Pasture Driveway to Parkdale Avenue, and Colombine Driveway to Goldenrod Driveway. Pathways will also include connections to the Ottawa River, and regional multi-use pathways. Combined, Tunney's Pasture's street network and designated pedestrian pathways enables increased pedestrian activity; supporting safe and direct connectivity throughout the site and into the adjacent community.

Cycling

Enhanced bicycle infrastructure will provide cycle commuters with secured and covered bicycle parking at Tunney's Pasture Station. A municipal bike-hire service to assist shorter trips is also a consideration. All Primary and Secondary streets within the site will include separated bicycle lanes. These routes will connect to both local and regional bicycle trails; with connections to adjacent neighbourhoods, larger arterials, and the Ottawa River Pathway/Trans Canada Trail.

The Master Plan anticipates major and minor nodes within Tunney's Pasture. These offer multiple points of interest for pedestrians and cyclists including: specialized intersection conditions, public art installations, significant views, and spaces for rest and recreation. Regular designated bicycle parking and covered bike parking stations will offer a complete approach to bicycle amenities and user accommodation.



Figure 5.35: Site Parking

Parking

The Master Plan includes the strategic use of screened structured parking within blocks. Due to surface bedrock restrictions, underground parking will be limited to one or two levels below grade. Although this is sufficient for some buildings, most buildings will also require structured parking at or above-grade. Structured parking will be internalized within a podium in each block, wrapped with active uses wherever development meets a street. This strategy is further outlined in Figure 6.7 in the Urban Design Guidelines. This approach to parking is more user-friendly than surface parking; reducing walking distances across and allowing drivers to access offices and residences during inclement weather. This approach is a key step in transitioning Tunney's Pasture from a suburban to an attractive urban built environment.

Street Parking

Street parking will be provided on all Primary and Tertiary streets, as well as some Secondary streets. This approach will provide short-term and temporary parking that is easily accessible and located close to building entrances. In addition to providing an accessible parking option, street parking will increase pedestrian activity on the street.

Reducing Parking Demand

Every opportunity will be taken to reduce parking demand throughout the site. In addition to the provision of enhanced pedestrian and cycling networks, strategies will include: sharing parking facilities between different land uses to increase parking space usage, off-setting parking demand peaks and introducing auto share services throughout Tunney's Pasture.

Loading/Service

In each block the intent will be to centralize loading/servicing to serve that entire block. As well loading/service areas are to be well screened from surrounding streets, with discretely placed entries that do not detract from a high quality public realm.

5.6 OPEN SPACE

The Master Plan's proposed open space strategy for Tunney's Pasture is inspired by Gréber's original vision for the site. The intent is to carry forward that vision's distinctive character within a more urban setting. Figure 5.36 portrays this approach, with considerable green space remaining a defining feature of Tunney's Pasture.

The open space network of Tunney's Pasture is well integrated with other site strategies and the surrounding community; providing a superior quality, highly accessible and permeable open space environment throughout the site. This includes enhanced connectivity within and beyond the site, ample opportunities for community recreation and multi-purpose activities, and a green streets approach that contributes to the sense of expansive open space weaving throughout and beyond Tunney's Pasture.

A key goal in the Master Plan is that open spaces are to be nurturing and supportive of a variety of different active and passive uses, to ensure healthy outdoor spaces for all site users. To this end compatible land uses, building functions, development densities, and site geometry have been balanced in the formulation of the site's open space network. Open spaces are strategically located, evenly distributed and spatially defined to create comfortable pedestrian environments and enjoyable four-season microclimates.



Figure 5.36: Tunney's Pasture Driveway, Transit Station Plaza, and Community Park Catchment Radii



Figure 5.37: Tunney's Pasture Station Plaza Render

Open Space Typology

"Open Space" effectively includes all exterior open areas throughout the Master Plan; public, semi-public, semi - private and private. The Master Plans open space network encompasses a range of active and passive spaces; creating diversity, individuality, and identity throughout the site. Hard and soft landscapes are balanced to serve a variety of functions across the spectrum from public to private uses. The open space network is structured into a well-defined typology of spaces as depicted in Figure 5.38.

The primary types of open spaces designated within the Master Plan include:

- Tunney's Pasture Driveway;
- Tunney's Pasture Station Plaza;
- Community Park;
- Amenity area;
- Enhanced Streetscape
- Green Roofs;
- Internal Courtyards; and
- Mid-block Connections.

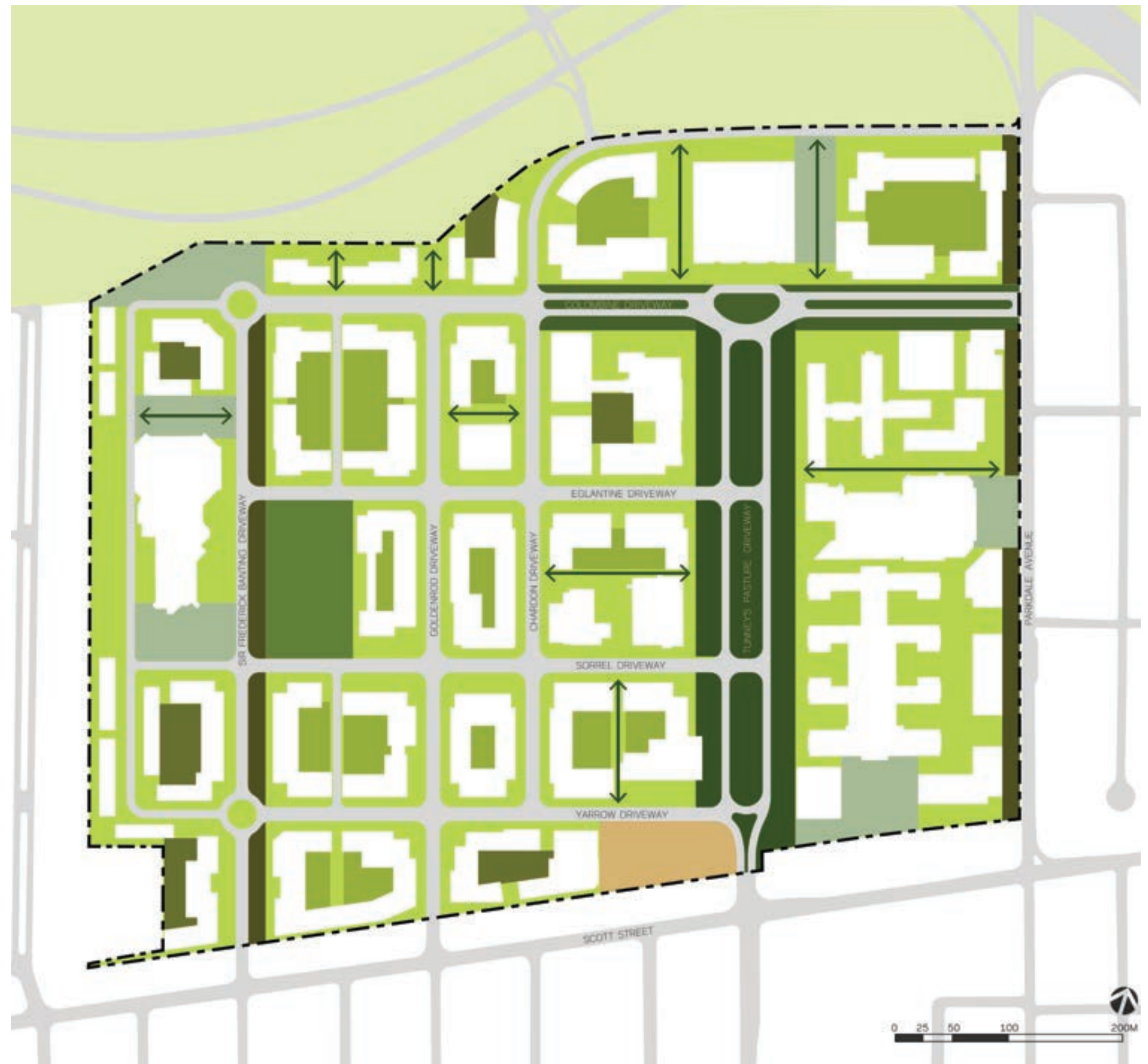


Figure 5.38: Open Space Typology



Figure 5.39: Community Park Render



Figure 5.40: Tunney's Pasture Driveway Character

Tunney's Pasture Driveway / Colombine Driveway

The green corridor gateways of Tunney's Pasture Driveway and Colombine Driveway are iconic and defining signatures of the site. The wide medians are an important passive connection to adjacent neighbourhoods and provide direct pedestrian connectivity to and from Tunney's Pasture Station for site users to the north and east. The park-like corridor of Tunney's Pasture Driveway also provides flexible open space for workers and residents.

Although this open space is intended to remain as a monumental lawn, the Master Plan recommends the introduction of sports fields and other active amenities to increase usage of the space.

Storm water measures are intended to enhance this significant green space, with engineered bioswales to capture run-off from surrounding hardscapes. Storm water management strategies can be supplemented with low-mow zones and naturalized plantings, which reduce maintenance costs and enhance biodiversity of this key open space resource.



Figure 5.41: Tunney's Pasture Station Plaza Character

Tunney's Pasture Station Plaza

The Tunney's Pasture Station Plaza represents one of the most notable civic amenities that will define the rejuvenation of the site, and will be constructed in concert with the new transit station. The Plaza is intended to serve an array of civic functions as a transit forecourt, and space for daily meetings, cafés and patios, festivals and other community events.

Flanked to the north and west by the commercial core of the site, the plaza is a central gathering space and major circulation node for residents, workers and visitors using any component of the public or active transportation networks. Surrounding businesses and services create added amenities for people going about their daily routines and the larger community. Restaurants and cafés will be situated along a terrace; in a favourable microclimate created by the south-facing, wind-protected Plaza edge.

The Plaza should be designed as a predominantly hardscaped space, readily accommodating multi-purpose civic activities. Rows of strategically located trees provide shade to primary pedestrian pathways to and from the station. Ample public seating is also provided, and is both shaded and exposed to take advantage of the seasonal effects of Ottawa's climate. In keeping with the character of a pedestrian-first urban plaza, Yarrow Driveway's vehicular right of way will run through Station Plaza, without the curbs and asphalt paving of a typical North American street. The materiality throughout the Plaza (and vehicular right of way) will feature a high quality palette of natural and composite pavers and materials.

Passive storm water management will also be an important component and feature of the space. Permeable surfaces, urban bio swale systems and water features will mitigate hard surfaces; while providing attractive amenity and a strong sustainability story.



Figure 5.42: Community Park Character

Community Park

Along the expanded right-of-way of Sir Frederick Banting Driveway, the one-hectare Community Park accommodates multi-purpose recreational uses. This public Park in the heart of the community is an important element of the open space network; contributing to a well-rounded residential community and offering amenity space for the office and government core. The Park is not intended to serve any singular event, use or function; but rather provides a flexible space that can facilitate a range of active and passive activities (inclusive of sports leagues and school activities).

The residential block directly to the east of the neighbourhood park includes an active, animated frontage that opens onto the Park. This creates a favourable setting for cafés, restaurants, and possibly a community centre, while the adjacent podium area above is well suited to fitness club and daycare uses.



Figure 5.43: Amenity Area Character

Amenity Area

As Tunney's Pasture develops, underutilized open spaces fronting departmental buildings will become increasingly important as active and passive spaces. These spaces will serve residents and employees (within an approximate radius of 200 metres) with a variety of uses that may include children's playscapes, community gardens, small recreational courts and quiet zones.

These spaces will largely be comprised of soft landscapes with minimal hardscape features, and are intended to function as designated park space for the immediate neighbourhood within Tunney's Pasture.



Figure 5.44: Enhanced Streetscape Character

Linear Park

Linear parks are proposed in the form of expanded and enhanced right-of-ways along Sir Frederick Banting Driveway and Parkdale Avenue. These corridors will enhance pedestrian and cyclist activity, connecting people to local and regional open spaces such as the new Community Park and the Ottawa River Parklands.

The linear parks will contain all of the features of a typical park space within an extended right-of-way along the length of the entire street. The right-of-way expansion will allow for separated sidewalks, bicycle lanes, vegetation buffers and programmable open space that can be used for active and passive recreation.



Figure 5.45: Green Roof Character

Green Roof

The Tunney's Pasture Master Plan recommends the implementation of green roof systems on both new and existing buildings within the site. The intent of green roofs is to introduce passive and active rooftop-extended living and working space; supporting the needs of both residents and workers. These spaces are considered of social benefit as extensions of the home and workplace.

Green roofs will also provide environmental benefits that include: storm water management, heat island reduction, reduced building energy costs and habitat for various species. Green roof systems will be implemented as a percentage of roof area, and integrated as a component of mechanical and utility systems. A combination of intensive and extensive green roof strategies are recommended to provide a variety of scale and plant material for the roof areas.



Figure 5.46: Internal Courtyard Character

Internal Courtyard

In the Master Plan internal courtyards are typically semi-private spaces, and are associated with residential, commercial or government land uses. The intent of internal courtyards is to provide intimate hardscaped or softscaped spaces that cater to the function of the building within which they are defined. These areas are either exclusively accessed by building users or allow public access during certain periods of operation.

The courtyards serve as outdoor passive/active amenity space for buildings and feature both hardscapes and softscapes to suit the required programme of respective land uses. A wide range of activities can be accommodated, including: daycare outdoor spaces, playscapes, swimming pools, sports courts, barbeque patios, resident/worker gardens, and pet areas, etc. Courtyards for commercial and government land uses can also accommodate civic-oriented purposes, as well as conference related spaces, work areas, and outdoor restaurant/café spaces, etc.



Figure 5.47: Mid-block Connection Character

Mid-block Connection

Mid-block connections are designated corridors that serve as thoroughfares for pedestrians and cyclists, and limited vehicular use. The intent of mid-block connections is to increase pedestrian permeability within Tunney's Pasture and into the existing neighbourhoods beyond; by providing safe, high quality connections between buildings.

In employment and mixed-use areas of the site, mid-block connections will operate as semi-public, hardscaped space, fostering an active pedestrian realm for the use of workers, residents, and site visitors. In residential areas of Tunney's Pasture, these connections will operate as an extension of private softscaped space; providing an appropriately quiet and safe environment. Mid-block connections also provide as-required access for emergency and service vehicles.

5.7 SITE ELEMENTS

Figure 5.48 illustrates specific design elements incorporated into the Master Plan that collectively create a vibrant, pedestrian and transit-oriented mixed-use community. These elements also provide a distinctive site signature that celebrates Tunney's Pasture's unique identity within the broader community. Key features include the following:

Gateways into Tunney's Pasture are identified and defined with noteworthy existing and new building landmarks, landscaped open spaces and potential public art installations.

Two distinct nodes on site serve as hubs for community gathering and interaction. The Tunney's Pasture Station Plaza is a major civic gateway space co-located with the primary entrance to Tunney's Pasture; while the Community Park serves as a key green open space providing passive and active recreational opportunities for adjacent residents and workers, as well as the broader community.

"Activated Built Edges" highlight strategic areas where vibrant retail and commercial activity is to be placed. These urban built edges have been carefully planned to frame, define and animate Tunney's Pasture Station Plaza and the Community Park.

To integrate with the surrounding community, Parkdale Avenue is engaged with infill development and a linear park which connects to the Tunney's Pasture's open space network, as well as the Ottawa River parklands.

Views into and out of the site are also important design elements. The existing vista corridors of Tunney's Pasture have been emphasized to frame views into the site and to the Ottawa River and parklands beyond. Others such as Sir Frederick Banting Driveway have been opened up to provide new links through the site. Building upon this tradition carefully formed view lines have been created to adjacent neighbourhoods to the south and east of the site.

Tunney's Pasture Master Plan

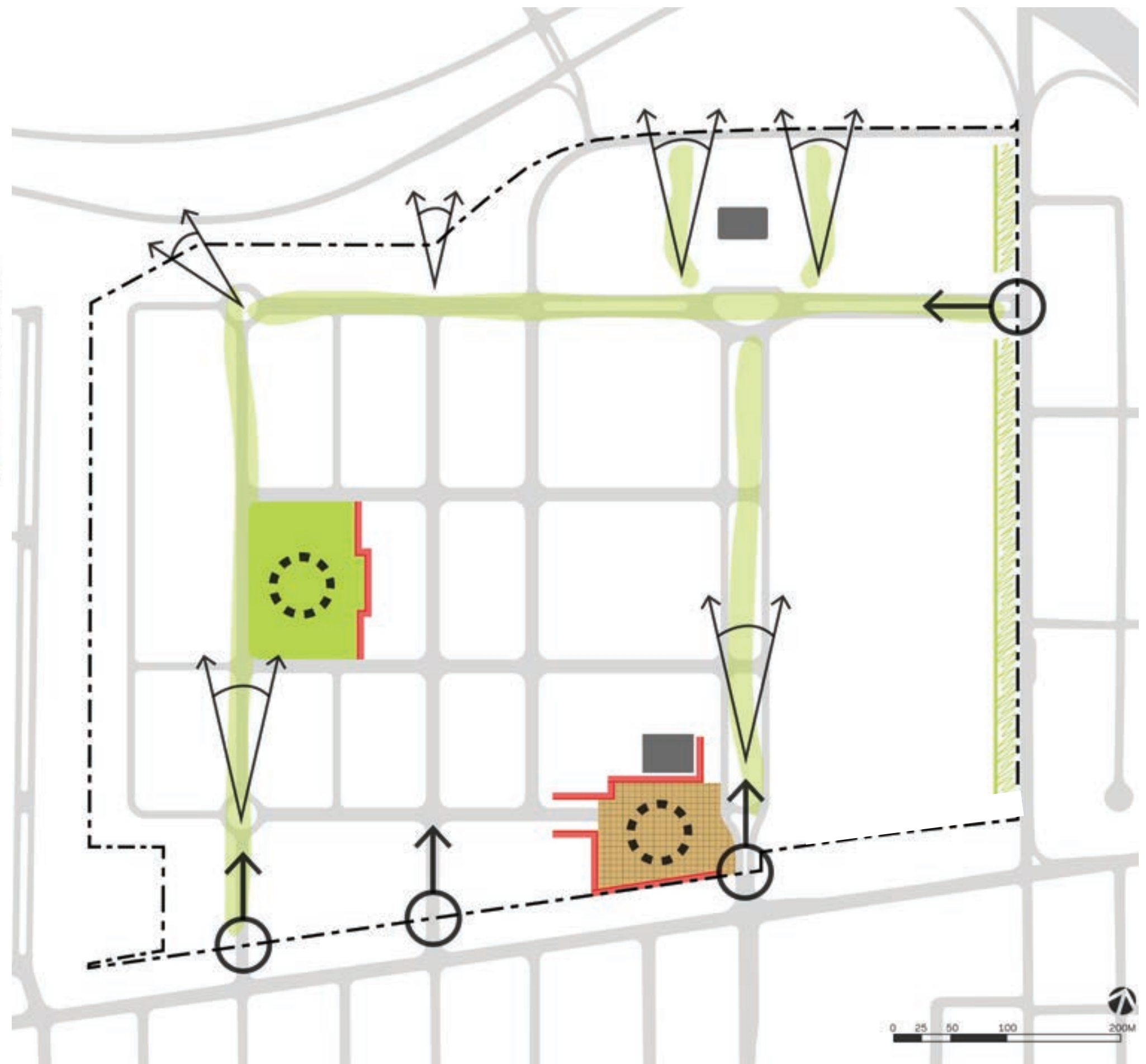


Figure 5.48: Site Elements



Figure 5.49: Integration of District Energy with Public Facilities

5.8 SERVICING AND INFRASTRUCTURE

The Master Plan foresees the transformation of Tunney's Pasture from an employment centre to a twenty-first century, urban, mixed-use community. With this transition comes the need for a highly sustainable servicing and infrastructure backbone, holistically integrating both the site, its emerging range of land uses and the broader community.

Many foundational elements of this transformation are already embedded in the Master Plan; including the following sampling:

- complete mix of live-work-enjoy land uses (a community that has everything close at hand);
- an urban weave of pedestrian-scaled blocks and streets throughout the site (encourages walking while reducing reliance on automobiles);
- intermodal public transit within easy walking distance (pedestrian connectivity within Tunney's Pasture and into the broader community);
- minimized parking lots and maximized green spaces (reducing heat island effect and storm water run-off to City infrastructure);
- passive sustainable urban design and landscape (naturally cooled/warmed public spaces based on micro-climate principles, reduced reliance on water resources, etc.);
- richness of community amenities within easy access to workers and residents (reduces vehicular traffic/pollution); and
- sustainably designed new and renovated buildings (resulting in decreased demand on energy, services and infrastructure; leading to a lighter environmental footprint for Tunney's Pasture).



Figure 5.50: Integration of Wind Turbines with Built Form

There are an array of infrastructure strategies to be considered in order to implement the Master Plan, including:

District Heating/Cooling

Public Works and Government Services Canada has a long, successful history of using district heating and cooling for existing buildings at Tunney's Pasture. With a significant "critical mass" of additional employment and residential population proposed by this master plan, there is a promising opportunity to provide an expanded, viable community-based central heating and cooling system and network to service new development in the future.

Co-generation

With the range of land/building uses on site and in the surrounding community interdependent energy co-generation is a possibility. Excess heat generated by one building type may be of great use for other building types nearby.

Sun and Wind

These sources of energy are possible partners with the strategies noted above. Sun and wind energies' potential viability are tied to the rising cost of traditional energy (and falling cost of photo voltaics and turbines) over the time span of the Master Plan. Both sun and wind energy can be harvested at a scale that allows such systems to quietly contribute to community needs without visually detracting.

On-Site Storm Water Management

This strategy can significantly lighten Tunney's Pasture's impact on municipal resources, through increasing on-site capture, filtration and reuse of water. Storm water management solves pragmatic infrastructure requirements, while contributing attractive water amenities towards the high quality landscape character that is a core element of the Master Plan.



Figure 5.51: Integration of Photovoltaic Cells with Building Façade

Low Impact Landscape

Low impact landscape closely partners with storm water management and will help reduce reliance on water infrastructure. It can also take full advantage of on-site grey water capture, further reducing fresh water demand for vegetation. Low impact landscape is further outlined in Section 5.9 of the Master Plan.



Figure 5.52: Low Impact Landscaping

A high level engineering overview of the master plan has identified the following servicing component upgrades that will be needed to support the development envisaged by the master plan.

Water Supply

Existing water supply consumption data that was used in the infrastructure analysis is based on billing data for the year 2000, which equated to 40l/s. By utilizing the consumption rates in the City of Ottawa's Water Distribution Design Guidelines, the water supply consumption rate for the Master Plan will increase by 640% to a maximum hourly rate of 300l/s. This is largely due to higher density residential uses that are proposed for the site.

Although there will be a significant increase in consumption rates, analysis of the system indicates that there should be sufficient capacity in the existing water supply system for daily consumption as the overall site has been fully upgraded over the past 15 years. Furthermore, based on PWGSC testing, fire flow protection should be adequate for this proposed option. However, the fire flow demand will need to be assessed for the Master Plan.

As the Master Plan proposes the demolition and redevelopment of certain existing buildings, the distribution system will have to be modified accordingly.



Figure 5.53: Integration of Storm Water Landscaping with Public Realm

Sanitary Servicing

Existing sanitary servicing is nearing capacity, with a peak sewage flow of 61l/s. Therefore, many of the sewers need to be replaced in order to accommodate the future peak sewage flow of 180l/s (a 300% increase), which was calculated using average wastewater flows as described in the City of Ottawa Sewer Design Guidelines.

As the Master Plan proposes the demolition and redevelopment of certain existing buildings, the sanitary servicing system will have to be modified accordingly.



Figure 5.54: Integration of Storm Water Landscaping with Public Realm

Storm Water Servicing

Based on existing conditions, it has been determined that the existing local storm sewer drainage system does not meet current standards because it does not have the capacity to convey a 5-year storm. Furthermore, the local drainage system does not include quantity or quality controls of the runoff before discharging into the trunk sewer outlets. Redevelopment of the site will provide an opportunity to upgrade the entire existing local drainage system to a 5-year storm standard, introducing quantity and quality control measures.

Quantity Control

Tunney's Pasture will require the implementation of a storm water management plan that results in a 25% reduction in the rate and quantity of storm water runoff. This would entail significant storage capacity to manage runoff from large events, which should be incorporated in the design regardless of the site redevelopment plan. If the redevelopment options have space constraints, storage capacity can be provided on rooftops, parking lots, roadways, underground pipes, or tanks and pods located within open spaces.

Quality Control

Tunney's Pasture will require the provision of storm water management controls to remove 80% of the average annual post-development total suspended solids (TSS) and 40% of the average annual post-development total phosphorus (TP) from the site runoff, considering all storms less than or equal to the 2-year, 24 hour storm. Examples of storm water treatment facilities are wet ponds, oil and grit separators, bio-retention facilities, treatment wetlands, or a combination of these facilities.



Figure 5.55: Sustainability Character

5.9 SUSTAINABILITY

A series of design strategies are embedded within the Master Plan that focus on the short and long-term environmental, economic, and social sustainability of Tunney's Pasture. The following provides an overview of a sampling of these strategies. Sustainability initiatives not addressed at the master plan level should be explored in further, more detailed, studies.

Walkability and Transit-Oriented Development

The creation of a walkable community in the Master Plan is a paramount goal. The provision of smaller city blocks, a mix of land uses, activation of built edges, expanded right-of-ways, comfortable pedestrian environments, well-connected bicycle routes, and safe and separated sidewalks are all extensions of this focus.

Basing the Master Plan on transit-oriented development (TOD) principles is another key driver, and a natural partner with the concept of walkability. Increased connectivity, efficiency, and utilization of different modes of public transportation (LRT, BRT, and city buses) encourages transit use. This is coupled with a close-knit diversity of land uses and carefully placed density relative to public transit hub points; resulting in increased rates of ridership, reduced dependence on cars and a healthier "place of choice" community.

Low Impact Landscape and Storm Water

A key feature of the Master Plan is its "greenness"; with a hallmark variety of extensive, well-landscaped open spaces. Springing from this foundation will be the selection of a native vegetation and adaptive planting palette to reduce impact, promote biodiversity, reduce irrigation requirements, and create habitat corridors that connect to the Ottawa River. This strategy is also a vital contributor to the improvement of pedestrian realm along streets, within parks and throughout other open spaces.



Figure 5.56: Sustainability Character

"Greenness" will extend beyond the ground plane to include green roof systems throughout; providing additional environmental benefits, slowing storm water runoff during peak precipitation, and reducing demand on traditional storm water management systems.

Integrated storm water management within Tunney's Pasture is intrinsically linked with the above, and will make a significant contribution to the Master Plan's green strategy. The extent and quantity of open space shown in the Master Plan is a starting point that enables the use of storm water management as a functional system throughout the site, and the potential for water features as part of the landscape aesthetic. Moving forward close coordination with civil engineers and landscape architects will take this strategy to the next level.

Built Form and Green Design

Built form design will play a key role in reducing energy demand across the site. Applying integrated green design standards and principles throughout the planning, urban design, landscape, and building design stages of Master Plan implementation will be essential. This in turn will empower holistic solutions for four-season "winter city" design, energy conservation, on-site energy generation, water efficiency, material and resource selection, and indoor and outdoor environmental quality. As part of this process it is recommended that the highest Leadership in Energy and Environmental Design (LEED) (or equivalent) standards be followed and achieved; at the community/neighbourhood, building and interior environment levels. There is major movement well underway to create communities that perform well beyond LEED, and given the Master Plan's forward vision time period, Tunney's Pasture is perfectly suited to actively follow this path.



Figure 5.57: Sustainability Character

5.10 MICROCLIMATE

Solar Access Analysis

To evaluate and assess the microclimatic impact of proposed built form on the public realm, a comprehensive solar access analysis was conducted. The analysis illustrates the shadows created by the built form recommended in the Master Plan at 9:00AM, 12:00PM, and 3:00PM on the Vernal Equinox (March 21), Summer Solstice (June 21), Autumnal Equinox (September 21), and Winter Solstice (December 21).

To achieve optimal balance between appropriate site density and solar access, preliminary solar access analyses have guided the design of building masses in the development of the master plan. The final solar access analysis demonstrates that the majority of the public realm in Tunney's Pasture has high solar access between the hours of 9:00AM and 3:00PM during most times of the year. The analysis also confirms that the master plan does not extend any shadow impacts onto existing stable residential neighbourhoods in the surrounding community; with the exception of the most northern property on the east edge of Parkdale Avenue. In addition, shadows are extended to many properties on the eastern edge of Parkdale Avenue on December 21. However, the shadow analyses for 9:00AM and 3:00PM on December 21 depict a condition where larger shadows are combined with minimal daylight, lessening their impact.

Microclimatic conditions for the Tunney's Pasture Station Plaza and Community Park are of particular attention in the Master Plan, given their important open space functions within the site. Outcomes of the solar access study conclude that these two spaces are largely free of shadows in the mornings and early afternoons at all times of the year, except in the winter. However, shadows do extend into Tunney's Pasture Station Plaza later in the afternoon, in the spring, fall, and winter.

5.11 SITE PRECINCTS

The Tunney's Pasture Master Plan provides a dynamic future vision for a significant tract of land in Ottawa. A major focus of the Master Plan is to create a vibrant community on the site, with distinctive precincts contributing to this overarching goal. The following words and images outline each precinct and how they fit into the comprehensive whole.



Figure 5.58: Site Precincts

Central Precinct

Every successful community has a vibrant core, and the Central Precinct of Tunney's Pasture aims to achieve a "downtown" character with strong place-making and identity uses and features. While Central Precinct is mixed use in nature its primary function is as an employment district for the Tunney's Pasture community. The Precinct is focused around two key features; the mixed-use, high density employment hub at Tunney's Pasture Station, and the Gréber Plan's significant feature - Tunney's Pasture Driveway.

Tunney's Pasture Station Plaza

A key part of the hub; Tunney's Pasture Station Plaza is located between Tunney's Pasture Station and Tunney's Pasture Driveway, and is framed by high density office and retail uses with animated frontages at Plaza level. The Plaza provides a highly visible and active gateway to the community; and is comprised of community amenities that include multi-modal transit access, a variety of retail establishments, restaurants, cafés, terraces and the significant landscaped open spaces of the Plaza itself. As well office buildings will have their main addresses and entry lobbies at the Plaza.

Tunney's Pasture Driveway

The Plaza edges onto the broad, landscaped Tunney's Pasture Driveway; a major open space that extends deep into the heart of Tunney's Pasture's employment neighbourhood. Buildings framing the west edge of the Driveway consist of a fabric of existing intermixed with new office buildings; with a setback from the Driveway in keeping with the condition along the east edge of the Driveway. The western area of the Central Precinct consists of smaller blocks with land uses dedicated to office (to the north) and mixed use residential/office/retail (to the south, close to the Plaza area). The mixed use blocks allow for the flexibility to respond to portfolio and real estate market demands.

The character of Central Precinct is defined by the "downtown" core and transit hub, its major civic and green spaces, and the urbane blocks of office and mixed use buildings along well-treed streets. This Precinct's character is also one of active connection with the broader community; with the transit station, civic/green spaces, offices, retail and amenities accessed by a catchment area well beyond the Tunney's Pasture site.

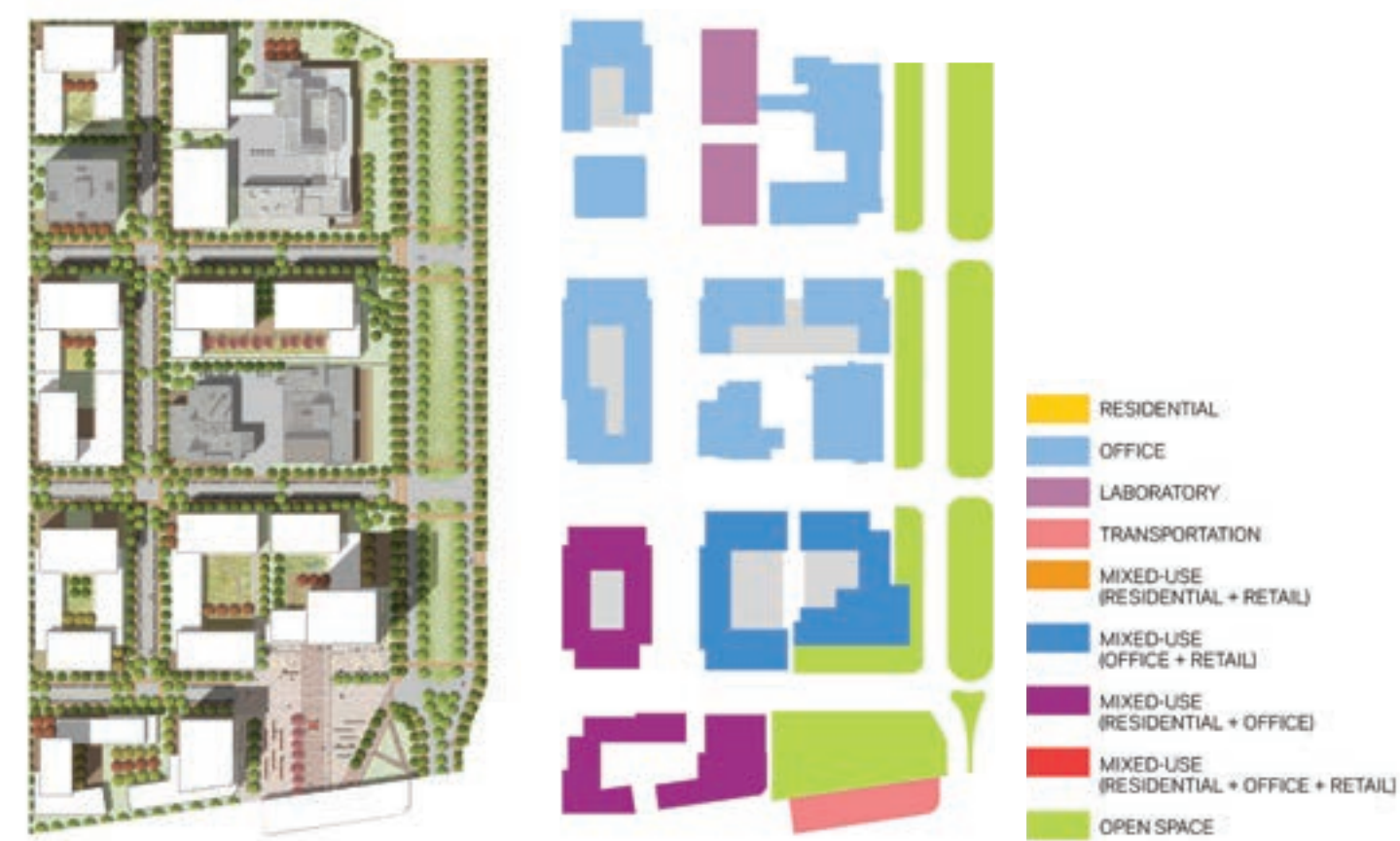


Figure 5.59: Central Precinct



Source: Greg Wass Flickr

Figure 5.60: Central Precinct Character



Source: La Citta Vita Flickr

Figure 5.61: Central Precinct Character

Northern Precinct

The Northern Precinct of Tunney's Pasture provides both a well- defined edge for Tunney's Pasture Driveway and permeable, accessible transition to the significant amenity of the Ottawa River and its expansive parklands.

The existing Brooke Claxton Building at the northern terminus of Tunney's Pasture Driveway will be sensitively framed by new office buildings, which in turn transition to residential buildings facing towards the parklands and river. The mix of residential buildings with views towards the parklands and river are sensitively sited in terms of height (four to twelve storeys), generous setbacks and well-landscaped naturalized open space. Residential buildings facing Parkdale will be higher, in keeping with the built form context developing along that thoroughfare.

Colombine Driveway is a key street in this Precinct and will be a well-treed avenue (inspired by the Greber Plan) and framed by new buildings along the north edge of the Driveway.

The character of North Precinct is one of community meeting nature; defined by transition from an urban edge of office and residential buildings along generously-scaled tree-lined Colombine Driveway, to residential buildings with extensive landscaping creating a naturalized connection with the Ottawa River parklands.



Figure 5.62: Northern Precinct



Figure 5.63: Northern Precinct Character



Figure 5.64: Northern Precinct Character

Eastern Precinct

The Eastern Precinct of the Master Plan includes significant frontage along Parkdale Avenue with a prominent exposure where Parkdale and Scott meet, presenting Tunney's Pasture in its current form to surrounding neighbourhoods.

In this Precinct the majority of land use is office (provided by existing buildings); with new mixed-use office/residential along Parkdale, and new residential at the corner of Colombine and Parkdale, all set in ample green open space. Potential for street level local retail is available in the mixed use and residential buildings. The mixed-use office/residential provides the flexibility to respond to portfolio and real estate market demands.

Existing office buildings form the majority of built form, with the current setback edge framing Tunney's Pasture Driveway. This existing fabric consists of a field of lower buildings and green open spaces, punctuated with a skyline of well-separated towers. This is in marked contrast to the wall of high rise buildings now developing along the east edge of Parkdale, which increasingly accentuates the uniqueness of the Tunney's Pasture site and built environment. To preserve that uniqueness new buildings are set at heights considerably lower than the existing office towers and the higher buildings being developed along the east side of Parkdale Avenue. This strategy is complemented by setbacks along Parkdale Avenue sufficient for generous green space, as well as a pocket park at the terminus of Burnside Avenue. Mid-block pedestrian connections through to Tunney's Pasture Driveway provide permeable accessibility through the site. The existing amenity area east of the Coates Building should remain as landscaped open space.

The character of the Eastern Precinct will feature a high quality landscaped pedestrian realm that defines the ground plane of the site, western edge of Parkdale Avenue and view from Scott Street.

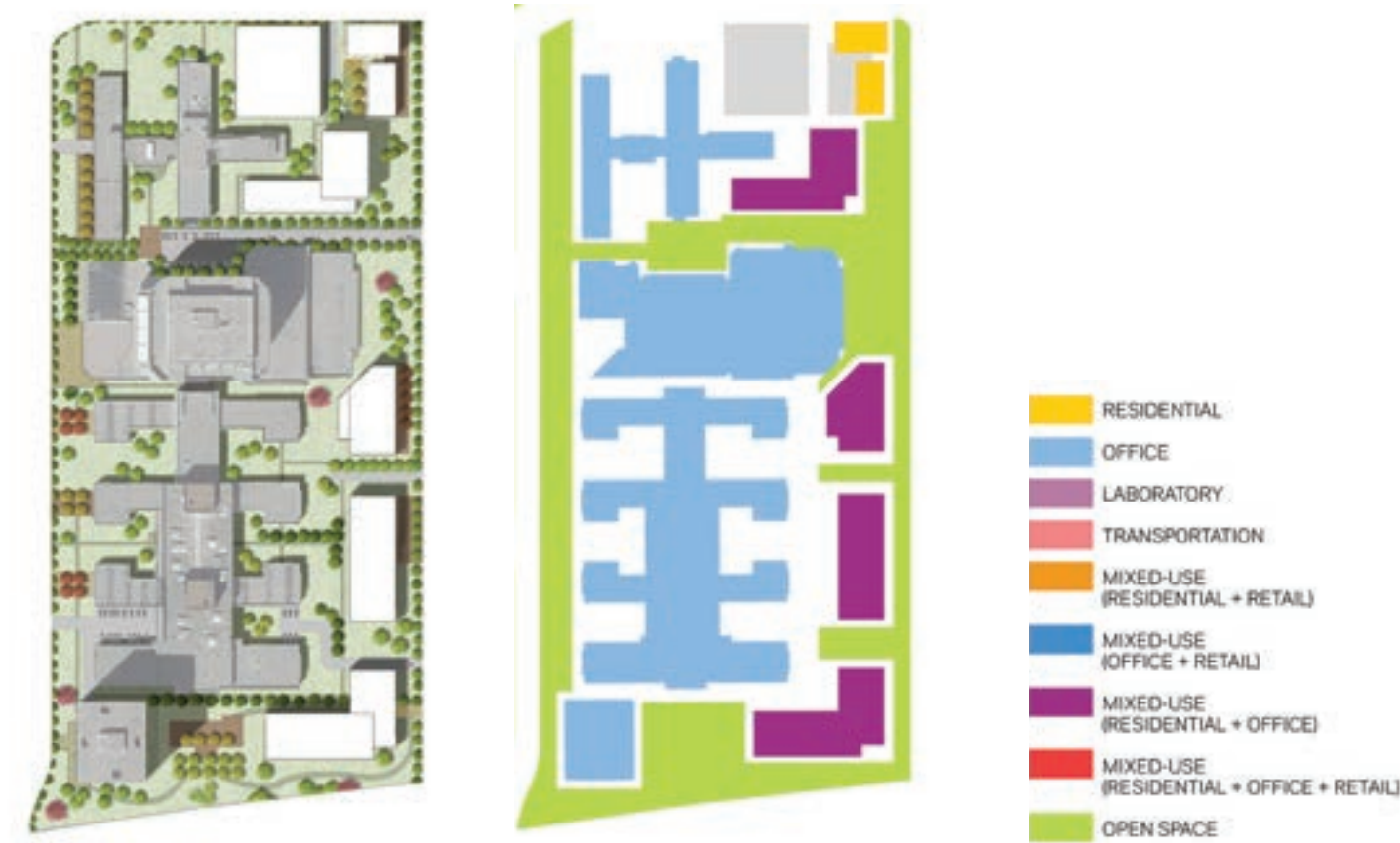


Figure 5.65: Eastern Precinct



Source: HOK

Figure 5.66: Eastern Precinct Character



Source: HDR, Inc. Flickr

Figure 5.67: Eastern Precinct Character

Western Precinct

The Western Precinct of the Master Plan addresses significant adjacency to a mature single family residential neighbourhood, as well as major circulation and amenity strategies that benefit both Tunney's Pasture and the broader community.

In this Precinct the majority of land use is residential (from multi-unit high and mid-rise to low-rise townhouses); with some existing lab/office, mixed-use residential/office, mixed-use residential/retail and a key open space amenity. Located close to the Central Precinct employment area, the mixed-use residential/office provides the flexibility to respond to portfolio and real estate market demands. The mixed-use residential/retail, which borders the key open space amenity, anticipates the potential for retail uses complementary to that space. In the longer term, if the Sir Frederick Banting building were to be decommissioned, the Master Plan includes the flexibility to develop residential uses sensitive to the adjacent Champlain Park neighbourhood.

Built form in this part of the Master Plan is largely new (aside from the existing lab/office facility) and planned within a network of finer grain urban blocks and streets. The building height strategy is highly sensitive to surrounding context; placing the highest structures in the centre of Tunney's Pasture (along the east boundary of this Precinct and none higher than existing towers on the site); stepping down to the west (to transition to the Champlain Park single family neighbourhood), north (transitioning to the Ottawa River parklands) and south (transitioning to the edge of Scott Street and the residential neighbourhood beyond). Attention has been given to setting an appropriate height to frame the Community Park while ensuring access to sun.

Built form is set in a ground plane strategy that consists of urban, well-landscaped neighbourhood streets and inner block laneways. Key open spaces in this Precinct include Sir Frederick Banting Driveway and Community Park. Sir Frederick Banting Driveway is envisioned as a thoroughfare of similar prominence to Colombine Driveway; combining vehicular, bike and pedestrian circulation within an enhanced landscape right of way. The east side of Sir Frederick Banting Driveway is given greater width to create a linear park character. Although outside the Master Plan site the desire is to continue Sir Frederick Banting's landscaped right of way as a widened land bridge across the LRT tracks and through to Scott Street; extending the Tunney's Pasture green environment to the neighbourhoods beyond. A similar landscaped land bridge approach is desired for the extension of Goldenrod Driveway through to Scott Street. The Community Park also borders Sir Frederick Banting, further enhancing the green quality of this Precinct while adding a valuable open space amenity for broad public use.

The character of the Western Precinct will be of a comfortably-scaled residential neighbourhood in a high quality park setting; inviting to a broad range of people looking for a community where open space, recreational amenities, work, shopping and public transit are close at hand.

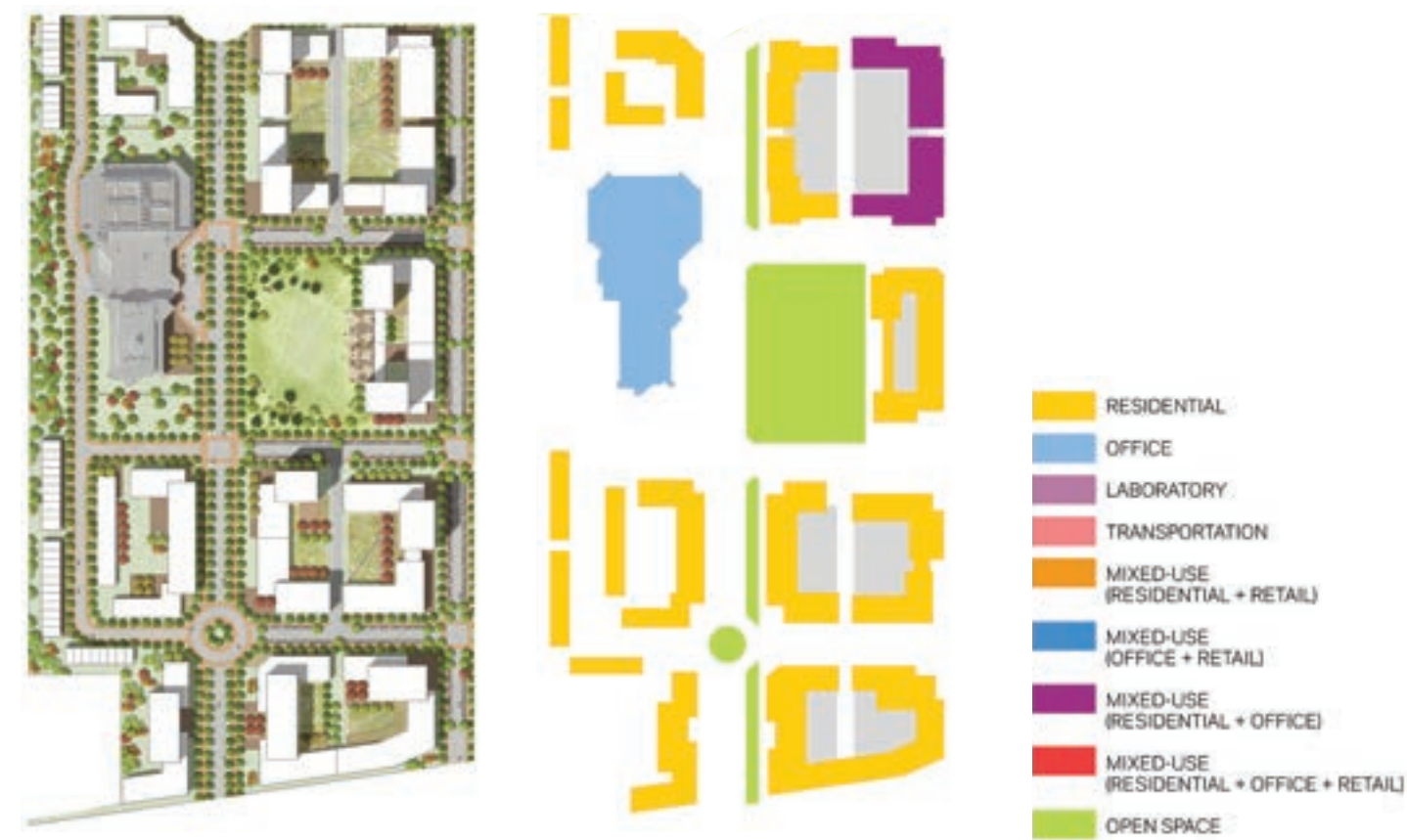


Figure 5.68: Western Precinct



Figure 5.69: Western Precinct Character

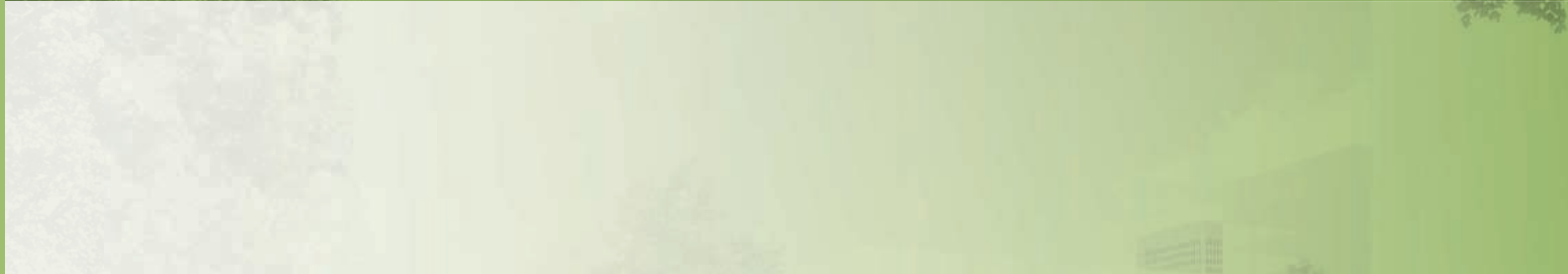


Figure 5.70: Western Precinct Character

URBAN DESIGN GUIDELINES

06





06

URBAN DESIGN GUIDELINES

The Tunney's Pasture Master Plan recommends adherence to the following urban design guidelines in order to achieve the desired goals envisioned in the Master Plan. These guidelines focus on preferred built form, sustainability, and block typology.

6.1 BUILT FORM GUIDELINES

Building Orientation and Massing

Buildings should promote a continuous urban street edge and a high quality public face, through design strategies that fully address the street. In office and mixed-use areas, this street edge should be animated; with functions and activities that provide vibrancy and community interaction. In residential areas a more passive approach should be adopted to allow for a quiet neighbourhood, but sufficiently animated to give a clear sense of active habitation.

In all buildings a clear sense of building address and entry from the public realm is needed. Design buildings to enhance public realm pedestrian comfort and safety and implement an “eyes on the street” design approach, with increased safety of the public realm achieved by virtue of clear visual indications that occupants in buildings have views onto the public realm; providing ongoing safety monitoring of the realm.

The design of taller buildings should minimize any detrimental impact on the quality of streetscape and adjacent neighbourhoods. Appropriate building massing and orientation is encouraged to limit negative shadow impacts, maximize solar access to the streetscape, mitigate wind problems and capture key views of site features and the Ottawa River.

Where taller buildings are proposed, a “tower-and-street building” approach should be adopted; providing clear visual distinction between the tower and the street building form that contributes to street and open space edge. This approach creates a human-scale environment at grade and provides well-designed street and open space definition; resulting in enhanced pedestrian realm comfort. It also leads to a building that fits well into the skyline of Tunney's Pasture. The cumulative result is built form that positively contributes to integrated urban design, leading to a high quality community. The following outlines key design considerations.

Street Buildings

As shown in the Master Plan aerial view, street buildings should be of a height that creates comfortably proportioned streets and open spaces. Grade level microclimate considerations are of prime importance; with access to sun, wind mitigation and weather protection key elements. Built form massing and articulation is also key; with careful attention required to provide a human-scaled environment.

Towers

Tower distancing is a defining characteristic of Tunney's Pasture, with existing conditions consisting of well separated towers and a fabric of mid-rise buildings; set in generous green open space. The spirit of this character is carried forward in the Master Plan, with new towers maintaining comfortable distances. The rendered Master Plan and aerial view provide guidance regarding tower placement and separation, on a block by block basis. Visual presence at street level of at least a portion of each tower is important; with its entry lobby clearly connected to the tower form. This helps in terms of wayfinding and identity, and also engages each tower with the public realm at grade.

Residential towers should focus on using architectural proportioning and articulation to create tower slenderness, attention to the shaft and top of the building, and an aesthetically pleasing skyline, generally with a maximum floor plate size of 750 gross square metres.

Office towers will have more latitude in terms of floor plate size; with functional and market needs influencing size. The same care though is needed in terms of tower separation for access to natural light and views, visual privacy and safety.

Some buildings should be carefully designed as landmarks where appropriate within the community, while others will be considered fabric buildings. This will depend on the location, visual prominence and context of the specific building site within the Master Plan.

Building Setback and Stepbacks

This guideline expands on the “tower-and-street building” approach. Appropriate building setbacks and step backs should be used to mitigate the impact of taller buildings and create a pedestrian-oriented, human-scaled streetscape. Towers are to be setback from the street building in order to achieve a public realm at street level, and prevent taller buildings from dominating the streetscape. Taller buildings should have a minimum three-metre stepback above the street buildings to reduce the overall building mass and provide a built form transition to the streetscape and surrounding lower-height residential areas. This also creates useable outdoor amenity space at street building roof level, in the form of green roofs and terraces.

Buildings should generally have consistent setbacks to create a continuous streetwall. On corner sites, building setbacks should align with their respective street frontages and make necessary transitions to both edges. Variations in setbacks may be used to incorporate primary building entrances, public open spaces, and mid-block connections.

Building Access

Primary building entrances should face public realm streets and be directly accessible by pedestrians, cyclists, and vehicles. Individually addressed front door entries should be provided for ground floor residential units (e.g.: townhouses, stacked townhouses); animating the street. Residential units above should be accessed by a main building entrance that clearly defines the civic address. Where residential or office uses are included above retail uses, separate entrances to those uses should be street addressed and readily visible. Entrances should be strongly related to the building they serve, with lobbies transparent to the public realm. Use of entry canopies, double height lobbies and other civic address demarcation strategies are encouraged.

Main building entrances are to provide weather protection through awnings, recessed entries, front porches, porticos and/or verandas. This includes entries to individual



Figure 6.1: Urban Design Character (Building Materials)

street level residences. Secondary buildings entrances should be also be clear, safe, convenient and easily accessible.

Parking, Bike Storage and Loading/Service Area Access

Access to service, storage, loading and parking areas should be easily accessible, but also discretely located and screened; avoiding negative impact on the public realm. Centralized/shared storage, service, and loading access is encouraged to minimize the number of such areas on each block, and related curb cuts.

Loading docks, service, storage and waste collection areas should be located underground. However, if such locations are not viable these areas are to be located away from highly public areas, and completely enclosed/screened from view. If such areas are at street level enclosures should be integrated into the design of their respective buildings, and constructed of materials that complement those of their respective buildings (e.g. no chain link fencing, etc...). Service and refuse areas should be paved with an impervious surface of asphalt or concrete to minimize the potential for infiltration of harmful materials into the ground.

Safety and Security

The overall site and building design should adhere to the principles of Crime Prevention Through Environmental Design (CPTED), as well as best practices in "defensible space"; ensuring the security and safety of all citizens.

An example is the provision of visibility between indoor and outdoor areas to enhance opportunities for natural surveillance. Likewise, in multiple-unit dwellings pedestrian access to parking and service areas within buildings should be transparently situated near communal areas (e.g.: recreation areas, lounges, meeting rooms) to maintain safety.



Figure 6.2: Urban Design Character (Roofs)

Public, Semi-Private, Private

Provide readily understandable demarcation of public, semi-private and private areas wherever the pedestrian realm is present. This includes both street level and any other levels that the realm extends to. This is to be achieved through thoughtful integration of urban, landscape and architectural design.

Building Façades

While variation in built form expression is encouraged consistent rhythms in terms of datum lines, setbacks and other architectural strategies should be used to establish and maintain street edge continuity; resulting in a distinctive urban design character.

The façades of large buildings should articulate key functional elements of the building; through built form massing, articulation and materiality. Such elements include but are not limited to: individual retail/commercial units, residential units, key entries, lobbies, balconies, terraces, canopies, awnings, forecourts, etc... This urban and architectural design "coding" allows for public realm animation, as well as intuitive identity of key building functions and purpose. Buildings should have minimal blank façades.

Flanking façades should maintain a consistent standard of design and materials equal to that of the front façade. Where buildings are prohibited from using windows (e.g.: where future adjacent development is anticipated), the flanking façades should still be designed to a high level of articulation, delineation and materiality.

Retail use facades facing the public realm must be transparent, with a clear view of activities inside the retail spaces. This is a vital part of public realm animation as well as way finding/identity. Related to this, a significant amount of the building base façade at street level should consist of transparent glazing to allow views of indoor uses, and create visual interest for pedestrians. Spandrel glass should not be used.



Figure 6.3: Urban Design Character (Storage, Service, and Loading)

Buildings with frontages exceeding 12.0 meters in width should be divided into functionally and visually smaller units through the use of façade massing, articulation, delineation and materiality.

Building Character and Materiality

The urban design, architectural and landscape character of new development should be in keeping with existing buildings, with design aesthetics and quality to be consistently high throughout the site. Where new development is adjacent to surrounding context, care is to be taken to create design that is sensitive to that existing and anticipated future context.

The palette of built form and urban design materials and finishes is to be fitting to the above character goal; including a focus on high quality, durability and sustainable processes/properties. Preferred cladding materials include brick, stone, metal, composite panel, glass, in-situ concrete, and pre-cast concrete. Materials such as stucco, vinyl siding, plastic, plywood, concrete block, tinted and mirrored glass, and metal siding are strongly discouraged.

High quality landscape is of prime importance; including both soft and hard scape. Further details are provided in this section. Public realm urban design and landscape guidelines will be developed; focusing on establishing a consistent weave of a Tunney's Pasture "quality character brand" throughout the Master Plan area.

Roofs

Green roofs are an essential extension of Tunney's Pasture's open space strategy and are encouraged throughout the Master Plan area. Such roofs are to be designed for sustainability (reducing heat island effect, storm water management) as well as passive/active recreation; including private and communal outdoor terraces, decks, gardens and garden plots.



Figure 6.4: Urban Design Character (Building Design)

Roof materials and colours are to complement built form design and materials. Rooftop mechanical equipment is to be integrated with the building design, and fully screened using materials that are complementary to the building.

Pitched or sloped roofs may be considered in areas adjacent to existing context using similar roof form; in particular along the west edge of the Master Plan.

Public Art and Commemorations

Public art and commemorations will be encouraged at appropriate locations at Tunney's Pasture. Depending on their form, design and function, suitable locations for public art and commemorations include the urban plaza and/or in close proximity to federal buildings.



Figure 6.5: Urban Design Character (Building Design)

6.2 SUSTAINABILITY GUIDELINES

Tunney's Pasture is located adjacent to the Ottawa River and associated parkland and naturalized areas; a significant defining natural heritage of the Ottawa region. As well the Master Plan vision anticipates sustainably responsible urban development of the highest quality. With these factors in mind, sustainable design guidelines are an essential component of the Master Plan.

Site, Building and Interior Environment Design

New and retrofitted development (at overall site, building and interior environment levels) is encouraged to achieve at least the highest level of Leadership in Energy and Environmental Design (LEED) certification (or an equivalent sustainability design standard). Given the Master Plan's time span of vision, targeting beyond LEED is strongly recommended.

Sustainable design strategies to be followed within the Master Plan are listed below:

- **Energy Reduction** - At all of the levels noted above reduction of energy consumption by overall site, building and interior environment systems (HVAC, water heating, lighting, etc...) is a high priority. Primary emphasis is placed on the use of passive design strategies such as sustainable site planning, shading, ventilation, cooling, natural light infiltration, etc. Once all passive means have been used, sophisticated technology-driven solutions are emphasized.
- **Water Reduction** - Reduction of water consumption is also of importance; with emphasis on making better use of on-site water before it is returned to an expensive re-purification process. This includes strategies such as use of gray water for uses that do not require potable water.
- **Flexibility** - Ensuring flexibility in site, building and interior design is an important sustainable design feature, since it provides the ability to easily accommodate change over time.
- **Energy Production** - Given the size of Tunney's Pasture and the wide variety of land uses in the Master Plan consider the potential for energy co-generation and off-grid energy production.



Figure 6.6: Urban Design Character (Site Design and Landscaping)

- **Waste Management** - Consider centralized and streamed waste management for the entire site, for highest efficiency in recycling. Implement a site-wide construction waste management protocol, for optimum recycling of construction materials.

Site Design and Landscaping

Site design and landscaping play an important role in the success of the Tunney's Pasture Master Plan. Attention to local climatic conditions is key to successful site design and landscaping. Information for the Ottawa region (that includes analyses of wind, temperature, humidity, and solar radiation systems) is visualized in a separate technical appendix. The following outlines strategies to be used in implementing the Master Plan vision:

- **Existing Landscape** - Wherever possible existing mature landscape should be retained and supplemented with new that is sensitive to existing. A focus on best quality and durability is paramount; including adherence to the highest sustainable processes, properties and systems.
- **Storm Water Management** - Outlined earlier in this section, holistic on-site storm water management is encouraged, along with related water-related strategies (green roofs, rooftop gardens, green walls, use of gray water, etc.).
- **Permeable Ground Plane** - Maximize pervious ground plane surfaces; allowing rain water to be retained, filtered and reused on-site. Utilize porous hard scape and soft scape strategies to achieve this. Some examples include:
 - Planting bio swales and drainage basins with native plant materials that thrive in wet conditions;
 - Providing well-drained snow storage (and storm water collection) areas on site in locations that enable melting snow (and rain) to be filtered prior to being released into the storm water drainage system.
- **Drought-Resistant Native Species** - Use plants and trees that are noninvasive, native to the region, and drought resistant and require minimal maintenance and water consumption.

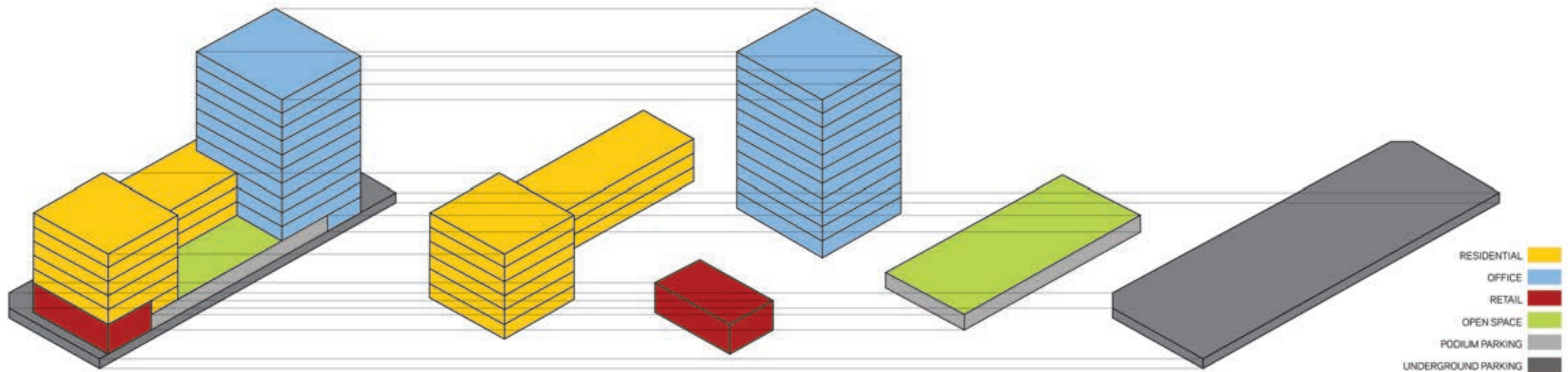


Figure 6.7: Mixed-use Block Typology

6.3 BLOCK TYPOLOGY

In the Master Plan a general block typology has been designed to convey the intent and form of development in Tunney's Pasture; including relationships between varying uses and functions within each block.

Flexible - The block typology is flexible; accommodating a mix of land uses and building types, as well as podium (street building) and underground parking.

Animated - The ground plane (street level) is activated as a multi-purpose, animated and pedestrian-friendly realm. Building ground floor spaces bordering this realm are high-ceilinged to accommodate animating functions that support the community (e.g.: building entries/lobbies, retail, commercial, recreational, and servicing activities).

Weather Protection - The use of weather protection for pedestrians (e.g.: canopies, colonnades, seasonally convertible spaces, etc...) is encouraged in the "downtown core", and other key pedestrian circulation/gathering areas in Tunney's Pasture.

Street Wall - The block typology is designed to create a consistent street wall condition, while allowing for articulation and expression of individual buildings. The intent is to foster a high-quality pedestrian-oriented environment, and also frame views and connections to features that define so much of Tunney's Pasture uniqueness. These include existing vistas and key open spaces within the site, and the Ottawa River and its significant parkland to the north; as well as the adjacent neighbourhoods to the south, east, and west.

Landmarks and Fabric - The Master Plan and its block typology sets the stage for landmark and fabric building siting. The existing building scape that will remain already brings with it a mix of both; with the Brooke Claxton Building a prime example a landmark location at the head of Tunney's Pasture Driveway. New development areas in the Master Plan are planned to enable continuity of this rich weave of landmark and fabric; the hallmark of a successfully memorable urban community. The block types that are included in the Master Plan are explored below: Tunney's Pasture Master Plan

Mixed-Use Block

Mixed-use blocks are located in the Central and Eastern Precincts of the site. These medium density blocks will support a balance of residential, office, and retail uses to provide development flexibility and ensure activity throughout a typical working/living day.

Podium (street building) parking and underground parking will be provided in each block, as necessary. A 4-6 storey street building (podium), composed of a balance of residential and office uses, will wrap around structured parking to create a consistent street wall condition. Retail uses may be included at grade in viable locations; particularly adjacent to Station Plaza and the Community Park. Internal structured parking will be capped with green roofs that serve as semi-private internal courtyards; providing flexible outdoor spaces and recreational opportunities for both residents and employees. Residential or office towers will rise above (and wrap around), as defined in the building heights plan. Where structured parking is not included in the block, semi-public internal courtyards will be provided at grade with connections to adjacent right-of-ways.

Residential Block

Residential blocks are primarily located in the Northern and Western precincts of the site. With the exception of low density town houses that frame the western edge of the campus, residential blocks are medium density. This strategy introduces a higher population of permanent residents to the site; contributing to the viability of a vibrant, transit oriented development community.

These blocks have the same form and block composition as mixed-use blocks, but they consist of strictly residential and related internal amenity uses. Underground parking is provided where necessary, and a 4-6 storey residential street building wraps around structured parking. Green roofs and internal courtyards cap structured parking where possible, to provide green commons and outdoor amenity areas for residents.

Office Block

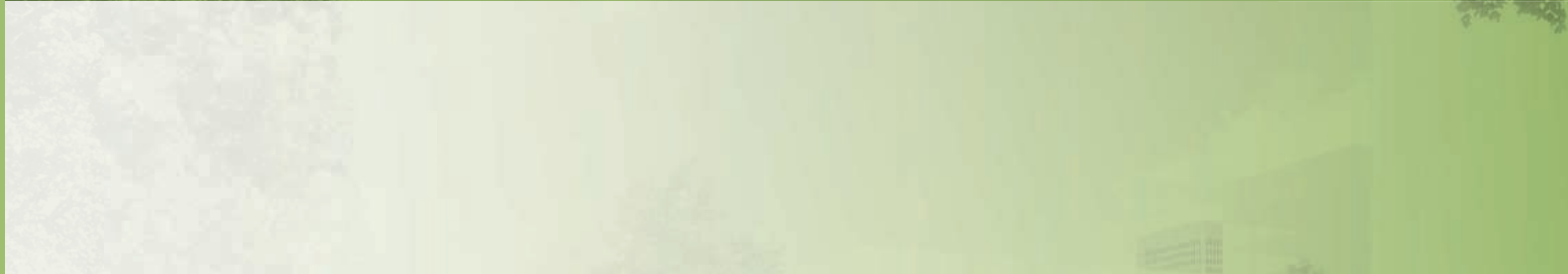
Office blocks are located in the Central and Northern Precincts of the site. These blocks will range from medium to high density, with increased densities located in the central and Station Plaza areas of the site. This strategy places employment land use conveniently close to existing office buildings and Tunney's Pasture Station, while providing optimum site space to transition to lower density adjacent neighbourhoods.

These blocks also have the same form and block composition as mixed-use blocks, but consist of strictly office and related internal amenity uses. Underground parking is provided where necessary, and a 4-6 storey office street building wraps around structured parking. Green roofs and internal courtyards are included where possible to provide green space and outdoor amenity areas for employees.

IMPLEMENTATION

07





07

IMPLEMENTATION

7.1 INTRODUCTION

The Tunney's Pasture Master Plan identifies the urban infrastructure and overall development recommendations necessary to achieve a unified, sustainable vision for the study area. Implementing the Master Plan will require additional planning and real estate analysis, project execution, policy development and new governing initiatives; carried out by various entities over the 25 year planning horizon. There is no one entity, project or financing tool that can do it alone – all are important to achieve the vision.

This section creates a framework for PWGSC to coordinate, prioritize, and programme future actions and projects; with the understanding that individual near-term efforts such as new zoning provisions, streetscape improvements, etc. must support and lay the foundation for more complex infrastructure and development projects. The chapter also summarizes pre-development studies, partnerships and master plan applicability.

7.2 OBJECTIVES

Implementing the Tunney's Pasture Master Plan will provide both measurable and intangible economic, social, and environmental benefits for the federal government, the City of Ottawa, and other public and private stakeholders. A range of benefits will be realized for:

Federal Government: potential land sale/lease revenue, future-ready federal employment centre, reduced operating expenses, and lease rent savings from collocation and efficient space utilization.

Municipal Government: major transit-oriented development stemming from public transit investment, new tax/development revenue, improved streets infrastructure and connectivity, and additional community amenities.

Surrounding Neighbourhoods: context-sensitive community on rejuvenated site, new community amenities and open/civic spaces, additional retail, improved infrastructure.

Developers: opportunities to participate in a large, well-situated mixed-use development.

Citizens: increased choice of high quality places to work, live and relax.

The Tunney's Pasture Master Plan also provides additional 'soft' benefits. Some are unique to the nation's capital, while others enhance the reputation of the city, the federal government, and other stakeholders. These qualitative benefits include:

- establishing locations for significant future public spaces while preserving the historic landscape of Tunney's Pasture Driveway;
- improved connection of Tunney's Pasture and surrounding neighbourhoods with the Ottawa River and parkland;
- positioning Tunney's Pasture as a nationally significant employment district;
- creating a national showcase for sustainability, inspiring good development practices at federal facilities and communities nationwide;
- establishing a high quality employment community that attracts the next generation of federal and private sector workers, offers live-work opportunities and showcases high-productivity worksites;
- providing environmental benefits through a reduced carbon footprint, lower per capita energy and water use and enhanced urban ecology; and
- providing an opportunity for the reuse of federal properties that offers private sector development opportunities while maintaining long-term federal interests.



Figure 7.1: Tunney's Pasture High Priority Projects
Tunney's Pasture Master Plan

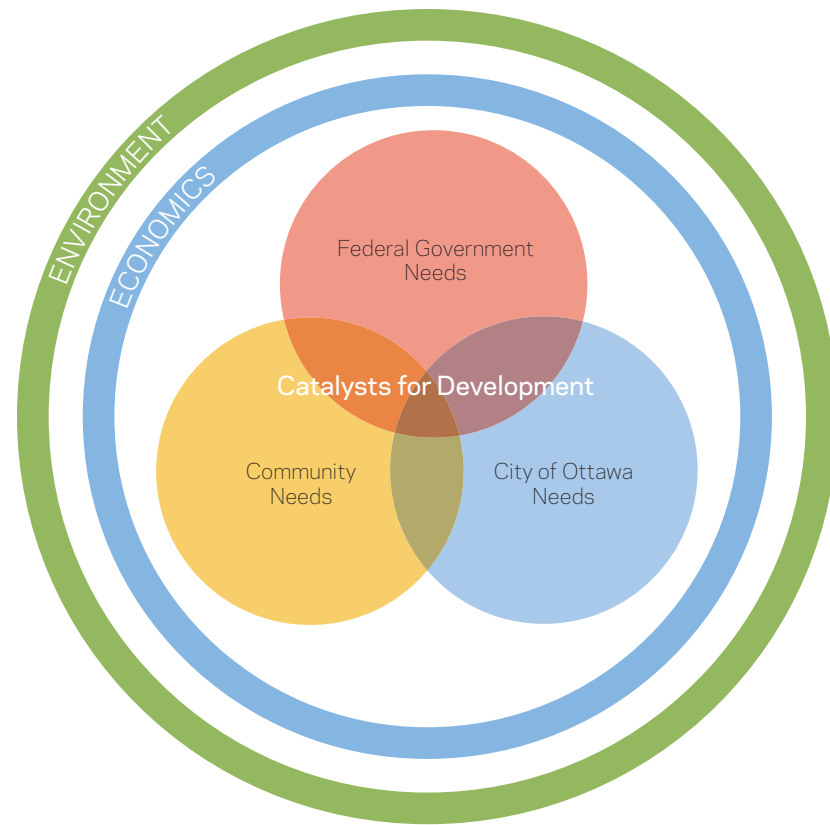


Figure 7.2: Catalysts for Development

7.3 IMPLEMENTATION

The Master Plan will serve as a decision-making tool for federal, municipal, and private stakeholders to guide facility and infrastructure planning, and development decisions. The implementation methods for the Master Plan must be as dynamic and flexible as the Plan itself; allowing PWGSC to adapt to changing political environments, market conditions and development trends over the Plan's 25 year horizon.

Figure 7.2 outlines a general approach and framework for identifying the right moments to initiate infrastructure investments - or 'catalysts for development'. Framed by economic and environmental lenses, the needs of the Federal Government, the City, and the community must all be aligned to create an environment that encourages the successful implementation of these infrastructure projects, and that is also open to the following development opportunities. Each of these 'catalysts' are identified and explored in Figure 7.1.

Phasing

The high priority projects identified in Figure 7.1 are designed to provide PWGSC with flexibility around the timing of their delivery and phasing. Approximate timeframes are attached to each catalyst based on planned or existing timelines (such as the LRT's 2018 launch date), but the Master Plan recognizes that implementation environments are fluid and ever-changing. Future studies will be required to identify the appropriate timing for the implementation of each these investments.

High Priority Projects: Catalysts for Development

Some projects in the development scenario can be achieved more readily than others, which will take longer due to complexity, cost and/or dependence on the timing and funding of other projects. Four of these projects stand out as significant catalysts for development.

Near-term projects will more quickly demonstrate tangible change for Tunney's Pasture:

1 Tunney's Pasture Station Plaza

The Station Plaza is part of one of the major drivers for development in Tunney's Pasture, and has the potential to be one of the first public realm strategic investments. Design of the new LRT Station will include the first phase development of the station plaza.

The plaza can be used to present a "public face" for the federal government to explain on-site mandates and activities. Moreover, the Plaza can also provide an information node to illustrate progress of the Master Plan and subsequent development; including details about key features, as well as "before and after" imagery of select parts of the site. Information can be updated as development gets underway, and the Plaza gains further prominence.

Temporary amenities such as pop-up retail, food truck events, farmer markets, community events, etc. could build an early indication of things to come. With these efforts the Plaza will be well in place in time for the new station to come on line; further enhancing connectivity to the area.

Near and Medium-term projects spurring different types of development:

2 Streets, Infrastructure and Land Exchanges

The master plan envisages the eventual transfer of all streets and related infrastructure to the City on a phased basis. This initiative will provide the necessary public street frontage to enable the intended build-out of the complete community presented in the master plan.

Land exchanges will be required to be negotiated to implement certain components of the master plan to ensure development proceeds in a timely and efficient manner. This will include the roads, as well as the existing woodlot at the northwest corner of the site and the community park.

Near-term investments in streets such as Tunney's Pasture Driveway, Sir Frederick Banting Driveway and Colombine Driveway will improve the overall pedestrian experience and provide walkable connections between Tunney's Pasture Station and the surrounding buildings and facilities. Implementing the Master Plan's high quality landscape strategy along these prime streets will build momentum, and add public realm amenities for use and enjoyment by the community.

In the future, an enhanced vehicular/ pedestrian/ cycling connection to the Sir John A. Macdonald Parkway and Ottawa River lands will be studied jointly by PWGSC, the NCC and the City of Ottawa. This study will identify and evaluate suitable options for this connection taking into consideration need and justification as well as how best to enhance community connectivity with the Ottawa River.

Long-term projects capitalizing on building critical mass to spur new development:

3 Community Park and Linear Parks

Like the Transit Plaza, enabling the building of the new Community Park is a key move that would integrate Tunney's Pasture with the broader community while enhancing the value of land in the heart of the site.

4 Bridges To Connect Tunney's Pasture to Scott Street

Bridge links to Scott Street will increase connectivity into and through Tunney's Pasture while addressing presence on Scott Street. A Goldenrod Driveway bridge to Scott Street will further increase site access; more evenly distributing traffic and further enabling opportunity for development. Connecting both Sir Frederick Banting and Goldenrod to Scott by landscaped bridges will markedly improve frontage along Scott; countering access isolation due to the existing transitway trench, and extending the high quality landscape character of Tunney's Pasture.



Figure 7.3: Tunney's Pasture Station Plaza

7.4 PRE-DEVELOPMENT STUDIES

There are several studies underway and proposed, which are necessary to move the Tunney's Pasture Master Plan to the next stage of implementation. Studies identifying (but not limited to) the following are encouraged:

- Financing and Disposal Strategies
- Zoning and City Policy Evaluation
- Streetscape/ Public Space/ Lighting/ Building Guidelines.
- District Energy: Sustainable Heating and Cooling
- Solar Infrastructure and Micro-Grid Study
- Storm Water Management Study
- Infrastructure Studies, as required

7.5 PARTNERSHIPS

The Master Plan recognizes that transforming Tunney's Pasture requires effective partnerships between public and private bodies to make strategic investments in new developments and replacing existing facilities to create a new mixed-use community.

As part of the next steps partnerships between the federal government, City, developers and other stakeholders will be needed to put together preliminary development programmes, create suitable detailed design strategies for redevelopment, coordinate with authorities, secure funds and implement.

Possible partnership models include the use of Public-Private Partnerships (P3) for site redevelopment. The federal government may partner with local government and the private sector to kick start implementation of the Master Plan. This approach is available in a range of models (e.g.: design/build, design/build/finance, design/build/finance/manage, etc.) and can be applied to the development of infrastructure, new/renovated buildings and other aspects of the Master Plan.

Other models for partnerships exist, and could be explored at PWGSC's convenience and discretion.

7.6 PLAN APPLICABILITY

Tunney's Pasture Master Plan is not intended to be a prescriptive document. Rather, it establishes an overarching vision, identifies means of realizing that vision, and in doing so coordinates complex development, public space, infrastructure, and transportation improvements. The Master Plan will guide future programming, planning, design, and development decisions for federally owned property under the jurisdiction of individual federal agencies, such as the PWGSC or the NCC. Although the Master Plan is not applicable to City or privately-owned land; participation by the City of Ottawa and other stakeholders is vital to achieving the goals of the Plan.

PWGSC will encourage federal partners, the City of Ottawa, and the private sector and property owners to use the Master Plan as a guide when programming, planning, and designing future development proposals within Tunney's Pasture.

In addition, PWGSC will also use the plan to:

1. Evaluate and comment on:
 - a) development proposals that go beyond the routine maintenance of public buildings; and
 - b) proposals for improvements to parks, public spaces, and public transportation systems.
2. Guide input on federal, local, and private planning studies and reports.
3. Develop or amend future PWGSC planning studies and reports.



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