West Campus Master Plan
The original agrarian and penitentiary operations that once characterized the West Campus remain as the remnants of a rich and varied past. The West Campus Vision imagines a modern and attractive campus that pays tribute to this varied and rich history. The vision balances learning, working, living and recreation needs by creating a diverse network of flexible, comfortable, and inviting spaces with different characters and functions. Whereas the Main Campus Master Plan emphasizes the renewal of the much-loved historic campus, the West Campus Vision provides the basis for a long-term framework for creating a brand new place that borrows elements from what people love about Main Campus (such as social spaces, beautiful squares and plazas), but recreates them in a contemporary, context-specific manner.
Building Community on West Campus

On West Campus there are very few social places. The ones that do exist are disconnected or hidden from common experience. Highlighting and expanding these places on West Campus will be a priority.

The following is a strategy to build campus places that aligns use, circulation, places, infrastructure and development to create a critical mass of people and a “sense of place”. The strategy focuses on the south part of West Campus, recognizing the north portion of West Campus will remain as a valuable athletics precinct.

Phase 1
A new plaza will be a West Campus gathering space, framed by a new development on the former Prison for Women site, a new Green corridor, and expanded road network.

Phase 2
Additional development north of Duncan McArthur Hall and west of West Campus Square frames new streets and corridors.

Phase 3
Jean Royce Hall is redeveloped. A new north-south road provides better pedestrian connections.
6.1 Land Use and Social Infrastructure

Envisioned as a 24-hour mixed-use campus, offering University uses as well as housing and services for nearby communities, West Campus will consist of a variety of uses and facility types.

Different types of uses and services including academic buildings, administrative offices, clinics, sports facilities, recreational facilities, and outdoor spaces will intermingle to provide amenity and vitality at all times of day, ultimately creating a more complete campus community than what currently exists.

A mix of uses is encouraged at West Campus, combining University and non-University uses. A loose land use structure is provided to guide decisions regarding what sort of uses should locate where. This structure considers existing uses, as well as proximity to adjacent residential neighborhoods, and certain uses best placed in areas in close proximity to transit, cycling and pedestrian routes.

West Campus has four different land use “clusters.” The term clusters has been chosen rather than “category,” to emphasize that the cluster characteristics do not mean single use areas, but rather a pattern where certain uses are better suited. The different clusters include the Mixed-Use Student Life Cluster, Residential Cluster Academic Core, and Athletics Cluster.

**Mixed-Use Student Life Cluster**

Centred around Union Street, key transit stops and the proposed West Campus Square, a future gathering space and the centerpiece of West Campus, (see Section 6.4.3) the mixed-use student life cluster will contain services and amenities for the West Campus community. This will include student offices, cafés, convenience stores, a Library that incorporates the enhancements recommended in LAMP, as well as multi-disciplinary study spaces.

The positioning of West Campus as a “health and wellness campus” is borne out of a wider University commitment to the well-being of the Queen’s Community, as well as consultation throughout the Campus Master Plan study process.

A number of factors have influenced this decision:

- The existing presence of sports fields, and expansive open spaces, providing opportunity for a range of athletic activities.
- Students and Faculty of the Faculty of Education have noted the rise in prominence and value of outdoor teaching spaces and the need to promote health and wellness into educational environments;
- An expression of interest by the School of Nursing to potentially relocate to West Campus. The amount of space available would allow for expanded facilities and the opportunity to offer services to the Portsmouth and broader Kingston Communities.
Residential Clusters
There will be two residential clusters on West Campus, the first located generally where Jean Royce Hall is today, and the other south of the Student Life Centre, positioned on the former Prison for Women site. Both clusters will be the home for a concentration of residences, in addition to complementary small scale uses, such as cafeterias, cafés, and recreational uses. The residential cluster south of Union Street is considered a particularly appropriate location for non-University housing due to its proximity to Portsmouth and the waterfront, though market housing may also be located in the Student Life cluster.

Academic Core
The academic core will be the primary location for academic and clinical buildings on campus, though these uses may also be interspersed within other clusters. While any faculty or department may be located here, an appropriate faculty would be the School of Nursing due to the need for expanded facilities, and the potential to offer services to the Kingston Community, keeping with the mixed-use vision for West Campus.

Athletics Cluster
The athletics cluster currently contains space-intensive uses such as Richardson Stadium, practice fields, surface parking lots, and the Coastal Engineering Lab. This area will continue to be a location for space intensive uses (e.g. an arena and/or stadium). With health and wellness identified as one of the characteristics West Campus may have, as well as its existing role as the home to the Faculty of Education, there is a potential to diversify the types of outdoor and recreational uses to complement future programming on the campus. These might include outdoor teaching spaces, naturalized grounds, or a parcourse.

Recommendations

1. The “clusters” indicated on Figure 6-2 should generally be regarded as an organizing structure for West Campus.

2. Academic uses should be located in proximity to one another and to student life uses, to ensure short distance between classes and study facilities.

3. Uses that support the “health and wellness” character of West Campus, such as clinics, health facilities, or recreational uses (such as an arena or stadium), should generally be directed to West Campus.

4. Surface parking is permitted as an interim use for all future development sites. The introduction of any new surface parking should comply with the design direction provided in Section 7.1.7.
Figure 6-2
West Campus
Social Infrastructure

Student Life Spaces
Corridors
Academic
Residences
Administration / Utility

Athletic Cluster
Residential Cluster
Academic Core
Mixed-use Student Life Cluster
Residential Cluster
While West Campus isn't defined by its historic buildings in the same way as Main Campus, it still includes a modest number of historically significant buildings, including the former Prison for Women site and the Water Tower, originally part of the Kingston Penitentiary Farm.

As with Main Campus, these buildings will be protected due to their historic significance. Unlike the heritage assets of Main Campus that are predominantly institutional buildings that were also part of Queen's, the structures on West Campus provide linkages to Kingston's history as one of the locations of Upper Canada's first correctional facilities and council seat. It also sits in proximity to many historic places including the Kingston Penitentiary and Museum, historic Portsmouth, and Kingston’s first City Hall. These narratives are something that Queen’s is committed to continuing.

The re-purposing of the former Prison for Women site is a legacy project for Queen's, and provides the opportunity to demonstrate a contemporary notion of heritage redevelopment. As future re-purposing plans for the former Prison for Women site are realized, it is integral that the significance of this structure is incorporated into the regeneration’s design. Similarly, the penitentiary and agrarian past will be incorporated into West Campus’ landscape, specifically as components of the Sir John A. Macdonald Green (see Section 6.4.1).

The re-purposing of the former Prison for Women site will be subject to the same principles for renewal as historic properties on Main Campus, allowing for interior renovation, as well as building additions, so long as design sensitively frames the structure, complementing but not mimicking architectural style. The design of this building will be subject to the Building Design Guidelines in Chapter 7 of this document.

Recommendations

1. The re-purposing of the former Prison for Women site should be considered a legacy project for Queen’s, and should demonstrate excellent and innovative design in heritage preservation. Located within a residential cluster indicated as an appropriate location for non-University housing, opportunities to leverage restoration costs with private development partners should be explored.

2. Buildings coloured in blue on Figure 6-3 are considered historically significant and will be retained. Internal alteration of these buildings is permitted, however, a facility-specific historic assessment will be required before any reconstruction is permitted.

3. Buildings coloured in blue on Figure 6-3 are permitted for incorporation into new development, so long as their prominence in relation to the street is not compromised. The massing and design of any additions should give prominence to the historic structure. While any addition should complement the historic structure, new components of these buildings should be contemporary in design.
Figure 6-3
West Campus Heritage
West Campus contains a number of potential development sites for new, larger scale uses. The development sites are positioned around the future expanded mobility network.

The development opportunities map identifies sites appropriate for redevelopment. Whereas much of the focus for new development on Main Campus is respecting historic character, on West Campus, the priority is to create a compact, pedestrian friendly building pattern. Over the long term, as West Campus develops and begins to house buildings of more intensive use, Duncan McArthur Hall may be expanded or renovated for incorporation into a more contemporary building.

Two types of sites comprise the Renewal and Development Sites on West Campus. As further described in Chapter 2, the development sites on West Campus include vacant or undeveloped sites and certain parking lots. The surface parking in the north part of West Campus will be maintained and expanded to account for relocated surface parking from Main Campus.

Although there are a number of available large development sites on West Campus, near-term growth will be focused on the remaining large development sites with fewer logistical constraints on Main Campus. Identification of the long-term development opportunities on West Campus provides structure and clarity for future campus growth within and beyond the 15-year time frame of this Plan. The near-term plan is provided in more detail in Chapter 8 of this Plan.

The Renewal and Development Sites are subject to the same considerations and conditions as indicated on the Main Campus Plan. These are:

- The identification of key building frontages and intersections, to which entrance ways should be oriented and built to.
- Historic buildings (or portions of building) to be protected, either through incorporation into new development or facility renewal.
- Required courtyard spaces to be included in a building’s design.
- Servicing access routes and building service zones.

For a fuller discussion of the intent behind these considerations, please see Section 5.3 of this document. A detailed discussion of these considerations at the precinct scale can be found in Part 2 of this document.

**Recommendations**

1. The development sites indicated in Figure 6-4 should guide the selection of site for new development sites on West Campus.

2. New development will adhere to the considerations and conditions of development as indicated on Figure 6-4.
Development Sites

A  Jean Royce North Site
B  Jean Royce South Site
C  South Practice Field Site
D  Refrigeration Plant Site
E  McArthur Hall Extension
F  Water Tower Site
G  Union and West Campus Lane Site
H  Union and Sir John A. Macdonald Site
I  Park Front Site
J  Coastal Engineering and West Campus Storage Site

Figure 6-4
West Campus Renewal and Development
6.4 Open Space Network

There is substantial opportunity and need to improve the quality of open space on West Campus. The Open Space Network for West Campus consists primarily of proposed new spaces, and is organized by four landscape types, each with their own role and function.

Once complete, this network will form a varied open space network that greatly improves West Campus’ sense of place and provides new opportunities for the Queen’s and Kingston communities to enjoy.

The new open spaces provided in this section will be designed and implemented in conjunction with new development, as indicated as Enabling or Coordinated Projects in Part 2 of this Plan.

1. A Landscape Master Plan for West Campus should be developed as a comprehensive guide to landscape investment based on the landscape projects identified in this document. Landscape projects will be implemented according to University objectives and funding opportunities.

2. The open space projects described in this section will be designed and implemented in conjunction with new development, indicated as Enabling or Coordinated Projects in Part 2 of this Plan.

3. As a campus with a health and wellness focus, new open spaces on West Campus should consider features that promote physical activity or mental well-being, such as outdoor fitness equipment, a parcourse, walking or running trails, reflexology footpaths, or shaded and protected areas with flexible seating for outdoor activities and/or classes.

4. General Open Space Recommendations 3 - 8 of Section 5.4 regarding planting selections, surface treatments and maintenance of open spaces also apply to West Campus and should be adhered to in the planning for any new landscape project.
New Plazas, Courtyards and Small Greens
Gateways
Formal Linear Landscapes
Signature Landscape
6.4.1 Signature Landscape

West Campus is in need of the same high quality open spaces that so many people cherish on Main Campus. To enhance the quality of place on West Campus is the proposition of a legacy signature landscape project — Sir John A. Macdonald Green. This landscape, detailed on the following pages, will be a defining element of West Campus.

**Landscape Projects:**

A  Sir John A. Macdonald Green (L9)
Landscape Project L9
Sir John A. Macdonald Green

Sir John A. Macdonald Green will be a large scale linear park adjacent to Sir John A. Macdonald Boulevard. It will be experienced as a singular linear park, legible through common design elements, consisting of many distinct character areas. It will be a defining place on West Campus, as well as a significant gateway feature.

A continuous double row of trees will line Sir John A. Macdonald Boulevard, and will also frame the different components of the park, each with a distinct identity. These different components or zones will vary in active and passive uses such as formal gardens, parkettes, plazas, pavilions and small informal playing fields. Integrated with pedestrian, jogging and cycling paths, most notably Ceremonial Trail, (see Section 6.4.2), the Sir John A. Macdonald Green will be both a destination in itself as well as a carrier of people to and from West Campus.

Recommendations

1. A double row of trees should be planted along the west side of Sir John A. Macdonald Boulevard with the dual purpose of buffering Sir John A. Macdonald Green and defining Sir John A. Macdonald Boulevard.

2. Sir John A. Macdonald Green should consist of a variety of character areas with distinctly different settings and uses. The themes, design, and programming of different character areas should honour past uses and reflect current needs. Such character areas may include spaces for active recreation (small playing fields), educational components (native species plantings), working landscapes (agricultural demonstration areas).

3. Tree plantings of the same species should act as a consistent design element unifying the different character areas.

4. The design of Sir John A. Macdonald Green should be integrated with protected and comfortable pedestrian and cycling paths. Where these paths intercept with vehicle routes, formalized crossings or design treatments that prioritize pedestrians should be installed.

5. Buildings may be situated beyond a 30.0 meter setback from the Sir John A. Macdonald Boulevard right-of-way.

Figure 6-7
Sir John A. Macdonald Green
Figure 6-8
Existing Condition

Figure 6-9
Proposed Sir John A. Macdonald Green
Figure 6-10
Formal Linear Landscapes
6.4.2 Formal Linear Landscapes

The landscape projects proposed for West Campus provide the opportunity to think holistically regarding the design of the open space and movement network. Formal Linear Landscapes consists of Walks (pedestrian routes integrated with landscaping and open space) as well as streetscapes.

As illustrated in Figure 6-10, the Linear Greens on West Campus consist of the following:

**Landscape Projects:**
A. West Campus Walk (L10)
B. Ceremonial Trail (L11)

**Other Projects for Consideration:**
C. Union Street Improvements
D. Entry Allée and Other Walks

The general recommendations for Formal Linear Landscapes, provided on Page 68 of the Main Campus Master Plan also apply to the Planning and design of Formal Linear Landscapes on West Campus.
Landscape Project L10
West Campus Walk

Running parallel to Sir John A. Macdonald Boulevard, West Campus Walk will be the primary north-south direct pedestrian connection that carries pedestrians through the academic core of West Campus. If Duncan McArthur Hall is renewed, a portion of it may be a covered walkway through what is now the wing that connects it western and eastern halls.

Recommendations

1. The University should prepare a design plan for the West Campus Walk, considering a consistent paving treatment and landscape plan.

2. Ensure new development on West Campus reserves the right-of-way for the installation of West Campus Walk including the future development plans for the former Prison for Women site and the renewal of Duncan McArthur Hall.

3. Reconstruct the wing that connects the western and eastern portion of Duncan McArthur Hall into a covered walkway.

4. Special consideration should be given for the interface with squares and parks that intercept the walk. These spaces should provide visual and physical relief, as places to sit and rest, but should not disrupt with route’s continuity. A consistent trail will be achieved through wayfinding, pavement treatments and architectural features such as archways.
Figure 6-12
Existing Condition

Figure 6-13
Proposed West Campus Walk
Landscape Project L11
Ceremonial Trail

The Ceremonial Walk celebrates the traditional procession from Main Campus to Richardson Memorial Stadium. The Ceremonial Walk will be a special paved route that diagonally bisects the campus, beginning at the southern foot of Sir John A. Macdonald Green (see Section 6.4.1) and terminating at the north end of the Stadium, integrated with Athlete’s Plaza (see Section 6.4.3). Its diagonal, meandering alignment stands as a contrast to the more linear designs that defines most of the other landscapes on West Campus. The Ceremonial Walk will be lined with trees to help define the walk and increase legibility.

Recommendations

1. The University should prepare a design plan for the Ceremonial Trail, considering a consistent paving treatment and landscape plan.

2. In the design of Ceremonial Trail, consider methods to tell the history of Queen’s and its traditions, including public art, signage or enhanced pavement design.
Other Projects for Consideration

There are a number of other linear landscapes that have been positioned to terminate at key landmarks and destination on West Campus. Together they create a fine-grained pedestrian network, providing multiple opportunities to navigate the future expanded West Campus.

**Entry Allée**
Entry Allée is the most westerly north-south walk, providing access through residences and academic buildings.

**Union Streetscape Improvements**
Improvements to Union Street should be coordinated with the City and brought forward as part of the installation of West Campus Square. Any improvements should consider special design for the portion that runs through West Campus and should include a wide pedestrian right-of-way, street trees and other plantings, and opportunities for street furniture.
Figure 6-17
Plazas, Courtyards, and Small Greens
6.4.3 Plazas, Courtyards and Small Greens

A variety of settings have been envisioned for West Campus to support life outside of the classroom or office. Plazas provide celebratory settings for gatherings and festivities, whereas courtyards and other small greens provide quieter settings for day-to-day activities.

As illustrated in Figure 6-17 the Plazas, Courtyards, and Small Greens consist of the following:

**Landscape Projects:**
A  West Campus Square (L12)
B  Athlete’s Plaza (L13)
C  Mascot Plaza (L14)

The general recommendations for Plazas, Courtyards, and Small Greens, provided in Section 5.4.3 of the Main Campus Master Plan also apply to the planning and design of Formal Linear Landscapes on West Campus.
Recommendations

1. A landscape and renewal plan should be developed to address the recommendations described herein.

2. A uniform design scheme should be installed on either sides of Union Street as well as the streetscape itself. This may be achieved through special pavement treatments, uniform landscaping, or common street furniture.

3. West Campus Square may contain a central pavilion offering services for students, faculty, staff and Kingston community members such as a cafe.

4. A high quality public art or water feature should be incorporated in the West Campus Square design. Preference should be made to art that celebrates the University’s history, culture, and heritage, or a topic complementary to West Campus’ health and wellness focus.

5. Weather protection, such as bus shelters or tree plantings should be integrated with transit waiting areas.

6. A variety of seating choices should be offered throughout West Campus Square, with ample seating opportunities (either in the form of benches or integrated into planters or public art) near transit waiting areas.
Figure 6-19
Existing Condition

Figure 6-20
Proposed West Campus Square
Athlete’s Plaza, located adjacent to the expanded Richardson Stadium will be a meeting place closely associated with sporting events. It should contain street furniture that supports the activities associated with sporting events, such as picnic tables and seating. Its design should consider its integration with the Ceremonial Trail, and include wayfinding measures such as common pavement treatment or signage.

Figure 6-21
Existing Condition

Figure 6-22
Proposed Mascot Plaza

Figure 6-23
Mascot Plaza Perspective
Located amongst residences and academic buildings, Mascot Plaza will be the backyard for West Campus students and should be designed as an enclosed, comfortable flexible space that can be used for many purposes.
6.4.4 Gateways

For many first time visitors to Kingston, West Campus is the first encounter with the Queen’s Campus. For that reason, enhancing the gateways on West Campus – the places within the larger open space network that mark the transition from City to the campus – should be considered of particular importance.

The plan on the opposite page illustrates two primary gateways, to be the sites of larger scale improvements such as public art, signage and special landscaping, and a number of secondary gateways, which should receive enhanced landscaping attention, but will not provide the same grand sense of arrival.

Sir John A. Macdonald Blvd. / Johnson Street Gateway (G6)
This intersection is the first encounter with Queen’s from the Sir John A. Macdonald Boulevard Highway 401 Exit and North Kingston. As this corner will remain open space, the gateway’s elements will be achieved through special landscaping, as well as the views of new architectural features such as the new stadium. The University should revisit the existing sign at this location and incorporate a gateway element and better pedestrian access into the streetscape design of Sir John A. Macdonald Boulevard as well as the Sir John A. Macdonald Green.

Sir John A. Macdonald Blvd. / Coach’s Lane Gateway (G7)
This will be a new gateway that can be implemented as part of the installation of Coach’s Lane (detailed in Section 6.5.2). It is the first access point to West Campus when traveling south on Sir John A. Macdonald Boulevard and provides access to the northern surface parking lots.

Sir John A. Macdonald Blvd. / Union Street Gateway (G8)
This is the primary entryway to West Campus from Main Campus. West Campus Square will be a gateway in the form of a great public space, and its role as a gateway should be considered in its design.

Sir John A. Macdonald Blvd. / Portsmouth Lane Gateway (G9)
Signaling entry from King Street and Lake Ontario, minor landscaping and public realm improvements can be provided here as part of the installation of Portsmouth Lane to signify entry to West Campus.

Union Street / West Campus Boulevard Gateway (G10)
The Union Street and West Campus Boulevard Gateway signals entry from Kingston’s west end. While secondary in importance to the Sir John A. Macdonald Boulevard and Union Street Gateway, the extension of West Campus Boulevard to the south of Union Street will provide opportunity to implement entry features such as special landscaping or signage as part of its redesign. Improvements here should be complementary and co-ordinated with any improvements to Union Street.
6.4.5 Summary of West Campus Landscape Projects

The plan on the opposite page compiles the array of landscape projects described in this section. The new landscape projects in this project will be incorporated into new development projects or infrastructure renewal, or may simply evolve incrementally over time.

Their integration with new development, as well as other design and implementation considerations, are described in further detail in Part 2 of this Plan.

Signature Landscapes
L9  Sir John A. Macdonald Green

Formal Linear Landscapes
L10  West Campus Walk
L11  Ceremonial Trail

Plazas, Courtyards and Small Greens
L12  West Campus Square
L13  Athlete's Plaza
L14  Mascot Square

Gateways
G6  Sir John A. Macdonald Blvd. / Johnston Street Gateway
G7  Sir John A. Macdonald Blvd. / Coach's Lane Gateway
G8  Sir John A. Macdonald Blvd. / Union Street Gateway
G9  Sir John A. Macdonald Blvd. / Portsmouth Lane Gateway
G10 Union Street / West Campus Blvd. Gateway
Figure 6-28
West Campus Landscape Projects Summary
6.5 Movement

Great University campuses are highly walkable places, balancing all modes of transportation. While the movement network today on West Campus is sufficient to serve the limited places that exist today, as it develops further, it will be imperative that the street and pathway network is expanded to create more movement options for pedestrians and cyclists, and ensure good vehicular flow.

The proposed movement networks introduce new streets, laneways, pedestrian, jogging, and cycling routes to support West Campus’ future role as a compact, 24 hour campus. A particular priority is to better connect the northern and southern portions of campus for pedestrians, cyclists, transit, and private vehicles.

An expanded pedestrian network on West Campus will consist of a number of new walks weaving between new campus buildings as well as the addition of sidewalks to existing campus streets. Together, the pedestrian network will provide a fine-grained network of paths similar in scale as Main Campus forming a safe and thorough system for getting around campus. The crosswalk enhancements described in 6.6.2 will ensure the vehicle and pedestrian networks are carefully integrated. As with Main Campus, newer, larger buildings will be designed as an extension of the exterior fine-grained pedestrian network, providing internal hallways that align with the pedestrian network, and design features that facilitate clear through movement.

Individual design considerations and individually specific characteristics of new walks and pedestrian paths illustration on Figure 6-29 are described in detail in the Formal Linear Landscapes Section of the West Campus Master Plan (see Section 6.4.2). The general recommendations regarding the design and considerations of formal linear landscapes, as described in Section 5.4.3 also apply to the design of all new pathways. The installation of these walks are considered landscape projects, and should be implemented with adjacent new development or renewal projects.

6.5.1 Pedestrian Network

Recommendations

1. The enhancement of existing sidewalks and paths on West Campus should be considered a priority in order to ensure a safe, walkable, and accessible environment. Enhancements should aim to create protected and inviting routes. Design considerations should include:
   • Continuous, identifiable paving
   • Framing and protective elements such as trees or planting
   • The incorporation of street furniture such as benches to provide places to rest. These should be located on either side of the path but should not obstruct the pedestrian right-of-way
   • Regard for Design for Crime Prevention through Environmental Design principles

2. Pedestrian activity should remain at grade and be designed in accordance with Queen’s Accessibility Guidelines to accommodate those with mobility-related disabilities.
3. Walks and Pedestrian Pathways should be aligned with one another to ensure a continuous and co-ordinated network. Any new walk or re-alignment of an existing walk should be designed to join with other components of the pedestrian network.

4. To provide safe, well-lit routes, install pedestrian-scaled lighting along pedestrian routes either as stand-alone structures or as part of adjacent buildings.

5. When designing new buildings, ensure the placements of entries and exits align with existing pedestrian routes as illustrated on Figure 6-29. Entry ways should utilize transparent materials to provide a sense of porosity to the new building, indicating a pedestrian through-way.

6. As West Campus intensifies, preserve a right-of-way for a potential future connection to Yonge Street. This connection will provide access from the West and support pedestrian and cycling activity.
A re-alignment of West Campus Lane at the northern edge will allow for an increase in surface parking to accommodate relocated parking from Main Campus. As more surface parking is located in the northern portion of West Campus, additional minor streets will connect with Sir John A. Macdonald Boulevard to provide access points. In addition, a number of service lanes will be extended and redesigned as streets with sidewalks and will provide more vehicular routes throughout campus, supporting not only private vehicles but also the proposed campus circulator. The relocation of parking and the campus circulator project are described in detail in Section 4.2.

Expansion of the Street Network
Figure 6-30 indicates the future street network of West Campus. The street reconfigurations and extensions will be realized in conjunction with new development and are therefore indicated as infrastructure projects. The following is a list of these projects and the intent behind them:

- A new north-south street will be formed by the extension of the existing service lane between Jean Royce Hall and Duncan McArthur Hall to meet West Campus Lane. This road will extend South of Union to provide access to the rear of the new development at the former Prison for Women site. At the southern termination of this street, a new east-west street will provide access to Sir John A. Macdonald Boulevard. This new street will reduce traffic from Sir John A. Macdonald Boulevard, as well as frame new development on both the Jean Royce Hall South Site and the Union and Sir John A. Macdonald Site (see Section 6.3).

- The extension of Stadium Lane south to meet with the new north-south street previously discussed will create more interconnection on campus.

- A new east-west Connection extending from West Campus Lane to Sir John A. Macdonald Boulevard (north to the existing access street) will be a necessary additional access point to the surface parking on West Campus. As new athletics facilities are built here, this street will provide additional access during games.

- The current vacant land parcel where Campus Lane angles northwest provides an opportunity to link with Yonge Street in the Portsmouth neighbourhood to the west of West Campus. As a mixed-use campus containing non-University uses, this will be a key infrastructure move to increase connectivity with adjacent neighbourhoods.

New Intersections and Intersection Improvements
A number of intersection and crosswalk improvements will provide pedestrian safety and priority. Figure 6-30 indicates new intersections (located where new east-west streets connect with Sir John A. Macdonald Boulevard) as well as intersections to be improved.

For existing and new intersections that intersect with Sir John A. Macdonald Boulevard, a reconfiguring of Sir John A. Macdonald Boulevard’s median to allow left turns in and out of the new streets is proposed. Allowing full access will be necessary as the intensity of uses on West Campus increases.

Other crosswalks to be improved are indicated where pedestrian paths intersect with roads. Clearer priority for the pedestrian should be reinforced here through special paving, painted lines, or signage. These principles should also be assigned to new intersections that are introduced with the installation of new pedestrian paths as described in Section 6.5.2.
Recommendations

1. Prioritize pedestrian, bicycle and transit activity in the improvement and creation of all West Campus streets and advocate for these modes of transportation in any projects involving city streets.

2. To achieve better access to West Campus, advocate to the City of Kingston for the removal of the centre median on Sir John A. Macdonald Boulevard where new intersection and crosswalks improvements are indicated on Figure 6-30.
6.5.3 Parking

West Campus currently contains surface parking lots that provide day parking for Queen’s and Kingston General Hospital staff as well as parking for athletic events. The parking strategy provided in Chapter 4 recommends that as parking is displaced from Main Campus (as a result of new development) replacement parking should be added to the existing supply on West Campus, contiguous to the existing lots. The increase in parking should be supported by new access streets to Sir John A. Macdonald Boulevard, illustrated in Section 6.5.2.

New underground or structured parking is not anticipated on West Campus, due to high construction costs and the large supply of land available for surface parking. However, opportunities to share structured parking should be explored with any private development partnerships that occur south of Union Street.

In the near term, future development sites on West Campus may be used as surface parking to provide spaces closer to the location of activities at the south end of the campus. Any new surface parking should receive enhanced landscape treatment (e.g. landscaped pedestrian paths, increased tree cover, pedestrian-scale lighting, smaller parking modules) to better reflect the quality of campus and ensure a safe pedestrian experience.

Recommendations

1. Any new surface parking should comply with the design direction provided in Section 7.1.7 and receive enhanced landscape treatment (e.g. landscaped pedestrian paths, increased tree cover, pedestrian-scale lighting, smaller parking modules) to better reflect the quality of campus and ensure a safe pedestrian experience.

6.5.4 Cycling Network

As a campus with a health and wellness focus, the infrastructure and facilities for cyclists on West Campus must be extensive and well-considered. It may also be an appropriate location for a dedicated space to advocate cycling or provide repair services.

The cycling network on West Campus consists of:

• The existing on-street cycling route on Union Street;
• One Proposed Cycling Trail that will be incorporated into the design of the Sir John A. Macdonald Green;
• Design enhancements to existing streets that indicate the right-of-ways for cyclists through various forms, whether it be painted lanes or sharrows.

Figure 6-31 illustrates the location of these cycling network components, as well as Potential Bike Parking Areas, and Enhanced Bicycle Parking Facilities. As described in detail in Section 5.5.4, Potential Bike Parking areas indicate roadside locations for bike racks, posts, or rings and Enhanced Bicycle Parking Facilities refers to higher-security bicycle parking such as bike lockers or bike cages. With many new development sites located on West Campus, there is a great opportunity to incorporate these facilities into new facilities.
As a key entryway to West Campus from Union Street and a Student Life Cluster, West Campus Square should contain ample bicycle parking. However, bicycle parking structures should be located at the periphery of the square, so it doesn’t obstruct views or pedestrian movement patterns.

**Recommendations**

1. Ensure a comprehensive bicycle network consisting of safe, prioritized areas for cyclists throughout West Campus.

2. Locate a concentration of cycling facilities at the future West Campus Square to promote cycling as a preferred mode of transportation between Main and West Campus.

3. On streets indicated as Proposed Cycling Routes on Figure 6-31, ensure frequent bicycle parking in the form of bike posts, rings or racks located within 20 metres of cycling routes.

4. Include bicycle parking considerations in site planning for new developments including secure bike lockers, bike cages, and shower facilities.

5. Guided by Figure 6-31, incorporate installation locations for Enhanced bicycle parking facilities as part of the cycling parking strategy, recommended in Section 4.3.
6.5.5 Servicing Network

A comprehensive servicing strategy ensures the future functionality of West Campus, while maintaining a safe pedestrian environment.

As with Main Campus, a number of service routes and service locations have been identified in the drawing to the right, as well as service zones that can accommodate more significant loading and “back-of-house” uses. The design of servicing functions needs to be thoughtfully considered and designed, so as not to disrupt the image and the quality of the campus setting.

**Recommendations**

1. Design building service areas to be oriented to service routes, screened from view and, where possible, integrated into buildings.

2. Consolidated service routes should be designed to ensure appropriate service and truck access to campus facilities.

3. Where service routes overlap the pedestrian network, they should be designed as high quality pedestrian spaces to discourage unsafe vehicular behaviour and reinforce the pedestrian nature of campus.

4. Explore opportunities for a central receiving facility and works yard at the northern periphery of campus.

5. In the design of a new stadium, ensure access for service and emergency vehicles is provided to support physical activity and events.
6.5.6 Summary of West Campus Movement Projects

The plan on the opposite page compiles the array of movement projects described in this section. Their integration with new development, as well as other design and implementation considerations, are described in Part 2 of this Plan.

Movement Projects:
M6 Extension and Realignment of West Campus Blvd.
M7 Coach’s Lane / Sir John A. Macdonald Blvd. Intersection
M8 Water Tower Lane / Sir John A. Macdonald Blvd. Intersection Improvements
M9 Creation of Portsmouth Lane and Portsmouth Lane / Sir John A. Macdonald Blvd. Intersection
The redevelopment identified as part of this Plan will affect and require upgrades to the existing utilities which support Main Campus and West Campus.

In addition to the base utilities, and understanding Queen’s strong commitment to sustainability, there is also an opportunity to implement further upgrades to increase energy efficiency and develop a more resilient power system that can withstand severe weather events.

This section identifies the existing systems and proposed solutions for:
1. Main Utilities (Water, Gas, Sanitary and Storm)
2. Power
3. Heating and Cooling

Each recommendation is focused on the underlying goals and objectives of the University and based on their long term vision.

A 250 mm diameter sanitary sewer on Stadium Lane is the main wastewater collector for the West Campus servicing the bathrooms surrounding the athletic fields, the Jean Royce Hall buildings, Orr Tower, the Refrigeration Plant and portions of McArthur Hall. There are also two 150 mm diameter connections to the south side of McArthur Hall, which connect directly to the 200 mm diameter sanitary sewer on Union Avenue. Based on available servicing data, there does not appear to be any combined sewers on the West Campus.

The majority of stormwater flows from the West Campus drain to Yonge Street, via a storm sewer system that spans most of the campus and culminates with a 525 mm diameter storm sewer on Stadium Lane. In general terms, drainage is collected in the southern portion of the West Campus via catch-basins which are connected to storm sewers, however the northern portion of the West Campus has several open swales and culverts around the athletic fields, which eventually direct surface flows into the Stadium Lane sewer system. Small drainage areas on the south end of West Camps are connected to the existing 450 mm diameter storm sewer on Union Street West.

A 300 mm diameter watermain on Sir John A. Macdonald Boulevard provides the main water service for West Campus. Secondary water services are provided by a 250 mm connection on Union Street and a 300 mm connection that runs between McArthur Hall and the Refrigeration Plant, ultimately connecting to the water-main on Yonge Street via Stadium Lane.

The coastal Engineering Lab in the northwest corner of West Campus is independently serviced from the remainder of the campus, making local sanitary, water and storm connections to the municipal utilities on Johnson Street.

The Donald Gordon Centre and associated parking has an independent servicing system. A storm sewer collection system culminates by tying into a 300 mm diameter combined sewer on Pembrooke Street. Sanitary and water servicing are from College Street.
6.6.2 Electrical Power Distribution

Recommendations

1. Municipal engineering staff should be engaged early in the development process in order to understand the level of servicing analysis that will be required to support the approval process. Depending on development timelines and the level of intensification proposed, the municipality may request a comprehensive Functional Servicing Report for the entire West Campus rather than separate smaller reports that focus only on local development applications.

2. Stormwater management solutions should attempt to take advantage of the existing open spaces that are available throughout the West Campus, where possible. Low Impact Development features such as infiltration ditches, bioswales, ponds and wetlands should be considered as they will result in cost savings relative to traditional underground stormwater management solutions, they could potentially provide learning opportunities for students and they will minimize the strain on municipal systems by promoting infiltration.

West Campus power system is fully utilized. Like Main Campus, West Campus power distribution system incorporates several levels of redundancy. Buildings are typically fed through a loop distribution system on 5kV; with each building fed from two separate sources. Redevelopment, renovation, or change of building type will result in power increase; new substation will likely be required. This is due to the agreement with the City of Kingston, which limits the amount of high voltage power available to Queen’s without the construction of high voltage transformation station.

1. As new development on West Campus is realized, the University should reexamine the West Campus Power Supply study which was completed October 2006, with respect to redevelopment and new buildings included in this Plan. The installation of a new substation would need to be coordinated with Kingston Utilities and the City of Kingston.
6.6.3 Heating and Cooling

Recommendations

1. The recommendations for heating and cooling both Main Campus and West Campus have been considered holistically, however, based on the geographical separation, it is suggested the West Campus to be a satellite system, separate from the Main Campus. The short, medium and long term recommendations identified in Section 5.6 provide more detail for these stand-alone West Campus systems.

2. Additionally, the recommendation for building upgrades (existing and new construction) identified in Chapter 5, are strategies which are applicable to facilities on both campuses. The technologies suggested for further investigation and consideration can also implemented on either campus depending on their feasibility.

The existing heating and cooling systems which support the West campus are described in Section 5.6 of this document.

Heat is provided to the buildings on campus via the West steam line stemming from the central steam plant on Main Campus. The line is approximately 40 years old and in poor condition.

Cooling is provided by a dedicated central chilled water plant located on the West Campus.
7.1 Building Design Guidelines

The following guidelines provide general design direction for all campus development, including buildings, associated landscapes and parking facilities. Site specific direction and detailed development parameters for all development sites are provided in Chapter 9, Precinct Plans. The intent of these guidelines is to ensure the creation of high quality, durable buildings and landscaping that respond to the campus setting and reinforce a cohesive pattern of campus growth. An overarching goal is to create safe, attractive, interesting and comfortable spaces, both indoors and outdoors, by maintaining high standards of architecture, landscape and urban design, and construction.
1. Queen's historic buildings and signature green spaces are a fundamental part of the campus experience. New development should support the established architectural tradition of the campus while incorporating contemporary building techniques and sustainable practices. In other words, new buildings (both infill and new development) should be informed by, and respect, existing heritage buildings but not attempt to replicate them. This can be achieved through the use of consistent building elements and materials as well as appropriate, contextual building massing.

7.1.1 Architectural Expression

- The massing of new development should respond to neighbouring historic buildings to maintain a coherent design language and maintain pedestrian movement patterns. (Goodes Hall, Queen's University)

- Additions to historic buildings can respond to the original architecture without mimicking it, through the use of complementary materials and contextually-driven massing. (Princeton University)
7.1.2 Building Orientation and Massing

1. The placement, massing and uses of buildings shall work together to frame and animate streets, pathways and open spaces and shall reinforce the spatial structure of the campus. New buildings should have setbacks from streets and key pedestrian pathways that are consistent with those of neighbouring buildings.

2. The location and orientation of buildings shall consider integration with existing and future development on surrounding development parcels. Consideration shall be given to pedestrian connectivity, views, utility efficiencies, and opportunities for shared open space, other amenities and servicing facilities.

3. Long buildings and those with large floor-plates shall be designed to provide visual interest and break up the building massing to reduce the perceived size of the building. Exterior walls should be articulated and varied through stepbacks, varied facades and changes in material.

4. Stepped building heights and/or articulated roof lines, particularly for larger buildings, should be considered to provide variation in massing.

5. Buildings shall be designed with high quality, durable and visually distinctive materials, as exemplified by many of the existing buildings on campus.

6. New buildings generally shall respect the low-rise and mid-rise scale and general character of development on the campus. The precinct plans identify high profile development sites, which may depart from the established campus character.

7. Consistent with the university's image of accessibility and openness, and to contribute to safety, there should be a high degree of transparency on the ground floors of buildings. Upper floors should be well fenestrated. Blank, opaque facades should be avoided, particularly at ground level and adjacent to streets, open spaces and pathways.

- The School of Medicine uses varied materials to “break up” the building and make entrances clear and visible.

- Botterell Hall contains uniform exterior treatments that results in visual monotony and unclear building entrances.
8. Building entrances shall be highly visible and directly accessible for pedestrians, and should be at grade to minimize the need for ramps. Primary entrances shall be located on the primary building frontage on a street or pedestrian pathway. Entrances should be designed as a focal point for the building frontage through the use of varying heights, changes in material, signage and other means.

9. Weather protection in the form of canopies or other appropriate means shall be provided at and around primary pedestrian entrances and in transit waiting areas. They shall also be considered for amenity areas adjacent to buildings and over outdoor connections between a primary building and associated structures.

10. Exterior spaces and the landscaping associated with a building should contribute to the campus’s green character, soften and complement the appearance of the building, enhance adjacent streetscapes and pathways, and buffer private spaces from the public realm.

11. Exterior lighting, signage and walkway surfaces should be designed to incorporate the needs of those with mobility and visual constraints.

12. The site planning, landscaping and architecture of buildings shall consider opportunities to incorporate public art, including temporary installations by Queen’s students. Installations shall be integrated with their settings to reinforce the spatial structure and character of the campus.

13. The design and retrofit of all buildings, existing and proposed, should comply with Queen’s Accessibility Guidelines.

Jeffery Hall’s raised and sunken entry points obscure entrances from pedestrians and are inaccessible to those with mobility restraints.

Ontario Hall contains a clear and weather protected entrance.
7.1.3 Building Facades and Materials

1. New developments should:

   • Be designed with high quality, visually distinctive materials that have proven durability in similar climates. On Main Campus, Limestone should be considered as a cladding material for all or portions of building facades.

   • Be constructed with glazing that is of high performance and without tinting, particularly when enclosing public spaces.

   • Use materials that are subdued or complementary to the existing structure; they should preserve and not transform the existing building’s character.

   • Be clad in a co-ordinated manner, with special attention paid at service enclosures and back facing facades to ensure design consistency.
Chapter 7  Building Design Guidelines

7.1.4 Building Interiors

1. Building design should encourage natural surveillance of outdoor spaces (“eyes on the street”). Communal spaces within a building should be adjacent to and visible from the public realm of the campus.

2. Larger academic buildings should be organized around an indoor pedestrian network that includes spacious indoor pedestrian “streets” flanked with communal uses or reception areas. The indoor network should be linked to the larger campus pedestrian network and provide public access through the building, wherever possible.

3. Generally, buildings should be organized so that study, communal and classroom functions heavily used by students are on the floors linked by or close to the primary indoor circulation network. Restricted departmental uses, private offices and private labs should generally be located on upper floors.

4. Parking and servicing, storage uses, and other uses that do not require daylight should be located below grade, where possible, to minimize the mass of the building and optimize its relationship to the public realm.
1. New buildings should be designed to minimize their environmental impacts and contribute to the overall sustainability of the campus. To this end, the University will consider applying high standards for sustainability, such as LEED™, to new development proposals.

2. Buildings should be designed for flexibility, adaptability and longevity to ensure they continue to support the University’s evolving mission.

3. Significant new buildings should be designed to support sustainable roofs, such as ‘green’ or ‘white’ roofs. Roofs can also be designed to accommodate small-scale green energy infrastructure, such as photovoltaic or solar hot water, where appropriate.

4. Wherever possible, HVAC systems should be integrated with the campus energy distribution system and central energy plant.

5. New buildings should be designed to reduce stormwater impacts, and could incorporate rainwater capture and/or contribute to re-use systems.

✓ New development featuring a green roof (Vancouver Island University, Cowichan Campus)

✓ Landscape Design using porous paving materials and sloped grading can reduce the impact of stormwater. (Princeton University, Princeton, New Jersey)
7.1.6 Servicing and Utilities

1. Service access will be situated and designed to reduce the impact of the vehicles and activities while providing safe and convenient access. Specific locations and routes for loading are identified in the Precinct Plans. Loading and servicing facilities should be screened from view through landscaping or other means. Where possible and appropriate, loading could be located below grade to reduce visual impacts and minimize disruption to the building facade.

2. Parking and service entrances to buildings shall be located away from building frontages and screened from view to minimize physical and visual disruptions. Garbage, recycling, gas storage and other similar uses should be located in loading areas and screened from view.

3. Mechanical equipment and other building systems will be designed to minimize its visual impact and protect the design integrity of the building. Mechanical equipment should be located below-grade, where possible. If located on the roof, it should be screened and/or enclosed to minimize noise and visual impacts.

4. Visual impacts from substations, transformers, telecommunication boxes and other similar equipment should be minimized by locating them in buildings, wherever possible. Where exterior to a building, they should be integrated into the landscape design.

Servicing routes should be designed to reduce interference with pedestrian safety, through the incorporation of clear pedestrian routes in the form of sidewalks or pavers (Princeton University, Princeton, New Jersey).

Loading and servicing areas can be screened from view through landscaping or other means (Princeton University, Princeton, New Jersey).
7.1.7 Parking

1. Surface parking areas shall incorporate high quality landscape design that:
   • Breaks up large parking areas into smaller lots;
   • Screens parking areas from public views from streets and key pedestrian pathways while maintaining safety;
   • Includes generous tree planting around and within parking areas, to mitigate visual impacts and provide shade that reduces heat island effects;
   • Considers opportunities for porous pavement materials, bio-swales and other innovative stormwater management techniques; and
   • Ensures the provision of safe, convenient, accessible and highly landscaped pedestrian travel routes to and through surface parking areas.

2. Above-grade parking structures shall be designed to minimize adverse impacts on the campus environment. They should be integrated with, and located behind, other uses and buildings, particularly along key campus streets and pathways. At a minimum, parking structures should have active uses at grade along their frontages. The potential to accommodate a portion of structured parking below grade shall be considered.

3. Driveways and access points for surface parking lots, structured parking facilities, pick-up and drop-off areas, and building servicing facilities should be carefully designed to minimize visual impacts and reduce the potential for pedestrian and vehicular conflicts.

A tree-lined surface parking lot screens parking from view and provides safe pedestrian travel routes (Cornell University, Ithaca, NY)

Generous tree plantings integrated with pedestrian routes, can provide shade and screen parking from view (Princeton University, Princeton, New Jersey).